

BTC key facts

Pipeline

Length of route: 1,768km overall, 443km in Azerbaijan, 249km in Georgia, 1,076km in Turkey
Diameter of pipeline: 46/42/34 inches – 117/107/86cm
Number of valve stations: 101 (22 in Azerbaijan, 27 in Georgia, 52 in Turkey), 40 x 40m in area
Capacity: 1 million barrels per day or 50 million tonnes per year
Design life of system: 40 years
Maximum altitude reached: over 2,800m
Number of land packages en route: more than 20,000 (over 6,000 in Azerbaijan, 3,000 in Georgia, 11,000 in Turkey)
Number of communities passed: c. 450 (80 in Azerbaijan, 70 in Georgia, 300 in Turkey)
Number of road and rail crossings: over 350 in Azerbaijan, 250 in Georgia, 800 in Turkey
Number of river crossings: over 700 in Azerbaijan, 200 in Georgia, 600 in Turkey

Terminals and pumping stations

Sangachal terminal: 2 new crude oil storage tanks (127,000m³ capacity each), control room for entire BTC pipeline, metering facilities, pumping station
Ceyhan marine export terminal: seven crude oil storage tanks, 150,800m³ capacity each, 2.5km jetty to load two tankers up to 300,000 dwt simultaneously, import/export metering facilities, BTC pipeline pressure reduction facilities on arrival, waste water treatment plant, vapour incineration facilities, additional marine support vessels, control room for ship loading and secondary control room for BTC pipeline operation
Number of pump stations: 8 (2 in Azerbaijan, 2 in Georgia, 4 in Turkey) and one pressure reduction station, approx. 15-20 hectares in area
Hydraulic power requirement: 40 MW in Azerbaijan, 40 MW in Georgia, 50 MW in Turkey
Metering stations: 4 (one each in Azerbaijan and Georgia, 2 in Turkey)
Intermediate pigging stations: 2 (one each in Azerbaijan and Turkey)

Design and construction

Basic engineering period: 8 months (November 2000 – June 2001)
Detailed engineering period: 12 months (June 2001 – June 2002)
Construction period: two years overall
Size of construction workforce: approx. 2,300 in Azerbaijan, 2,500 in Georgia, 5,000 in Turkey
Number of sections of pipe: c. 150,000, each up to 12m long
Weight of steel pipe: 290,000 tonnes in Azerbaijan and Georgia, 365,000 tonnes in Turkey
Width of construction corridor: 32m for BTC alone, 44m where laid alongside other pipelines
Width of long-term right of way: 8m
Depth of pipeline: at least one metre underground throughout
Cost of project: \$2.9 billion overall including \$1.4 billion for Turkey section

Operations

Speed of oil through the pipeline: 2m per second at design capacity
Design pressure of pipeline: Generally 100 bar
Quality of oil being transported: ACG crude oil is 34 API, low sulphur content, sweet crude
Number of operational staff: approx. 250 in Azerbaijan, 250 in Georgia, 350 in Turkey
Fibre optic cable throughout for SCADA and telecommunications
Leak detection system
Cathodic protection system to prevent corrosion
Emergency shutdown system, fire and gas detection systems
Oil spill response equipment at strategic points

Reserves in ACG oil field: at least 5.4 billion barrels

a truly international effort

LONDON 1 – AZERBAIJAN & GEORGIA

JOHN BROWN HYDROCARBONS
(FORMERLY KVAERNER) CONTRACTOR PRE-QUALIFICATION & RIGHT OF WAY ENGINEERING

LONDON 2 – AZERBAIJAN & GEORGIA

BECHTEL – ENGINEERING & PROCUREMENT SERVICES

GEORGIA: PIPELAY, FACILITIES & AGIS

SPIE CAPAG/PETROFAC

AZERBAIJAN: FACILITIES & AGIS

SPIE CAPAG/PETROFAC

AZERBAIJAN: PIPELAY

CONSOLIDATED CONTRACTORS INTERNATIONAL

TURKEY: FACILITIES & AGIS

TEPE*

TURKEY: PIPELAY – LOT A

TEPE-NACAP*

TURKEY: PIPELAY – LOT C

PUNJ LLOYD-LIMAK*

TURKEY: PIPELAY – LOT B

GUNSAYIL-HAUDSTADT-TIMMERMAN-MAX STREICHER-ALARKO*

TURKEY: MARINE TERMINAL

TEKFEN*

AZERBAIJAN: SANGACHAL TERMINAL

BROWN & ROOT (ENGINEERING AND PROCUREMENT)
TEKFEN/AZFEN CONSTRUCTION OF FACILITIES

TURKEY: DETAILED ENGINEERING

TEMELSU*/YUKSEL*
ILF

* BOTAS sub-contractor