Project Profile: TBM TUNNELING



North Central Hillsborough Inter-tie - Phase 2 Tampa, FL



PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction Corp. was subcontracted to Rockdale Pipeline Inc. (RPI) to tunnel under the Hillsborough river and install an 84-inch diameter water main in the tunnel. Two shafts were constructed on either side of the river by RPI using driven steel sheets. BCC mined the tunnel by jacking a 98-inch diameter steel casing behind a 101-inch diameter earth pressure balance (EPB) tunnel boring machine (TBM) manufactured by Lovat of Ontario, Canada. The tunnel was completed successfully through difficult ground conditions including layers of hard and abrasive chert and high groundwater pressures.





PROJECT INFORMATION - 377

OWNER:

Tampa Bay Water Authority 2575 Enterprise Road Clearwater, FL 33763 (727) 796-2355

ENGINEER:

Greeley & Hansen Dave Hodge (813) 873-3666

CONTRACTOR:

Rockdale Pipeline, Inc.

COMPLETION DATE:

2/4/2004

GEOLOGY:

Limestone, Clay & Chert

EXCAVATION METHOD:

Lovat TBM

MINING DIMENSIONS:

300' x 101" Ø

FINAL LINING:

84" Steel Pipe

FOR MORE INFORMATION:

Eric Eisold, Vice President (410) 970-8300 eeisold@bradshawcc.com Refer to Project 377