



FLANGE TOOL INNOVATION

CASE STUDY

CS-2013-03

PIPELINE QUILL REMOVAL

REMOVAL OF DAMAGED QUILL FROM
PIPELINE

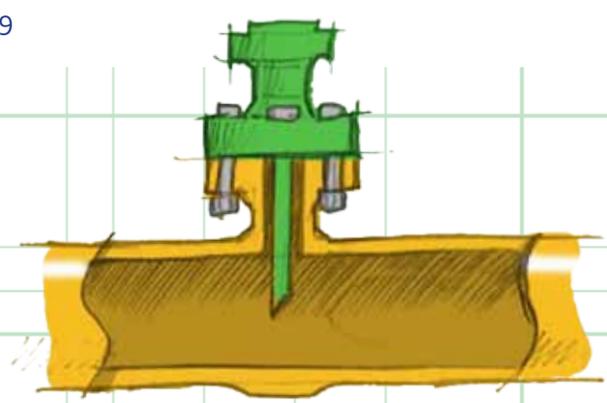
HIGH-POWER FLANGE SPREADING TO OVER-
COME DEFORMED OBSTRUCTION

ASSIGNMENT

CUSTOMER:
MULTINATIONAL OIL & GAS CORPORATION

LOCATION:
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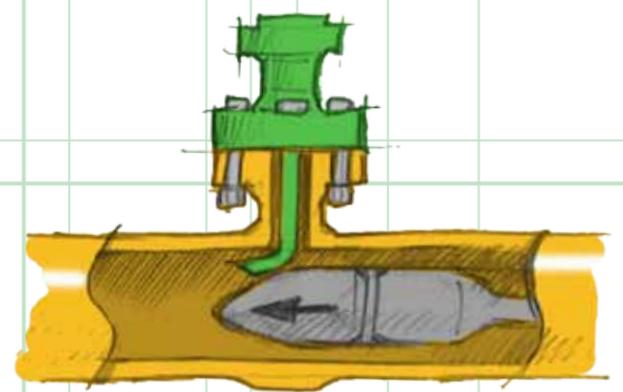
DATE
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be so bent out of shape that it was lying flat against the bore of the pipe, perpendicular to its intended position.

PROBLEM

The quill had been designed to be removed from a small access aperture in the side of the pipe-line by unfastening its flanged connection and sliding it straight outward. As the quill was bent around, once the bolts had been removed from its flange, the device could not be removed. Gaining access to straighten or break the quill were impractical, so some means of extracting the device through its intended aperture was required.



BACKGROUND

Equalizer International were approached to suggest appropriate tooling for the removal of a damaged quill. A pipe-line chemical injection quill had been damaged by a heavy object passing within the pipe-line, such as an intervention tool or pig. The blunt force had caused the narrow pointed quill to

PIPELINE QUILL REMOVAL



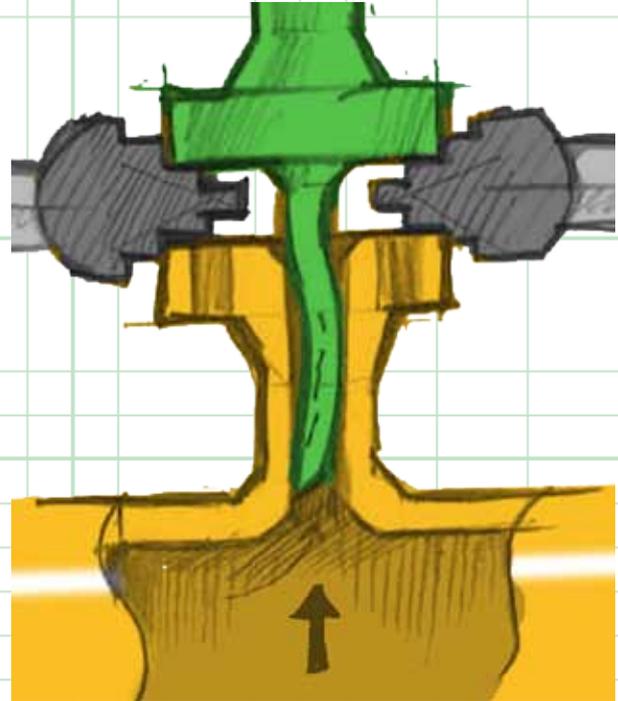
FLANGE TOOL INNOVATION

TRADITIONAL METHODS

Hammering steel wedges into the gap risked injury and damage to the flanges and pipeline, and would not provide a smooth and controlled force that may risk the quill breaking and becoming lost in the pipeline.

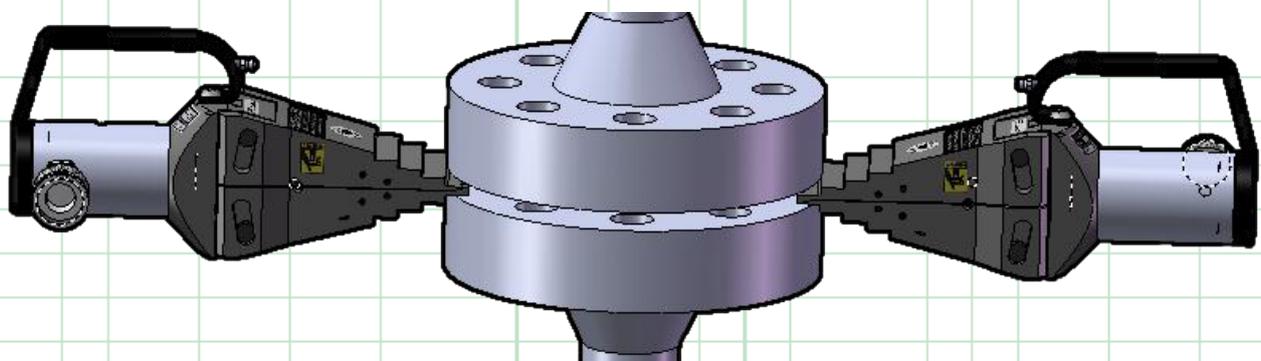
EQUALIZER SOLUTION

Equalizer proposed the use of its high-power spreading wedges to extract the quill. Several SW15TE tools were employed in the 6mm access gap between the flanges, and the large spreading capabilities of the tool enabled the quill to be pulled out, straightening the bent shaft gradually as it was pulled outwards.



OUTCOME

Down-time was minimised, no personnel were endangered, the flange and pipe-work were undamaged. The quill remained unbroken, so no fragments were lost into the pipe-line.



CUSTOMER BENEFITS

- Offering a spreading solution where no other safe options existed
- Sufficient spreading capacity to straighten damaged quill
- Safe, controlled flange spreading

TECHNICAL ENQUIRY?

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