VJ TECHNOLOGIES
Custom NDT Solutions
CONFIDENCE DELIVERED

FOR IMMEDIATE RELEASE

Rahul Alreja
VJ Technologies
89 Carlough Road, Bohemia, NY 11716 USA
1.631.589.8800 x1139
marketing@vjt.com

CON EDISON'S PROACTIVE INFRASTRUCTURE TESTING PROGRAM CREATES NEW INNOVATIVE CT SERVICE FROM VJ TECHNOLOGIES

Bohemia, NY, September 3, 2016 – Today, the power industry continues to provide safe uninterrupted services to their customers by diligently assessing their critical infrastructure on a continual basis. One such company, Con Edison, New York City's power utility was looking to pre-empt any potential failures in their underground transmission feeders.

Over time, high-pressure fluid filled underground power transmission feeders move back and forth in a predominantly linear fashion from a few inches to as much as several feet. This is due to changes in temperature during the seasons, seismic stress and even road traffic. The result of all these stresses compromises the insulation's integrity around the conductors, particularly at the joint, eventually causing the joint's failure. However, when detected early enough the joint can be repaired, saving time and money, and minimizing collateral damage due to an actual cable failure.

Historically, 2D images were acquired to see into these underground feeders, but the 2D images do not always provide adequate detail to see potential or actual failures in some instances.

So how do you conduct the most accurate inspection possible, without shutting down power or risking further damage, or outages, once potential problems are identified?

The Next Dimension of Safety for Critical Infrastructure

To solve this technological challenge, VJ technologies innovated a new 3D/volumetric scan utilizing a rotating gantry capable of a full 360º rotation around the pipe; configured for offset scanning techniques the gantry system is capable of accommodating horizontal sections of pipe, as well as vertical sections, enabling scanning of the entire length of the pipe.

In the field, the ability to generate a 360º rotation for a complete CT scan was impossible due to space restrictions and therefore required additional innovations to recreate the complete 360º view of the feeder cable. The innovative solution allows for the acquisition of limited angle CT data on a feeder cable and reconstruction of CT Data for complete analysis.

VJ TECHNOLOGIES
Custom NDT Solutions
CONFIDENCE DELIVERED

FOR IMMEDIATE RELEASE

Rahul Alreja
VJ Technologies
89 Carlough Road, Bohemia, NY 11716 USA
1.631.589.8800 x1139
marketing@vjt.com

The sample image shows the complete image capture and reconstruction.

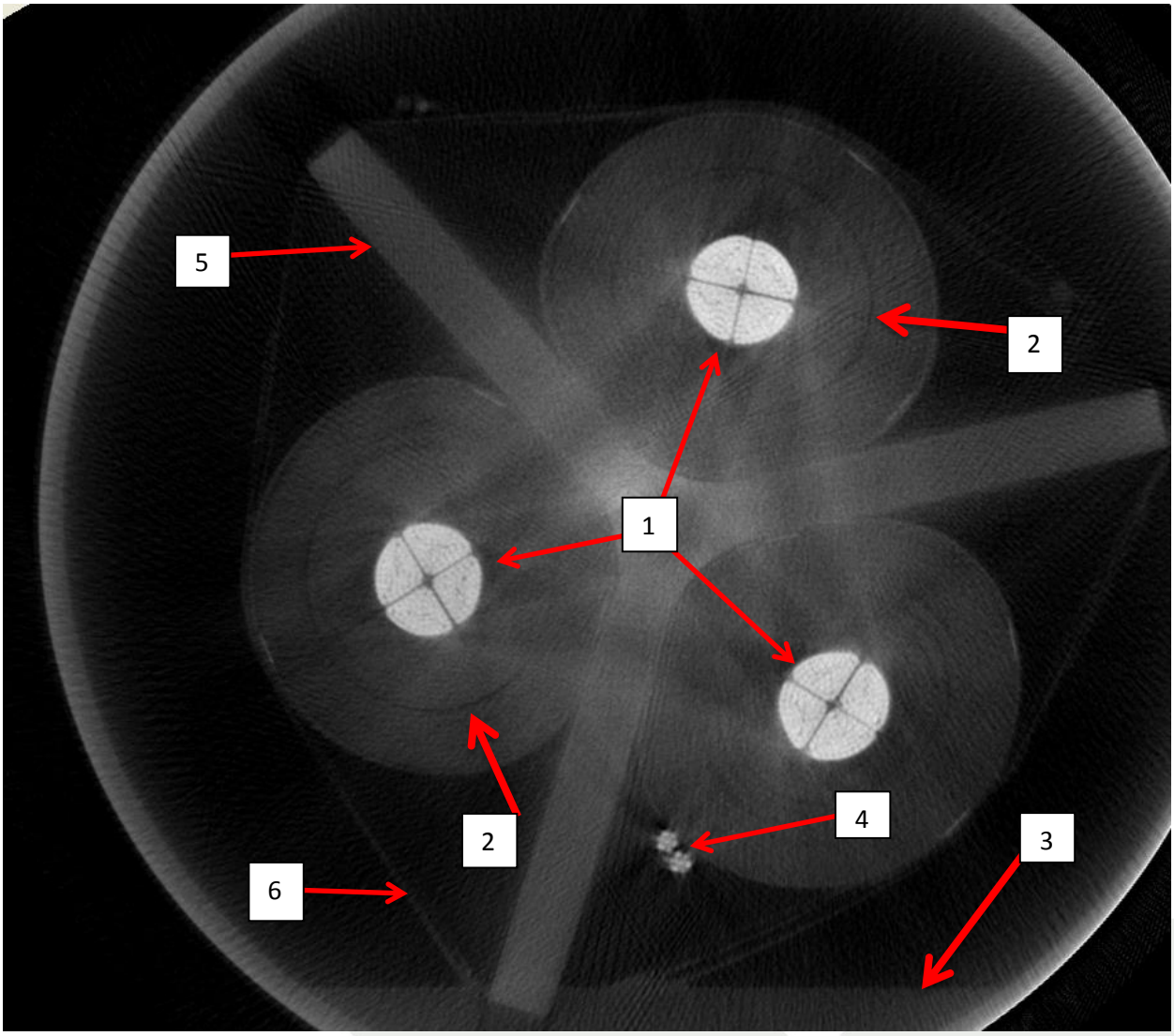

Figure 1- Axial slice view of a reconstructed feeder in a high-pressure fluid-filled pipe.

In Figure 1, the conductors are highlighted (1) as well as the gaps in the layers of insulation (2). Also visible in this image is the oil level in the bottom of the pipe (3), and the ground ropes (4). The layer of tape (6) that goes around the entire OD of the joint support (5) is also visible.

VJ TECHNOLOGIES
Custom NDT Solutions
CONFIDENCE DELIVERED

FOR IMMEDIATE RELEASE

Rahul Alreja
VJ Technologies
89 Carlough Road, Bohemia, NY 11716 USA
1.631.589.8800 x1139
marketing@vjt.com

The Future

The success of this and similar programs bring significant management improvements safeguarding the utility sector's assets. This advanced inspection technology, performed while allowing continued full operation, also is likely to provide major benefits in other industries, including the petrochemical sector (pumps and valves), where future financial success also is underpinned by enhanced management and continuous operation of high value assets.

A full case study on the project is available at: www.vjt.com/CaseStudy/ConEd

###

VJ Technologies

Custom imaging software and hardware products, solutions and services for industry and government.

Founded in 1987, VJ Technologies is a leading global provider of x-ray inspection solutions. We apply our radioscopic digital imaging expertise to government agencies and nondestructive testing (NDT) markets throughout the world.

VJT develops and manufactures a complete line of automated, manual, and turnkey X-ray inspection systems. Primary market sectors include: aerospace, automotive, electronics, remediation, nuclear, oil & gas, and pipe & weld applications. VJT x-ray inspection systems are used for radioscopic inspection of products and assemblies to detect defects or foreign matter, reducing cost and time while increasing quality and safety.

VJT delivers a competitive advantage over other companies through our network of global offices. In the 21st century, VJT continues to nurture emerging technologies and provide innovative solutions for global customers.