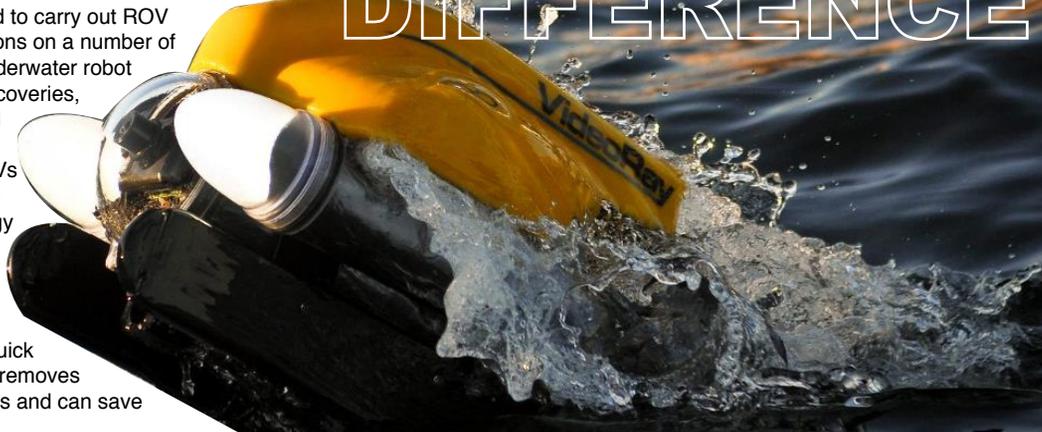




## ROV INSPECTION

Inspectahire are regularly requested to carry out ROV (remote operated vehicle) inspections on a number of assets. An ROV is effectively an underwater robot that can be used for inspections, recoveries, cable burial, search and rescue and much more. More business sectors are realising their benefits, and ROVs are now used in oceanography, civil engineering and security. Technology has also allowed smaller ROVs to be developed which offer greater manoeuvrability in smaller spaces or shallower waters, yet still provide detailed images. An ROV offers a quick and safe inspection solution, which removes the risks of other inspection methods and can save time and money.



# MAKING A VISIBLE DIFFERENCE

## BRENT CHARLIE- SEA WATER TANK INSPECTION

Inspectahire were tasked with carrying out a sea water tank inspection on the Brent Charlie in 2013. The job proposal stated they were to check Column 3 SW tank riser section for blockages and restrictions.

Also covered in the inspection was to check pump nozzles (P4010, P4020 and P7250) from internal of the tank for blockages and restrictions. As well as checking the plug on a blocked riser to confirm its current condition.

## OPERATING ENVIRONMENT

Access to the Sea Water Tank was from within column 3. Normal leg entry procedures applied to gain access to the gas tight floor and tank access point. A temporary scaffold was erected for protecting the open riser hole and for supporting the lowering system. The scaffolding boards covering the access point prior to starting work were removed after the boxing ring scaffold was erected, allowing full access to the tank.

All work was carried out according to Shell permit to work system. All Electrical equipment was tested by Platform Electrician. Access was via the old riser slot. Gas testing was carried out prior to entry into the column and energising of Camera equipment. The camera system was energised and tested. The pan and tilt camera was lowered into the tank in 0.5 meter increments and manoeuvred around until as much of the tank was covered as possible.

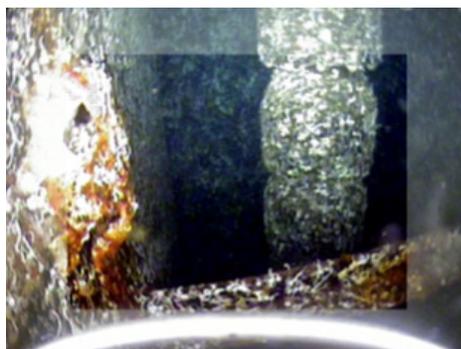
Points of interest were further investigated and noted. The smaller P455 pipe camera was deployed in to the Sea Water Intake Riser using the pan and tilt camera for guidance. The length of the riser was covered down to 50 meters from the tank floor. Once the above camera systems were removed from the tank, the ROV was deployed to cover the remainder of the tank towards the rear and behind the pumps, which could not be seen using the other cameras. All equipment was removed from the tank at the end of the survey.

## OBSERVATIONS & COMMENTS

The Sea Water Intake Riser was found to have a covering of marine growth along its length. A considerable amount of marine growth was found to be present on the cross bars at the end of the Intake Riser covering approximately 80% of the opening and continuing back up the riser for 2 meters .

The Sea Water Intake Riser measured 50 meters from the base of the Sea Water Tank. It was not possible to inspect the riser blank repair work done previously or the lower tank section as the base of the tank had a covering of marine growth and debris. Four hessian style sacks/bags and a barrier label were removed prior to the ROV survey.

A small piece of debris proved too awkward to remove with the ROV on one of the strainers. The supporting cross members of the tank were showing signs corrosion along with other smaller metal supports/brackets. The Fire Pump strainer looks to be in clean condition.



The Tank showed a large amount of marine growth and debris, clearly shown by the ROV.

## CLIENT TESTIMONY

*"I am delighted to act as a referee as I have used Inspectahire Services, on my platforms, over the past 5 years to carry out Camera/Video Inspections of numerous Process Vessels during that time.*

*I have always been impressed with their Service and the Quality of the Reports and Images. Also, Inspectahire when ever asked to change plans to accommodate operational issues have always been obliging in smoothing out any issues."*

**Mark Crossley**  
Area Inspection Engineer (CNNS Brent C & D)  
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