Project Management International

Topographic and Facility Survey, 18” Products Pipeline

Client: Trafigura Construction Ltd.
Location: Tema, Ghana
Period: December 2005

Topographic and Facility Survey, 18” Products Pipeline

For the construction of the 18” products pipeline between Tema Oil Refinery (TOR) and Bulk Oil Storage and Transportation Company (BOST), a topographic and facility survey was required.
Trafigura Construction Ltd contacted PMI to execute the survey and to supply layout and long section drawings of the 18” products pipeline route.

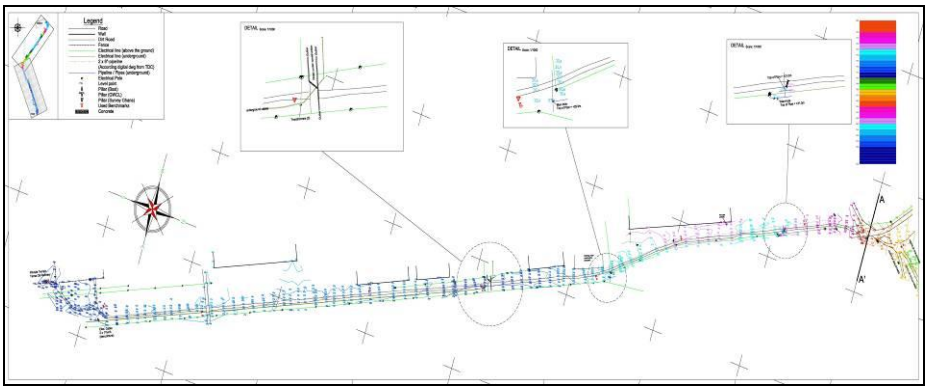
The scope of works comprised of the topographic and facility survey of 4.7km of pipe route with a survey width of 60 meters.

The Works

PMI mobilized shortly after award of the contract and executed the required survey in two weeks.

To reduce the survey time, the topographic and facility survey was carried out simultaneously with the following activities describing the works:

Bush clearing over sections of the 4.7 km pipe route was required, freeing the line of sight.



A published benchmark in the area was used as a fixed point for elevation and easting-northing. Additional benchmarks were established along the future pipeline route.

All known existing services were exposed by hand. The unknown underground facilities were detected using an instrument detecting magnetic fields and were also exposed by hand excavation.

The position and elevation of facilities and structures, including road crossings within 30 meters of the pipe routing, were surveyed.

The pipe route with a distance of 4.7km was surveyed.

The full handover report to the Client included a detailed description of the surveyed area, benchmarks, and structures. It also included a picture report as well as the A0 size layout and long section drawings.

The work was completed within 14 days of contract award and to the Client’s satisfaction.