

WEBBERS FALLS BARGE IMPACT

May 23, 2019

Society of American Military Engineers
May 19, 2020

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Military



Multipurpose
Reservoirs



Hydropower



Interagency and
International
Support



MKARNS



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May 2019



Lock 14

WD Mayo

21 May 2019: Notified Lock 14 would go underwater
22 May 2019: Suspended Operations
1 August 2019: Resumed Operations



Lock 18 Newt Graham

22 May 2019: Suspended Operations
1 August 2019: Resumed Operations



Lock 17 Chouteau

22 May 2019: Suspended Operations
12 June 2019: Resumed Operations



Lock 16 Webbers Falls

22 May 2019: Suspended Operations



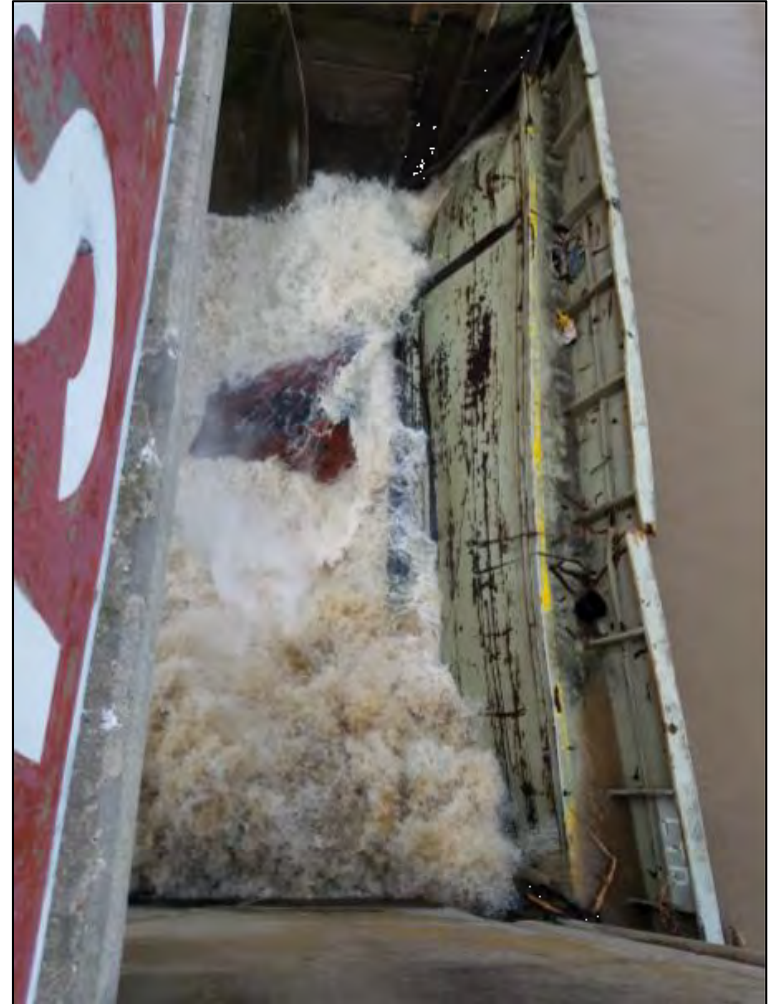
23 May 2019: 11:55 am
Barges strike Lock 16



Gate No. 6



Gate No. 7



Gate No. 8



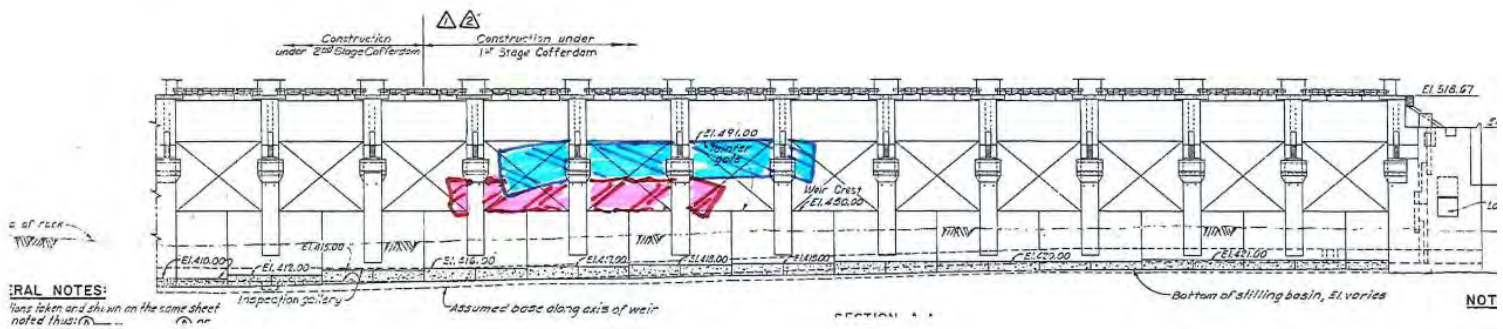
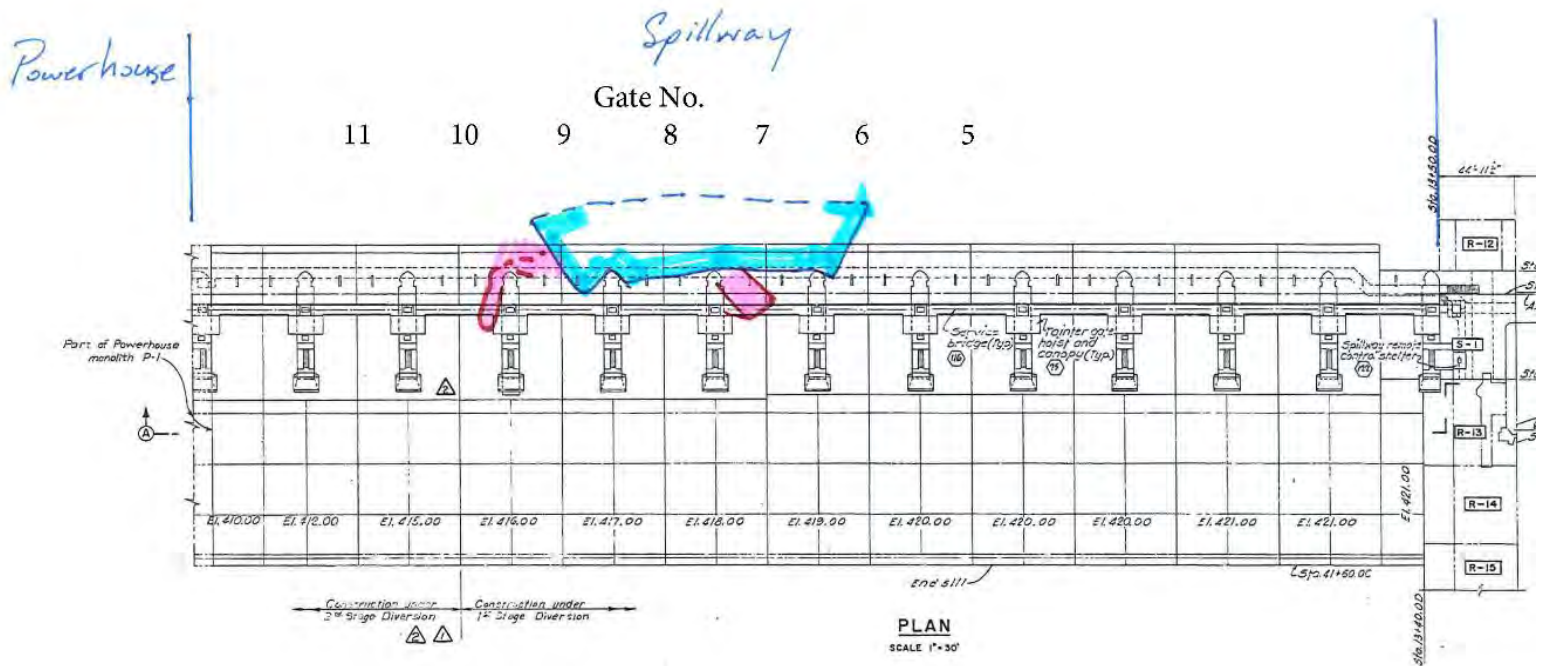
Gate No. 9



Gate No. 10

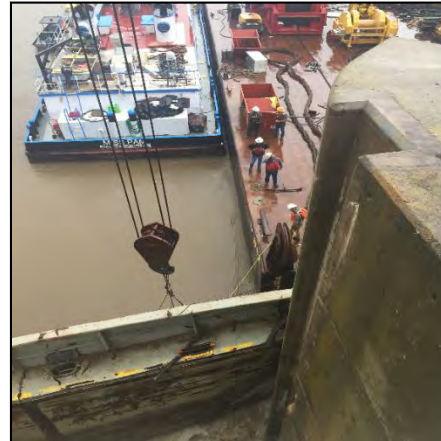


Best Guess

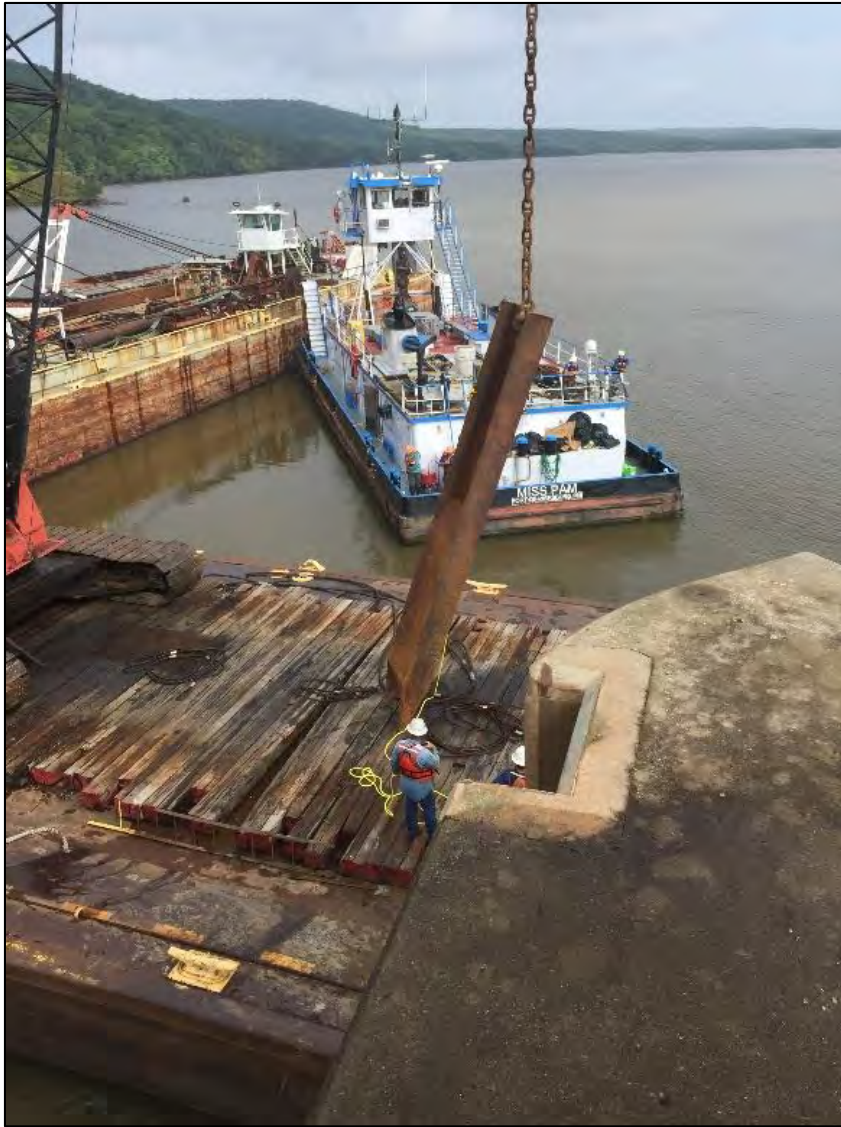


Barge Removal Timeline

- 23 May 2019 - Barges struck Lock 16
- 10 Aug 2019 - Salvage ops began
- 20 Aug 2019 - Pool drained (28 days)
- 27 Aug 2019 - Pulled grey barge
- 4 Sep 2019 - Pulled red barge
- 16 Sep 2019 - Raised pool
- 4 Oct 2019 - Found missing piece of barge



Big River Salvage Ops began 10 Aug 2019









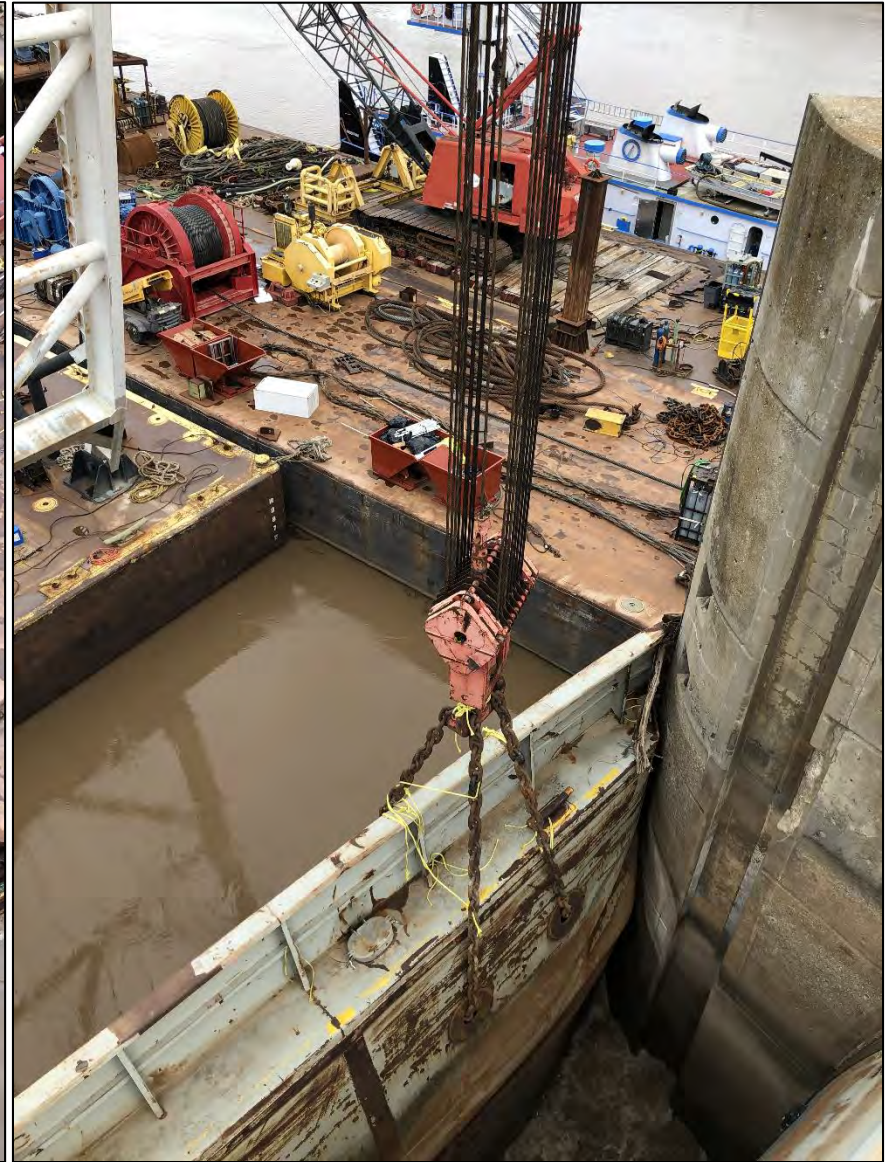
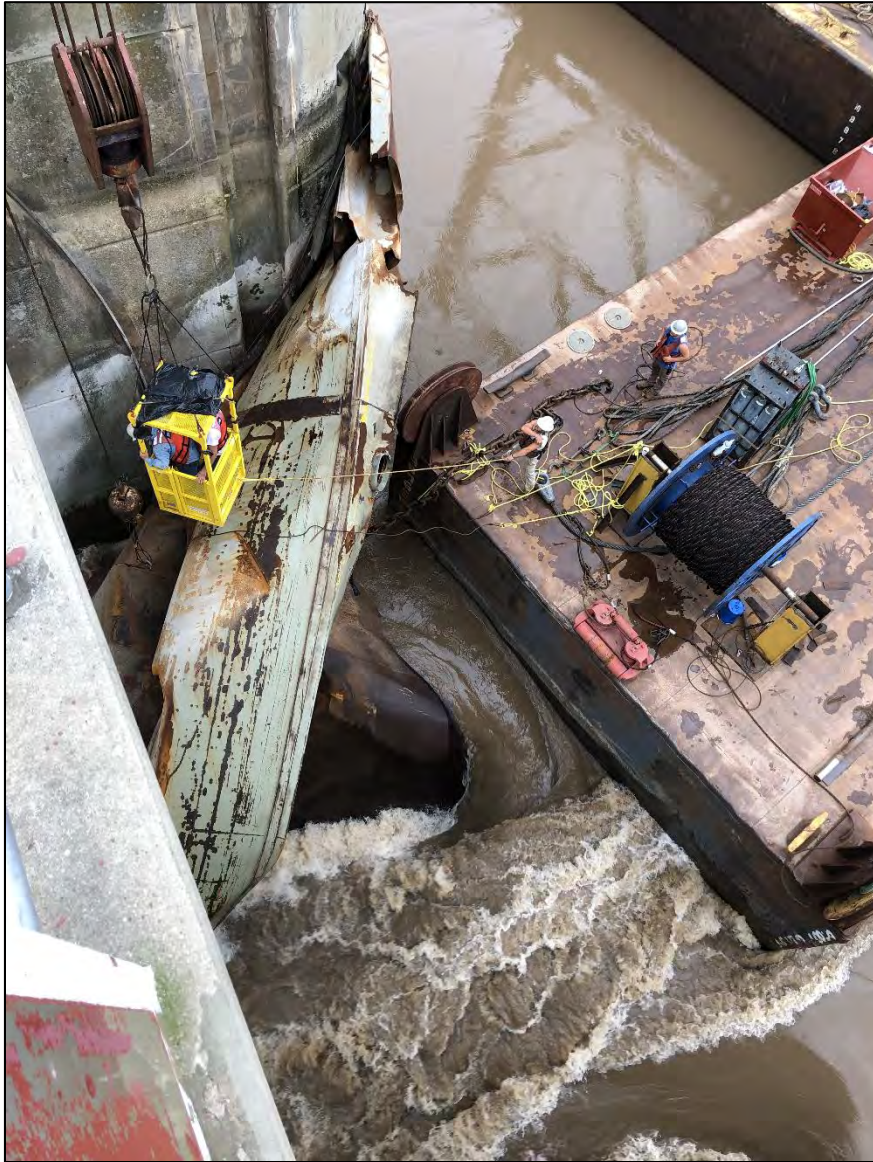
Pool 16 Drained 20 Aug 2019 (*for 28 days*)



Lock 16 Drained

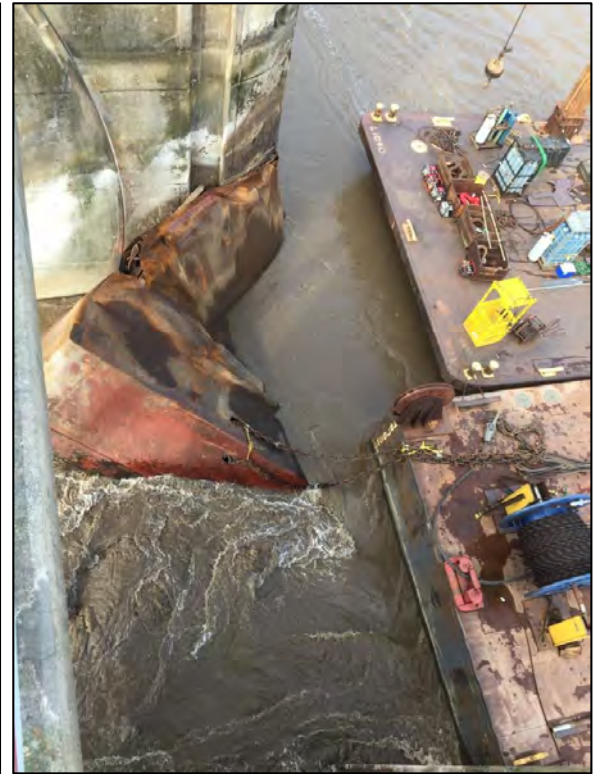
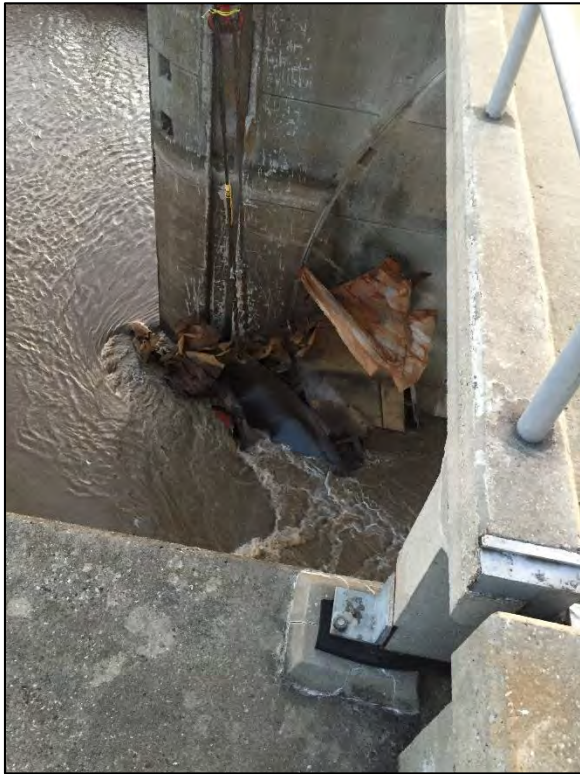


Grey Barge Removed on 27 Aug 2019





Red Barge Removed on 4 Sep 2019



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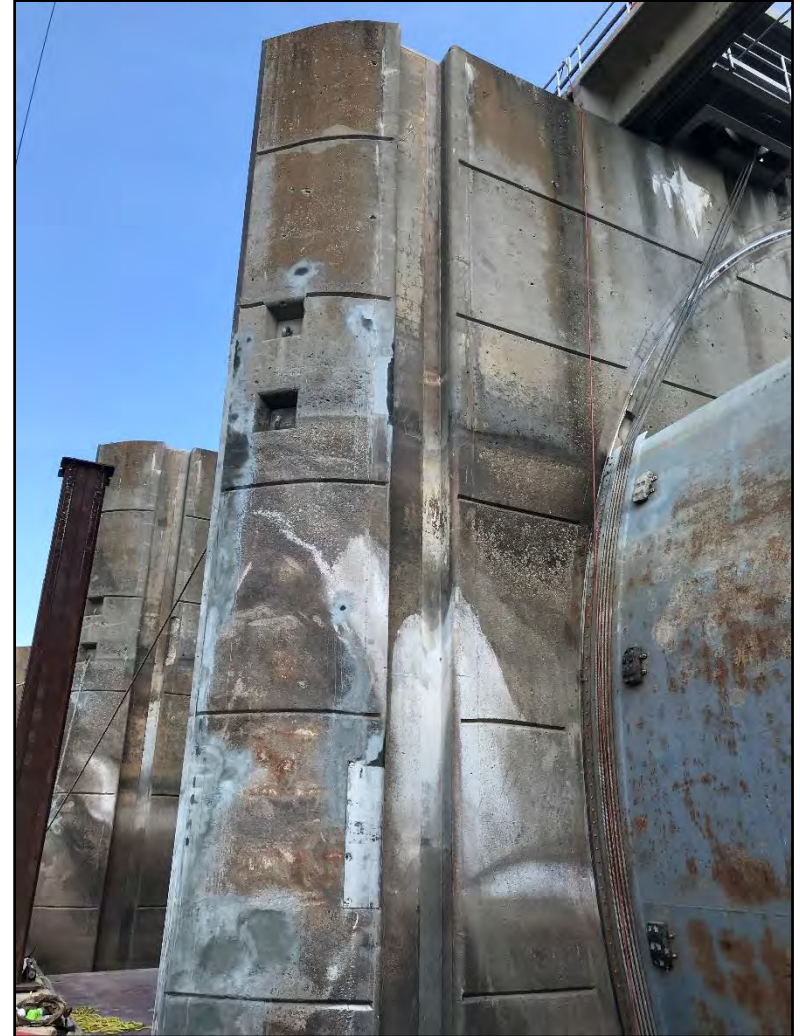
Red Barge Removal



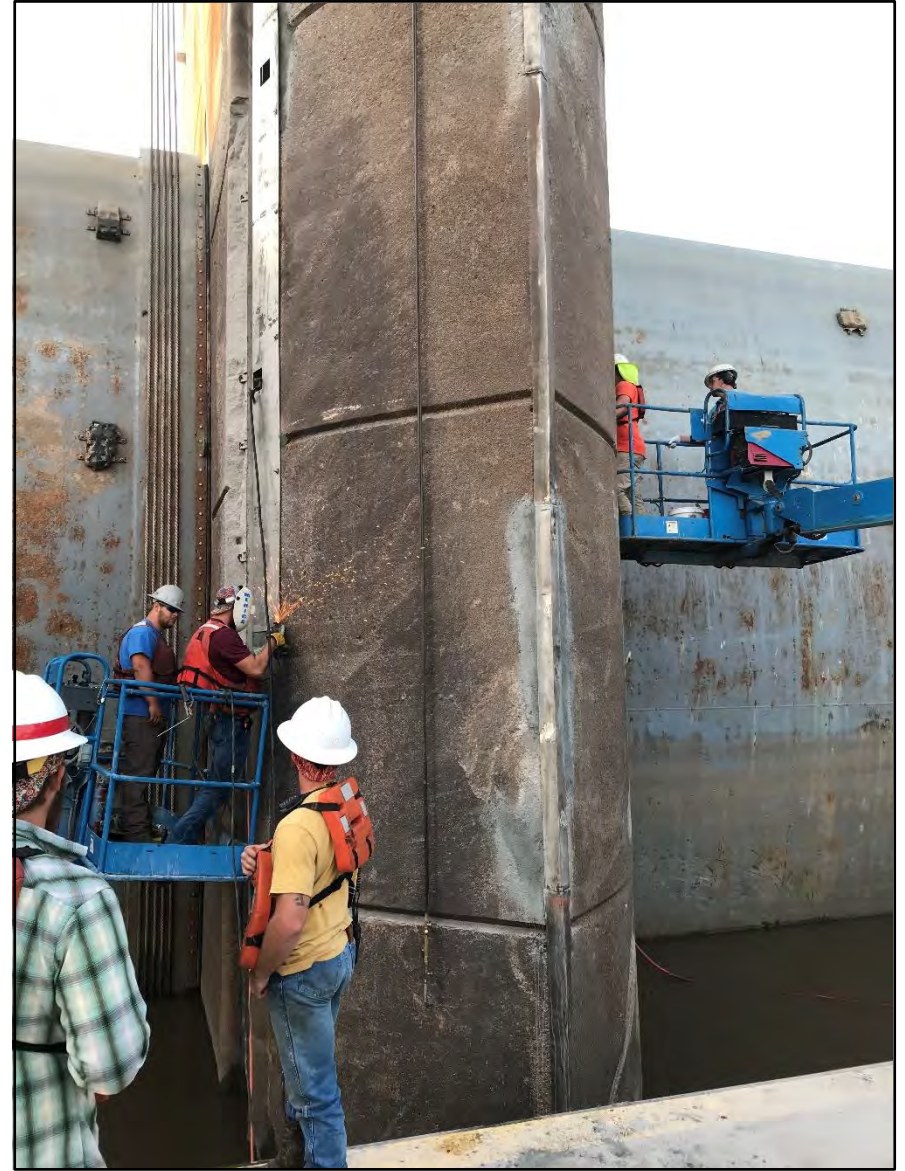


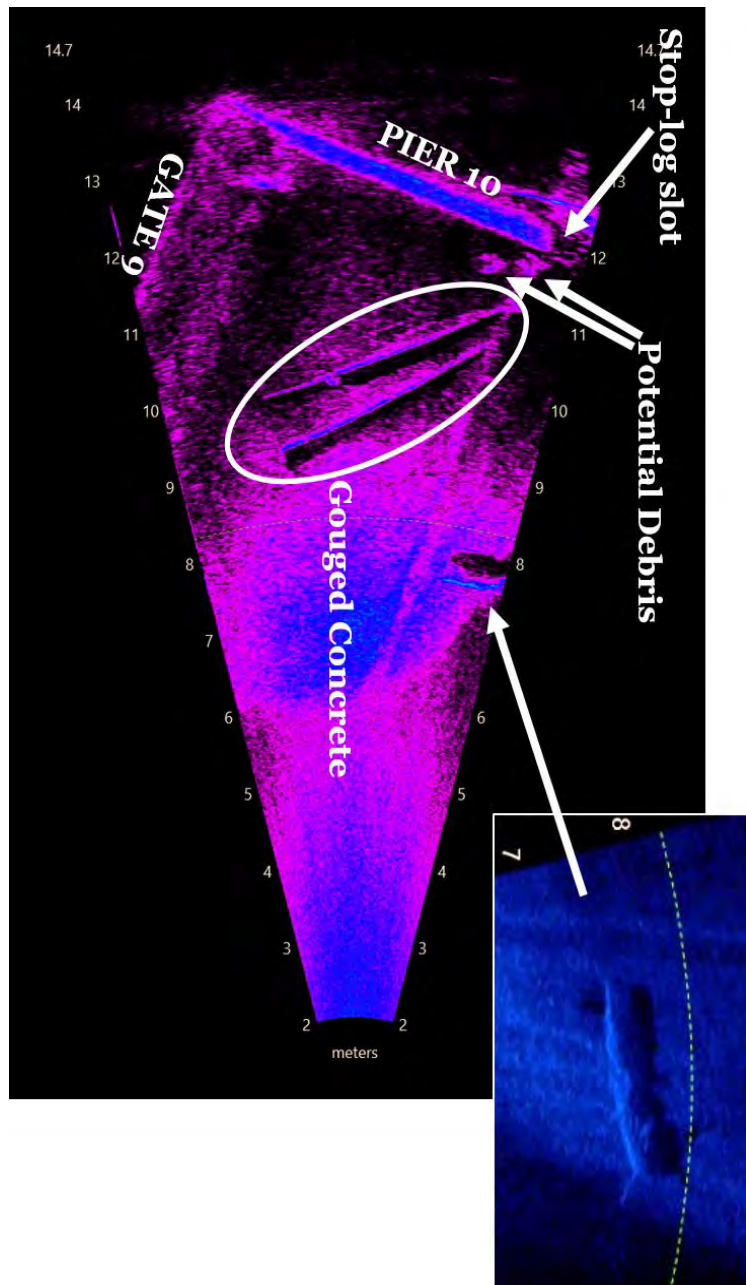


Concrete Repairs



Repairs cont.





Lock 16 Barge Recovery

Missing piece of barge found on 4 Oct 2019



Sand "Clean-Up"





Webbers Falls Barge Impact



Webbers Falls Barge Impact

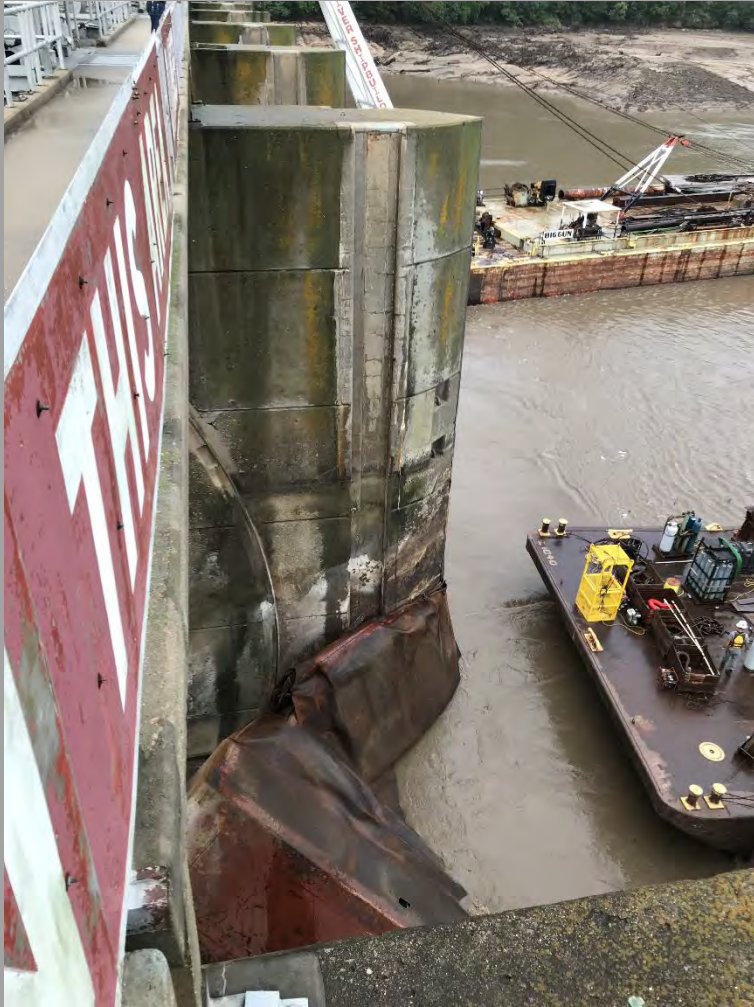


Powerhouse Stability - Uplift

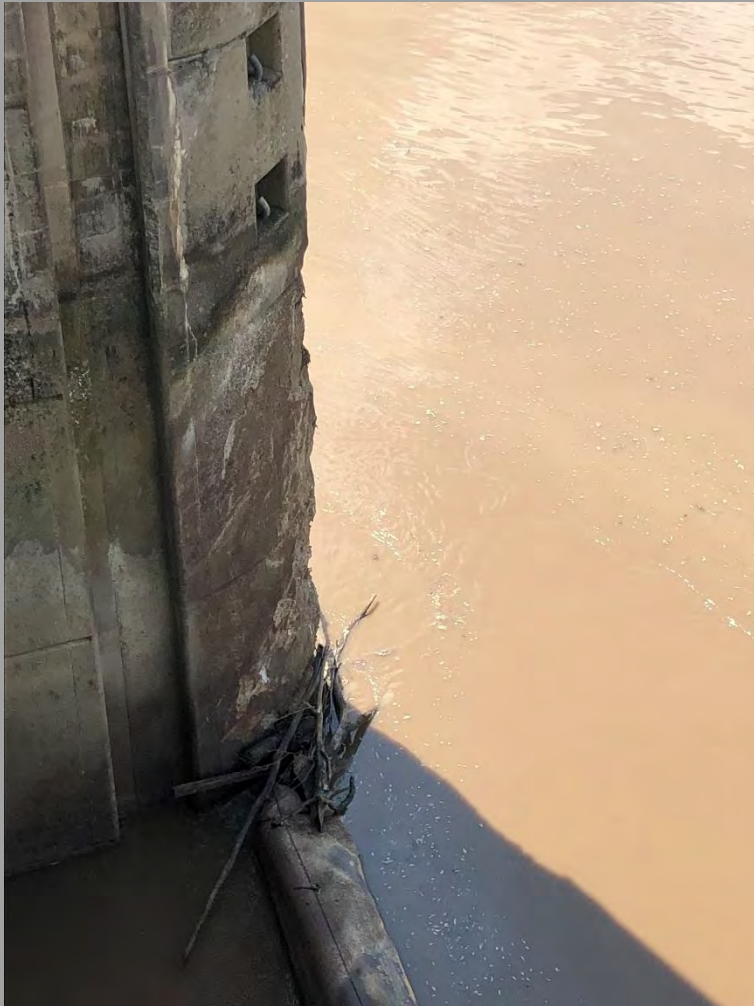
- May 24th - Headwater and tailwater pool elevations were projected to exceed design elevations on May 25th-26th. Projected H.W. to exceed 503 ft. and T.W. to exceed 493 ft.
- Design Memorandums show max design headwater and tailwater were 502 ft. and 489 ft.
- Design memorandums state to flood powerhouse when pool exceeds design elevations
- Calculation made through the night and in to morning of 25th revealed powerhouse stability o.k. up to projected pool elevations



Webbers Falls Repairs



Webbers Falls Repairs

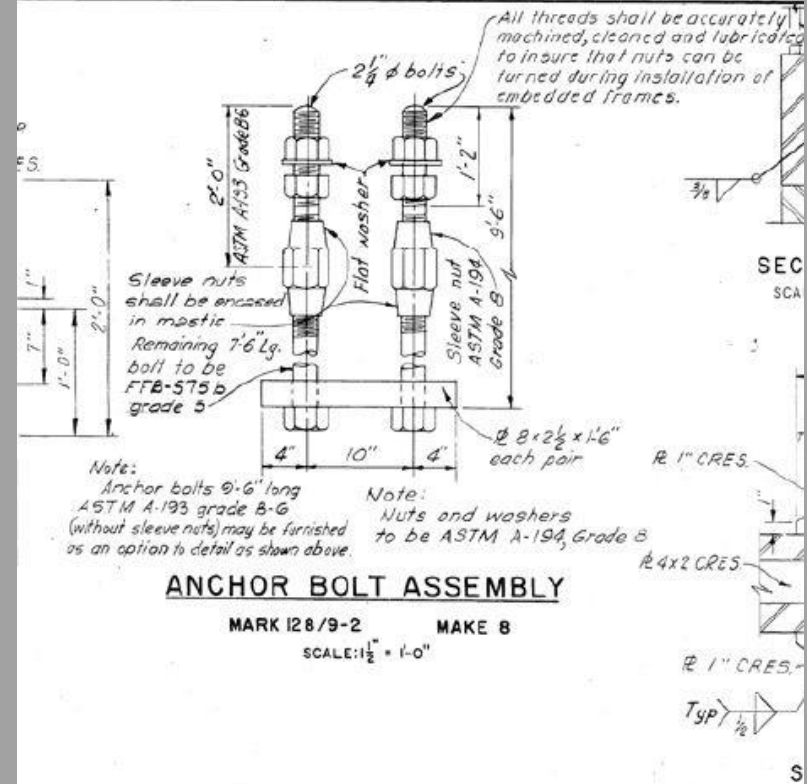
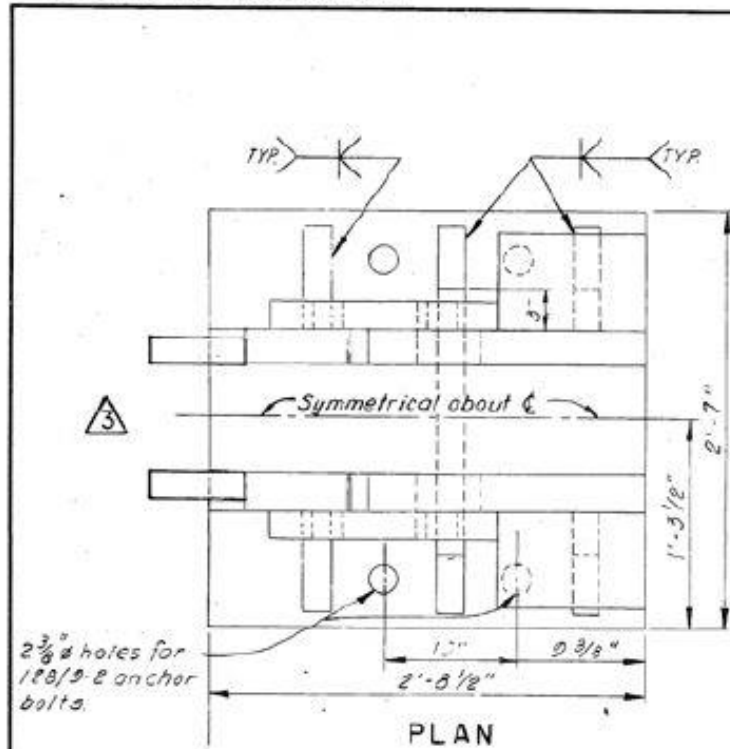


Webbers Falls Centerpost Anchorage



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Questions?

