Engineering Department Weekly News Letter, 1937

Great Northern Paper Company

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<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job 1355 - Boring Mill</td>
<td>Waiting Arrival of Machine.</td>
</tr>
<tr>
<td>Job 2189 - Coal Trestle</td>
<td>Trestle demolished for three bays and new bents erected and all braced, making a total of 56 feet completed ready for the rails.</td>
</tr>
<tr>
<td>Job 3159 - Locker Room</td>
<td>Installing plumbing, toilets, baths, etc.</td>
</tr>
<tr>
<td>Job 3160 - Vomit Stacks</td>
<td>Job completed.</td>
</tr>
<tr>
<td>Job 3163 - Cameron Pump for Sulphite Screen Room</td>
<td>Pump has arrived and will be installed in the near future.</td>
</tr>
<tr>
<td>Job 3165 - Grd. Rm. Foundation</td>
<td>Working on the fourth pile, which is down about 10 feet below river bottom.</td>
</tr>
<tr>
<td>Engineering Department</td>
<td>Two men at Mattaceunk. &quot; &quot; worked all week on Mattaceunk plans. One man &quot; part &quot; &quot; &quot; &quot; layout for sulphite thickener for the Madison mill. Completed installation drawing for #9 fourdrinier change for the Millinocket mill. Made surveys at the three mills for Monthly Inventory. Issued Job Record 1382 covering No. 3 boiler feed water pump for the Millinocket mill.</td>
</tr>
<tr>
<td>Dist. FCB</td>
<td></td>
</tr>
</tbody>
</table>

Dated: January 3, 1938

Signed: [Signature] Engineer
Water Storage

- Maximum capacity of Ripogenus and North Twin:
  Dec. 27th, 1936: 45,000 Mil. Cu. Ft.
  " " " " Total including small ponds:
  Dec. 27th, 1937:
  " " " " Ripogenus Elev. 932.14 Storage: 16,388 " " " " North Twin: 491.10 " " " "

Dec. 21st, 1936: 20,023 " " " "
  " 20th, 1937: 21,393 " " " "

Precipitation for the first twenty-six days of December: at Ripogenus 1.77", at Millinocket 1.74".

Job 1355 - Boring Mill
Waiting arrival of machines.

Job 1374 - 6" Filter Water Pump
Job completed.

Job 2189 - Coal Trestle
Eleven bents completely framed. doing temporary work preparatory to erecting the timber bents.

Job 3159 - Locker Room
Plaster work completed. Now working on the plumbing.

Job 3160 - Vomit Stacks
About 2-1/2 more stacks to connect up to blow pits. In hopes to finish this job the coming week.

Job 3165 - Grd. Rm. Foundation
Working on the second pile, which is down 22 feet below river bottom. Work was suspended during the holidays.

Engineering Department
One man worked on proposed wood unloading conveyor and tracks to replace present trestle below the Millinocket mill.
Two men at Mattaceunk.
One man worked all week on Mattaceunk plans.
One man worked on layout for sulphite thickener for the Madison mill: boiler feed water pump installation in the Millinocket boiler house.
One man worked on drawings for #9 fourdriner change for the Millinocket mill.

Miscellaneous
John McLeod of the Boston office visited Tuesday and Wednesday Dec. 21st and 22nd.
A. W. Nichols, contractor, Portland, called Tuesday Dec. 21st.
The Mill closed down at 8 P.M. Friday for the Christmas holiday.
GREAT NORTHERN PAPER COMPANY

WEEKLY NEWS LETTER

FOR WEEK BEGINNING 8 AM Dec. 20 - 27th, 1937 FROM W. M. Spring LETTER NO. 5

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spruce Wood</td>
<td>Was at the Pittston Farm and saw two different operations.</td>
</tr>
<tr>
<td>Department</td>
<td>Had conferences with Mr. Max Hilton and Mr. Harkness, and believe</td>
</tr>
<tr>
<td></td>
<td>that a saving is possible in the handling of the wood, but am</td>
</tr>
<tr>
<td></td>
<td>not in a position to state what until I have seen other operations</td>
</tr>
<tr>
<td></td>
<td>and talked with other foremen.</td>
</tr>
</tbody>
</table>

DATE MAILED Dec. 27, 1937 SIGNED W. M. Spring
Paper Finishing Machine

Worked at the board with draftsman and improved this machine over the first layout #A-817.

On December 16th received orders to stop work on this experiment.
### Water Storage

| Maximum capacity of Ripogenus and North Twin | 45,000 Mil. Cu. Ft. |
| Total including Small Ponds | 36,444 " " |
| 10 Yr. Avg. (Dec. 20th) Ripogenus and North Twin | 24,765 " " |

Dec. 20th, 1936: Ripogenus Elev. 935.17 Storage 17,441 " "
North Twin 491.00 12,690 " "
Total Penobscot Storage 30,131 Mil. Cu. Ft.

Dec. 14, 1936: Kennebec 19,766 " "
13, 1937: 21,474 " "

Precipitation for the first nineteen days of December; at Ripogenus 1.12", at Millinocket 1.44".

### Job 1355

**Boring Mill**

Waiting arrival of Machine.

### Job 1374 - 6"

**Filter Water Pump**

Pump Installed.

Some cleaning up to do to complete the job.

### Job 2189 - Coal Trestle

Coal cleared away from nine bents preparatory to demolishing old trestle.

Ten bents completely framed ready to be erected.

### Job 3159 - Locker Room

Plastering Hyrib and cutting concrete floor for sewer.

### Job 3160 - Vomit Stacks

Five connected to blow pits.

### Job 3165 - Grd. Rm. Foundation

Repaired equipment and started driving 16" casing.

### Engineering Department

Started study for wood unloading conveyor and tracks to replace present trestle below the Millinocket mill.

- Two men at Mattaceunk.
- Two men worked all week on Mattaceunk plans.
- Worked on layout for sulphite thickener for the Madison mill.

One man worked all week on drawings for Mr. Spring. Now doing Engineering Department work.

### Miscellaneous

Mr. Bowler left for Boston Monday night, Dec. 13th, and returned to the office Friday morning, Dec. 17th.

Mr. H. J. Deutschbein at Madison Wednesday, Dec. 15th, at Millinocket and Mattaceunk Thursday and Friday, Dec. 16th and 17th, and returned to Madison Saturday Dec. 18th.

Mr. P. C. Newbegin, Chief Engineer Bangor & Aroostook Railroad Company called to-day, Dec. 20th.

Mr. R. J. Hearn of Allis Chalmers Mfg. Co. here to-day, Dec. 20th.

Mr. A. E. Beck, stoker engineer for American Engineering Co. called Tuesday, Dec. 14th on his way to East Millinocket.
**SUBJECT**: Water Storage

**DETAIL**:

<table>
<thead>
<tr>
<th>Date</th>
<th>Mill</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total including Small Ponds</td>
<td>37,430</td>
</tr>
<tr>
<td>10 Yr. Avg. (Dec. 13th):</td>
<td>Ripogenus and North Twin</td>
<td>25,503</td>
</tr>
<tr>
<td>Dec. 13th, 1937:</td>
<td>Ripogenus Elev.</td>
<td>933.42 Storage</td>
</tr>
<tr>
<td></td>
<td>North Twin</td>
<td>491.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12,935</td>
</tr>
<tr>
<td>Dec. 11th, 1937:</td>
<td>Small Ponds (Ragged)</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage</td>
<td>31,020 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>Dec. 7th, 1937:</td>
<td>Kennebec</td>
<td>19,966</td>
</tr>
<tr>
<td></td>
<td>6th, 1937</td>
<td>20,632</td>
</tr>
</tbody>
</table>

Precipitation for the first twelve days of December: at Ripogenus 0.83", at Millinocket 0.64".

**Job 1355**: Waiting arrival of machine.

**Job 1374 - 6" Filter water Pump**: Pump has arrived and will be installed in the near future.

**Job 2169 - Coal Trestle**: Coal cleared away from seven bent preparatory to demolishing old trestle. Four bents completely framed ready to be erected.

**Job 3160 - Vomit Stacks**: Stacks completed. Now connecting stacks to blow pits.

**Job 3165 - Grd. Room Foundation**: Sprague & Henwood drilling piles.

**Engineering Department**: One man designing pulpwood unloading conveyor proposed for North Twin.

One man survey and plan of power & Light poles, telephone and Bangor-Hydro on Company land.

Two men at Mattaceunk.

Two men worked all week on Mattaceunk plans.

Completed calculations for inventories at the three mills.

Worked on layout for sulphite thickener for the Madison mill.

One man making drawings for Mr. Spring.

Issued job record 1381.

**Miscellaneous**: Mr. G. C. Clark, Atlas Powder Co., called December 8th.


Dict. FCB

**DATE MAILED**: Dec. 13, 1937

**SIGNED**: Engineer
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Finishing</td>
<td>Due to a new draftsman, not familiar with my work, I have to spend my time in Millinocket at the board with him, working out the details of this machine.</td>
</tr>
</tbody>
</table>

DATE MAILED: December 13, 1937

SIGNED: [Signature]
### Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity of Ripogenus and North Twin</td>
<td>45,000 Mil.Cu.Ft.</td>
</tr>
<tr>
<td>Dec. 6th, 1936: Total including Small Ponds</td>
<td>37,989 Mil.Cu.Ft.</td>
</tr>
<tr>
<td>North Twin Elev. 491.60</td>
<td>13,110 Mil.Cu.Ft.</td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>31,218 Mil.Cu.Ft.</td>
</tr>
<tr>
<td>Nov. 29th, 1937:</td>
<td>19,635 Mil.Cu.Ft.</td>
</tr>
</tbody>
</table>

Precipitation for the Month of November: Ripogenus 3.48" and Millinocket 4.66". Have received no precipitation in the month of December to-date.

### Miscellaneous

#### Job 1355
Boring Mill

- Waiting arrival of machine.

#### Job 1370 - Drive for Vent. Fan

- In operation - completed.

#### Job 1371 - Cross Conveyor

- In operation - completed.

#### Job 1374 - 6" filter water Pump

- Waiting arrival of pump.

#### Job 2169 - Coal Trestle

- Lumber received - now framing bents.

#### Job 3160 - Vomit Stacks

- Working on tenth and last stack.

#### Job 3165 - Grinder Room Foundation

- Drilling for pipe piles.
- First hole temporarily abandoned.
- Drilling 2nd hole - down 20 feet below river bottom.
- One man designing pulp wood conveyor.
- "" survey and plan of power & light poles, telephone and Bangor-Hydr© on Company land.
- Two men at Mattaceunk.
- Two to four men on Mattaceunk plans.
- Made inventories at all three mills. Now calculating inventories.
- One man making drawings for Mr. Spring.
- Mr. McKay here Dec. 1st and 2nd.
- Mr. Hilton here Dec. 1st and 2nd.
- Sargent and McDoug (Stearns Lumber Co.) Called Dec. 1st.
- Conklin (Insurance Inspector) here Dec. 2nd.
- Mr. Newbegin (B&A) and Mr. Pippin (Ingersoll-Rand) at Mattaceunk Dec. 3rd.
- Mr. Spring here Dec. 6th.

**Dict. FCB**
<table>
<thead>
<tr>
<th>SUBJECT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Paper Finishing Machine</td>
<td>Preliminary layout drawings completed.</td>
</tr>
<tr>
<td>Draftsman</td>
<td>Mr. Bowler has assigned a draftsman.</td>
</tr>
<tr>
<td></td>
<td>Mr. Searls will complete his work here on December 3rd.</td>
</tr>
<tr>
<td>Spruce Wood Department</td>
<td>I understand that cutting is nearing completion, and I now plan to</td>
</tr>
<tr>
<td></td>
<td>visit the Ragged Lake and Pittston Farm operations during the week of</td>
</tr>
<tr>
<td></td>
<td>December 6th.</td>
</tr>
</tbody>
</table>

DATE MAILED: Nov. 30, 1937
SIGNED: [Signature]
FORM 17
MAXIMUM CAPACITY OF RIPGENUS AND NORTH TWIN - 45,000 Mil. Cu. Ft.
November 29th, 1936: " " " " = 35,689 " " "
" " " Total including Small Ponds = 39,264 " " "
10 Yr. Avg. Nov. 29th) Ripogenus & North Twin = 26,125 " " "

Nov. 29th, 1936: Ripogenus Elevation 932.03 Storage 16,276 " " "
North Twin " 492.00 " 13,390 " " "
Small Ponds (Gates all Open) 0,000 " " "
Total Penobscot Storage 29,666 Mil. Cu. Ft.

November 23rd, 1936: " Kennebec " 21,514 " " "
" 22nd, 1937: " " " = 19,963 " " "

We experienced another heavy rain over the week-end — RIPGENUS recording 1.08" and Millinocket 1.98", making a total for the first twenty-eight days of November, 3.47" at Ripogenus and 4.66" at Millinocket.

Job 1355 - Boring Mill
Foundation completed ready for Mill.

Job 1370 - Drive Vent. Fan #9 & #10 Machines
Installed ready to operate.

Job 1371 - Cross Conveyor
Installing steel spout to tunnel to-day.

Job 1374 - 6" Pump Filter Ho.
Pump not yet received.

Job 2186 - Chloramine Treat. W.W. Sys.
In Service.

Job 2189 - Coal Trestle
Framing Timber.

Job 3160 - Vomit Stacks
Eighth stack completed — demolishing 9th old stack.

Job 3165 - Grinder Rm. Foundation
Sprague & Henwood drilling down first pipe pile.

Engineering Department
Two men on North Twin pulp wood unloading plant.
Two men at Mattaceunk, and one in office on Mattaceunk plans.
Worked on plan for press-felt press.
Worked on McDonnell Shake for No. 9.
One man checking designs for Mattaceunk.
Issued four Job Records.

Miscellaneous
Mr. Deutschbein arrived Nov. 22nd and left Nov. 24th.
Wm. E. Rogers of Gardiner called Nov. 22nd.
F. M. Camp, CPR Travelling Fgt. Agt. called Nov. 26th.
W. W. Leighton (Sanders Engineering) called Nov. 29th.

Dist. FCB
Paper Finishing Machine

Was at the Millinocket plant part of November 14th, and all of Nov. 15th and 16th. Have studied the various operations required to prepare the rolls for shipping.

We are now laying out a machine that will have three rolls of body wrapping, twelve rolls of end strips, and four rows of heading stock. Do all the work now done by hand, including the cutting of the heads and weighing. This machine will be operated by one man and will wrap one roll of newsprint every two minutes, so only two machines will be necessary to do the work in the Millinocket plant.
GREAT NORTHERN PAPER COMPANY
WEEKLY NEWS LETTER
FOR WEEK BEGINNING B. A. M.  Nov. 15-22nd, 1937 FROM Engineering Department LETTER NO. 47

SUBJECT | DETAIL
--- | ---
Water Storage | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.
| November 22nd, 1936: " " " " " - 36,256 " " "
| " " Total including Small Ponds - 40,436 " " "
| 10 Yr. Avg. (Nov. 22nd) Ripogenus & North Twin - 25,196 " " "
| Nov. 22nd, 1937:
| Ripogenus Elev. 931.43 Storage - 15,675 " " "
| North Twin " 491.10 " - 12,760 " " "
| Nov. 20th, 1937:
| Small Ponds (Seb. & Can. Pa.) - 1,379 " " "
| Total Penobscot Storage - 29,814 Mil. Cu. Ft.
| Nov. 16th, 1936: " Kennebec " - 21,785 " " "
| 15th, 1937: " " " - 17,497 " " "

Our first snowstorm for the fall occurred Saturday and Sunday. Ripogenus received 6" and Millinocket 4-1/2" of snow.
Precipitation for the first twenty-one days of November: at Ripogenus 2.39", at Millinocket 2.62".

Job 1346 - #7 A #8 Fourdriniers
Shake installed on No. 8 Fourdrinier.

Job 1355 - Boring Mill
Concrete foundation walls poured and forms removed.
Backfill and floor slab required to complete foundation.

Job 1366 - Relief Line from Digesters
New stainless steel pipe installed and in service.

Job 1371 - Cross Conveyor
Complete except erection of steel discharge spout. Spout has been delivered.

Job 1373 - Italy Bridge
Bridge completed, fence and gates relocated to cut-off public from mill yard.

Job 3160 - Vomit Stacks
Seventh stack completed.
Tearing down eighth old stack.

Job 3165 - Grd. Room Foundation
Awaiting arrival of drill rig to put down piles.

Engineering Department
One man cleaning up records of Ragged Lake job.
Two men part week on wood unloading plant for North Twin.
Two men at Mattaceunk, and one in office on Mattaceunk plans. Completed design of steel work for lightning protection at North Twin and Millinocket transformer stations.
Working on vacuum decker installation at Madison.
Working on new coal handling equipment at Millinocket.

Miscellaneous
Nov. 16th - Mr. Dignum (N.E. Tel. Co.) called.
17th - F. C. Bowler represented Great Northern Paper Co. at Special Town Meeting Mattawamkeag.
19th - George G. Sargent (Storrmes Lumber Co.) called. William Hilton called.

Dict. FCB

DATE MAILED  Nov. 22, 1937
SIGNED
Engineer.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
</table>
| Water Storage | Maximum Capacity of Ripogenus and North Twin:

November 15th, 1936: 45,000 Mil. Cu. Ft. 37,052
total including Small Ponds: 41,232
10 Yr. Avg. (Nov. 15th) Ripogenus & North Twin: 26,042
Nov. 15th, 1937: Ripogenus Elev. 930.43 Storage 14,698
North Twin Elev. 489.70 Storage 11,780
Small Ponds (Can. Ft. & Seb.): 2,312
Total Penobscot Storage: 28,790 Mil. Cu. Ft.

Nov. 9th, 1936: Kennebec 21,502
8th, 1937: 18,053
Precipitation for the first fourteen days of November: at Ripogenus 1.17", at Millinocket 1.92". |

Job 1355 - Boring Mill | Steel piling driven and the footer of the foundation concreted to-day, Nov. 15th. |
Job 1366 - Relief Line from Digesters 1 and 2 | All of the stainless steel pipe and fittings now on hand, and a start made on the installation of same. |
Job 1368 - Sluicing Booms | Booms completed and job being closed. |
Job 1371 - Cross Conveyor | Conveyor completed, painted, and chains installed. Now building small motor house so that drive may be installed. Waiting for steel chute from New England Bolt Co. |
Job 1373 - New Italy Bridge | Bridge completed and put into service Saturday, Nov. 13th. Old timber bridge demolished and removed Sunday, Nov. 14th. Mill crew to change fence location. |
Job 3160 - Vomit Stacks | Six (6) of the vomit stacks completed, and a start made on the seventh one. |
Job 3165 - Grd. Room Foundation Engineering Department | Test boring discontinued as ledge is at a prohibitive distance for coffer dam work. H. J. Deutschbein crew laid off until a churn drill equipment can be procured which will handle 12" diameter pipe casings. One man all week on Italy Bridge job. Two men most of week at Mattaceunk job, and one man all week in office on Mattaceunk drawings. Designing additional steel for transformer structure at North Twin for the lightning protective equipment. Completed study of Wood Room Changes for Millinocket Mill, and issued job record covering same. Issued job record for McDonnell shake on No. 9 paper machine. Making study of vacuum decker installation for Madison sulphite screen room. Mr. W. M. Spring and Mr. J. E. Searles reported for work in this department to-day, Nov. 15th. Mr. Searles is to remain here full time as Mr. Spring's draftsman and representative. |

Dict. RVW (Over)
Miscellaneous

G. I. Pippin of Ingersoll-Rand Co. visited Tuesday, Nov. 9th.
Mr. Beauchamp of Link-Belt Co. visited Tuesday, Nov. 9th.
Frank Rogers of Baldwin-Southwark Corp. visited Wednesday and
Thursday, Nov. 10th and 11th.
H. J. Deutschbein arrived Wednesday, Nov. 10th and left Saturday,
Nov. 13th.
William Hilton visited to-day, Nov. 15th.
**FOR WEEK BEGINNING 8 A. M. Nov. 1 - 8th, 1937 FROM Engineering Department LETTER NO. 45**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
</table>
| Water Storage | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.  
November 8th, 1936: " " " " = 37,231 " " "  
" " " Total including Small Ponds - 41,406 " " "  
10 Yr. Avg. (Nov. 8th) Ripogenus and North Twin - 26,465 " " "  
Nov. 8th, 1937: Ripogenus Elev. 930.25 Storage 14,525 " " "  
North Twin " 489.50 " " "  
Small Ponds (Can. Pa. & Seb.) 3,061 " " "  
Total Penobscot Storage 29,246 Mil. Cu. Ft.  
Nov. 2nd, 1936: " Kennesbec " 19,714 " " "  
" 1st, 1937: " " " 17,402 " " "  
Precipitation for the first seven days of November; at Ripogenus 0.22", at Millinocket 0.05".  
Booms all fabricated and in the water. Now placing them.  
Concrete work completed and now starting to frame the balance of the conveyor.  
The last section of bridge deck and sidewalk was concreted today.  
To-morrow will concret the slabs on approach at each end which will complete the concrete work.  
Completed repairs to No. 5 unit and now in service. Mr. Meuller,  
I. P. Morris Erector, returned to Philadelphia. Balance of work under this job will be completed at a later date when water conditions are more favorable.  
Five of the vendi stacks completed and now working on the sixth one.  
First drill hole down 51 feet when broke off the pipe casing two lengths from the bottom. No ledge discovered at this depth and hole abandoned. Started second hole in river and down 21 feet below the water at this writing with no indication of ledge.  
Work completed and all of the crew laid-off Monday night, Nov. 1st.  
All remaining plant was loaded onto cars for shipment to Mattaceunk.  
F. R. West back from Ragged Lake Tuesday, Nov. 2nd.  
One man all week at Mattaceunk job.  
" " " on Italy Bridge job.  
Making study and estimate of wood splitter installation for Millinocket wood room.  
One man all week on Mattaceunk design.  
Three men most of week on physical inventory of all three mills.  
Cleveland E. Hooper visited Tuesday, Nov. 2nd.  
J. N. Hicks (Roebling Wire Rope) called Nov. 3.  
John Ware (Chase Brass & Copper Co.) called Nov. 5th.  
A. W. Nickels (Contractor) called Nov. 6th.  

**Dict. Hw"**
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
</table>
| **Water Storage** | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.  
| | November 1st, 1936: " " " " = 36,360 " " "  
| | " " " " Total including Small Ponds = 39,711 " " "  
| | 10 Yr. Avg. (Nov. 1st) Ripogenus & North Twin = 26,443 " " "  
| | Nov. 1st, 1937: Ripogenus Elev. 929.12 Storage = 13,458 " " "  
| | North Twin " 490.80 " = 12,550 " " "  
| | Small Ponds (Can.Fa. & Seb.) = 3,895 " " "  
| | Total Penobscot Storage 29,903 Mil. Cu. Ft.  
| | Oct. 26th, 1936: " Kennebec " 18,463 " " "  
| | " 25th, 1937: " " " = 15,406 " " "  
| | October was a very wet month, Ripogenus recording 7.55" and Millinocket 6.60". |
| **Job 1368 - Sluicing Booms** | Making up the last section of boom now.  
| **Job 1371 - Cross Conveyor** | Floor of pit concreted and now building wall forms for balance of concrete.  
| | About 1/2 of conveyor framed and steel lagging in place.  
| | East abutment concreted, forms stripped, coffer dam removed, and partially backfilled.  
| | All of the steel bridge girders erected and now starting to rivet same. Also started building forms for the deck slab.  
| | Dismantling derrick.  
| **North Twin Wheels** | October 31st all three Turbines at North Twin Plant were inspected by H. G. Mueller of I. F. Morris, and all propellers, throat rings and gates found in excellent condition - no pitting found.  
| | Time did not permit examination of bearings or Kaplan hub, but as there is no evidence of trouble at these points, it may be assumed that these units are in good condition.  
| **Job 3143 - Repair Anson Unit** | Reassembling No. 5 unit and expect to have ready for operation by middle of this week.  
| **Job 3160 - Vomit Stacks** | Four stacks completed and now working on the fifth.  
| **Job 3165 - Repair to Grd. Room Foundation** | Stiff-leg derrick erected and started taking down the old granite block retaining wall.  
| | Diamond drill is down 35 Ft. and has found only coarse sand and boulders so far.  
| **Ragged Lake Job 419** | Earth work completed, and side slopes seeded. Guard railings installed. All plant dismantled; last load out to Greenville tonight, Nov. 1st and will be loaded for Mattaceunk to-morrow. Gates closed and water elevation to-day 1112.2.  
| | Cleaning up site and job will be completed to-morrow, Nov. 2nd.  
| **Job 420 - Test Boringa** | Drilling completed -- encountered ledge at elevation 170.4. **(HOLE 5)**  
| | One drill outfit transferred to Madison, and the other to East Mkt.  

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**Dict. RW**

(Over)
Engineering Department

One man all week at Ragged Lake.

" " " " Mattaceunk Drilling.

" " " " Italy Bridge job.

Completed design of office building for Mattaceunk Construction Crew and ordered materials for same.

Making study of 4 Ft. wood splitter for Millinocket wood room.

Designed and ordered texrope drive for North filter in Millinocket filter house.

Making study of pneumatic decker for Madison.

Gathering water information for Mattaceunk, Mr. Cram visited Bangor-Hydro-Electric Co. at Bangor to get necessary information from their records.

Miscellaneous

Jim Sargent visited Tuesday, Oct. 26th.

H. J. Deutschein arrived Wednesday, Oct. 27th and left for Madison Friday night, Oct. 29th.

Mr. Watts of LeHigh Cement Co., visited Friday, Oct. 29th, re bulk cement equipment.

R. V. Weldon visited Ragged Lake job Sunday, October 31st.

William Hilton visited to-day, Nov. 1st.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
</table>
| Water Storage | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.  
October 25th, 1936:  " " " " 34,131 " " "  
" " " " Total including Small Ponds - 37,989 " " "  
10 Yr. Avg. (Oct. 25th) Ripogenus & North Twin - 26,646 " " "  
Oct. 25th, 1937:  Ripogenus Elevation 926.02 Storage 10,661 " " "  
North Twin " 491.70 " 13,180 " " "  
Small Ponds (Can.Fa. & Seb.) 4,754 " " "  
Total Penobscot Storage 28,595 Mil. Cu. Ft.  
Oct. 19th, 1936:  " " " " 16,345 " " "  
" 10th, 1937:  " " " " 13,286 " " "  
We experienced a heavy rain over the week-end — Ripogenus recording 2.60" and Millinocket 3.61", making a total precipitation for the first twenty-four days of October, 6.17" at Ripogenus and 5.27 at Millinocket. |
| Job 1368 - Sluicing Booms | Booms in mill pond completed and in service.  
At Ferguson, three lengths are launched, and three more long lengths will be completed by to-night. |
| Job 1371 - Cross Conveyor | Changes to the 10" Dia. underground fire line completed and backfilled. Framing conveyor and starting to build forms for the concrete foundation where the tunnel conveyor will discharge onto the new cross conveyor. |
| Job 1373 - New Italy Bridge | East abutment concreted to elevation 347. Forms to top will be completed to-night. Expect to complete concrete in East abutment Tuesday, October 26th.  
Steel girders and bracing cleaned and painted. |
| Job 2184 - Block Storage Tank | Work originally planned practically completed and the tank full of wood.  
Mr. Burr plans to build additional conveyor inside of building in order to distribute the wood so as to get more storage. |
| Job 3143 - Repair Anson Unit | Cleaning, painting, installing and fitting new bushing, etc.  
Rewedging the stator, shimming pole pieces on rotor, and inspecting connections of coils. |
| Job 3160 - Vomit Stacks | Four of the vomit stacks have been rebuilt at this writing. |
| Job 3165 - Repairs to Grinder Room Foundations | Messrs. Crowell and PerLee of H. J. Deutschbein Co. and R. V. Weldon of this office at Madison Tuesday, Oct. 19th, and discussed method of underpinning the grinder room foundations.  
PerLee remained at Madison to organize crew.  
Stiff-leg derrick and steam hoist shipped from Greenville Wednesday and Thursday of this week.  
Shipping diamond drill outfit from Mattaceunk to-morrow, Oct. 25th, so that we may put down one or two holes to determine if ledge is within reasonable striking distance. |
| Ragged Lake Job 419 | Earthwork completed, except for a little loam washed by recent heavy rain.  

(Over)
Job 420
Drillers back onto holes #51 and 52.

Test Borings
Hole #52 encountered ledge this morning at elevation 170.3.
At this writing the drill is about 9 feet into the ledge, which
at this depth is not very sound, -- poor core recovery.

Hole #51 is down 86 feet but as yet has not encountered ledge.
One drill rig to be sent to Madison to-morrow.

Mattaceunk
Completed test holes on Mrs. McNeil's property on the Mullen flats.
Eklund loading plant at Greenville Junction. Two cars shipped
out to Mattawamkeag Saturday noon, Oct. 23rd.

Started crew of 13 men at 1100 P.M. to-day, Oct. 25th, clearing
trees and underbrush at site of transformer sub-station for Bangor
Hydro-Electric power. This same crew will proceed with the clearing
of the knoll to the river, leaving a fringe of 50 feet approximately
along the edge of the road for a screen.

Lima crane stored at Mattawamkeag. Operator and a demonstrator
due to arrive within a few days.

Engineering
Department
One man all week at Ragged Lake.
" " " " Mattaceunk drilling.
" " " " Italy Bridge job.

Completed preliminary study of #9 shake.
Designing office for Mattaceunk to accommodate the Superintendent,
Accountants, Engineers, and Nurse.

One man 3 days laying out lettering on the two bridge girders
for the painters.

Making study of 4 Ft. wood splitter for the Millinocket Wood Room.
Laying out drive for North filter in Millinocket filter house,
so as to do away with big motor and countershaft after direct connected
pump is installed.

Making preliminary figures, studies, etc. for Mattaceunk.

Miscellaneous
Messrs. F. S. Crowell & R. V. Weldon visited Ragged Lake Job
Wednesday, Oct. 20th. Crowell visited Millinocket and Mattaceunk
Thursday, Oct. 21st, also.

Frank Pearson visited Thursday, Oct. 21st.
George Ordway, Barrett Roof Inspector, visited Wednesday.

October 20th.
FOR WEEK BEGINNING S.A.M.  
Oct. 11-18, 1937 FROM Engineering Department LETTER NO. 42

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu.Ft.</td>
</tr>
<tr>
<td></td>
<td>October 18, 1936: &quot; &quot; &quot; &quot; &quot; &quot; Total including Small Ponds - 36,599</td>
</tr>
<tr>
<td></td>
<td>10 Yr. Avg. (Oct. 18th) Ripogenus &amp; North Twin - 26,996</td>
</tr>
<tr>
<td></td>
<td>Oct. 18, 1937: Ripogenus Elev. 925.86 Storage 10,521</td>
</tr>
<tr>
<td></td>
<td>North Twin &quot; 491.05 &quot; 12,725 &quot; &quot; Small Ponds (Can.Fa. &amp; Seb) 4,423</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage - 27,669 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>Oct. 12, 1936: &quot; Kennbec &quot; 15,850 &quot; &quot; Oct. 11, 1937: &quot; &quot; 14,836 &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the first seventeen days of October at Ripogenus is</td>
</tr>
<tr>
<td></td>
<td>reported as being 1.17&quot; at Millinocket, 0.64&quot; was recorded.</td>
</tr>
<tr>
<td>Job 1359 - Feed Water Pump</td>
<td>The 250 H.P. electric motor was installed on No. 1 feed water pump</td>
</tr>
<tr>
<td></td>
<td>yesterday, but upon starting it the motor was so badly overloaded</td>
</tr>
<tr>
<td></td>
<td>even with the discharge throttled, that it was necessary to put the</td>
</tr>
<tr>
<td></td>
<td>turbine back on last night in order to have a safe standby.</td>
</tr>
<tr>
<td></td>
<td>We will check up with the pump manufacturer to determine the cause</td>
</tr>
<tr>
<td></td>
<td>of the excessive power.</td>
</tr>
<tr>
<td>Job 1360 - Lower Mill Sluice</td>
<td>Erection of sluice completed.</td>
</tr>
<tr>
<td>Job 1368 - Sluicing Booms</td>
<td>Three sections completed and launched.</td>
</tr>
<tr>
<td></td>
<td>Making up balance on the shore.</td>
</tr>
<tr>
<td>Job 1371 - Cross Conveyor</td>
<td>Started framing the conveyor.</td>
</tr>
<tr>
<td></td>
<td>Excavation for 10&quot; Dia. fire line change completed and pipe on hand</td>
</tr>
<tr>
<td></td>
<td>for same.</td>
</tr>
<tr>
<td>Job 1373 - New Italy Bridge</td>
<td>Cofferdam removed from Cherry Street side and abutment backfilled.</td>
</tr>
<tr>
<td></td>
<td>Cofferdam on Italy side when unwatered, disclosed the need of</td>
</tr>
<tr>
<td></td>
<td>piling so 60 Norway Pine piles 16 feet long were procured and driven</td>
</tr>
<tr>
<td></td>
<td>into the river bed. Placing forms for footer, which will be concreted</td>
</tr>
<tr>
<td></td>
<td>tomorrow.</td>
</tr>
<tr>
<td>Job 2184 - Block Storage Tank</td>
<td>Roof waterproofing completed and contractor left.</td>
</tr>
<tr>
<td></td>
<td>Monitor sidewalls cement plastered and now glazing the steel window</td>
</tr>
<tr>
<td></td>
<td>sash.</td>
</tr>
<tr>
<td></td>
<td>Opening into the original tank completed, and water held out of new</td>
</tr>
<tr>
<td></td>
<td>tank by bulkhead.</td>
</tr>
<tr>
<td>Job 2187 - Chimney Repairs</td>
<td>The Gustosis Chimney crew have completed their repairs on both</td>
</tr>
<tr>
<td></td>
<td>chimneys.</td>
</tr>
<tr>
<td>Job 3143 - Repair Anson Unit</td>
<td>No. 5 unit now completely dismantled and proceeding with the</td>
</tr>
<tr>
<td></td>
<td>cleaning, repairs, etc.</td>
</tr>
<tr>
<td>Job 3160 - Vomit Stacks</td>
<td>Three of the vomit stacks have been rebuilt and are now working on</td>
</tr>
<tr>
<td></td>
<td>the fourth.</td>
</tr>
<tr>
<td>Job 419 - Ragged Lake Dam</td>
<td>Concrete work completed.</td>
</tr>
<tr>
<td></td>
<td>Earthwork placed totals 8,800 cubic yards.</td>
</tr>
<tr>
<td></td>
<td>Loam placed 136 cubic yards on downstream slope.</td>
</tr>
<tr>
<td></td>
<td>Rip-rap placed 775 square yards on upstream slope and 267 square</td>
</tr>
<tr>
<td></td>
<td>yards on toe downstream slope.</td>
</tr>
</tbody>
</table>

Dict. RWW
Job 419

Steel sheeting placed, 78 pieces just over 50% of total. About 100 cubic yards of gravel roadway to be placed. Derricks, power shovel, air compressor, etc. to be moved to Greenville, temporary buildings, removed and general clean-up will take about two weeks. With good weather this job should be completed Nov. 1st.

Job 420

Test Borings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B-3</td>
<td>253.5</td>
<td>174.7</td>
<td>144.7</td>
<td>Light - Good quality</td>
</tr>
<tr>
<td>B-7</td>
<td>240.5</td>
<td>176.0</td>
<td>146.0</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

B-7 hole is located 100 feet upstream from, and at right-angles to, hole "B-3". Overburden in both holes of excellent quality.

Moved drillers back to holes 51 and 52 which were ordered abandoned to investigate river upstream.

Mattaceunk

Obtained permission from Mrs. McNell to enter on her property on the Mullen flats and dig several test pits. As soon as drilling was completed in river on B-line and the trestle removed, started crew on these test pits. Three completed and starting a fourth. These pits indicate a greater depth of gravel than the pits on our land, but the stone does not run quite so good.

The Lima 1-3/4 yd. shovel arrived at Mattawamkeag Friday, Oct. 15th and was unloaded Saturday Oct. 16th. Storing on Maine Central property for time being.

Engineering

Department

One man all week at Ragged Lake.
"   "    " Mattaceunk
"   "    "    "    " on various field work for Millinocket Mill and Italy Bridge job.

Working on shake device for No. 9 paper machine.
Laid out lettering for the girders on the Italy Bridge.
Laid out foundation for boring mill in Millinocket machine shop.
Preparing comparative estimates, B-line versus original site, Mattaceunk power site.
Prepared study of Madison wood Room revision, print and rough estimate of which will be delivered to Mr. Hall in the near future.
Issued one job record.

Miscellaneous

H. S. Ferguson visited Millinocket and Mattaceunk Tuesday, October 12th.
Mr. Delores of Fairbanks-Morse Co. visited Saturday, Oct. 16th.
John Ross of Frank E. Ross Co., visited to-day, Oct. 18th.
Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.

October 11, 1936: 

" " " " - 32,198 " " "

" " " " Total Including Small Ponds 36,522 " " "

10 Yr. Avg. (Oct. 11th) Ripogenus & N.T. - 27,935 " " "

Oct. 4th, 1937: Ripogenus Elev. 927.48 Storage 11,957 " " "

North Twin " 491.60 " 13,110 " " "

Small Ponds (Can. Falls & Sab) 4,700 " " "

Total Penobscot Storage 29,767 Mil. Cu.Ft.

Oct. 5th,1936: " Kennebec " 16,587 " " "

" 4th,1937: " " " 15,646 " " "

Precipitation for the first ten days of October at Ripogenus is reported as being 1.17"; at Millinocket, 0.60" was recorded.

Electricians installing new circuit and getting control equipment set up in place.

Steel sluice now all erected and riveted.

The new electric motor and mechanical variable speed drive has been installed on No. 4 boiler and was put into service Friday, October 8th. Running very satisfactory.

About 275 lineal feet of boom (4 timbers wide) is assembled on the shore at Ferguson Pond ready to be launched.

Digging for the concrete foundation at the charging end of the conveyor and also for relocation of 10" Dia. fire line which interferes.

Abutment on Cherry Street side concreted, forms stripped and backfilling with gravel. Pulling out the coffer dam.

Steel piling for the coffer on the Italy side will be all driven to-night and will start to unwater the coffer to-morrow.

Steel girders cleaned and painted.

Road on Italy side filled and widened.

Roofing contractor arrived on the job to-day to install waterproofing.

Hyrib installed on monitor steel ready for plastering.

Installed bulkhead in existing tank and cut thru the foundation wall so as to join the two tanks together.

Custodis chimney crew at work on the first chimney.

No. 5 unit now dismantled and repair underway.

Two stacks completed - working on third.

Deposited 1,842 cubic yards of earth fill during the week which brings the dike up to elevation 1123.3 for a total of 8,329 cubic yards.

This dike is now completed with the exception of the final layer of loam.

Downstream rip-rap completed consisting of 267 square yards. Upstream rip-rap completed up to elevation 1122.50 consisting of 775 square yards.

Thirty (30) lineal feet of steel piling driven to lodge.

Closed out the tents and moved all the crew to the Grant Farm for the balance of the job. Total crew to-day - 29 men. (Over)
Job 420 - Mattaceunk Drilings

<table>
<thead>
<tr>
<th>Hole No.</th>
<th>Elevation</th>
<th>Elev.</th>
<th>Elev.</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-2</td>
<td>240.00</td>
<td>178.0</td>
<td>148.5</td>
<td>79% Recovery</td>
</tr>
<tr>
<td>B-3</td>
<td>Now drilling - See below</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-4</td>
<td>200.50</td>
<td>178.6</td>
<td>146.5</td>
<td>84%</td>
</tr>
<tr>
<td>B-5</td>
<td>195.75</td>
<td>180.0</td>
<td>149.75</td>
<td>84%</td>
</tr>
<tr>
<td>B-6</td>
<td>197.00</td>
<td>187.3</td>
<td>157.00</td>
<td>76%</td>
</tr>
</tbody>
</table>

"B-6" hole completed to-night, first 9 feet only 40% recovery, but balance of hole excellent with almost 100% recovery. Average of entire hole 76% recovery.

"B-3" hole was down 35 feet into clay and boulders this morning.

Digging test pit on west shore of "C" line (4200 feet from original site) and at this writing there is no evidence of ledge at a depth of 11 feet as compared to 6 feet to ledge at a similar point on the "B" line.

Engineering

One man all week at Ragged Lake.

Department

Studying shake device for #9 machine at Millinocket.

Completing detail drawings of Italy bridge.

Working on Madison Wood Room proposition.

Figured inventories at all three mills.

Vacations now all completed.

Miscellaneous

Carl Hughes of Bangor called Tuesday, October 5th.

F. C. Bowler visited Ragged Lake, Madison, and Augusta, Wednesday and Thursday, Oct. 6th and 7th respectively.

G. W. Hinkley of Dragon Cement Co., visited Thursday, Oct. 7th.


Winn Willard of Link-Belt Co., visited Friday, Oct. 8th.

Mr. Strout, B. & A. Supt. of Bridges, inspected trestle at East Millinocket to-day, Oct. 11th, with R. V. Weldon.

Shipped diving outfit to Madison this afternoon, Oct. 11th and diver due to-morrow Oct. 12th.
<table>
<thead>
<tr>
<th>SUBJECT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Water Storage.</td>
<td>Maximum Capacity of Ripogenus &amp; North Twin, &lt;br&gt;October 4th, 1936 &lt;br&gt;&quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot; Total Including Small Ponds, &lt;br&gt;10 Yr. Avg. (Oct. 4th) Ripogenus &amp; North Twin,</td>
</tr>
<tr>
<td></td>
<td>- 45,000 Mil. Cu. Ft. &lt;br&gt;- 33,442 &quot; &quot; &quot; &lt;br&gt;- 37,462 &quot; &quot; &quot; &lt;br&gt;- 29,057 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>October 4th, 1937:- Ripogenus Elev. 928.90 Storage, &lt;br&gt;North Twin &quot; 492.10 &quot; &lt;br&gt;Small Ponds (Canada Falls &amp; Seb.)</td>
</tr>
<tr>
<td></td>
<td>- 13,253 &quot; &quot; &quot; &lt;br&gt;- 13,492 &quot; &quot; &quot; &lt;br&gt;- 4,391 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage, &lt;br&gt;Sep. 28th; 1936:- Total Kennabec Storage, &lt;br&gt;Sep. 27th, 1937:- &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>- 17,582 &quot; &quot; &quot; &lt;br&gt;- 17,170 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the month of September at Ripogenus was reported as being 2.43&quot;; at Millinocket, 2.21&quot; was recorded. &lt;br&gt;Saturday Oct. 2nd, Ripogenus had a rainfall of 0.34&quot; and Millinocket 0.22&quot;.</td>
</tr>
<tr>
<td>Job 1346</td>
<td>Fourdrinier Chgs.</td>
</tr>
<tr>
<td>Job 1360</td>
<td>Lower Mill Sluice.</td>
</tr>
<tr>
<td>Job 1362</td>
<td>Stoker Drive.</td>
</tr>
<tr>
<td>Job 1364</td>
<td>Wrapper Mch. Pump.</td>
</tr>
<tr>
<td>Job 1368</td>
<td>Sludging Booms.</td>
</tr>
<tr>
<td>Job 1369</td>
<td>Blow Down Water.</td>
</tr>
<tr>
<td>Job 1371</td>
<td>Gross Conveyor.</td>
</tr>
<tr>
<td>Job 1373</td>
<td>New Italy Bridge.</td>
</tr>
<tr>
<td></td>
<td>Completed the pit changes on No. 7 machine and raised the screens on No. 8 machine. &lt;br&gt;Work completed except for the shake on No. 8 and moving over-head trolley beams over each machine. &lt;br&gt;Now erecting the last three sections of the steel sluice.</td>
</tr>
<tr>
<td></td>
<td>Started installation of the new stoker drive on No. 4 boiler. &lt;br&gt;Installed the new Fairbanks - Morse steam pump on the wrapper machine temporarily, until the old triplex is removed.</td>
</tr>
<tr>
<td></td>
<td>Completed the booms in the mill log pond and now started work on the ones at Ferguson Pond. &lt;br&gt;Installation completed. &lt;br&gt;Started preliminary work. &lt;br&gt;Abutment on the Cherry Street side concreted to about water level in the river. &lt;br&gt;Coffer dam for the abutment on the Italy side is now being sheeted. &lt;br&gt;Building road approach on Italy side. &lt;br&gt;All the steel girders, bracing, etc., have been brought down from Grindstone and are now being cleaned and painted.</td>
</tr>
</tbody>
</table>
Job 2184  
Brickwork of the building now completed.

Block Storage  
Concrete roof of the monitor and also the main roof now completed and starting to place hyrib on the walls of the monitor.

Job 419  
September 28th, poured the center section of the apron.

Ragged Lake Dam,  
This is the last section of concrete and consisted of 53 cubic yards, making a total of 1270 cubic yards for the entire job. Concrete plant dismantled and moved to Greenville Jct. for temporary storage.

Earth section of dam completed to elevation 1116. During the week 2066 yards was placed making the total to date 6,487 cubic yards or 77% of the total.

Job 420  
Hole "A-4" on 2400 ft line completed with following results.

Mattacunk  
Ground Elev. 241.2 - Top of Ledge 175.4 - Bottom of Hole 167.3 - 44% recovery of poor quality ledge.

Drillings.  
Hole "B-1" on 1600 ft. line (East Shore) - Ground Elev. 209.7 - Ledge Elev. 177.0 - Bottom of Hole 147.0 - 64% recovery of very good quality ledge - excellent overburden.

Hole "B-2" on 240 contour east shore now being drilled and think we have ledge at about 210 - Will know definitely tomorrow.

Matt. Drillings. Test Pits on West Shore of "B" Line:

<table>
<thead>
<tr>
<th>Dist. from Shore</th>
<th>Ground Elev.</th>
<th>Ledge Elev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>52'</td>
<td>215.0</td>
<td>208.9</td>
</tr>
<tr>
<td>197'</td>
<td>226.4</td>
<td>218.2</td>
</tr>
<tr>
<td>340'</td>
<td>236.8</td>
<td>228.5</td>
</tr>
</tbody>
</table>

The distance from shore to 240 Contour is approximately 375 Lineal Ft.

Hole "C-1" on 4200 foot line (East shore) completed this afternoon with the following results. Ground Elev. 206.50 - Ledge Elev. 177.75 - Bottom of Hole 147.75 - 90% recovery of fairly good ledge although somewhat broken. Now digging test pit on the wet shore to determine depth of ledge.

Engineering Dept.

One man all week at Ragged Lake,
Two men most of week at Mattacunk,
Completing detail drawings of the New Italy Bridge,
Made physical inventory at all three of the mills.
Issued 3 job records.
Feer & Jordan on vacation.

Miscellaneous.

W. C. McKay and William Hilton visited Penobscot Mills Wednesday Sept. 29th and Ragged Lake Dam Thursday, Sept. 30th.
Inspecting water wheels at Dolby.
Mr. Beauchamp of Link-Belt Co., visited Wednesday, Sept. 29th.
Messrs. Vedder & Clem of Rice, Barton & Fales Co., visited Wednesday, Sept. 29th.
### Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity of Ripogenus and North Twin</td>
<td>45,000 Mil. Cu.Ft.</td>
</tr>
<tr>
<td>Sept. 27th, 1936</td>
<td>34,546 Mil. Cu.Ft.</td>
</tr>
<tr>
<td>Total including Small Ponds</td>
<td>39,651 Mil. Cu.Ft.</td>
</tr>
<tr>
<td>Ripogenus Elev.</td>
<td>930.54 Storage</td>
</tr>
<tr>
<td>North Twin</td>
<td>492.80 Storage</td>
</tr>
<tr>
<td>Small Ponds (Gen. Fl. &amp; Seb.)</td>
<td>4.151</td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>32,904 Mil. Cu.Ft.</td>
</tr>
</tbody>
</table>

Precipitation for the first twenty-six days of September is reported as being 2.47" at Ripogenus; at Millinocket 2.19" was recorded.

Raised the screens on No. 7 paper machine and started the final pit changes. Completed the pit changes on No. 8 paper machine.

Old wooden sluice entirely demolished and now placing forms for the balance of the concrete piers required for the last three sections of sluice.

Completed two booms in the mill log pond and now assembling the third and last boom at this point.

No work at Ferguson yet — waiting until stop piling out wood.

The main run of 4" Dia. pipe is in place and installation practically completed.

Three girders now on job.

Cofferdam at Cherry Street side is driven and now excavating for the concrete abutment.

Tractor shovel moved onto job to-day from Mattaceunk, to handle the fill and road work on the Italy shore.

The North and South brick walls are completely laid up and the East wall will be completed by the middle of this week.

Concrete roof over the monitor has been poured and forms stripped to-day.

Sept. 20th, concreted South part of apron containing 48 cubic yards, and Sept. 24th concreted North part of apron containing 59 cubic yards, for a total of 107 cubic yards for the week, and a total of 1207 cubic yards to date.

The earth fill, excluding the loam surface and rip-rap, is built up to elevation 1110 with an estimated yardage of 2,097 placed during the week and a total to-date of 4,421 cubic yards. On the basis of 8500 yards total, this is 52% completed.

Stopped drilling on holes 51 and 52 Wednesday afternoon, Sept. 22nd. Thursday, Sept. 23rd, moved drill rigs up-stream 2400 linear feet from the original line of holes and Friday Sept. 24th started drilling on both sides of the river.

Hole "A-1" on west shore of river, 5 feet above water level completed with the following results. Ground elevation 208.00 - ledge elevation 206.80 - bottom of hole 176.80. Good sound ledge with 98% core recovery.
Job 420  

Hole "A-2" - 426 feet into the woods from the west shore at contour 240 is being drilled now.

Hole "A-3" on east shore of river 5 feet above water level is completed. Ground elevation 207.7 - ledge elevation 180.2 - bottom of hole 150.1. Ledge encountered was very soft and rotten and only recovered 19% of the core.

Moving onto hole "A-4" today, at elevation 240, which is about 300 Lin. Ft. from the main highway.

Mattaceunk  
The past week, we have been exploring the Mullen flat and surrounding country for concrete gravel with a 3/8 yard tractor shovel procured from Greenville. We have located some gravel but have now got to sink sheeting and dig with hand shovels to determine the depth of the vein to see if there is sufficient quantity.

Engineering  

One man all week at Ragged Lake.

Department  

" "  
"  " Mattaceunk Drilling.

" "  
"  " on field work for Millinocket and East Millinocket jobs.

Completed contour map of Mattaceunk power site with all drill holes to-date.

Working up various studies at Mattaceunk.

Theriault and Chase on vacation.

Issued two job records.

Miscellaneous  

Shipped all remaining equipment at Seboomook to Greenville during the week.

F. C. Bowler at Boston office Wednesday, Sept. 22nd.

Messrs. Stafford and Start of Rice, Barton & Files visited Wednesday, Sept. 22nd.

H. J. Deutschbein visited Millinocket Thursday Sept. 23rd and Ragged Lake with Mr. Bowler Friday, Sept. 24th.

Messrs. Haskell, Col. and Brown of Bangor Hydro-Electric Company visited Mattaceunk Thursday Sept. 23rd and conferred with Messrs. Bowler, Deutschbein and Weldon re power requirements for construction equipment.
FOR WEEK BEGINNING 8 A.M.  Sept. 13 - 20, 1937 FROM Engineering Department  LETTER NO. 38

WATER STORAGE

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin</td>
</tr>
<tr>
<td></td>
<td>Sept. 20th, 1936: 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>35,085 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total including Small Ponds: 40,553 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>10 Yrs. Avg. (Sept. 20th) Ripogenus &amp; North Twin: 31,111 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Sept. 20th, 1937: Ripogenus Elev. 932.22 Storage: 16,469 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>North Twin: 493.05 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Small Ponds (Can. Fl. &amp; Seb): 3,980 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage: 34,574 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>Sept. 14th, 1936: Kennebec: 10,834 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>13th, 1937: &quot; &quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

Precipitation for the first nineteen days of September is reported as being 2.32" at Ripogenus; at Millinocket 2.18" was recorded.

Job 1346 - #7 & #8 Fourdrinier, No. 8 fourdrinier.

Job 1356 - Pipe Mast - Coal Pile to-night, which will make this job now completed.

Job 1360 - Lower Sluice erected with the exception of the last three sections.

Mill Sluice

Now tearing down the old wooden sluices, where it makes into the concrete section under the railroad embankment, so as to erect the final steel sections.

Job 1368 - Sluicing - One of the booms for the mill log pond is fabricated and ready to be put into the water. A start has been made on the other boom for the log pond.

Job 1369 - Blow-Down Water

A start made to-day on the installation of the 4" Dia. extra heavy pipe line to take the boiler blow-down water to the block storage tank.

Job 1373 - New Italy Bridge

Two of the large bridge girders have been moved down over the road from Grindstone to the job.

Job 2184 - Block Storage Tank

Changes to the steel conveyor completed.

Job 419 - Ragged Lake Dam

Sept. 15, concreted two sections of deck consisting of 13 Cu. Yds.; and on Sept. 17 concreted last section of deck and a patch on the old downstream wing wall consisting of 17 Cu. Yds.; making a total of 30 Cu. Yds. for the week. This makes the total to Sept. 19th, 1110 Cu. Yds. or 93% of the total.

Approximately 2,324 Cu. Yds. of the earth embankment have been placed.

Removed ledge upstream of gates. Closed coffer dam and cleaned out new channel in front of gate section. Water now going thru new gate way.

Bull Dozer stripping on North Shore.

Concreting apron — yardage will be reported next week.

Dict. RW

(Over)
Job 420 - Mattaseunk Drilling

<table>
<thead>
<tr>
<th>Hole No.</th>
<th>Elev.</th>
<th>Elev. Lodge</th>
<th>Bottom of Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>256.0</td>
<td>182.5</td>
<td>152.5</td>
</tr>
<tr>
<td>38</td>
<td>249.0</td>
<td>212.0</td>
<td>Down 10 Ft. to-night</td>
</tr>
<tr>
<td>50</td>
<td>269.0</td>
<td>172.5</td>
<td>143.6</td>
</tr>
</tbody>
</table>

Hole #38 will be completed to-morrow, Sept. 21st and both drill rigs will start on their last holes 51 and 52.

Engineering Department

One man all week at Ragged Lake.

" " " " Mattaseunk drilling.

" " " " on dri-ki and salvaged wood cross conveyor at Millinocket.

Started study of size press installation for No. 2 paper machine at Madison.

Preparing a contour map of the Mattaseunk power site with locations and lodge elevations of all test borings to date.

One man on miscellaneous outside work at both mills all week.

Two man out on vacation.

Miscellaneous

James A. Ross, President of Sprague & Henwood, Inc. here Sept. 15th.

William Hilton here Sept. 15th.

F. T. Dolbeare here Sept. 15th and 16th.

Bowler visited Ragged Lake Dam, Sept. 16th.

Sept. 17th Messrs. Sealy, Bowler, Hilton and Stearns interviewed Selectmen of Mattawamkeag re tax valuation for Mattaseunk Plant.

Carl Hughes called Sept. 18th.

H. Geisler, B. F. Sturtevant Co., called Sept. 20th.
FOR WEEK BEGINNING 8 A.M. Sept. 7 - 13th, 1937

FROM Engineering Department LETTER NO. 37

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin: 45,000 Mil. Cu. Ft. Sept. 13th, 1936: 35,804 &quot; &quot; &quot; Total including Small Ponds: 40,688 &quot; &quot; &quot; 10 Yr. Avg. (Sept. 13th) Ripogenus &amp; North Twin: 31,840 &quot; &quot; &quot; Sept. 13th, 1937: Ripogenus Ekv. 333.83 Storage 18,121 &quot; &quot; &quot; North Twin 492.70 &quot; &quot; &quot; Small Ponds (Cal.Pa. &amp; Seb.) 3,583 &quot; &quot; &quot; Total Pensacot Storage 35,584 Mil. Cu. Ft. Sept. 7th, 1936: Kennebec 18,850 &quot; &quot; &quot; 6th, 1937: 20,383 &quot; &quot; &quot; Precipitation for the first twelve days of September is reported as being 0.41&quot; at Ripogenus: at Millinocket 1.00&quot; was recorded.</td>
</tr>
</tbody>
</table>

Job 1346 - #7 & #8 Fourdriniers | No. 8 Fourdrinier installed. Machine started at 2:15 P.M. Sept. 13th, |
Job 1356 | No progress during the past week. |
Pipe Masts | |
Job 1360 - Lower Mill Sluice | Eight Sections erected and aligned. Seven sections riveted. |
Job 1368 - Sluicing Booms | No progress during the past week. |
Job 1373 - Italy Bridge | Organisation and equipment assembling to-day. |
Job 2184 - Block Storage Tank Extension | Steel erected and riveted except conveyor gate work. Materials for brickwork on hand. Six Bricklayers on hand ready to start as soon as rain is over. Boilers in service. Covering steam pipes, etc. No. 2 Saveall in operation. Removing old piping, painting, etc. Lumber received and now being treated with wood preservative. |
Job 3157 - No. 2 Saveall | |
Job 3160 - Vomit Pipes | |
Job 419 - Ragged Lake Dam | |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>249.6</td>
<td>190.6</td>
<td>160.7</td>
</tr>
<tr>
<td>49</td>
<td>247</td>
<td>204.3</td>
<td>174.1</td>
</tr>
<tr>
<td>37</td>
<td>258</td>
<td>Down to El. 186 to-night Sept. 13th</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>269</td>
<td>&quot; &quot; 237 &quot; &quot;</td>
<td></td>
</tr>
</tbody>
</table>

Date Mailed: Sept. 13, 1937

SIGNED: Engineer.
**Engineering**

One man all week on Paper Machine Changes.  

**Department**  

- " " " at Ragged Lake Dam.  
- " " " Mattaceunk Project.  
- Made plan of Concrete Abutment for Cherry Street Bridge.  
- One man worked all week on dri-ki and salvaged wood cross conveyor.  
- " " on outside work at Millinocket and East Millinocket.  
- Two men on vacation.  
- Figured inventories for all three mills.

**Miscellaneous**  

H. J. Deutschbein visited Tuesday, Sept. 7th, and Thursday, Sept. 9th on his way to and from Ragged Lake.
### Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity of Ripogenus and North Twin</td>
<td>45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>Sept. 7th, 1936:</td>
<td>&quot; 36,330 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot; Total including Small Ponds</td>
<td>40,748 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>10 Yr. Avg. (Sept. 7th) Ripogenus and North Twin</td>
<td>32,814 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Sept. 7th, 1937:</td>
<td>Ripogenus Elev. 935.60 Storage 20,003 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot; North Twin &quot; 492.80 &quot; 13,950 &quot; &quot; &quot;</td>
<td></td>
</tr>
<tr>
<td>Small Ponds (Can.Fa. &amp; Seb.)</td>
<td>3,509 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>37,462 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>Sept. 1, 1936:</td>
<td>&quot; Kennebec &quot; 19,370 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Aug. 30, 1937:</td>
<td>&quot; &quot; &quot; 21,736 &quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

Precipitation for the Month of August: Ripogenus 3.96" and Millinocket 3.63''. Precipitation for the first six days of September: at Ripogenus 0.03" and Millinocket 0.12''.

### Job 1346 #7 & #8 Machine Changes

- Installing steel and concrete foundations for No. 8 shake.
- No. 8 fourdrinier expected this week for installation on September 12th.

### Job 1356 - Pipe Masts

Third mast done, but not erected.

### Job 1360 - Lower Mill Sluice

Eight sections steel sluice erected, but not riveted.
Excavation 95% completed.
New bridge over sluice in service.

### Job 1368 - Sluicing Booms

Material received and unloaded.
Fabrication not started.

### Job 2184 - Block Storage Tank Addition

All below-ground work completed and grading done.
Structural steel 95% erected, but not riveted.
Brick received and unloaded.

### Job 419 - Ragged Lake Dam

- Sept. 1st concreted #4 block - 62 Cu. Yds.
- Sept. 2nd concreted top of East wing wall - 36 Cu. Yds.
- Sept. 3rd concreted top of West wing wall - 46 Cu. Yds.
- Total past week 144 Cu. Yds.
- Total concrete to date 978 Cu. Yds.
- Building forms for #8 Section and deck on North end.
- Moved Shovel across brook above gate section.
- Work suspended Saturday P.M. Sept. 4th till Tuesday Sept. 7th.

### Job 420 - Mattaceunk Boreings

<table>
<thead>
<tr>
<th>Hole No.</th>
<th>Elevation</th>
<th>Ledge</th>
<th>Bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>257.67</td>
<td>198</td>
<td>178</td>
</tr>
<tr>
<td>42</td>
<td>249.60</td>
<td>190.6</td>
<td>160.7</td>
</tr>
</tbody>
</table>

### Engineering Department

- One man all week on Paper Machine Changes.
- Two men all week on Mattaceunk Project.
- Made Inventory at all mills.
- Made sketch Cherry Street Bridge and staked center line.
- Traced two plans of work done from pencil drawings.

### Miscellaneous

- Bowler & Cram left for Boston and New York Monday night, returned Friday night.
- Weldon and Cram now out on vacation.
## Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job 1346 #7 &amp; #8 Machine Gages</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>Job 1356 - Pipe Masts</td>
<td>Starting to erect second pipe mast to-day, August 30th. Structural steel for siled on which to mount third mast received.</td>
</tr>
<tr>
<td>Job 1360 - Lower Mill Sluice</td>
<td>Six sections of the steel sluice have been erected, but not riveted.</td>
</tr>
<tr>
<td>Job 1365 - Dry Pipe Valve</td>
<td>The 3&quot; dry pipe valve controlling sprinklers on the chip conveyor uptake has been installed in the Wood Room. Job completed.</td>
</tr>
<tr>
<td>Job 1368 - Sluicing Booms</td>
<td>The 10&quot; x 10&quot; Oregon fir for sluicing booms in Ferguson Pond and the Mill Pond has been received and is now being unloaded.</td>
</tr>
<tr>
<td>Job 2184 - Block Storage Tank Addition</td>
<td>Concrete walls and floor of tank completed. Drilling into concrete wall of old tank for new connection for the boiler blow-down water. Structural steel received and a start has been made on the erection of same.</td>
</tr>
</tbody>
</table>

---

**Note:**
- Water storage capacities and elevations are provided for Ripogenus and North Twin.
- Dates and quantities of various construction activities are detailed for both upstream and downstream work.
- The mention of concrete quantities and speed of work highlights the progress made in the project.

---

**Date:**
August 30th, 1937

**Signed:**
Asst. Engineer
Job 420 - Mattaceunk Boring - Holes 32, 33, 34, 35, 36, 39, 40, 41, 44, 45, 46, and 47 are now completed.

Information on holes not previously reported are as follows:

<table>
<thead>
<tr>
<th>Hole No.</th>
<th>Elevation</th>
<th>Ledge of Hole</th>
<th>Overburden</th>
<th>Ledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>244</td>
<td>214.7</td>
<td>184.5</td>
<td>All Clay</td>
</tr>
<tr>
<td>43</td>
<td>244</td>
<td>213.0</td>
<td></td>
<td>Fair</td>
</tr>
<tr>
<td>44</td>
<td>244</td>
<td>216.7</td>
<td>187.7</td>
<td>Broken &amp; Rotten</td>
</tr>
<tr>
<td>45</td>
<td>245.3</td>
<td>231.2</td>
<td>201.3</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>248</td>
<td>233.0</td>
<td>202.0</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>254.3</td>
<td>163.0</td>
<td>133.0</td>
<td>Sand &amp; Only 1 Boulder</td>
</tr>
</tbody>
</table>

Engineering

Made paper drawing of proposed electric hoists for the Millinocket Department.

Made drawing for wet press changes in the sulphite screen room.

Started studying Millinocket broke system.

One man all week on #7 & #8 paper machine drawings.

Two men out all week on vacation.

Issued two Job Records.

Miscellaneous

Mr. Van Horne of J. T. Ryerson Co., and J. Victorine of The Cooper Alloy Foundry Co., visited Tuesday, August 24th.

### Water Storage

**Maximum Capacity of Ripogenus and North Twin**

<table>
<thead>
<tr>
<th>Date</th>
<th>Storage Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 23rd, 1936</td>
<td>45,000 Mil. Cu. Ft.</td>
</tr>
</tbody>
</table>

Total including Small Ponds:
- Total: 42,470 Mil. Cu. Ft.

Precipitation for the first 22 days of August is reported as being 3.96" at Ripogenus; at Millinocket, 3.63" was recorded.

### Job 1346 - #7 & #8 Machine Changes

The fourdriner for No. 7 machine was received at the mill Wednesday, August 18th. Messrs. Anderson and Stafford of Rice, Barton & Fales arrived Friday, August 20th, and all preliminary work possible done before machine was shut down at 8 A.M. Sunday, August 22nd.

*Erection completed at 5 P.M., Monday, August 23rd; start putting on wire about 5:45 P.M.*

### Job 1356 - Pipe Masts

Nothing further done this week due to preparing for the paper machine changes.

### Job 1358 - Monadnock Shale

Shake operated all week with a woolen jacket on the brass roll with no apparent pitch trouble.

### Job 1360 - Lower Mill Sluice

Concrete piers completed and started erection of some of the steel bents.

- Grading the trench for the sluice trough.
- Final shipment of the steel sluice received and unloaded.

### Job 2184 - Block Storage Tank Addition

Completed concreting the foundation wall today, August 23rd.

- The 30" sewer tile and the 10" fire protection have been relocated into their new positions, put into service, and the trench partly backfilled.

Structural steel for the building received today, August 23rd.

### Job 419 - Ragged Lake Dam

August 19th, concreted block 9 composed of 67 cubic yards; Aug. 20th, the end of the East wing wall composed of 43 cubic yards; and August 21st, block 5 composed of 49 cubic yards. This makes 159 cubic yards for the week and 536 cubic yards total to-date, or approximately 36% of the total. Stripped forms from end of East wing wall, and from Blocks 6 & 7 and part of 8.

Small portion of earth dike started and placing rip-rapping on upstream toe.

- Building coffer dam across stream above the dam.
- Crushing rock at Ripogenus.
Job 420 - Mattaceunk Boring

Holes 32, 33, 34, 35, 36, 39, 40, 41 and 46 now completed. Now drilling on hole No. 47 which is located at the intersection of the base line with the upper row of holes (between stations 6 & 7). At this writing the hole is down about 25 ft. into the topsoil.

The other drill is setting up on hole No. 45 to-day and will start drilling to-morrow, August 24th.

Hole No. 41 struck ledge at elevation 244 and was of same good quality as encountered in holes 37 and 40.

Hole No. 46 ledge was encountered at elev. 233, 11 feet further down than in hole No. 41 and the ledge was the poorest yet encountered, - very shaly and rotten. Only about 40% of the core recovered.

Hole No. 36 encountered ledge at elevation 170.0 and the ledge was the same as found in the other holes in that area.

Engineering Department

Completed drawings of stainless steel relief line from digesters 1 and 2, and issued all the necessary requisitions.

Checked drawings of stoker drive and requisitioned balance of materials required.

Laid out and ordered trolley drive for Nash pump in sulphite screen room in order that it may be moved to make room for the second double press wet machine.

One man all week on paper machine changes.

One man all week at Ragged Lake Dam.

" " " Mattaceunk.

Two men out all week on vacation.

Miscellaneous

H. J. Deutschbein completed their part of the Boiler House job at Madison Mill (job No. 3153) Friday, August 20th.

F. C. Bowle visited Ragged Lake Dam job Friday, August 20th, and Madison Boiler House job Saturday, August 21st.

L. C. Havener, Baldwin-Ductworth Chain Corp., visited Saturday, August 21st.

John McLeod accompanied by Mr. Smith of the Submarine Signal Co., arrived noon to-day, August 23rd.
GREAT NORTHERN PAPER COMPANY

WEEKLY NEWS LETTER

FOR WEEK BEGINNING 8 A.M. Aug. 9th-16th, 1937 FROM Engineering Department LETTER NO. 33

SUBJECT

Water Storage

<table>
<thead>
<tr>
<th>Maximum Capacity of Ripogenus and North Twin</th>
<th>45,000 Mil. Cu. Ft. August 16th, 1936</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Yr. Avg. (Avg. 16th) Ripogenus and North Twin</td>
<td>35,925</td>
</tr>
<tr>
<td>Total including Small Ponds</td>
<td>44,320</td>
</tr>
</tbody>
</table>

Precipitation for the first 15 days of August is reported as being 3.42" at Ripogenus; at Millinocket, 2.97" has been recorded.

Foundation for new location of fan pump for No. 8 machine is concreted and most of the stock piping changed over. New mix box in pit installed. Old filtered water line taken out and new line installed. Feeney box for No. 8 machine is installed. Floor around old mix box of No. 7 concreted. Five of the suction boxes all complete with covers.

No. 7 fourdrinier shipped from Worcester, Saturday, August 14th, Messrs. R. V. Weldon and Scotty Hines inspecting same at Rice-Barton & Fales plant Thursday and Friday, August 12th and 13th.

One of the pipe masts now completely erected at the coal pile and ready for service.

Job 1358 - McDonnell Shakes

Shake lowered back to its original position in wire, and a woolen jacket installed on the brass roll.

Job 1360 - Lower Mill Sluice

Concrete bridge completed, and most of the piers concreted. Now excavating trench for the lower half of the sluice.

Balance of sluice shipped from Portland August 14th.

Job 1363 - Engine Room Vent.

Ventilation system at North end of engine room completed and in service. This makes the job completed.

90% of concrete wall completed and forms stripped. The past week has been spent in laying the 30" diameter sewer tile and 10" fire protection line in its new position, which is about 75% completed at this time.

Old dam all removed. Lodge cleared from South abutment to North shore. Trench dug to ledge on North shore for sheet piling. North shore stripped to hard pan for location of earth dike. Building up-stream toe of earth fill to serve as part of coffer dam to divert stream from old bed thru new gate section.

Drilling, blasting and removing rock from new channel below concrete gate section.

Completing form and placing gate guides and reinforcing in block 9. (See progress chart). Completing form for downstream section of down-stream wing wall.

For concrete, about 400 Cu. Yds. of crushed rock was found at Ripogenus and has been used for coarse aggregate. Over 1,000 Yds. of stone already quarried, is to be crushed for balance of Ragged Lake concrete. Old Ripogenus stone crusher is installed and will go to work tomorrow.

Seven-day tests of concrete placed show average strength of 2492 Lbs. per Sq. In. Maximum 2,752 - Minimum 2,140. (Over)
Job 420 - Mattaceunk Boring Letters

Holes 32, 33, 34 and 35 completed and reported on in previous letters.

Hole 36 down 55 feet into the ground at this writing and has struck the vein of coarse sand encountered in other holes, making progress slow.

Hole 39 completed Saturday night and encountered ledge at elevation 214.60, which corresponds to previous information. Ledge of excellent quality.

Hole No. 40 encountered ledge 6'-8" below ground level or at elevation 236.33 and at this writing is about 10 feet into the ledge which is of a good quality also. This ledge is about 18 ft. higher than expected.

Attached print shows numbering and location of holes referred to above. Swampy area between holes 36 and 41 has solid blue clay about a foot below the surface and extends to ledge.

Engineering Department

Completed drawings of stoker drive and now checking same.

Made layout for double press wet machine in sulphite screen room, and the equipment is now being installed.

Made preliminary study and estimate of the waste wood proposition for Madison Mill.

One man stationed at Ragged Lake.

" " " Mattaceunk.

" " on outside field work at Millinocket and East Millinocket. Two men out all week on vacation.

Miscellaneous

John Ware of Chase, Brass & Copper Co., visited Tuesday, Aug. 10th.

Messrs. Whitcomb, McKay, Hilton & Pearson arrived Tuesday night; August 10th, and visited Millinocket, and East Millinocket mills; also, Mattaceunk damsite, on Wednesday, August 11th.

R. G. Robinson and Glen Kelso visited to-day August 16th, representing the Bay City Power Shovel people.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus &amp; North Twin - 45,000 M.C. Ft. August 9th, 1936 - 41,027 Total Including Small Ponds, - 45,549 10 Yr. Avg. (Aug. 9th) Ripogenus &amp; North Twin, - 36,802 August 9th, 1937 - Ripogenus Elogic 941.60 - Storage - 26,984 North Twin - 491.90 - 13,320 Small Ponds (Estimated) - 2,500 Total Penobscot Storage, - 42,804 Precipitation for the first eight days of August is reported as being 1.62 inches at Ripogenus, and at Millinocket 2.69 inches has been recorded.</td>
</tr>
<tr>
<td>Job 1346</td>
<td>Foundation for the shake head and compensating weight for No. 7 paper machine has been concreted. Installed most of stock pipe on No. 8 preliminary to moving fan pump and changing over mixing system.</td>
</tr>
<tr>
<td>Job 1356 Pipe Masts.</td>
<td>Concrete piers for two of the masts completed and bases set for the masts. Steel for the sled mounting of the third mast is ordered.</td>
</tr>
<tr>
<td>Job 1358 McDonnell Shake.</td>
<td>Raised the shake roll and shake head 2&quot; in order to get a little more rap on the shake roll.</td>
</tr>
<tr>
<td>Job 1360 Lower Mill Sluice.</td>
<td>Concreting balance of piers for the sluice support today, August 9th. First shipment of steel sluice received and unloaded. Seven more sections of sluice to be shipped at a later date.</td>
</tr>
<tr>
<td>Job 1363 Engine Room Ventilation.</td>
<td>Pipe, for the system supplied by Beater Roof fan, all fabricated. Old piping in the way has been re-located and a start made on the installation of the new duct work, this new system supplying fresh air to the North end of the Engine Room. About 90% of the concrete foundations for the addition to the block storage tank are poured, and the forms being removed from same today. A short length of the 30&quot; sewer tile has been laid in its new location and the balance will be laid as soon as the forms are out of the way.</td>
</tr>
<tr>
<td>Job 2194 Block Storage Tank Addition.</td>
<td>Concreted second half of No. 2 block (shown on Dwg.B-1348) Tuesday, August 3rd consisting of 90 yards. This makes block No. 2 contain 160 yards. Friday, August 6th concreted bottom of block No. 1 consisting of 51 yards making total concrete to date 211 yards.</td>
</tr>
<tr>
<td>Job 419 Ragged Lake Dam.</td>
<td></td>
</tr>
</tbody>
</table>

DATE MAILED: August 9th, 1937.
Job 419 Ragged Lake Dam.

Building forms for sections 6 & 7 and setting gate guides, sill, etc., preparatory to concreting. Also building forms for downstream wall.

Overhauling crusher, preparatory to setting up at Ripogenus for our crushed rock supply.

Built bridge across the stream below the dam, to take care of trucking.

Finishing excavation under old gate section.

Job 420 Mattaceunk Drilling double shifted. Completed hole No. 34 Tuesday, August 3rd.

Hole No. 35, approximately 90° south easterly from hole No. 32, struck ledge at elevation 174.50 and at this writing is down 110 feet. The first 20 odd feet into ledge has shown it to be pretty well broken up.

A second drill outfit is due to be received at Mattawamkeag on tonight's freight. Now stringing pipe across the highway to supply water to this new outfit which will be located on the east side of the main highway.

Engineering Dept.

Completed drawings of addition to East Mkt. block store.

Made sketch for method of bundling sulphite laps and banding with wire.

Making detailed drawing of stoker drive (nothing but a pencil sketch before).

Making progress chart for Ragged Lake Dam.

One man stationed at Ragged Lake.

" " " Mattaceunk.

" " all week on outside field work at Millinocket and East Millinocket.

Physical inventory made of all three mills.

One man out all week on vacation.

Miscellaneous.

L. S. Foster, Chief Engineer & Vice President of Ludgerwood Mfg. Co., visited Monday, August 2nd.


F. G. Bowler & H. J. Deutschbein visited Ragged Lake Job Thursday & Friday, August 5th & 6th. Mr. Deutschbein proceeded to Madison to visit Boiler House Job.

Messrs. Thing, Manager, & Humphreys, salesman for Fairbanks Valve Co., visited today, August 9th.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
<th>Job 1346 - #7 &amp; #8 Fourdrinier Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin = 45,000 Mil. Cu. Ft.</td>
<td>Received the piping for No. 8 machine as called for on Drawing C-1004.</td>
</tr>
<tr>
<td></td>
<td>August 2nd, 1936: &quot; &quot; &quot; &quot; &quot; = 41,790 &quot; &quot; &quot; &quot; Total including Small Ponds = 46,947 &quot; &quot; &quot; &quot; 10 Yr. Avg.: (Aug. 2nd) Ripogenus and North Twin = 37,558 &quot; &quot; &quot; &quot; August 2nd, 1937: Ripogenus Elev. 941.15 Storage 26,433 &quot; &quot; &quot; &quot; North Twin &quot; 493.10 &quot; 14,160 &quot; &quot; Small Ponds (July 27th) 4,778 &quot; &quot; Total Penobscot Storage 45,371 Mil. Cu. Ft.</td>
<td>Structural steel supporting the shake and compensating weight for No. 7 machine has been erected and riveted, and new building form for the shake foundation.</td>
</tr>
</tbody>
</table>
New Fourdrinier Design

Engineering Department

"One man all week on paper machine work."

""" at Ragged Lake Dam.

""" at Mattasunk.

""" on proposed tunnel conveyor changes.

""" field work at Mill No. 1 and Mill No. 2.

Miscellaneous

Messrs Vedder and Clem of Rice-Barton & Fales visited Tues-

day and Wednesday, July 27th and 28th.

R. V. Weldon visited Ragged Lake Wednesday July 28th, and

Madison Boiler job Thursday, July 29th.

J. M. Wade visited Millinocket Thursday, July 29th.

F. C. Newbegin of Bangor & Aroostook Railroad Co.

visited Friday, July 30th.

F. C. Bolwell visited Ragged Lake Friday, July 30th.

J. S. Foster, Vice President and Engineer of Lidgerwood

Mfg. Co. visited to-day, August 2nd.
**WATER STORAGE**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job 1346 - #7</td>
<td>Fabricated steel for supporting No. 7 shake. Pressure pumps erected and grouted. Installed new sole plates at location of couch No. 8 machine. Removed several old pipe lines and installed new lines. Twenty inch I-beam for No. 8 slice support received.</td>
</tr>
<tr>
<td>Job 1352 - Repairs</td>
<td>Installed the new armature and shaft in the generator of No. 7 turbo-generator set Sunday, July 25th. Started up good this morning.</td>
</tr>
<tr>
<td>Turbines</td>
<td>The three masts completed. Started making structural steel bases and digging for concrete footers.</td>
</tr>
<tr>
<td>Job 1358 - McDonnell Shake</td>
<td>Moved the McDonnell roll back to its original position in No. 10 fourdriner Sunday, July 25th, but changed the rubber roll to a brass roll. Now moving the shake head and compensating weight device back onto the original foundation.</td>
</tr>
<tr>
<td>Job 1360 - Lower Mill Sluice</td>
<td>Concrete footings for bridge poured and now building forms for the abutments. Excavating for sluice piers.</td>
</tr>
<tr>
<td>Job 1363 - Eng. Room Vent.</td>
<td>Galvanized iron duct system supplying engine room, between engines 3 and 6, with cool air is installed and in service. Figured and ordered an electric motor and texrope drive for the fan which is now driven by a steam engine. Will now start work on the Beater Room end to supply cool air to that end of the Engine Room.</td>
</tr>
<tr>
<td>Job 2184 - Block Storage Tank Addition</td>
<td>Concrete footers for South and East wall poured. Now excavating for footers of North wall. Building forms for South and East walls. Cut new valve into the 10&quot; Dia. fire protection line by means of special equipment by the Smith Mfg. Co. This will allow the necessary changes to be made to the lines around the addition without endangering protection to the rest of the mill.</td>
</tr>
<tr>
<td>Job 419 - Ragged Lake Dam</td>
<td>Removing crib dam North of the old gate section. Stripping, drilling, blasting and removing rock for cut off and wing walls. Hauling crushed rock from Ripogenus Dam. Starting erection of formwork.</td>
</tr>
</tbody>
</table>
| Job 420 - Mattamuskeet Boring | Drill moved to hole No. 34 which is approximately 120 feet immediately in front of hole No. 33 when proceeding toward the State Highway. Started wash boring of this hole Wednesday July 21st and at 10 A.M. to-day, was down to a depth of 36 feet. At this depth there is a vein of excellent (Over) }
Mattaceunk concrete sand, and is so tightly compacted that it makes very difficult drilling.

Continued

New Found. Made a preliminary set of specifications for a 3-roll machine for discussion purposes with the Superintendents and Paper Makers.

Materials needed for #7 and #8 changes are as follows: Deckle heads for suction boxes; piping for No. 8 paper machine on order 1-2293; and, shake head complete with motor and drive for No. 7 machine.

Engineering Department

One man all week on paper machine work.

- " " " at Ragged Lake Dam.
- " " " Mattaceunk.
- " " " on proposed change in tunnel conveyor taking wood in from No. 2 pile.
- " " " at East Millinocket jobs.

One man out on vacation last week-- none out this week.

Miscellaneous

B. P. Williston of J. T. Ryerson & Son visited Wednesday, July 21st.

Winn Willard of Link-Belt Co., visited Thursday, July 22nd.

F. C. Bowler returned to office after death of Dr. Bryant, Thursday, July 22nd, and visited Madison and Ragged Lake Friday and Saturday July 23rd and 24th.

Electrical storm Saturday, July 24th, again caused damage to East Millinocket Grinder Room, burning out No. 2 motor for the 2nd time within ten days. At this writing the entire motor has been removed and the old 1200 H.P. motor, formerly on No. 1 line, is being moved down from Dolby storage for temporary installation on No. 2 line.
Job 1346 - /7 & 
/8 Foundrinerier Changes

Job 1356 - Pipe Masts

Job 1358 - McDonnell Shake

Job 1360 - Lower Mill Sluice

Job 1363 - Engine Room Vent.

Job 2184 - Addition to Block Storage Tank

Ragged Lake Dam
Job 419

Job 420 - Mattaceunk Borings

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 19th, 1937: Ripogenus 941.20 Storage - 27,230 &quot; &quot; &quot; North Twin &quot; 492.15 &quot; 13,495 &quot; &quot; &quot; Small Ponds (July 15th) - 7,200 &quot; &quot; &quot;</td>
<td>Total Penobscot Storage - 47,925 Mil. Cu. Ft. &quot; 13,58 1360 &quot; 2184 &quot;</td>
</tr>
<tr>
<td>July 13, 1936: &quot; Kennebec &quot; 28,200 &quot; &quot; &quot; 12, 19371 &quot; &quot; &quot; 30,146 &quot; &quot; &quot;</td>
<td>Precipitation for the first eighteen days of July is reported as being 3.01&quot; at Ripogenus; at Millinocket 2.04&quot; has been recorded.</td>
</tr>
</tbody>
</table>

Stretch roll for first felt on No. 8 machine moved to its final position; sub-base for No. 8 couch motor installed and grouted; temporary wood spouts from savell pens to pit built and installed; slice changes completed for mixing head; sole plates for new location of couch installed; two bays of floor (10'-8") in front of new couch position concreted; temporary pit changes and piping completed, fan pump relocated and new screen box installed so that No. 7 machine is now operating on the new mixing system, similar to East Millinocket machines.

Compensating mass and Rumsey pumps received during this week.

Two masts completed and the third one will be done the latter part of this week.

Operated the McDonnell shake in the new position, that is, one section nearer the wet end, for two days, but had to shut it down because of pitch spots and the seam filling up. Better formation obtained when shake was in original position.

Concreting footings for new bridge to-day, July 19th.

Started erection of some of the new galvanized iron duct work to-day, July 19th.

Concrete footing for South (downstream) wall. Now excavating for the footers of the East wall.

About 50% of the rock excavation has been completed and the old timber crib dam has been demolished and removed from the South abutment up to the end of the last deep gate.

Building forms and panels up preparatory to concreting.

Gate guides received.

The 2nd hole (No. 33) reached ledge Saturday July 17th at elevation 177.6. This morning the drill was 15 feet into ledge and the cores showed mostly sound ledge. This hole should be completed to its 30' depth into ledge by to-night.

Dict. NW

(Over)
New Fourdrinier Design

Made drawing C-1009 showing temporary walls and piping in fourdrinier pit No. 7 machine, and sketch showing modification of breast roll journals. Now starting on preliminary specifications for 3 roll machine.

Heads for dekling suction boxes should be shipped at once so that suction box covers can be assembled. Piping on P. O. 1-2293 should be delivered this week.

Engineering Department

One man all week on paper machine work.

" " stationed at Ragged Lake Dam.

" " Mattacunk

Detailed and ordered last of piping for Madison Boilers.

Making layout for changes to tunnel conveyor from No. 2 pile to facilitate handling of dri-ki.

One man on vacation all week.

" " 3 days.

Miscellaneous

E. V. Crum visited Madison July 12th and 13th re Boiler House job.


Heavy electrical storm Friday night, July 16th, damaged two grinder motors at East Millinocket - No. 2 and No. 3. No. 2 was repaired and went back on the line Sunday night, July 18th, at 5 P.M. No. 3 has had a new stator installed and has been drying out all day and will probably go on the line to-night sometime.
### Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 12th, 1936</td>
<td>42,647 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Total including Small Ponds</td>
<td>51,315 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>10 Yr. Avg. (July 12th) Ripogenus &amp; North Twin</td>
<td>39,251 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>July 12th, 1937</td>
<td>Ripogenus Elev. 942.58 Storage 28,200 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>North Twin</td>
<td>491.50 &quot; 13,040 &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Small Ponds (July 9th)</td>
<td>2,067 &quot; &quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

July 6th, 1938: " " Kennebec 29,201 " " " " 5th, 1937: " " " " 31,427 " " " "

Precipitation for the first eleven days of July is reported as being 0.68" at Ripogenus, at Millinocket 0.05" has been recorded.

Steel beam under couch pit of No. 8 machine erected, also the beam supporting one side of 1st felt wall. Well for first press felt concreted. Wire pit box built and erected in place. Check valves in discharge line of seal box pump installed.

90% of piping shown on C-1001, and 12" circulating lines to screens erected to and including gate valve.

Smooth press on No. 8 installed Sunday, July 11th and put in service this morning, July 12th.

Temporary drive removed from Nash H-10 pump on No. 7 and new motor and tappor drive installed.

Ordered 20" I-beam for supporting No. 8 slice and necessary pipe fittings for Rumsey pumps.

Job 1356 - Pipe Masts

Two masts completed and painted and a start made on the third and last one to-day.

Job 1358 - McDonnell Moved the section of fourdrinier containing the McDonnell shake roll ahead one section towards the wet end, Sunday July 11th. Moving the shake head and compensating weight ahead at this writing.

Job 1363 - Engine Room Ventilation The mill tinsmiths have got a good start on the fabrication of the galvanized iron duct work required.

Job 2184 - Block Storage Tank Addition Excavation for the footer of the South (downstream) wall will be completed to-night and concreted to-morrow, July 13th. Sheetig East wall to prevent caving in or washing.

Job 419 - Ragged Lake Dam About 50% of old timber crib dam demolished and removed. Drilling lodge at site of new concrete gate section.

Stone in pit at Ragged Lake when tested shows a large percentage of soft and rotten stone. Approximately 400 Cu. Yds. of good hard rock which was crushed and left over at Ripogenus, will be hauled down to Ragged to use with local material.

Job 420 - Mattaosesunk Test Boring One hole (No. 32) completed.

Second hole (No. 33) down 79 feet into the overburden when the 2-1/2" diameter extra heavy pipe casing broke. All attempts to remove the broken casing, or got it out of the way failed, so the hole was abandoned this morning and a new hole will be put down about 2 Ft. from the first attempt.

Job 3153 - Madison Boilers Boilers erected and erector left.

Raffles all installed in both boilers.

Settings about 65% completed on one boiler & about 10% completed on the other one. (Over)

---

Date Mailed: July 12, 1937

Signed: J. C. Bowler, Engineer
Madison Boilers

Installing concrete floors, new forced draft fan, etc.

New Found.  
Completed drawing C-1007 showing installation of Rumsey pumps together with their piping.  These pumps should be here so as to install during the week of July 19th.

Making wood covers for suction boxes but as they cannot be assembled until the suction box deckle heads are received, the latter should be shipped to us promptly by express.

Engineering  
One man all week on changes to #7 & #8.

" " " " steel details for addition to block storage tank at East Millinocket.

Two men checking drawings most of the week.

One man stationed at Ragged Lake.

" " " " Mattaceunk

Issued four job records during the week.

Miscellaneous  
G. B. Stanwood visited Tuesday, July 6th.

F. C. Bowler and H. J. Deutschbein visited Ragged Lake Dam job Saturday, July 10th.

A. R. Dayton, Taylor stoker man arrived at East Millinocket to-day preparatory to running off test of new #4 boiler to-morrow, July 13th.
GREAT NORTHERN PAPER COMPANY

WEEKLY NEWS LETTER

FOR WEEK BEGINNING 8 A.M.  
June 28th-July 5, 1937 FROM Engineering Department  
LETTER NO. 27

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
</table>
| Water Storage | Maximum Capacity of Ripogemus and North Twin - 45,000 Mil. Cu. Ft.  
July 5th, 1936:  
"  
"  
" Total including Small Ponds - 52,110  
10 Yr. Avg. (July 5th) Ripogemus & North Twin - 39,676  
July 5th, 1937:  
Ripogemus Elev. 943.23 Storage 29,018  
North Twin - 491.70 - 13,180  
Small Ponds (July 2nd) - 9,574  
Total Penobscot Storage - 51,776 Mil. Cu. Ft.  
June 29th, 1936:  
Kennebec "  
"  
"  
" 26th, 1937:  
Kennebec "  
"  
"  
Precipitation for the month of June at Ripogemus reported as being 4.10 inches and at Millinocket 4.32 inches recorded.  

Job 1346 - #7 & #8 Fourdrinier Changes  
No work on Sunday, July 4th, because of holiday, but during the week the crew has been moving the steel ahead for the new location of the felt stretches on No. 8. One more column to move.  
The rubber roll and the gun-metal jacketed roll for the smooth press on #8 have been received and will be installed next Sunday.  
Eight of the new suction boxes have been received also.  

Job 1356 - Pipes  
Masts  
One mast completed and a second one practically completed. Base castings for all three will be finished to-morrow.  

Job 1358 - McNell Donnell Shake  
A new concrete foundation has been built, duplicate of the first one, but one section (about 6 ft.) nearer the wet end.  
Roll, frames, shake head and compensating weight not moved ahead at this writing.  

Job 2184 - Block Tank Addition  
Mill crew continuing excavation for the tank addition. Now placing sheeting to prevent sides from caving in.  
Excavating trench to existing fire protection line in order to cut in a valve without shutting off the pressure.  

Job 419 - Ragged Lake Dam  
Started dumping water out of Ragged Lake Thursday, July 1st, as there was plenty of room in either Ripogemus or North Twin. Lake has dropped off about 6-1/2 feet in 5 days and work of demolishing the old dam started this morning, July 6th.  
All equipment set up and all temporary buildings completed.  

Job 420 - Mattaceunk Test Borings  
First hole completed Friday afternoon, July 2nd. This will be known as hole #32 and report of findings will be issued later.  
Started drilling 2nd hole yesterday, July 5th, and was down to approximately 40 feet this morning.  

New Fourdrinier Design  
Completed texrope drive for No. 7 Nash pump on couch of No. 7 machine.  

Engineering Department  
One man worked all week on changes to #7 and #8 machines, at Mill.  
One man worked all week on steel design for addition to block storage tank at East Millinocket.  
One man all week cleaning up the Madison Boiler details.  
One man all week at Mattaceunk.  
"  
"  
"  
Made physical inventory of all three mills.  
Issued two job records for Madison Mill.  

Dict. RVW  

DATE MAILED  
July 6th, 1937  
SIGNED  
Fowler  
Engineer.
Miscellaneous

John McLeod visited Tuesday and Wednesday, June 29th and 30th respectively.

Frank Pearson visited Tuesday, June 29th.

Mr. Bates, Factory Insurance Inspector visited Tuesday, June 29th.

Messrs. Center, Banan and Strathdee of Westinghouse visited Tuesday, June 29th.

Mr. Van Horne of Ryerson Co., visited Wednesday, June 30th.

J. C. Bowler visited Ragged Lake Dam Job Friday, July 2nd.

C. B. Stanwood visiting to-day, July 6th.
### Job 1346 - #7 & #8 Fourdriner Changes

Moved old suction 1st press ahead into its final location Sunday, June 27th.

Sub-base for #8 couch motor completed in the shop ready to be placed some Sunday before new fourdriner is received. Foundation for new location completed of No. 7 fan pump completed; old filtered water line in pit of No. 7 removed and new line installed.

Piping from Peeney Box (shown on C-1001) received except for one special piece, and a start made on installation of same.

Received the 2nd 125 H.P. motor for H-10 pump on No. 7 machine; also, two 3 H.P. motors.

### Job 1356 - Pipe Masts

Nothing done this week due to other more urgent work.

### Job 2184 - Black Tank Addition

Mill crew excavating for the extension and about 1/3 of the earth is removed at this time.

Spliced girder with heavy steel plates where steel bent has to be moved.

30" diameter sewer tile received.

### Job 419 - Ragged Lake Dam

Reducing crew to 25 men to-night, June 28th.

The air compressor and steel guy derrick are all installed and ready to go to work and the concrete mixer is about 1/3 installed.

Borrow pit site on North shore has been stripped and a test pit being dug now to determine depth and quality of material. Both the sand and gravel pits have been stripped.

All equipment has been hauled in from Lily Bay and now hauling in two cars of lumber from Greenville.

### Job 420 - Mattacunck Test Borings

First hole down to a depth of about 82 feet this morning and will probably encounter ledge late to-day, or to-morrow.

### New Fourdriner Design

Checked drawing B-1353.

Completed and checked drawing C-1004 showing detail of piping for No. 8.

Drawing C-1005 showing foundation details for shake and compensating device completed, but not checked.

Gunmetal jacketed bottom smooth press roll for No. 8 must be here in time so that it can be installed Sunday, July 11th. Original schedule was for July 4th, but this has been set ahead one week due to double holiday.

---

**FOR WEEK BEGINNING 8 A. M.**

**June 21 - 28, 1937 FROM Engineering Department**

**LETTER NO. 26**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>June 28th, 1936:</td>
<td>&quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot; Total including Small Ponds</td>
<td>53,612 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>10 Yr. Avg. (June 28th) Ripogenus and North Twin</td>
<td>40,064 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>June 28th, 1937:</td>
<td>Ripogenus Elev. 943.38 Storage</td>
</tr>
<tr>
<td>North Twin</td>
<td>492.70 &quot; &quot;</td>
</tr>
<tr>
<td>Small Ponds (June 25th)</td>
<td>12,254 &quot; &quot;</td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>53,344 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>June 22nd, 1936:</td>
<td>Kennebec &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot;</td>
<td>31,578 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>June 21st, 1937:</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot;</td>
<td>32,211 &quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

Precipitation for the first twenty-seven days of June is reported as being 5.84" at Ripogenus; at Millinocket 3.06" has been recorded. Sebocomack sluice gate reported open 3 ft., filling up the river preparatory to sluicing remaining wood into Ripogenus as soon as they get a head wind again.
Design

Continued

Miscellaneous

F. C. Bowler called to Holyoke, Mass. Tuesday, June 22nd, because of death of close friend, Wallace Tower. Returned Thursday night, June 24th.

Mr. Whitcomb, accompanied by W. B. Clift and son Brooks Clift, also William Hilton, arrived Millinocket Tuesday night June 22nd and left for North country Thursday morning, June 24th.

R. V. Weldon visited Sebocook Thursday, June 24th.

Engineering

Department

One man all week on changes to #7 & #8.

Completed details of Ragged Lake Dam but one man stationed at Ragged for field work.

One man all week on drawings for block storage tank addition at East Millinocket.

One man all week at Mathasumk re. test borings.

One man most of week on Madison boiler drawings.

Issued one job record.

New Fourdrinier Piping for No. 8 ordered.

Department

Completed details of Ragged Lake Dam but one man stationed at Ragged for field work.

One man all week on changes to #7 & #8.

One man all week on drawings for block storage tank addition at East Millinocket.

One man all week at Mathasumk re. test borings.

One man most of week on Madison boiler drawings.

Issued one job record.

One man all week on changes to #7 & #8.

Completed details of Ragged Lake Dam but one man stationed at Ragged for field work.

One man all week on drawings for block storage tank addition at East Millinocket.

One man all week at Mathasumk re. test borings.

One man most of week on Madison boiler drawings.

Issued one job record.
GREAT NORTHERN PAPER COMPANY
WEEKLY NEWS LETTER

FOR WEEK BEGINNING 8 A.M. June 14 - 21, 1937 FROM Engineering Department LETTER NO. 25

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil.Cu.Ft.</td>
</tr>
<tr>
<td>Job 1346 #7 &amp; #8 Fourdrinier</td>
<td>10 Yr. Avg. (June 21st) Ripogenus and North Twin - 39,920</td>
</tr>
<tr>
<td>Job 1356 - Pipe Masts</td>
<td>Total including Small Ponds - 54,419</td>
</tr>
<tr>
<td>Job 2184 - Block Tank Addition</td>
<td>June 21st, 1936: &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Job 419 - Ragged Lake Dam</td>
<td>&quot; 14th, 1937: &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Job 420 - Mattaceunk Test Borings</td>
<td>Precipitation for the first twenty days of June is reported as being 3.47&quot; at Ripogenus; at Millinocket 2.34&quot; has been recorded. Gates on all ponds closed except when sluicing thru Ripogenus. No waste since Saturday, June 12th.</td>
</tr>
<tr>
<td>New Fourdrinier Design</td>
<td>125 H.P. motor for H-10 Nash pump and S.K.F. bearings for top press rolls received Saturday, June 19th, and so the suction 2nd press was installed on No. 8, Sunday, June 20th.</td>
</tr>
<tr>
<td></td>
<td>Sub-base for No. 7 couch motor is installed; felt stretch for 1st felt No. 7 raised to its future location; piping for filtered water line No. 7 is erected; portion of couch pit for No. 7 is concreted; and Feeney box for No. 7 built.</td>
</tr>
<tr>
<td></td>
<td>Suction hose for suction boxes, brass pipe for connecting cylinders, stand, coupling and bearing for No. 8 smooth press drive received.</td>
</tr>
<tr>
<td></td>
<td>One pipe mast all assembled and complete except for the base casting. Base casting in shop now ready to be machined. Started assembly of second mast.</td>
</tr>
<tr>
<td></td>
<td>Mill crew have started excavation for the foundation. A tractor with plow, 2 trucks and crew of about ten men at work and at this writing the excavation will average a depth of about 4 feet.</td>
</tr>
<tr>
<td></td>
<td>First sample of sand sent to University of Maine for analysis, did not contain enough fine material. Another pit has been uncovered about 4 miles from the job which will supply the necessary fines. Men now housed at job site and Spruce Wood Commissary started up Thursday, June 17th.</td>
</tr>
<tr>
<td></td>
<td>Digging test pits to locate contour of ledge along line of sheeting. Installing equipment and starting to strip overburden from gravel pit and making roadway to same.</td>
</tr>
<tr>
<td></td>
<td>Mr. Workman, driller from Sprague &amp; Henwood Co. arrived Tuesday, June 15th, and started drilling Wednesday, June 16th. This morning, June 21st, the first hole was down to a depth of 32 feet.</td>
</tr>
<tr>
<td></td>
<td>Drawing B-1353, showing stock pipe changes, etc. to No. 8 was completed and issued. Roll for the bottom smooth press roll on No. 8 is being shipped out to-day to Rice, Barton &amp; Fales. This roll must have the gun-metal jacket installed on it and returned in time for installation on No. 8 on Sunday July 4th.</td>
</tr>
</tbody>
</table>

Dict. RVW

(Over)

DATE MAILED June 21, 1937

SIGNED

Engineer
Engineering Department:
One man all week on fourdrinier changes to No. 7 & No. 8 machines.
One man all week on Ragged Lake Dam details, and one man stationed at
Ragged Lake for field work.
One man all week detailing steel for Block Storage Addition at
East Millinocket.
One man most of week on layout for 2nd calendar stack on No.1
machine at Madison.
One man most of week on Mattaceunk test borings.
Issued two job records.

Miscellaneous:
F. G. Bowler left for trip to Madison, Seboomock and Ragged Lake
Wednesday PM, June 16th and returned Friday night, June 18th.
S. G. Briscoe of Fuse y & Jones Co., visited Thursday, June 17th.
J. E. Waterhouse and son visited Thursday, June 17th.

Issued two Job records.

Wednesday PM, June 16th and returned Friday night, June 18th.
### Great Northern Paper Company

#### WEEKLY NEWS LETTER

**FOR WEEK BEGINNING 8 A.M.**

<table>
<thead>
<tr>
<th>DATE</th>
<th>FROM</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 7-14, 1937</td>
<td>Engineering Department</td>
<td></td>
</tr>
</tbody>
</table>

**LETTER NO. 24**

### Subject: Water Storage

**Maximum Capacity of Ripogamus and North Twin**  
June 14th, 1936: **43,627**  
10 Yr. Avg. (June 14th) Ripogamus & North Twin: **39,872**

**Total including Small Ponds**  
June 14th, 1937: **53,656 Mil. Cu. Ft.**

**Precipitation for the first thirteen days of June is reported as being 2.51" at Ripogamus; at Millinocket 1.54" has been recorded.**

**Fasting of water stopped again Saturday, June 12th. All gates closed at North Twin, Quinib, Dolby and East Millinocket. Spruce Wood Dept. report gates all closed at Canada Falls, Seboonuck, Ragged Lake, etc.**

**Chicage gate at Ripogamus being set back to 10 feet, to give just enough water to keep drive coming down river.**

### Subject: Job 1346 - 7

**Chef jacketed bottom smooth press roll for No. 7 received and #8 Fourdrinier press installed yesterday, June 13th, which completes the press changes on this machine.**

**Opening in pit, old 1st felt well, is concreted and new steel beam under couch pit is erected on No. 7.**

**H-10 Nash pump for No. 8 machine together with about 80% of the piping is erected. The 125 H.P. motor driving this pump, also the bearings for 2nd suction press top roll which are scheduled for shipment on June 15th, must be at Millinocket before the end of the week if they are to be installed next Sunday, June 20th.**

### Subject: Job 1356 - Pipe Basts

**New Fourdrinier Design**

**Completed drawing B-1352 showing arrangement of No. 7 fourdrinier, and drawing 3-3571 showing box for fourdrinier pit. Most of the piping shown on B-1352 will be furnished from mill stock and the balance secured from local foundry.**

**Ordered brass pipe and fittings for the jacking and moving forward hydraulic cylinders.**

### Subject: Job 2104 - Block Tank Addition

**Tank Addition**

**The railroad track past the grinder room which was in the way of the new addition has been removed. Excavated for the submarine cable which is also in the way. This has been uncovered and will be held up in the air temporarily by fallwork.**

### Subject: Job 419 - Ragged Lake Dam

**Crew of 42 men at work. All of the heavy equipment has been hauled in from Lily Bay to the job site.**

**The big 1,000 foot air compressor has been set up and housed in, and gasoline tank for same is in place. Tank for fuel oil set in place. Office, storeroom and sleeping quarters for men completed.**

**Girderwork for the steel guy derrick is in place and preparations being made to erect same.**

**Doug three test pits and samples of sand and gravel sent to University of Maine for complete analysis.**

**Gates in existing dam closed and water elevation this morning 1144.91 (Over)**

---

**Date Mailed:** June 14, 1937  
**Signed:** 

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**Form 17**
Mattaceunk

Started laying out lines for the new test boring holes to-day, June 14th. Equipment from Sprague & Henwood shipped Tuesday, June 6th.

Engineering Department

One man at Ragged Lake Dam.
" " worked all week on fourdrinier changes.
" " Ragged Lake details.
Made pencil layout for new acid relief line from #1 and #2 digesters at Millinocket.
Completed layout of locker room for the Engine Room at Millinocket.
Made pencil layout for changes to sprinkler system in chip conveyor at Millinocket.

Miscellaneous

Mr. MacDonald, engineer from E. R. Sturtevant Company, arrived Wednesday morning June 9th to investigate fan and dust trouble on East Millinocket boiler. Left Saturday night, June 12th.
Oscar Hahnel, of Hahnel Bros., visited Wednesday, June 9th.
F. R. West and R. V. Weldon to Ragged Lake Dam job Tuesday June 8th; West remaining as representative of this department, and Weldon returning Thursday, June 10th.
Ashton Gourley arrived Saturday, June 12th, accompanied by Mr. Sullivan of Crane Co.
Frank Pearson visiting to-day, June 14th.
## Great Northern Paper Company
### Weekly News Letter

**For week beginning 8 a.m., May 28 - June 7, 1937 from Engineering Department Letter No. 23**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin</td>
</tr>
<tr>
<td>June 7th, 1936</td>
<td>45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>June 7th, 1937</td>
<td>10 Yr. Avg. (June 7th) Ripogenus &amp; North Twin</td>
</tr>
<tr>
<td></td>
<td>494,25</td>
</tr>
<tr>
<td></td>
<td>Total including Small Ponds</td>
</tr>
<tr>
<td></td>
<td>54,723</td>
</tr>
<tr>
<td></td>
<td>39,465</td>
</tr>
<tr>
<td></td>
<td>9,156</td>
</tr>
<tr>
<td></td>
<td>54,908 Mil. Cu. Ft.</td>
</tr>
</tbody>
</table>

Precipitation for the month of May, at Ripogenus 4.43", at Millinocket 5.69".
Precipitation for the first six days of June is reported as being 1.59" at Ripogenus; at Millinocket 0.68" has been recorded.
Full storage of 45,000 Mil. Cu. Ft. in Ripogenus and North Twin was reached on Friday, June 4th, and as there was considerable water in sight due to 1.59" rain at Ripogenus, it was necessary to start wasting again. Wet machines were restarted at 4 P.M. Friday, June 4th. Wasting to-day, June 7th, at the rate of about 1,700 c.f.s.

**Job 1346 - No. 7 & No. 8 Found.**

The first suction press was moved to its new position Sunday, June 6th, and the machine started up good this morning.

Sewer for installation of H-10 pump on No. 8 machine completed and the hard pine base for the pump and motor is made and being installed.

Rice-Barton & Fales advise they are shipping brass jacketed smooth press roll for #7 machine early this week. We plan to install same Sunday, June 13th, so the shipment should be traced. They also plan to ship all parts for 2nd suction press No. 8 machine early this week, except the 3,500 bearings which are to be shipped direct from Philadelphia on June 15th. Last promise of delivery on the motors for H-10 pump was June 4th. We must have one of those motors before Sunday, June 20th as there is not an old motor available as there was on No. 7.

Work completed on the two stokers. There is some more brickwork to do, but that will be done at a later date.

Preparing the 10" diameter pipe for the sleeve connections. No other work done this week.

**Job 1349 - Rebuild #5 & #6 Stokers**

**Job 1356 - Pipe Masts**

**New Fourdrinier Design**

**Job 2184 - Bk. Tank Addition**

**Job 419 - Ragged Lake Dam**

Crew of 25 men at Sebocook all week, loading construction plant onto scows and unloading at Lily Bay preparatory to hauling into Ragged Lake. The fourth and last scow load was moved across the lake Saturday, June 5th.

Dict. RWV (Over)
Engineering
Department
One man worked all week on the new fourdrinier changes.
Two men working all week on Ragged Lake Dam details, -- one checking.
Making layout for new acid relief from the #1 and #2 digesters.
Three men most of week on physical inventories of all three mills.
Issued three job records.

Miscellaneous
George Ordway, Barrett Roof Inspector visited Monday, June 7th.
H. S. Ferguson visited Monday, June 7th.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>May 31st, 1936: &quot; &quot; &quot; &quot; - 44,720 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; Total including Small Ponds - 54,873 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>10 Yr. Average (May 31st) Ripogenus &amp; North Twin - 39,139 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>May 31st, 1937: Ripogenus Elev. 943.83 Storage 29,783 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>North Twin &quot; 494.15 &quot;</td>
</tr>
<tr>
<td></td>
<td>Small Ponds (May 28th) 9,941 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage 54,592 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>May 25, 1936: &quot; Kennebec 31,015 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; 24, 1937: &quot; &quot; 31,275 &quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

Precipitation for the first thirty days at Ripogenus is reported as being 4.43 inches; at Millinocket 5.69 inches has been recorded.

All gates at North Twin and Quakish closed to-day, May 31st, and flashboards put back on. No more waste anticipated. Wasted 2.8 billions to-date.

Made the first big press change on No. 7 machine as shown on our drawing B-1333, which involved the installation of the 2nd suction press. Started making paper about 10 A.M. Suction of 20-1/2 inches is developed with the new H-10 pump. This pump is being driven temporarily by a spare motor and belt drive as the new motors have not yet been received.

Making sewer changes for H-10 pump for No. 8 machine. Piping for this pump on hand and base being made up in shop.

Still working on No. 5. Brickwork practically completed and about 2 or 3 days more will finish.

Milling machine installed on foundation and now in service. Job completed.

Replaced the old wooden guides and car installed in 1919, with modern steel guides and steel safety car. Job completed.

No work accomplished this week. Most of material now on hand.

Shake device received from the Submarine Signal Co., Friday May 28th. Installed on foundation and grouted the same day.

Did not start up the shake until this morning as we were awaiting arrival of Mr. Smith and Mr. McLeod. Start-up was very satisfactory and mechanically appears to be O.K. We will leave the report on the formation of the sheet to Mr. Hume.

Now making drawing to show fourdrinier changes, feedery box moved, mix box in wire pit, fan pump moved and new piping for the change.

Shipping two rubber rolls to-day, one to be rubber covered for #8 machine and the other to be fitted with gunmetal jacket for No. 7 machine.

One man worked all week on the new fourdrinier changes.

One man worked all week on the detail drawings of Ragged Lake Dam.

One man worked all week on the addition to block storage tank at East Millinocket. Issued job record covering same.

Completed layout for ventilation of Millinocket Engine Room. Issued job record covering additional core drilling at Mattaseunk.
Miscellaneous

Messrs. Whitcomb, McKay, & Hilton visited Penobscot Mills Wednesday May 26th.

Mr. James A. Ross, President of Sprague & Henwood visited Wednesday, May 26th.

Mr. J. P. Lambert, President of Construction Company, Chimney Builder visited Wednesday, May 26th.

Messrs Sawyer & Pierce of Rollway Bearings Inc., called Wednesday May 26th.

Mr. A. E. Smith of Bernitz Furnace Appliances Co., visited Wednesday May 26th.


F. C. Bowler visited Madison Boiler Job Friday, May 28th.


Charles Eklund and small crew at Seboomook this morning, May 31st, to load construction plant for Ragged Lake Dam.
**WATER STORAGE**

Maximum Capacity of Ripogenus and North Twin = 45,000 Mil. Cu. Ft.
May 24th, 1936: " " " " = 45,039 " " "
" " " Total including Small Ponds = 55,189 " " "
10 Year Avg. (May 24th) Ripogenus and North Twin = 38,424 " " 
May 24th, 1937: Ripogenus Elev. 943.65 Storage 29,609 " " "
North Twin " 492.60 " 13,810 " " "
May 21st, 1937: Small Ponds " 26 " 9,397 " " 

Total Penobscot Storage = 53,016 Mil. Cu. Ft.

Precipitation for the first 23 days at Ripogenus is reported as being 4.34 inches; at Millinocket 5.55 inches has been recorded.

Due to heavy rains and the storage basins filling up so fast, flashboards were removed from far side of Quakish and the waste gates opened Friday afternoon, May 21st. At present we are discharging 8,100 c.f.s. from North Twin and utilizing 3500 c.f.s. at the mill by piling out pulp, which means a waste of about 4600 c.f.s.

All material for installing 2nd suction press received from Rice-Barton & Fales this morning. Bearings and nuts for reconditioning old stone roll received. Sheaves and texropes for H-10 Nash pump drive received.

The two suction rolls which were shipped direct from Beloit, Wisconsin on May 18th in car C.N.W. 41141 have not arrived at this writing. Motor for driving the H-10 pump which was supposed to be shipped on May 18th not received yet.

About 80% of the piping for the H-10 Nash pump has been erected, and the electricians have the circuit for this pump drive completed. Work on the #5 stoker will probably be completed this week. Now replacing side wall of No. 5 boiler.

The new milling machine has been moved onto the foundation and grouted in place. There is about two days more work on the assembly of the remainder of the equipment.

Parts for the top guy plates, platform, etc., are made up in the shop. The long lengths of 10" Dia. pipe which will form the mast, were received this morning.

The McDonnell roll was installed into No. 10 fourdrinier yesterday, May 23rd. The shake head and drive was also set onto its foundation, but not connected to the roll.

Now awaiting delivery of the shake device from the Submarine Signal Company.

Completed drawing B-1341 showing final arrangement of No. 8 press part.

Now working on drawing of the fourdrinier part for No. 7 machine. Ordered sole plates for No. 8 machine; also hose, piping, valves, etc., for suction box headers.

Dict. RVW

(Over)
**Engineering Department**

- One man all week on the new fourdrinier design.
- Completed layout and made estimate of proposed change to East Millinocket piling out conveyor.
- Making a study of proposed extension to Block Storage Tank at East Millinocket.
- Making layout for ventilation of Millinocket Engine Room.
- Started study of Madison Wood Room.

**Miscellaneous**

- F. C. Bowler & R. V. Weldon visited Boston Tuesday, May 18th, the former returning to Millinocket Wednesday May 19th and the latter Friday May 21st.
**Weekly News Letter**

**For Week Beginning 8 A.M. May 10-17, 1937**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Storage</strong></td>
<td>Maximum Capacity of Ripogenus and North Twin 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>May 17th, 1936:</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot; Total including Small Ponds 54,433 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>10 Yr. Avg. (May 17th) Ripogenus and North Twin 37,421 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>May 17th, 1937:</td>
</tr>
<tr>
<td></td>
<td>Ripogenus Elev. 943.35 Storage 29,171 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>North Twin 489.50 Storage 11,640 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Small Ponds 9,016 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage 49,827 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>May 11th, 1936:</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; Konnebec 30,150 &quot; &quot; &quot; &quot; &quot; &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; 10th, 1937:</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the first sixteen days of May is reported as</td>
</tr>
<tr>
<td></td>
<td>being 3.16&quot; at Ripogenus; at Millinocket 3.32&quot;.</td>
</tr>
<tr>
<td></td>
<td>Installed the three cone pulleys on the wrapper machine Sunday,</td>
</tr>
<tr>
<td></td>
<td>May 16th, and this job is now completed.</td>
</tr>
<tr>
<td></td>
<td>Cone Pulleys, bearings, stand and coupling for smooth press drive</td>
</tr>
<tr>
<td></td>
<td>received.</td>
</tr>
<tr>
<td></td>
<td>Stands and outboard bearings for H-10 pumps received.</td>
</tr>
<tr>
<td></td>
<td>The sheave with texrope, motor, perforated roll for 2nd suction</td>
</tr>
<tr>
<td></td>
<td>press and material from Rice-Barton &amp; Fales must be in Millinocket this</td>
</tr>
<tr>
<td></td>
<td>week if the 2nd suction press on No. 7 machine is to be installed Sunday</td>
</tr>
<tr>
<td></td>
<td>May 23rd.</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1345</strong> Wrapping Mech.</td>
</tr>
<tr>
<td></td>
<td>Mr. Barton's letter of May 14th advises the suction rolls from</td>
</tr>
<tr>
<td></td>
<td>Beloit, Wisconsin will be shipped May 18th.</td>
</tr>
<tr>
<td></td>
<td>Counter shaft for smooth press drive No. 7 machine is installed.</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1346</strong> No. 7 &amp; No. 8 Fourdriniers</td>
</tr>
<tr>
<td></td>
<td>No. 6 stoker completely rebuilt and the boiler back in service.</td>
</tr>
<tr>
<td></td>
<td>Started work on No. 5 stoker Thursday, May 13th.</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1349</strong> Rebuild #5 &amp; 6 Stokers</td>
</tr>
<tr>
<td></td>
<td>Milling machine received last week and being moved into the shop</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1350</strong> Milling Mech.</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1356</strong> Pipe Masts - Coal Pile</td>
</tr>
<tr>
<td></td>
<td>Started work in the shop making the tops for the masts.</td>
</tr>
<tr>
<td></td>
<td><strong>Job 1358</strong> McDonnell Shake</td>
</tr>
<tr>
<td></td>
<td>Moved the pipe which was in the way of the foundation. Moved the</td>
</tr>
<tr>
<td></td>
<td>new beams for reinforcing the floor into approximate position Sunday,</td>
</tr>
<tr>
<td></td>
<td>May 16th. Started to erect same this morning. Forms for the foundation</td>
</tr>
<tr>
<td></td>
<td>have been built in advance in the shop.</td>
</tr>
<tr>
<td></td>
<td><strong>New Fourdrinier Design</strong></td>
</tr>
<tr>
<td></td>
<td>Drawing B-1340 completed and checked. This drawing shows 2nd and</td>
</tr>
<tr>
<td></td>
<td>3rd move Changes in press part No. 8 machine.</td>
</tr>
<tr>
<td></td>
<td>Drawing showing shake connecting rod and end connections completed.</td>
</tr>
<tr>
<td></td>
<td>Now making up last drawing press part No. 8 paper machine.</td>
</tr>
<tr>
<td></td>
<td>One man worked all week on the fourdrinier design.</td>
</tr>
<tr>
<td></td>
<td>One man worked all week on Ragged Lake Dam design and another man</td>
</tr>
<tr>
<td></td>
<td>checking same.</td>
</tr>
<tr>
<td></td>
<td>One man all week on Madison saveall for No. 2 machine. Drawings now</td>
</tr>
<tr>
<td></td>
<td>completed.</td>
</tr>
<tr>
<td></td>
<td>One man all week on study of conveyor changes at East Millinocket.</td>
</tr>
<tr>
<td></td>
<td>Issued job record for motorizing feed water pump at Millinocket.</td>
</tr>
<tr>
<td></td>
<td>(Over)</td>
</tr>
</tbody>
</table>

**Dict. RV**

**Date Mailed** May 17th, 1937

**Signed**

R. Weldon

Asst. Engineer
Miscellaneous

H. J. Deutschbein visited Monday, May 10th and after visiting
Ragged Lake and Madison Mill with Charles Eklund, returned to Millinocket
Wednesday, May 12th.

Mr. Passmore of Walworth Co. visited Tuesday, May 11th.

Mr. Rideout, B. & A. Amt. Engineer visited Thursday, May 13th.

Mr. Bowler called to Bangor Friday because of illness in the family.

F. W. Partsch of J. O. Ross Engineering Corp. visited Monday,
May 17th.
**GREAT NORTHERN PAPER COMPANY**

**WEEKLY NEWS LETTER**

**FOR WEEK BEGINNING 8 A.M.** May 3 - 10th 1937 **FROM** Engineering Department **LETTER NO.** 19

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft. May 10th, 1936: &quot; &quot; &quot; &quot; Total including Small Ponds - 44,662 &quot; &quot; 10 Yr. Avg. (May 10th) Ripogenus and North Twin - 34,884 &quot; &quot;</td>
</tr>
<tr>
<td>Job 1345</td>
<td>One of the three cone pulleys has been machined. If possible will get the other two machined this week so as to install next Sunday and clean up the job.</td>
</tr>
<tr>
<td>Job 1347- #7 &amp; 8 Fourdrinier</td>
<td>Concreting floor around the smooth press on No. 7 machine to-day. This is where a floor beam had to be changed. The two H-10 pumps received and the one for No. 7 machine is set on its base and being lined and leveled. Cast iron piping for pumps also received. The following items are not received:- Sheaves and Texrope drive, motor, and outboard bearing for H-10 pumps. Bearings, couplings, etc. for smooth press drive, but gears for same are received.</td>
</tr>
<tr>
<td>Job 1349 - Rebuild #5 &amp; #6 Stokers</td>
<td>No. 6 stoker changes completed and a start will probably be made on No. 5 stoker this week.</td>
</tr>
<tr>
<td>Engineering Dept.</td>
<td>One man all week on fourdrinier design. &quot; &quot; &quot; &quot; Ragged Lake Dam. &quot; &quot; &quot; &quot; Madison Saveall, for No. 2 paper machine. Made study of stoker drive for Millinocket boilers. Messrs. West &amp; Richards returned to work this morning, May 10th.</td>
</tr>
</tbody>
</table>

**Dict. RVW**

**DATE MAILED** May 10, 1937 **SIGNED** [Signature] Engineer

---

(Over)
J. E. Waterhouse of Montague Machine Company visited Friday, May 7th.

Mr. J. J. Deutschlein here today, May 10th.
## Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity of Ripogenus and North Twin</td>
<td>45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>May 3rd, 1936: &quot; &quot; &quot; &quot;</td>
<td>42,940 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>&quot; &quot; &quot; Total including Small Ponds</td>
<td>51,129 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>10 Yr. Avg. (May 3rd) Ripogenus and North Twin</td>
<td>29,496 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>May 3rd, 1937: Ripogenus Elevation 937.65 Storage</td>
<td>22,286 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>North Twin &quot; 488.65 &quot;</td>
<td>11,049 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>May 1st, &quot; Small Ponds</td>
<td>4,476 &quot; &quot; &quot;</td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>39,813 Mil. Cu. Ft.</td>
</tr>
</tbody>
</table>

**April 27th, 1936:** Kennebec 28,879 " " "

**26th, 1937:** 20,596 " " "

Precipitation for the month of April at Ripogenus is reported as being 2.37"; at Millinocket 2.02" was recorded.

The three cone pulleys which are to be installed to reduce rim speed have been received from the foundry, but are not yet machined.

Changed steam and drip piping 1st top and 1st bottom dryers.

Examined oscillators -- shafts, bearings, housings, etc. to see if they were suitable for re-use on the new Fourdrinier. These were found to be in poor condition, and are requisitioning new oscillators (minus the drives) to-day.

Rebuilding No. 6 stoker, and will be completed sometime this week.

Foundation for the new milling machine in the machine shop is completed.

The 10" dia. ARMCO spiral welded pipe has been received and installed. The entire system was tried out Saturday, May 1st.

D. F. Theriault spent Tuesday and Wednesday April 27th and 28th at Rice, Barton & Fales. While at Worcester get latest shipping dates, and started a new design of shake rod and connection, which is hoped to eliminate troubles encountered at East Millinocket.

Made and issued progress schedule for No. 7 machine Friday, Apr. 30. Checked and issued drawing B-1336. Now working on plan of 2nd suction press for No. 8 machine while waiting for final drawings from Rice-Barton & Fales of fourdrinier part for No. 7.

One man all week on fourdrinier design.

" " " " Madison boiler house.

" " part of week on white water saveall for No. 2 machine at Madison, and balance of week on Madison inventory.

Traced and issued McDonnell shake drawing.

Making study of drives for stokers on 1-8 boilers.

Physical inventory at all three mills.

Dict. RWW

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**Notes:**
- The document is a weekly news letter from the Engineering Department, dated April 26–May 3, 1937.
- It includes various reports and updates on water storage, job progress, and machinery.
- The letter is signed by Engineer.
Miscellaneous

John A. Ross visited Tuesday, April 27th.

Winn Willard of Link Belt Co. visited Wednesday, April 28th.

Messrs. F. C. Bowler and C. M. Carrier visited the Eastern Mfg. Company, the Oxford Paper Co., and the Brown Company the latter part of the week, leaving here Thursday April 29th and returning Saturday night, May 1st.

Benjamin Massinger Bearings called May 3rd.

Representative of Fairbanks Co. called May 3rd.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>April 26th, 1936:</td>
</tr>
<tr>
<td></td>
<td>&quot;&quot; &quot;&quot; &quot;&quot; - 39,551 &quot;&quot; &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;&quot; &quot;&quot; Total including Small Ponds - 47,828 &quot;&quot; &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>10 Yr. Avg. (April 26th) Ripogenus &amp; North Twin - 24,323 &quot;&quot; &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>April 26th, 1937:</td>
</tr>
<tr>
<td></td>
<td>Ripogenus Elev. 932.15 Storage 16,396 &quot;&quot; &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>North Twin &quot; 487.70 &quot; 10,393 &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>April 24th, 1937:</td>
</tr>
<tr>
<td></td>
<td>Small Ponds 3,810 &quot;&quot; &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage 30,601 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>&quot; 20th, 1936: &quot; Kennebec &quot; 28,124 &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; 19th, 1937: &quot; &quot; 16,624 &quot;&quot; &quot;&quot;</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the first twenty-five days of April is reported as being 1.55&quot; at Ripogenus; at Millinocket, 1.45&quot; has been recorded.</td>
</tr>
<tr>
<td>Job 1345 - Wrapper Changes</td>
<td>Steelwork painted Sunday, April 25th, so that job is completed now except for changing some cone pulleys when they are received from the Foundry.</td>
</tr>
<tr>
<td>Job 1346 - No. 7 &amp; 8 Found</td>
<td>Changes to sewer for new H-10 Nash pump installation on No. 7 machine completed, and hard pine base for same installed and grouted in place.</td>
</tr>
<tr>
<td>Job 1347 - Lump Breaker Roll No. 10</td>
<td>Installed the rubber lump breaker roll on No. 10 machine Sunday, April 25th, and it started up good this morning.</td>
</tr>
<tr>
<td>Job 1351 - Block Storage Tank</td>
<td>Job held up awaiting delivery of the 10&quot; Dia. Armco spiral welded pipe.</td>
</tr>
<tr>
<td>Job 2182 - 2000 HP Motor</td>
<td>Shut down motor this morning for a few hours, to connect up the re-calibrated meters; also to change over drain in pit. Job now completed.</td>
</tr>
<tr>
<td>New Fourdrinier Design</td>
<td>Drawing B-1336, showing the 4th and final move of the presses for No. 7 completed and being checked to-day. New sole plates detailed and will be ordered to-night. D. F. Theriault going to Worcester to-night, April 26th.</td>
</tr>
<tr>
<td>Engineering Department</td>
<td>One man all week on fourdrinier design. &quot; &quot; &quot; &quot; &quot; Madison boiler house. &quot; &quot; &quot; &quot; &quot; white water saveall for No. 2 machine at Madison. Made preliminary study of installation of hydraulic presses in sulphite screen room, together with estimate of same.</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Frank Keenan visited Thursday, April 22nd. S. M. Neckstein (Timken Roller Bearings) called April 22nd. C. W. Montgomery (in charge of tearing out old dams at Seboomook) visited Friday, April 23rd. Stanley Sawyer, trucking contractor, visited Friday, April 23rd.</td>
</tr>
</tbody>
</table>

Date Mailed: April 26th, 1937

Signed: 

Engineer.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil.Cu.Ft. April 19th, 1936; &quot; &quot; &quot; &quot; Total including Small Ponds - 36,838 &quot; &quot; &quot; 10 Yr. Avg. (April 19th) Ripogenus and North Twin - 19,120 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>April 19th, 1937: Ripogenus Elev. 930.45 Storage - 14,717 &quot; &quot; &quot; North Twin &quot; 487.40 &quot; 10,186 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>April 17th, &quot; Small Ponds (Seboomook) &quot; 805 &quot; &quot; &quot; Total Penobscot Storage - 25,708 Mil.Cu.Ft.</td>
</tr>
<tr>
<td></td>
<td>April 13th, 1936: &quot; Kennebec &quot; 27,275 &quot; &quot; &quot; 12th, 1937: &quot; &quot; &quot; 14,560 &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the first eighteen days of April is reported as being 0.95&quot; at Ripogenus; at Millinocket, 0.96&quot; has been recorded.</td>
</tr>
<tr>
<td>Job 1345 - Wrapping Changes</td>
<td>Riveted and welded the two new trusses and bricked into wall. Next Sunday this steel work will be painted and the job completed.</td>
</tr>
<tr>
<td>Job 1346 - No. 7 &amp; 8 Fourdrinier machine</td>
<td>Moved floor beam in connection with smooth press drive on No. 7</td>
</tr>
<tr>
<td></td>
<td>Made the timber bases for the new H-10 Nash pumps and moved them down into the basement, preparatory to setting.</td>
</tr>
<tr>
<td>Job 1351 - Block Storage Tank</td>
<td>Received the base for the 100 H.P. motor driving the white water pump. Everything held up now waiting for delivery of the 10&quot; diameter Armco spiral welded pipe.</td>
</tr>
<tr>
<td>Job 2182 - 2000 HP Motor</td>
<td>Installation in service and completed except for recalibrated instruments which are scheduled for shipment from General Electric Company Wednesday, April 21st.</td>
</tr>
<tr>
<td>New Fourdrinier Design</td>
<td>Completed drawing B-1334 showing location of H-10 pumps. Completed drawing C-995 showing structural steel base for second suction press. Completed drawing B-1335, showing various moves in connection with installation. Made sketch of couch housing for Rice-Barton &amp; Fales in connection with location of lump breaker roll.</td>
</tr>
<tr>
<td>Engineering Department</td>
<td>One man worked all week on fourdrinier design. &quot; &quot; &quot; &quot; &quot; Madison boiler house. &quot; &quot; &quot; &quot; &quot; white water saveall for No. 2 machine at Madison.</td>
</tr>
<tr>
<td></td>
<td>Made preliminary design and estimate of new carpenter shop and lumber shed for Millinocket mill. Two men out sick for indefinite period.</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>E. V. Cram to Madison Wednesday April 14th and returned Saturday April 17th. Mr. Wardwell of the Carthage Machine Co. visited Wednesday, April 14th.</td>
</tr>
</tbody>
</table>

Dict. RW
### Water Storage

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
</tr>
</thead>
</table>
| Maximum Capacity of Ripogenus and North Twin | - 45,000 Mil. Cu. Ft.  
April 12th, 1936: - 36,237 " " " "  
" " " Total including Small Ponds - 44,344 " " " |
| 10 Yr. Avg. (April 12th) Ripogenus & North Twin | - 15,372 " " " |
| April 12th, 1937: Ripogenus Elev. 929.76 Storage | - 14,059 " " "  
North Twin " 487.55 "  
Small Ponds 0,000 " |
| Total Penobscot Storage | 24,349 Mil. Cu. Ft. |
| April 6th, 1936: " Kennbree " | 27,833 " " " |
| " 5th, 1937: " " " " | 14,220 " " " |

Precipitation for the first eleven days of April is reported as being 0.60" at Ripogenus; at Millinocket, 0.72" has been recorded.

### Job 1345 - Wrapper Changes

The two new sections of trusses were installed over the wet end of the machine Sunday, April 11th. The new trolley steel is also in place. All of this new steel is bolted together and will be riveted and welded next Sunday.

### Job 1348 - Suct. Box Dressing Device

This piece of machinery has been received, set up in back of No. 9 paper machine, and is in service with very satisfactory results.

### Job 1351 - Block Storage Tank

Pump and White Water pits completed.  
Gratings received and installed.  
Now waiting for the shipment of the Armco spiral welded steel pipe.

### Job 2182 - 2000 H. P. Motor

The new 2,000 H.P. motor was put into service Friday, April 9th. There will have to be one shut down to install the recalibrated instruments on the switchboard, when they are received from the General Electric Company. Motor running excellent.

### New Fourdrinier Design

Completed drawing B-1333 showing 2nd suction press installation together with motor foundation details.  
Making drawing showing installation of H-10 pump so arranged that an old No. 8 may be readily installed in an emergency. Piping for H-10 pump detailed and to be requisitioned to-night, or to-morrow, as soon as the drawing is checked.  
Removed section of concrete floor preparatory to moving floor beam, in connection with smooth press for No. 7 machine.

### Engineering Department

One man worked all week on Fourdrinier design.  
" " " " " Madison Boiler House.  
" " " " " " " White Water Saveall for No. 2 machine at Madison.  
Made layout for acid pumps, Millinocket Mill.  
Two men out sick for indefinite period.

### Miscellaneous

H. A. Feer of this Department, accompanied J. Fahey of the Mill Department, to Berlin, N. H. Saturday, April 10th, to inspect old hydraulic presses.  
Frank Partsch of J. O. Ross Engineering Co. visited to-day.

### Dict. FW

April 12th.
## Maximum Capacity of Ripogenus and North Twin

<table>
<thead>
<tr>
<th>Date</th>
<th>Storage</th>
<th>Capacity (Mil. Cu. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 5th, 1936</td>
<td>Total including Small Ponds</td>
<td>40,012</td>
</tr>
<tr>
<td>10 Yr. Avg. (April 5th)</td>
<td>Ripogenus &amp; North Twin</td>
<td>14,360</td>
</tr>
<tr>
<td>April 5th, 1937</td>
<td>Ripogenus Elev. 929.43 Storage</td>
<td>13,749</td>
</tr>
<tr>
<td>North Twin</td>
<td>489.20</td>
<td>11,130</td>
</tr>
<tr>
<td>Small Ponds</td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>Total Penobscot Storage</td>
<td>25,179</td>
<td></td>
</tr>
</tbody>
</table>

Precipitation for the month of March at Ripogenus is reported as being 2.65"; at Millinocket 3.01" was recorded.

### Job 1345 - Wrapper Changes

- No work on trusses or trolley steel started yet.

### Job 1351 - Block Storage Tank

- Pump pit and white water tank completed. Pump placed in pit and waiting for piping and also the sliding base for the motor.

- Grating for the pump pit and trough in the block storage tank received to-day, April 5th.

### Job 2182 - 2000 HP Motor

- Foundation for the 2000 H.P. motor completed and the base moved onto it Saturday, April 3rd. The motor was moved onto the base Sunday, April 4th and it is being lined and leveled to-day. It will probably be ready for grouting tomorrow, April 6th.

- Electricians work is progressing well and will undoubtedly be ready by the time that the other work is completed.

### New Fourdrinier Design

- Worked on layout of smooth press and suction press installation, for No. 7 machine.

- Detailed and ordered all necessary materials for the smooth press drive on No. 7 machine.

- Approved Rice-Barton & Fales drawing showing method of attaching shake to the breast roll.

### Engineering Department

- Completed investigation of the cone pulleys on wrapper machine; and made drawing for three new pulleys.

- Designed new masts for the coal storage pile at Millinocket.

- One man working all week on the fourdrinier design.

- One man working all week on the Madison boilers.

- One man working half of week on the white water Saveall for No. 2 paper machine at Madison. The other half week spent on Madison inventory.

- Made inventory at Millinocket and East Millinocket also.

- Issued three job records.

- Two men out sick — will probably be out at least a month.

- E. W. Prouty returned from vacation Thursday, April 1st.

### Miscellaneous

- W. C. McKay visited the Penobscot Mills, Thursday, April 1st.

---

**Dict. NW**

---

**DATE MAILED**

April 5, 1937

**SIGNED**

[Signature]

**Engineer.**
FOR WEEK BEGINNING B. A. M. March 22 - 29th, 1937 FROM Engineering Department LETTER NO. 13

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>March 29th, 1936: &quot; &quot; &quot; &quot; &quot; &quot; 26,722 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; Total including Small Ponds - 31,227 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>10 Yr. Avg. (March 29th) Ripogenus &amp; North Twin - 14,642 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>March 29th, 1937: Ripogenus Elev. 929.54 Storage 13,853 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>North Twin &quot; 490.70 &quot; 12,480 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Small Ponds 0,000 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Total Penobscot Storage 26,333 Mil. Cu. Ft.</td>
</tr>
<tr>
<td></td>
<td>March 23, 1936: &quot; Kennebec &quot; 16,236 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>&quot; 22, 1937: &quot; &quot; &quot; &quot; &quot; 15,470 &quot; &quot; &quot;</td>
</tr>
<tr>
<td></td>
<td>Precipitation for the first twenty-eight days of March is reported as being 2.65&quot; at Ripogenus; at Millinocket, 3.01&quot; has been recorded.</td>
</tr>
<tr>
<td></td>
<td>Job 1345 - Wrapping Changes</td>
</tr>
<tr>
<td></td>
<td>Work not started this past Sunday, as only a skeleton crew worked due to its being Easter.</td>
</tr>
<tr>
<td></td>
<td>Job 1351 - Block Storage Tank</td>
</tr>
<tr>
<td></td>
<td>Pump pit completed and pump set down into place. Texrope drive received for same, but still waiting for the sliding base for motor.</td>
</tr>
<tr>
<td></td>
<td>We are also awaiting arrival of 10&quot; Dia. Armco spiral welded pipe.</td>
</tr>
<tr>
<td></td>
<td>Walls of white water pit concreted.</td>
</tr>
<tr>
<td></td>
<td>Steel trough and well all installed but waiting for the Blaw-Knox gratings.</td>
</tr>
<tr>
<td></td>
<td>Job 2182 - 2000 H.P. Motor</td>
</tr>
<tr>
<td></td>
<td>No. 1 line of grinders was shut down Friday, March 26th. At this writing, the old motor has been entirely removed and the old foundation will be all demolished and removed to-night. Form work for the new foundation will be started to-morrow March 30th.</td>
</tr>
<tr>
<td></td>
<td>Electricians making necessary changes.</td>
</tr>
<tr>
<td></td>
<td>Mechanics checking over and lining up the water wheel.</td>
</tr>
<tr>
<td>New Fourdrinier Design</td>
<td>During the past week, Mr. Theriault completed design for Dandy roll, and has also started a drawing of the press section. Put out inquiries for small capacity, high pressure pump for the jacking cylinders.</td>
</tr>
<tr>
<td>Engineering Department</td>
<td>Made layout and sketch sheet of pipe changes necessary to pump out to ground wood tanks without pumping thru all the overhead piping.</td>
</tr>
<tr>
<td></td>
<td>Checking rim speeds of cone pulleys on the wrapper machine.</td>
</tr>
<tr>
<td></td>
<td>One man worked all week on the Fourdrinier design.</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; Madison Boilers.</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; &quot; White Water Saveall for No. 2 paper machine at Madison.</td>
</tr>
<tr>
<td></td>
<td>Mr. Bowler returned from vacation, Wednesday, March 24th.</td>
</tr>
<tr>
<td></td>
<td>Mr. Harris &quot; &quot; &quot; this morning, March 29th.</td>
</tr>
<tr>
<td>Dict. RVW</td>
<td></td>
</tr>
</tbody>
</table>

DATE MAILED March 29th, 1937 SIGNED F. J. Bowler, Engineer
### Water Storage

**Maximum Capacity of Ripogenus and North Twin**
- March 22nd, 1936: 14,370 M. Cu. Ft.
- Total including Small Ponds: 18,729 M. Cu. Ft.

**March 22nd, 1937:**
- Small Ponds: 0,000 M. Cu. Ft.
- Total Penobscot Storage: 27,389 M. Cu. Ft.

March 16th, 1936: Kennebec

Precipitation for the first twenty-one days of March is reported as being 2.40" at Ripogenus; 3.01" has been recorded.

### Job 1340 - Vent.

**Machine Room**
- Foreman from Automatic Sprinkler Corp., adjusting their equipment on the automatic doors installed in uptakes of No. 1 and No. 6 machines.

### Job 1345 - Wra...<br>er Mach. Chgs.

Steel for trolleys and trusses received and installation will probably be started next Sunday, March 25th.

### Job 1351 - Block Storage Tank

- Installed the steel trough and well under the conveyor in the block storage tank and connected 20" dia. pipe from well to sewer, Sunday, March 21st.
- Walls of pit for white water pump are concreted and excavation started for the white water pit.
- Pump base remodelled for texrope drive.

### Job 2182 - 2000 HP Motor

The 2000 H.P. motor and starting equipment has been received at the mill.

### New Fourdrinier Design

- During the past week Mr. Theriault has completed the following paper drawings:
  - Detail of jacking cylinders; detail of breast roll bearing with its support (drawn from Rice-Norton & Fales drawings); and also, detail of moving forward cylinders together with supporting stands and structural steel supporting slice.

### Engineering Department

- Made various studies of Core Machine locations in Beater Room of Millinocket mill.
- Revised drawing of McDonnell shake because shake head of No. 8 machine is opposite-hand from what was assumed.
- One man worked all week on fourdrinier design.
- Madison Boiler House job.
- White Water Saveall for #2 Machine.
- at Seboomook.

### Seboomook Dam

- Mr. Gram returned from Seboomook Saturday night, March 20th. The gantry crane is installed and has operated all of the gates. The log sluice gate and one flood gate left open at C. M. Hilton's request.
- Due to below zero temperatures it was impossible to grout the anchor bolts on the rails or to set the upper set of gate holding dogs.
- This work, as well as painting, finished grading, etc. should be done as soon as weather permits.

---

**Date Mailed:** March 22nd, 1937

**Signed:** Asst. Engineer.
Seboonock Dam

Continued

About 200 feet of deck removed from old dam and now working in area of old deep gate section, approximately one-half of which is down to ledge.

Miscellaneous

John McLeod visited Wednesday and Thursday, March 17th and 18th respectively.

Mr. Swaney of Gilbert Howe Gleason & Company, visited Saturday, March 20th.
### Water Storage

**Maximum Capacity of Ripogenus and North Twin**
- 45,000 Mil. Cu. Ft.

**March 15th, 1936:**
- 3,995 Mil. Cu. Ft.

**Total including Small Ponds:**
- 3,995 Mil. Cu. Ft.

**10 Yr. Avg. (March 15th) Ripogenus and North Twin:**
- 14,414 Mil. Cu. Ft.

**March 15th, 1937:**
- Ripogenus Elev. 931.54 Storage: 15,785 Mil. Cu. Ft.
- Small Ponds: 0,000 Mil. Cu. Ft.

**Total Penobscot Storage:**

**March 9th, 1936:**

**8th, 1937:**
- 16,640 Mil. Cu. Ft.

Precipitation for the first fourteen days of March is reported as being 0.36" at Ripogenus; at Millinocket, 0.40" has been recorded.

### Job 1340 - Vent. Mach. Room

Automatic Sprinkler equipment all installed, but will have to have their man again next Sunday to make adjustments.

### Job 1345 - Wrapper Machine Changes

Structural Steel for the trolley runways, also for the truss repairs over the wet end of the machine received to-day, March 15th.

Installed new sheave on the main line, Sunday, March 14th.

### Job 1349 - Rebuild #5 & #6 Stokers

Structural steel for the changes to No. 5 and No. 6 stokers received, but work not started.

### Block Tank Changes

Getting 20" diameter pipe ready for the discharge of raw water from the well to the sewer.

Excavation for white water pump pit practically completed.

### Dolby Station

New shaft and buckets installed in No. 6 waterwheel at Dolby and back in service.

### New Fourdrinier Design

Completed plan showing scheme for running off rack without stopping motor when rolling out fourdrinier.

D. F. Theriault to Worcester March 8th and returned March 11th.

Design of table roll bearing made while at Worcester and all other sketches up to-date discussed and approved.

Issued approved specifications of fourdrinier, smooth press and 2nd suction press on March 13th. Approved preliminary design of press changes on March 13th also.

Completed all drawings on changes to Millinocket block storage tank, and white water supply to same.

Completed preliminary design for re-trial of McDonnell shake.

Completed inventories at all three mills.

One man working on fourdrinier design.

- Madison Boiler House Job.
- White Water Saveall for #2 machine.
- at Seboomook.

Messrs Bowler and Prouty on vacation.
Seboomook Dam

All work inside of generator house completed and generator tried out on full voltage. Gantry crane steel erected, and one more day will complete the riveting. Installed the two screw stems and connected them to one of the gates. Now installing electrical controls.

Spruce Wood crew removing old dam. Working in the old log sluice and spillway section North of sluice. About 1/2 of this area down to lodge at this writing. Old gate house torn down, gate hoists dismantled, etc.

Miscellaneous

Mr. Estes of Factory Insurance Association visited Thursday, March 11th. Making regular inspection of all three mills.

F. R. West back from Madison Friday, March 12th.

G. I. Pippin of Ingersoll-Rand Co. visited Friday, March 12th.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
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<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin:</td>
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<tr>
<td></td>
<td>March 8th, 1936:</td>
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<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; Total including Small Ponds</td>
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<tr>
<td></td>
<td>10 Yrs. Avg. (March 8th) Ripogenus and North Twin</td>
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<td>March 8th, 1937:</td>
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<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; North Twin &quot; 491.05 &quot;</td>
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<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; Small Ponds</td>
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<tr>
<td></td>
<td>Total Penobscot Storage</td>
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<tr>
<td></td>
<td>March 1st, 1936:</td>
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<td>&quot; 1st, 1937:</td>
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<td>Precipitation for the first seven days of March is reported as being 0.00&quot; at Ripogenus. Neither has any precipitation been recorded at Millinocket.</td>
</tr>
<tr>
<td>Job 1340 - Vent.</td>
<td>Map valves installed in the uptakes of No. 1 and No. 6 paper machines, and Automatic Sprinkler Corp. foreman here to put their equipment into operation.</td>
</tr>
<tr>
<td>Machine Room</td>
<td>Jordan has been installed with the new plug and a new motor and &quot;V&quot;-belt drive for same. Waiting for steel trolleys and sections of trusses.</td>
</tr>
<tr>
<td>Job 1345 - Wrap.</td>
<td>Some of the starting equipment for the new 2000 H.P. motor has been received, but not the motor itself as yet.</td>
</tr>
<tr>
<td>per Mach. Chgs.</td>
<td>Dolby Station</td>
</tr>
<tr>
<td>Job 2182 - 2000</td>
<td>New Fourdrinier Design</td>
</tr>
<tr>
<td>HP Motor</td>
<td>Eng. Dept.</td>
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<tr>
<td></td>
<td>One man working on fourdrinier design.</td>
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<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; White Water Saveall for #2.</td>
</tr>
<tr>
<td></td>
<td>&quot; &quot; &quot; &quot; at Seboomook re. erection of crane.</td>
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<tr>
<td></td>
<td>Made inventory at all three mills.</td>
</tr>
<tr>
<td>Seboomock Dam</td>
<td>Started erection of gantry crane at Seboomook to-day, March 8th. Spruce Wood crew under supervision of C. W. Montgomery tearing out old timber dam, and at this writing the decking is removed, gate house torn down and a start made on removing the gates. The 3/4 Yd. Diesel shovel has been moved onto the dam to aid in the removal.</td>
</tr>
<tr>
<td>Dist. RWW</td>
<td></td>
</tr>
</tbody>
</table>
Miscellaneous

C. B. Stanwood visited Friday and Saturday, March 5th and 6th.
R. V. Weldon visited Bangor Office Saturday, March 6th.
F. R. West to Madison to-day, March 8th, re. Madison Boiler
House Job.
K. V. Cram to Seboomook to-day, March 8th, re. crane.
D. F. Theriault leaving for Worcester to-night, March 8th.
### GREAT NORTHERN PAPER COMPANY

**WEEKLY NEWS LETTER**

**FOR WEEK BEGINNING 8 A.M. Feb. 22nd - Mar. 1, 1937 FROM Engineering Department**

**LETTER NO. 9**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
</tr>
</thead>
</table>
| Water Storage | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.  
March 1st, 1936: " " " " " " - 3,896 " " "  
" " 1936; Total including Small Ponds - 3,896 " " "  
10 Yr. Avg. (March 1st) Ripogenus & North Twin - 16,697 " " "  
March 1st, 1937: Ripogenus Elev. 933.74 Storage - 18,028 " " "  
North Twin " 491.40 Storage - 12,970 " " "  
Small Ponds - 0.000 " " "  
Total Penobscot Storage - 30,998 Mil. Cu. Ft.  
Feb. 24th, 1936: " Kennebec " 3,350 " " "  
" 22nd, 1937: " " " " 18,440 " " "  
Precipitation for February at Ripogenus is reported as being 2.45 inches; at Millinocket 2.17 inches was recorded. |
| Job 1340 - Vent Machine Room | Installed the flap valve doors in the uptakes of No. 6 paper machine, Sunday Feb. 28th. Will install on No. 1 machine next Sunday. |
| Job 1345 - Wrapper Machine Changes | Sunday, February 28th, installed No. 1 vat. This completes the last of the vat changes. Structural steel for truss replacements and new trolley steel, on order. |
| Job 2179 - New Boiler House | Job closed. |
| New Fourdrinier Design | Made up specifications for the fourdrinier part and forwarded to Rice-Barton & Fales. |
| | Revised proposal drawing No. 8, showing the six new style suction boxes instead of the five wider boxes originally shown; dandy roll, dandy roll shower spout and cross walk relocated; support for wash roll doctor shown cast integral with wash roll stand; motor for traversing fourdrinier into aisle; and cross section showing clearances when fourdrinier is removed into aisle. |
| | New drawing made showing suction box details. |
| Engineering Department | Made layout for white water supply to the Millinocket block storage tank. |
| | Two men worked all week on Wrapper Machine drawings. This work now completed. |
| | Completed and issued report on the Small Pond Dams. |
| | Making layout for vanes to be added in air ducts of new boiler at East Millinocket. |
| | Three men out on vacation. |
| Seboomook Dam | Gantry crane received at Greenville Monday, Feb. 22nd, and has been hauled into Seboomook. Arrangements have been made to start installation of same next Monday, March 8th. |
| Miscellaneous | Frank Pearson visited Saturday, Feb. 27th. |

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**DATE MAILED**

March 1, 1937

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**SIGNED**

Ralph Holden  
Asst. Engineer.
Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.
Feb. 22nd, 1936: " " " " - 5,051 " " "
" " " Total including Small Ponds - 5,051 " " 
10 Yr. Avg. (Feb. 22nd) Ripogenus & North Twin - 17,651 " " "
Feb. 22nd, 1937: Ripogenus Elev. 934.51 Storage 18,837 " " 
North Twin " 491.55 Storage 13,075 " " 
Small Ponds - 0,000 " " 
Total Penobscot Storage 31,912 Mil. Cu. Ft.
Feb. 17th, 1936: " Kennebec " 4,570 " " 
" 15th, 1937: " " " 19,270 " " 
Precipitation for the first twenty-one days of February is reported as being 1.48 inches at Ripogenus; at Millinocket, 1.34 inches has been recorded.

Job 1340 - Vent Machine Room
Map valve doors built and a start made on the installation of same.
No work on the deluge equipment yet, as entire crew has been busy with changes to the wrapper machine.

Job 1345 - Wrapper Changes
During the week, concreted new foundation for the screens under the old flat screens, and also installed a new Feeney Stuff Box.
Sunday, Feb. 21st, removed the old flat plate screens, also No. 1 vat. With the vat out, the two new Bird rotary screens were moved onto new concrete foundation and grouted in place.
Monday, Feb. 22nd, installing No. 2 remodeled vat, changing over all the temporary piping into a simplified permanent system. Electricians running new circuit. Probable start-up will be around 10 o'clock tonight.

Job 2179 - New Boiler House
All Pipe insulation and covering will be completed to-night, Feb. 22nd. Starting to paint the new steel work, pipes, etc.
Pipe rail fittings received.

Job 2181 - Fourdriniers for No. 1 & No. 2 Machines
Work completed with the exception of some permanent stairways and walks around the flow boxes.

Mr. Theriault of this office and Mr. Adams of Rice-Barton & Fales visited Boston office Friday morning, Feb. 12th and then proceeded to Worcester. After a conference with the Rice-Barton officials, a new proposition (No. 8) was made and submitted to Mr. Whitcomb Tuesday, Feb. 16th. Mr. Theriault returned to Millinocket Wednesday, Feb. 17th and the balance of the week has been spent in working out various details re. table rolls and suction boxes.
While at Worcester, Mr. Vetter of Rice-Barton & Fales took Mr. Theriault to Professor Allen's Hydraulic Laboratory to inspect the latter's slice model.

Engineering Department
Making layout for white water supply to pulp wood storage tank.
Two men working on the changes to the wet end of the wrapper machine.
Working on report of Small Pond Dams.
Finished figuring and issued physical inventory of all three mills.
Making small scale map of area between Millinocket and Ripogenus.
Issued report on inspection of Madison Mill.
Three men out on vacation.
Miscellaneous

R. V. Weldon inspected Seboomook gantry crane, together with H. S. Ferguson, at the plant of the Portland Company, Monday afternoon, Feb. 15th.

F. C. Bowler left for New York, Wednesday, Feb. 17th, as a start on his vacation cruise.

G. I. Pippin of Ingersoll-Hard Co. visited Thursday, Feb. 18th.
FOR WEEK BEGINNING 8 A.M.  Feb. 8th - 15th, 1937 FROM Engineering Department  LETTER NO. 7

GREAT NORTHERN PAPER COMPANY

WEEKLY NEWS LETTER

SUBJECT | DETAIL
--- | ---
Water Storage | Maximum Capacity of Ripogemas and North Twin - 45,000 Mil. Cu. Ft.
 | Feb. 15th, 1936: " " " " = 5,900 " " "
 | " " " " Total including Small Ponds = 5,900 " " "
 | 10 Yr. Avg. (Feb. 15th) Ripogemas and North Twin - 18,882 " " "
 | Feb. 15th, 1937: Ripogemas Elev. 935.39 Storage 19,777 " " "
 | North Twin " 491.60 " 13,110 " " "
 | Small Ponds 0,000 " " "
 | Total Penobscot Storage 32,887 Mil. Cu. Ft.
 | Feb. 10th, 1936: " Kemeebe " 5,380 " " "
 | 8th, 1937: " " 20,700 " " 

Precipitation for the first fourteen days of February is reported as being 1.31" at Ripogemas and 1.34" at Millinocket.

Job 1340 - Vent Mach. Room | Some steel work to be painted Sunday Feb. 21st.
 | One ladder to erect Sunday Feb. 21st.
 | Building flap valves for Economizer uptakes.
 | These valves and Deluge Valves yet to be installed.

Job 1345 - Wrapper Mach. Est. | Dry and changes all completed.
 | No. 3 Vat installed Feb. 14th.
 | No. 2 Vat removed Feb. 14th to be rebuilt this week.
 | Building forms for new screen foundation.
 | Expect to remove old and install new screens and permanent piping and No. 2 Vat on Sunday and Monday, Feb. 21st and 22nd.

Job 2179 - New Boiler | Finished plastering Turbine Room Partition Feb. 14th.
 | Fittings for hand rails not yet received.
 | Insulation work not yet completed.
 | Considerable painting to be done.
 | Old Hot Well in Finishing Room Basement has been removed.
 | Now removing old Hot Well piers.


Job 3149 - Smooth Press | Completed.

New Fourdrinier Design | Messrs. Theriault and Adams left for Boston and Worcester with new designs Thursday, Feb. 11th.

Engineering Department | Completed details for cold water removal from pulp wood storage tank.
 | Now making layout for white water supply pump and pipe line.
 | Two men working on details and general plan of Wrapper Machine Changes working on report on Small Pond Dams.
 | Made miscellaneous estimates, job records, etc.

Miscellaneous | Weldon started for Portland Sunday P.M. to inspect Gantry Crane for Seboomook Dam, now assembled at Portland Co.'s plant.

Dict. FCB

DATE MAILED  Feb. 15, 1937

SIGNED  Engineer.
FOR WEEK BEGINNING 8 A.M. Feb. 1 - 8th, 1937 FROM Engineering Department LETTER NO. 6

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DETAIL</th>
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</thead>
</table>
| **Water Storage** | Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.  
Feb. 8th, 1936: " " " " - 6,898 " " "  
" " " Total including Small Ponds - 6,898 " " "  
10 Yr. Avg. (Feb. 8th) Ripogenus & North Twin - 20,085 " " "  
Feb. 8th, 1937: Ripogenus Elev. 936.22 Storage 20,679 " " "  
North Twin " 491.85 " 13,285 " "  
Small Ponds 0,000 " " "  
Total Penobscot Storage 33,964 Mil. Cu. Ft.  
Feb. 3rd, 1936: " Kennebec " 6,270 " " "  
" 1st, 1937: " " " 21,913 " " " |

Precipitation for the first seven days of February is reported as being 0.30" at Ripogenus and 0.08" at Millinocket.

| **Job 1340 - Vent. 1-6 Mch. Room** | Painted ductwork during week.  
New equipment all in service and conditions in room are very much improved. |

| **Job 1345 - Wrapper Machine Ext.** | No. 4 vat for the wet end of the wrapper machine has been remodeled and reinstalled. The No. 3 vat has been removed to the machine shop for remodeling also. |

| **Job 2179 - New Boiler** | Two pipe coverers still at the mill. Now covering the returns in the engine room, and should pretty well complete the work this week. Pipe and fittings for railings have been received so that this work can now be started.  
Nothing further done with reference to removal of old hot well. |

| **Job 2181 - New Fourdrinier on Ms. 1 & 2.** | Both fourdriners running very good. No. 1 is running with a flat wire and No. 2 with a pitch. |

| **New Fourdrinier Design** | Propositions 2 to 5 were drawn up during the week and are as follows:  
No. 2 - Small Suction Boxes and Wire Pitched 12".  
No. 3 - Large " " " Level  
No. 4 - Couch raised 12", wire pitched 12", large suction boxes and wire lead as at East Millinocket.  
No. 5 - Couch at existing height, wire pitched 12", large suction boxes and wire lead as at East Millinocket.  
Friday, Feb. 5th, Messrs. Hume, Carrier, Penning, Turner, Gardner, Ames, Bowler, Theriault and Adams (of Rice-Barton & Fales) conferred, and a new proposition - No. 6 - is now being made as a result of this conference.  
Saturday, Feb. 6th, Mr. Smith of the Submarine Signal Device Co., arrived. Messrs. Hume, Carrier, Weldon, Theriault and Adams (of Rice-Barton & Fales) conferred with him and a tentative design agreed upon for connecting the new shake device to the breast roll. Also visited East Millinocket to see the shakes on No. 1 and No. 2 machines.  
In addition to above, working out the details of wood handling in the Millinocket Block Tank, two men working on the wet end changes to wrapper machine; working on report of Spruce Wood - "Small Pond Dams"; made layout for new acid pumps and drives at Millinocket mill; and, made physical inventory at all three of the mills. (Over) |

DATE MAILED February 8, 1937

SIGNED J. A. Bowler Engineer
WATER STORAGE

<table>
<thead>
<tr>
<th>Subject</th>
<th>Detail</th>
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<tbody>
<tr>
<td>Maximum Capacity of Ripogenus and North Twin</td>
<td>- 45,000 Mil. Cu. Ft.</td>
</tr>
<tr>
<td>Ripogenus Elov. 936.82 Storage</td>
<td>21,345 Mil. Cu. Ft.</td>
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<tr>
<td>North Twin 491.95 Storage</td>
<td>13,355 Mil. Cu. Ft.</td>
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<tr>
<td>Small Ponds</td>
<td>0,000 Mil. Cu. Ft.</td>
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<tr>
<td>Total Penobscot Storage</td>
<td>34,700 Mil. Cu. Ft.</td>
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</table>

Precipitation for the month of January at Ripogenus was 2.32"; at Millinocket 3.84" has been recorded.

Job 1340 - Vent. 1 6 Machine Room

During the week, all of the basement duct work under the dryers was installed.

Sunday, Jan. 31st, the overhead duct work (immediately under the machine room roof) was tied into the fans over #3 and #4 machines; also, the duct work in the basement was connected to the fans over #1 and #6 machines.

This practically completes the installation except for a few miscellaneous odds and ends.

Job 1345 - Wrapper Machine Ext.

All of the new castings for remodelling the first vat of the wrapper machine have been received and machine work on them completed. Now re-assembling the vat in the machine shop.

Job 2179 - New Boiler

Installed gratings on the walkways around the boiler. Pipe covers were away for a week, but are now back to finish up the job.

Job 2181 - New Fourdrinier Design

Installed the new fourdrinier on No. 1 paper machine, Sunday Jan. 31st. Work all completed at 7 A.M. this morning and machine crew started installing wire. Making paper at 11:20 A.M. today, Feb. 1st.

January 22nd and 23rd Mr. Theriault inspected all paper machines at the Millinocket mill, watched the crew change wire on No. 3 machine, made a lot of notes and sketches and then discussed them with Mr. Penning.

January 25th, did likewise at East Millinocket, discussing the matter with Messrs. Burr, Ames and Gardiner.

January 26th, spent the forenoon discussing notes and machines in general with Messrs. Clem and Adams of Rice-Barton & Fales. In the afternoon went to East Millinocket so as Clem and Adams could see the new No. 2 fourdrinier in operation and obtain any ideas which might be of value.

Jan. 27th to Feb. 1st, Messrs. Theriault and Adams making an assembly drawing with the couch at its present height, the wire level, and the fourdrinier removable.

Engineering Department

Making various studies of wood handling in the Block Tank at the Millinocket mill.

Two men working on the wet end changes to the wrapper machine.

Checking certified prints of the two new boilers for Madison mill.

Working on the report of the Spruce Wood - "Small Pond Dam".
Miscellaneous

Messrs. Bowler and Prouty back from Skowhegan Tuesday night, January 26th.

Messrs. Clem and Adams of Rice, Barton & Fales arrived Tuesday morning, Jan. 26th. Mr. Clem left on the night train, but Mr. Adams is remaining to work with our Mr. Theriault on the new fourdrinier design.


Frank Pearson visited Friday, January 29th.

R. V. Weldon leaving for Madison this afternoon, Feb. 1st.
GREAT NORTHERN PAPER COMPANY

WEEKLY NEWS LETTER

FOR WEEK BEGINNING 8 A.M. Jan. 18th - 25th 1937 FROM Engineering Department LETTER NO. 4

<table>
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<tr>
<th>SUBJECT</th>
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<tbody>
<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin: 45,000 Mil. Cu. Ft. January 25th, 1936: 8,530 &quot; &quot; &quot; &quot; Total including Small Ponds: 8,530 &quot; &quot; &quot; &quot; 10 Yr. Avg. (Jan. 25th) Ripogenus and North Twin: 21,747 &quot; &quot; &quot; &quot; Jan. 25th, 1937: Ripogenus Elev. 937.44 Storage North Twin: 491.85 &quot; Small Ponds: 0 &quot; Total Penobsott Storage: 35,331 Mil. Cu. Ft. Jan. 20th, 1936: Kennebec 7,480 &quot; &quot; &quot; 18th, 1937: 22,102 &quot; Precipitation for the first twenty-four days of January at Ripogenus was reported as being 2.15&quot;; at Millinocket 3.47&quot; has been recorded.</td>
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</tbody>
</table>

Job 1340 - Vent. 1-6 Paper Mach. Room | Economizers and fans in satisfactory service. Sunday, January 24th, J. O. Ross erector and crew worked on the drop spouts from the Beater Room fans to the Machine Room Basement wet end. Cross-duct in the basement from fans of No. 1 and No. 6 machines, is erected in place and now ready for the outlets under the dryers of machines 1 to 6. |

Job 1345 - Wraper Mch. Extension | Removed No. 4 vat from the wet end of wrapper machine yesterday, January 24th. The Millinocket Foundry is making castings for the necessary changes and the vat will be rebuilt in our machine shop as fast as the material is received. Built uptake hood to exhaust fan Sunday, Jan. 24th. Lowered main stock header under screens Sunday, Jan. 24th. |

Job 2179 - New Boiler | Walkways and stairways completed except for installation of handrails and painting. Pipe coverers working on the balance of the pipe insulation in the engine room. Old insulation all stripped off of old cast iron hot well, and now removing pipe lines preparatory to dismantling the hot well itself. |

Job 2181 - New Fourdrinier | The new fourdrinier on No. 2 paper machine is running satisfactorily. Foundation for the shake head on No. 1 paper machine concreted and the head set into approximate position. All material is reported as being on hand and present plans are to install this fourdrinier next Sunday, January 31st. |

Engineering Department | Making study of wood handling in the Block Tank at the Millinocket mill. Working on the changes to the wet end of the wrapper machine. Working on the report of the "Small Pond Dam". Théfiault studying fourdrinier designs. |

Miscellaneous | Messrs Whitcomb, McKay and their party arrived Tuesday night, Jan. 19th for the Annual Meeting held Wednesday, January 20th. After visiting the Penobsott mills, left Thursday, January 21st. Dict. RVW (Over)
K. G. Macauley (Boiler Inspector) visited Saturday, January 23rd.

R. V. Weldon back from vacation to-day, January 25th.

Messrs. F. C. Bowler and E. W. Prouty left for Skowhegan to-day, Jan. 25th, for meeting with Louis C. Stearns, Judge Small and Butler.

A. Butler.
WATER STORAGE

Maximum Capacity of Ripogenus and North Twin = 45,000 Mil. Cu. Ft.
January 18th, 1936: Total including Small Ponds = 9,013
10 Yr. Avg. (Jan. 16th) Ripogenus and North Twin = 22,690
Jan. 18th, 1937: Ripogenus Elev. 937.89 Storage 22,560
North Twin " 491.65 " 13,145
Small Ponds 0,000
Total Penobscot Storage 35,705 Mil. Cu. Ft.

Precipitation for the first seventeen days of January at Ripogenus was reported as being 1.81"; at Millinocket 2.46" has been recorded.

Job 1340 - Vent. 1 - 6 Paper Mch. Room.
All fans and economizers in service.
Vertical ducts behind machines to basement erected. Work on basement ducts well under way. Two verticals from fans on Beater Room below hot zone so they may be completed during the week. Working condition in machine room noticeably improved.

Job 1345 - Wrapper Mch. Extension exhaust fan.
Sulphite pipe moved and hood completed except uptake to new fan not yet received.

Job 2179 - New Boiler
New boiler producing about 40,000 lbs. steam per hour. Galleries and gratings about 95% completed. Hand rails still to be installed. Pipe covering (insulation) nearly done. Floor in Engine Room replaced where pumps were removed. Started dismantling old hot well.

Job 2181 - New Fourdrinier
New Fourdrinier installed in No. 2 Paper Machine.

Completed plans for installation of 2,000 H.P. Grinder Motor on No. 1 line at the Lower Mill.
Made layout for connecting hot water returns to top of hotwell at Lower Mill.
Made layout for wire stretch on No. 9 paper machine at Millinocket.
Working on schemes for wood handling in Block Tank at Millinocket.
Working on plans for vat changes and new screen installation for wrapper machine.
One man on field work for Wrapper Machine Extension and Ventilating System for 1 and 6 Machines.
Worked on report on dams - small ponds.

Miscellaneous
Weldon on vacation.

Dict. FCB
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<tr>
<td>Water Storage</td>
<td>Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft. January 11th, 1936: &quot; &quot; &quot; &quot; &quot; &quot; 9,565 &quot; &quot; &quot; Total including Small Ponds - 9,565 &quot; &quot; &quot; 10 Yr. Avg. (Jan. 11th) Ripogenus and North Twin - 23,716 &quot; &quot; &quot; Jan. 11th, 1937: Ripogenus Elev. 938.47 Storage 23,230 &quot; &quot; &quot; North Twin &quot; 491.40 &quot; 12,970 &quot; &quot; &quot; Small Ponds &quot; 0,000 &quot; &quot; &quot; Total Penobscot Storage 36,200 Mil. Cu. Ft. Jan. 6th, 1936: &quot; Kennebec &quot; 7,540 &quot; &quot; &quot; 4th, 1937: &quot; &quot; &quot; 22,076 &quot; &quot; Precipitation for the first ten days of January at Ripogenus was reported as being 0.77&quot;; at Millinocket 0.99&quot; has been recorded.</td>
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<tr>
<td>Job 1340 - Vent. 1 - 6 Pa. Moh. Room</td>
<td>Hoods completed and exhaust fan in service at wet end of both hoods. Good progress on Economizer connections this past week and Sunday started work on all Economizer-fan connections. Holes cut thru main floor for all duct work to basement.</td>
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<tr>
<td>Job 1345 - Wrapper Machine Extension</td>
<td>Twelve new dryers installed and in service to-day. All dry-end work practically completed except hood extension. Lumber for hood extension all framed. To be erected Sunday, Jan. 17th. Removed monitor over old calenier location and planked-in roof. Framed pent house for 3rd Exhaust Fan from Hood.</td>
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<tr>
<td>Job 2179 - New Boiler</td>
<td>Erecting steelframe for stairways and galleries around new boiler. Covering piping with magnesia insulation.</td>
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<tr>
<td>Miscellaneous</td>
<td>Heldon on vacation</td>
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Dict. FCB

**GREAT NORTHERN PAPER COMPANY**

**WEEKLY NEWS LETTER**

FOR WEEK BEGINNING 8 A.M. January 4th - 11th 1937 FROM Engineering Department LETTER NO. 2

**DATE MAILED** January 11th, 1937

**SIGNED** [Signature] Engineer.
WATER STORAGE

Maximum Capacity of Ripogenus and North Twin - 45,000 Mil. Cu. Ft.
January 4th, 1936:

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Total including Small Ponds - 10,083

10 Tr. Avg. (Jan. 4th) Ripogenus and North Twin - 24,659

Jan. 4th, 1937:

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Ripogenus Elev. 938.75 Storage - 23,555

North Twin 491.50 Small Ponds - 13,040

Total Penobscot Storage - 36,595 Mil. Cu. Ft.

Dec. 30th, 1935: 8,116
28th, 1936: 21,369

Precipitation for the month of December at Ripogenus was 3.85" with a total of 54.32" for the year of 1936. At Millinocket, 5.31" was recorded for the month of December and 50.81" total for the year of 1936.

JOB 1340 - Vent.
1 - 6 Mchs.

Installed the louvreas in the pent houses over No. 1 and No. 6 machines; also installed the gypsum roof slabs and waterproofed same. Erector and coppersmiths, working on the copper housings around and over the economizers.

Sunday, January 3rd, the H. J. Deutschbein crew worked on the installation of the hoods, and installed all except the gable ends and drop curtains on both No. 1 and No. 6 paper machines.

JOB 1345 - Wrapp.
per Mch. Ext.

Millwright and machinist crew worked all day Sunday, Jan. 3rd, on the moving ahead of the two calender stacks, reel, winder, drives, etc. Now starting to install the machine plates, pipe headers, etc. for the twelve new dryers.

JOB 2179 - New
Boiler

Boiler on line at 150% rating.
Structural steel for the walkways received and mill crew erecting same.

Cut over all of the major drip lines from the paper room into the new hot well. Moved the motor driven feed water pump from the engine room into the pit in the boiler house, and running on the new hot well to-day.

JOB 2181 - Fourdriniers
#1 & #2 Mchs.

Cut out the floor in back of No. 1 and No. 2 machines so as to install new floor beams and build forms for the shake foundations.
Material for No. 2 fourdriner shipped Saturday, January 2nd.

Checked and issued drawings for the new fourdriniers on No. 1 and No. 2 paper machines at East Millinocket. Three men working on the wrapper machine re-design in the office - one in the field. Studying various methods of handling the wood in the Millinocket block wood tank in connection with using warm water in the tank. Made physical inventories at all three mills.

Miscellaneous


Dict. RWV