

BP AUSTRALIA PIPELINE, CARRINGTON

OIL/GAS | SEWER | STORMWATER | POWER | WATER | TELCO

PROJECT OVERVIEW

BP Australia owns and operates a fuel terminal located at the corner of Industrial Drive and Elizabeth Street in Carrington, near Newcastle. The terminal is used for the storage and handling of bulk quantities of diesel and petrol fuels. Due to increases in demand and mining growth in the Hunter region, a need to secure supply was sought. The Newcastle infrastructure project allows fuels to be pumped directly from tankers at Port Hunter via a 2.5 kilometre steel pipeline to the refurbished BP terminal.



LOCATION

Elizabeth Street, Carrington NSW



CLIENT

AJ Lucas



PIPE

16"/400mm steel



GEOLOGY

Estuarine sand



LENGTH

345 metres



TECHNIQUE

HDD

SCOPE OF WORKS

UEA was engaged to deliver a 345 metre HDD installation of 400mm steel pipe for AJ Lucas on behalf of BP Australia. The project had a very tight timeframe, and the award was based on the ability to successfully deliver the HDD scope within this time period with designated key activities impacting on the timeframe.

CONSTRUCTION

To meet the client's time requirements, UEA mobilised a D100 x 120 (45 tonne) HDD drill rig and DFE 300gal/min cleaning system to undertake the pilot bore. A steering engineer was engaged to ensure the bend radius of the pipe was not compromised. Completion of the pilot bore confirmed that ground conditions were estuarine sand with low clay content at depth. For the reaming process, UEA mobilised a D300 x 500 rig and DFE 700 gal/min cleaning system. Scheduling of the reaming works were based on the day and time that pipe could be strung out across the access road, in order to maintain the only heavy vehicle access to Port Hunter.

A 750mm open reamer was utilised for the pre-reaming pass in conjunction with a comprehensive mud program designed to help carry out solids and help to maintain hole stability in the sand. The bore was



surprisingly stable with returns maintained for 90% of the ream, a testament to the importance of good mud in these ground conditions.

CONSTRUCTION

Despite the tight timeframe, difficult ground conditions and significant heat, the 400mm steel pipe was successfully installed with pullback pressures kept below 10 tonne.