### UNDERWATER INSPECTIONS- REPAIRS-SHIP HUSBANDRY-MARINE CONSTRUCTION & SALVAGE

Tuesday, November 21, 2023 Columbia Lake Dam Gate Valve Inspection & Intake Inspection

On 11/21/2023, Shoreline Diving and a 3-man dive team inspected the gate valve and intake at Columbia Lake Dam off RT87 in Columbia, CT. Gate valve is SN-06651-2 was ordered approximately around 08/05/1980 from Rodney Hunt. The sluice gate valve is 24x24 with an S-2600 operator.

Operator appears to be in working order and operational. Operator could use to be taken apart and cleaned and inspected. All parts are available from Rodney Hunt. Stem guides are not loose and fixed to the wall and appear in fair working order. Stem is straight with no bends and appears to be in fair condition.

The gate valve has some tubercular growth and should be cleaned. The wedges and guides appear to be in good working order. Shoreline was not able to inspect the face seal but the valve appears to have normal seepage for a valve of this age and over all the valve is in fair condition for its age.

Our recommendations are as follows. Clean and repack the valve operator. The second recommendation would be to clean the valve and adjust the wedges, to see if any more seepage could be stopped (right now the valve has normal seepage). Finally, we would recommend installing a weir board system to help control the water level.

The intake structure is composed of 3 precast concrete boxes approximately 48x45x45. The intake boxed are in a straight line and just stacked next to one another with the 30-inch intake pipe stuck into the end of the fist box covered by riprap rock.

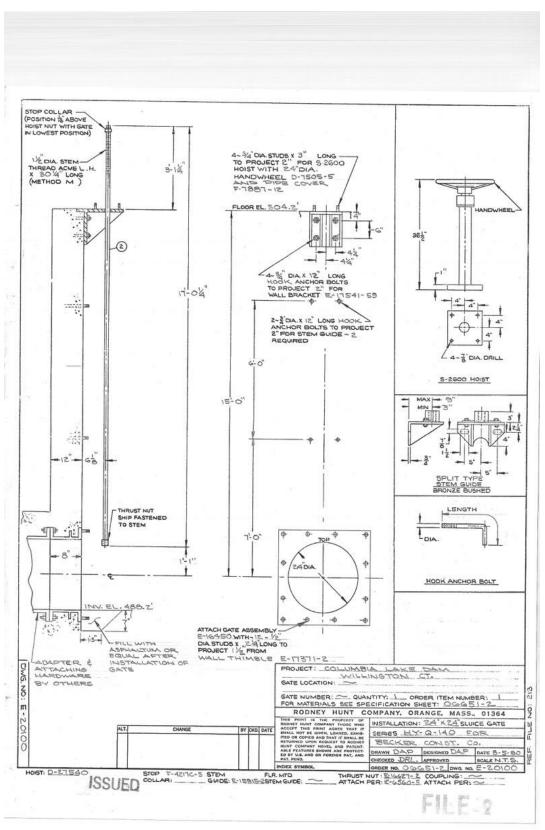
Please see attached drawings and videos.

Richard Simon, VP Shoreline Diving

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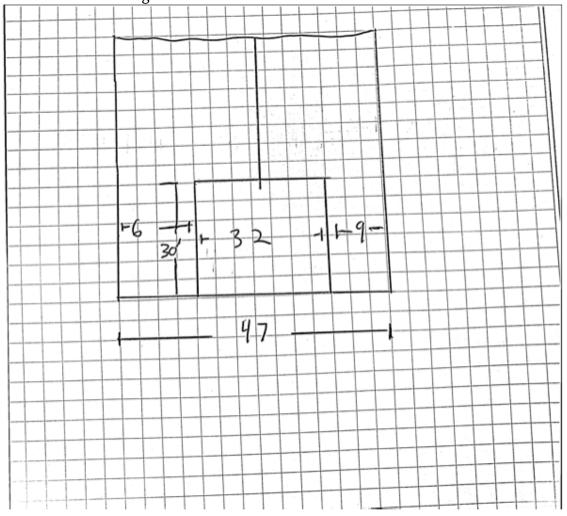
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Sluice gate measurements



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### 30 inch intake pipe measurements

