



RES INSP 000001 /

/ 20 Nov 2019

Potable Water Reservoir Inspection

Complete

Failed items

24

Created actions

0



Prepared by

Michael Porritt

Reservoir Name

Location

Date

 20th Nov, 2019  9:04 AM AEST

Reservoir Inspection

RES INSP 000001

Reservoir Image

— Photos



Photo 1



Photo 2

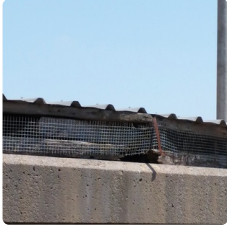






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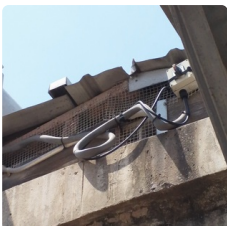

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Disclaimer

The assessors believe the information contained within this condition report to be correct at the time of printing. The assessors do not accept responsibility for any consequences arising from the use of the information herein. The report is based on matters which were observed or came to the attention of the assessors during the day of the assessment and should not be relied upon as an exhaustive record of all possible risks or hazards that may exist or potential improvements that can be made.

External Structure / External Structural Inspection / Walls and Ventilation

Ventilation condition	Very Poor Condition
<p>— Notes</p> <p>Wooden bearers have deteriorated over time and warped around reservoir ventilation</p> <p>— Photos</p> <div> </div> <div><p>Photo 5</p><p>Photo 6</p><p>Photo 7</p><p>Photo 8</p><p>Photo 9</p> <p>Photo 10</p><p>Photo 11</p></div>	

Vermin proofing condition	Very Poor Condition
<p>— Notes</p> <p>Due to warping of wooden bearers, the vermin mesh is no longer effective. There are also gaps around the ladder area where the mesh has pulled away from the structure.</p> <p>There is no sealing between the corrugations in the colourbond roof and the wooden bearers</p> <p>— Photos</p> <div> </div> <div><p>Photo 12</p><p>Photo 13</p><p>Photo 14</p><p>Photo 15</p><p>Photo 16</p> <p>Photo 17</p><p>Photo 18</p><p>Photo 19</p></div>	

Is the mesh size <1mm	No
Is the gap between screens and reservoir <1mm	No

External Structure / External Structural Inspection / Roof

General roof condition

Fair Condition

— Notes

There are multiple small holes in the roof which would allow water ingress into the reservoir

— Photos



Photo 20



Photo 21



Photo 22



Photo 23

Is there debris on the roof?

Yes

— Photos



Photo 24

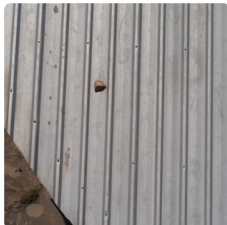


Photo 25



Photo 26



Photo 27

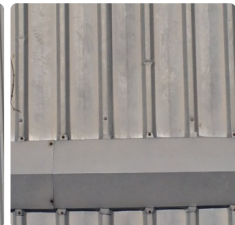


Photo 28

Are there missing screws/rivets?

Yes

— Photos

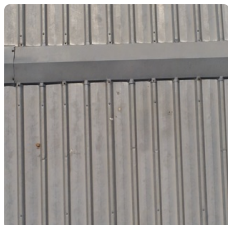


Photo 29

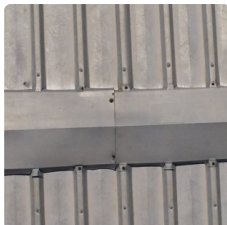


Photo 30

Is there water pooling on roof?

Yes

— Notes

Evidence of water pooling in some areas (corrosion)

— Photos

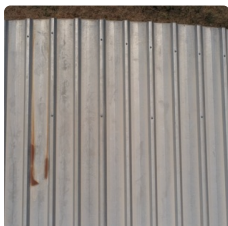







Photo 31

Is there corrosion on roof sheets and gutters?	Yes
Are the roof penetration seals in good order?	No
<p>— Notes</p> <p>Hatches to inlet pipe and ladder without adequate seals to prevent water ingress during rain</p> <p>— Photos</p> <div style="display: flex; justify-content: space-around;">     </div> <div style="display: flex; justify-content: space-around;"> <p>Photo 32</p> <p>Photo 33</p> <p>Photo 34</p> <p>Photo 35</p> </div>	

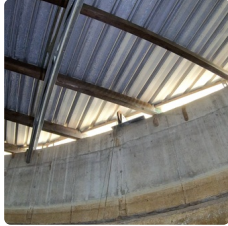

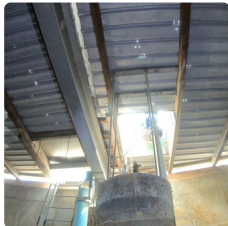

External Structure / External Structural Inspection

Level indicator condition	Fair Condition
<p>— Photos</p> <div style="display: flex; justify-content: space-around;">  </div> <p>Photo 39</p>	

Internal Structure / Internal Structural Inspection / Entry Hatch

Entry hatch condition	Poor Condition
Do the hatches seal adequately	No
<p>— Notes</p> <p>No seals present around hatches</p> <p>— Photos</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;"> <p>Photo 40</p> <p>Photo 41</p> </div>	

Internal Structure / Internal Structural Inspection / Internal Roof

Internal Roof condition	Fair Condition
Are there any defects in the rafters?	Yes
<p>– Notes</p> <p>Wooden rafters, evidence of rotting and warping (wood debris on reservoir floor)</p> <p>– Photos</p> <div></div> <p>Photo 42 Photo 43</p>	
Any observed defects in roof?	Yes
<p>– Notes</p> <p>Multiple small holes in roof sheeting</p> <p>– Photos</p> <div></div> <p>Photo 44 Photo 45</p>	
Any absence of screws/rivets?	Yes
<p>– Notes</p> <p>See external roof inspection</p>	
Any defects in ventilation?	Yes
<p>– Notes</p> <p>See external inspection</p>	

Internal Structure / Internal Structural Inspection

Inlet Condition

Fair Condition

– Notes

Corrosion on inlet pipework, float switch mechanism corroded with base fallen off and sitting on tank floor

– Photos



Photo 54



Photo 55



Photo 56



Photo 57

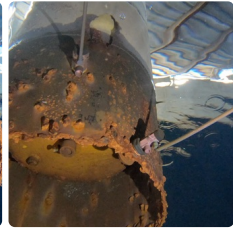


Photo 58

Outlet condition

Fair Condition

– Notes

Corrosion around outlet

– Photos



Photo 59



Photo 60

Overflow condition

Fair Condition

– Notes

Average corrosion on overflow pipe, brackets holding pipe to wall also corroded however still functional

– Photos

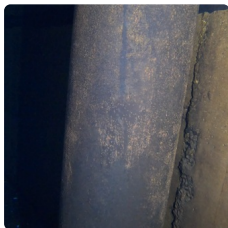


Photo 61

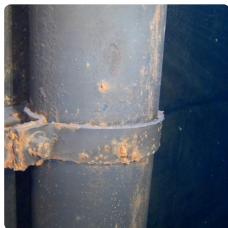


Photo 62



Photo 63



Photo 64

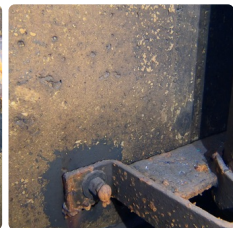


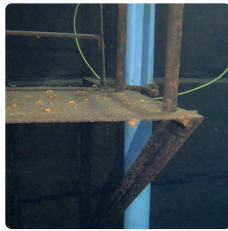


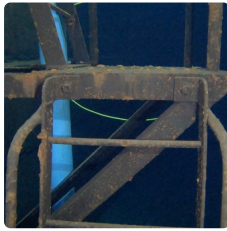




Photo 65



Photo 66

Ladder condition	Fair Condition
<p>— Notes</p> <p>Medium levels of corrosion on ladder, brackets, and platform</p> <p>— Photos</p> <div>      </div> <div>    </div>	

Internal Structure

Is there any Sediment Buildup	Yes
Debris	Yes

External Inspection

Compound Security

Condition Assessment key	
Excellent	No Defects or very minor defects
Very Good	Moderate Deterioration
Good	Appearance of holes
Fair	Severe Deterioration
Poor	Concrete Spalling, rebar corrosion
Very Poor	Cracks, Imminent leaking
Security Rating	Excellent Condition
Is the reservoir site secure?	Yes
— Notes	
Is there evidence of unlawful entry?	No

External Structure

11 Failed

Are you completing an external inspection?	Yes
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External Structural Inspection

1 Failed

Condition Assessment key

Excellent	No Defects or very minor defects
Very Good	Moderate Deterioration
Good	Appearance of holes
Fair	Severe Deterioration
Poor	Concrete Spalling, rebar corrosion
Very Poor	Cracks, Imminent leaking

External wall condition	Good Condition
-------------------------	----------------

— Notes

Some areas showing evidence of prior leaking of water

— Photos




Photo 3




Photo 4

Walls and Ventilation

4 Failed

Ventilation condition

Very Poor Condition

– Notes

Wooden bearers have deteriorated over time and warped around reservoir ventilation

– Photos



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11

Vermin proofing condition

Very Poor Condition

– Notes

Due to warping of wooden bearers, the vermin mesh is no longer effective. There are also gaps around the ladder area where the mesh has pulled away from the structure.

There is no sealing between the corrugations in the colourbond roof and the wooden bearers

– Photos



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17

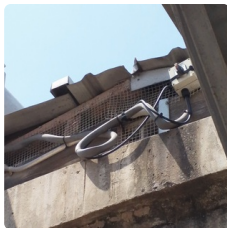


Photo 18



Photo 19

Is the mesh size <1mm

No

What is the current mesh size (approximate) in millimetres?

10

Is the gap between screens and reservoir <1mm

No

What is the current gap (in millimetres)?

100

Roof

6 Failed

General roof condition

Fair Condition

— Notes

There are multiple small holes in the roof which would allow water ingress into the reservoir

— Photos



Photo 20



Photo 21



Photo 22



Photo 23

Is there debris on the roof?

Yes

— Photos

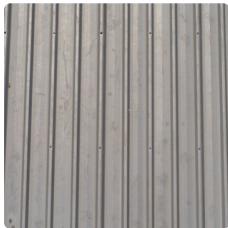


Photo 24

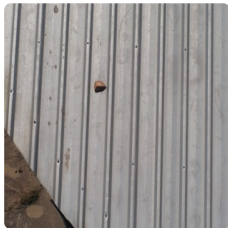


Photo 25



Photo 26



Photo 27



Photo 28

What debris is present

screws, rivets, washers, rocks, stick, bird faeces

Are there missing screws/rivets?

Yes

— Photos

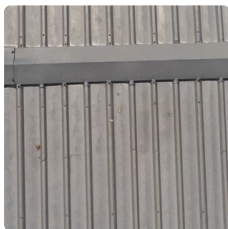


Photo 29

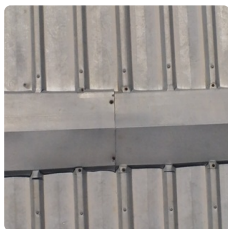



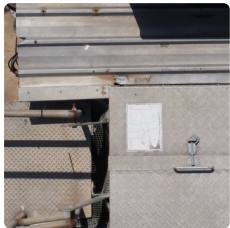



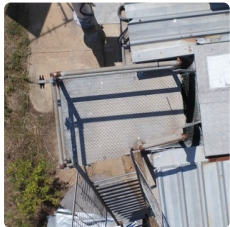
Photo 30

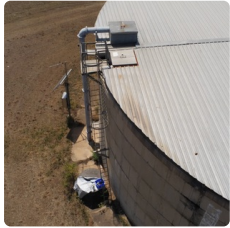
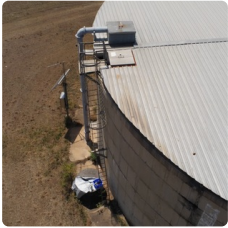

Are the downpipes free of blockages?

N/A

— Notes

No downpipes, direct runoff

Is there water pooling on roof?	Yes
<p>— Notes</p> <p>Evidence of water pooling in some areas (corrosion)</p> <p>— Photos</p>  <p>Photo 31</p>	
What is the percentage of area with pooling?	1
Is there corrosion on roof sheets and gutters?	Yes
Are the roof penetration seals in good order?	No
<p>— Notes</p> <p>Hatches to inlet pipe and ladder without adequate seals to prevent water ingress during rain</p> <p>— Photos</p>     <p>Photo 32 Photo 33 Photo 34 Photo 35</p>	
Roof platforms & walkway condition	Good Condition
<p>— Photos</p>  <p>Photo 36</p>	
Handrail condition	Good Condition
Davit / Fixed anchor point condition	N/A

Ladder condition	Good Condition
<p data-bbox="177 230 279 253">— Photos</p> <div data-bbox="194 273 424 499">  </div> <div data-bbox="429 273 657 499">  </div> <div data-bbox="188 499 292 528">Photo 37</div> <div data-bbox="422 499 523 528">Photo 38</div>	
Level indicator condition	Fair Condition
<p data-bbox="177 624 279 647">— Photos</p> <div data-bbox="194 667 424 893">  </div> <div data-bbox="188 893 292 922">Photo 39</div>	

Internal Structure

13 Failed

Are you completing an internal inspection?	Yes
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Internal Structural Inspection

4 Failed

Condition Assessment key

Excellent

Very Good

Good

Fair

Poor

Very Poor

No Defects or very minor defects

Moderate Deterioration

Appearance of holes

Severe Deterioration

Concrete Spalling, rebar corrosion

Cracks, Imminent leaking

Entry Hatch

2 Failed

Entry hatch condition	Poor Condition
Do the hatches seal adequately	No

— Notes

No seals present around hatches

— Photos



Photo 40



Photo 41

Internal Roof

5 Failed

Internal Roof condition	Fair Condition
Are there any defects in the rafters?	Yes

— Notes

Wooden rafters, evidence of rotting and warping (wood debris on reservoir floor)

— Photos

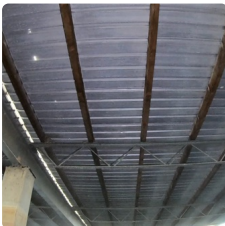


Photo 42

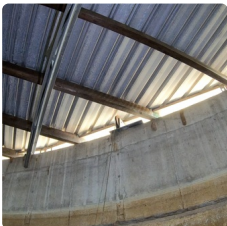





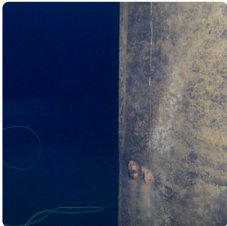



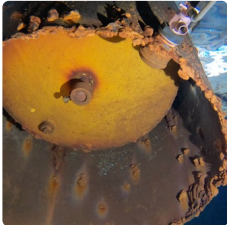
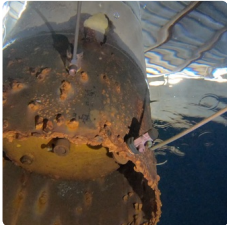











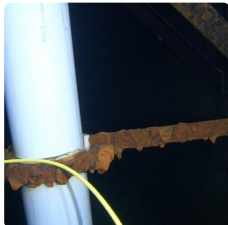
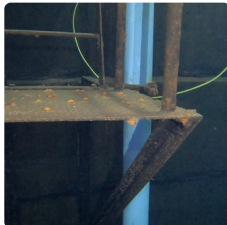




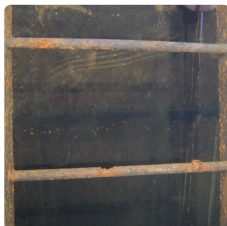
Photo 43





Any observed defects in roof?	Yes
– Notes Multiple small holes in roof sheeting	
– Photos <div>   </div> <div> Photo 44 Photo 45 </div>	
Any absence of screws/rivets?	Yes
– Notes See external roof inspection	
Any defects in ventilation?	Yes
– Notes See external inspection	
Any defects in roof flashing?	N/A

Floor

Floor condition	Good Condition
Any defects in internal seals	No
– Photos <div>   </div> <div> Photo 46 Photo 47 </div>	
Wall condition	Good Condition
– Photos <div>   </div> <div> Photo 48 Photo 49 </div>	

Column condition	Good Condition
<p>– Notes</p> <p>Observed crack in column approximately midway</p> <p>– Photos</p> <div>     </div> <div> <p>Photo 50</p> <p>Photo 51</p> <p>Photo 52</p> <p>Photo 53</p> </div>	
Inlet Condition	Fair Condition
<p>– Notes</p> <p>Corrosion on inlet pipework, float switch mechanism corroded with base fallen off and sitting on tank floor</p> <p>– Photos</p> <div>      </div> <div> <p>Photo 54</p> <p>Photo 55</p> <p>Photo 56</p> <p>Photo 57</p> <p>Photo 58</p> </div>	
Outlet condition	Fair Condition
<p>– Notes</p> <p>Corrosion around outlet</p> <p>– Photos</p> <div>   </div> <div> <p>Photo 59</p> <p>Photo 60</p> </div>	
Scour condition	N/A
<p>– Notes</p> <p>Assumed common outlet/scour</p>	

Overflow condition	Fair Condition
<p>– Notes</p> <p>Average corrosion on overflow pipe, brackets holding pipe to wall also corroded however still functional</p> <p>– Photos</p> <div>      </div> <div>  </div>	
Mixer condition	N/A
Ladder condition	Fair Condition
<p>– Notes</p> <p>Medium levels of corrosion on ladder, brackets, and platform</p> <p>– Photos</p> <div>      </div> <div>    </div>	
Dosing / measuring equipment condition	Very Good Condition
Is there any Sediment Buildup	Yes
<p>Average height of sediment in millimetres</p> <p>1</p>	
<p>Sediment type</p> <p>silt</p>	

Debris	Yes
Type of debris	<div>+</div> Corrosion Pieces <div>+</div> Metal
<div>– Notes</div> <div>Wooden fragments from rafters</div> <div>Nuts</div> <div>Washers</div> <div>– Photos</div> <div>     </div> <div> <div>Photo 75</div> <div>Photo 76</div> <div>Photo 77</div> <div>Photo 78</div> </div>	
Animal Material Present	No
Plant Material Present	No

Supplemental Information

Links to external secure cloud based folder with original High Resolution images.

Compliance


Inspection completed by	
	Michael Porritt 27th Nov, 2019 10:37 AM AEST
Date	
📅 27th Nov, 2019 ⌚ 10:35 AM AEST	



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 8



Photo 7



Photo 10



Photo 9



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24

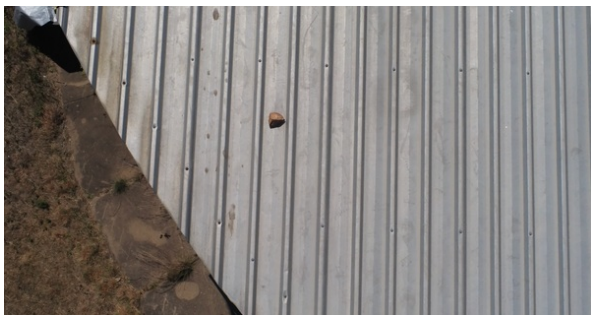


Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35

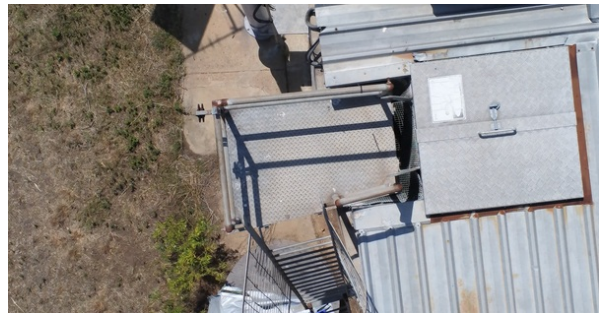


Photo 36

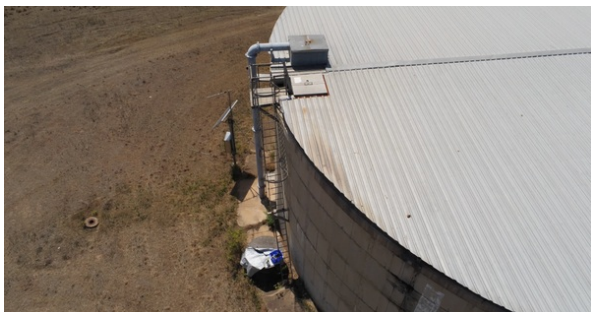


Photo 37

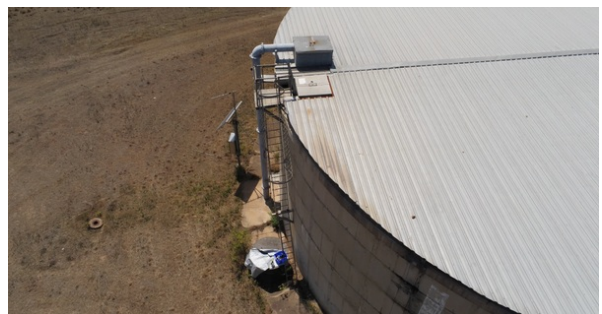


Photo 38



Photo 39



Photo 40



Photo 41



Photo 42

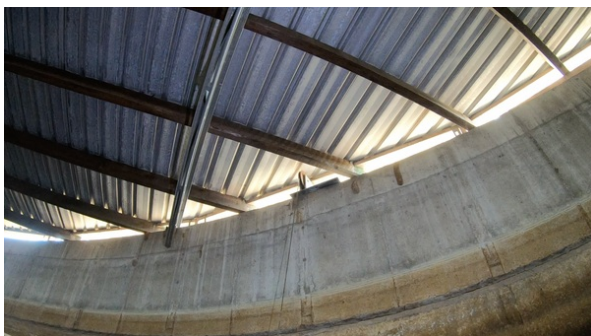


Photo 43



Photo 44



Photo 45



Photo 46



Photo 47



Photo 48



Photo 49



Photo 50



Photo 51



Photo 52



Photo 53



Photo 54



Photo 55



Photo 56

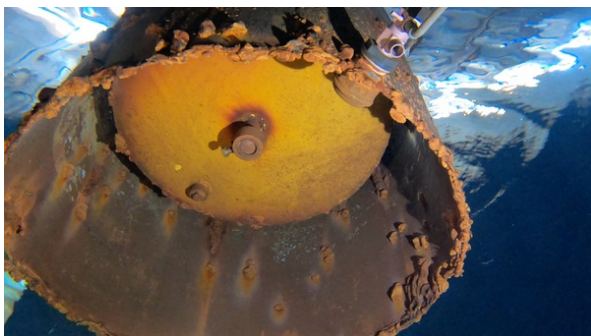


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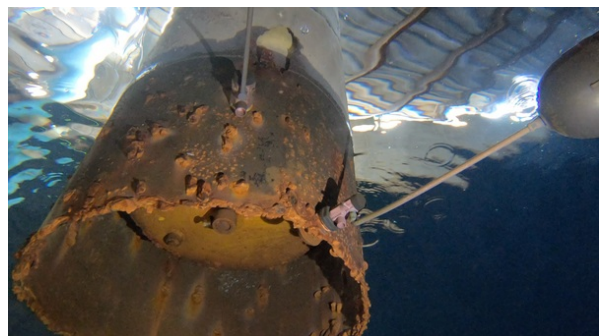


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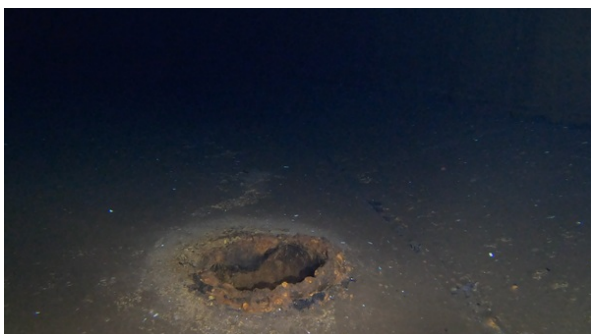


Photo 59



Photo 60



Photo 61



Photo 62



Photo 63



Photo 64



Photo 65



Photo 66



Photo 67



Photo 68

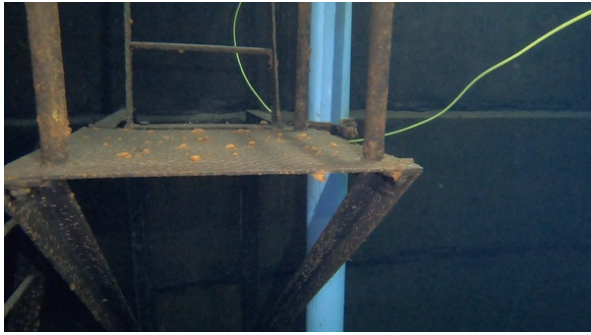


Photo 69



Photo 70



Photo 71



Photo 72



Photo 73



Photo 74



Photo 75

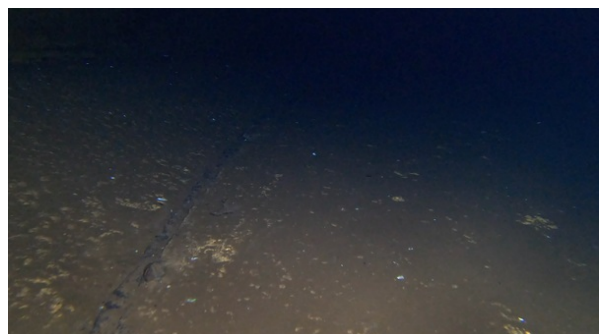


Photo 76



Photo 77



Photo 78