Dry Re-completion of two gas storage cavern wells in UK

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A gas storage operator in UK had removed two gas storage caverns from service representing 25% of their sites capacity, due to integrity issues with the original completions. The operator requested that Atkins develop plans for the re-completion of the wells to return the caverns to service. During concept development Atkins proposed re-completing the wells utilisation the "dry" re-completion method by isolating the well from the cavern with plugs to remove the need to rewater the cavern to "wet" re-complete as has historically been conducted. This concept was approved by the client and after detailed design and equipment & services procurement the Atkins project team managed and supervised operations on site for the duration of the project. The project was complex and took place while the gas plant remained operational throughout the 6 month operation. Both wells returning to full Gas Storage Service ahead of schedule and on budget with no HSE incident during the workovers at the Tier 1 COMAH site.

Atkins provided a multi-disciplinary team of engineers & project support staff to deliver the project to ensure the cavern were online for Quarter 4, to ensure the additional storage capacity was available for use during the 2022/23 winter, with over 68,000 site manhours worked 24/7 for six months with no incidents or environmental spills.

It is intended to present the technical aspects related to the dry re-completion and the process that Atkins undertook to plan and enact these.