

HELLENIC PETROLEUM S.A.

Thessaloniki Refinery

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To: Anyone Concerned

Project: " Partial shell replacement of atmospheric pipestill column T-101"

Contract No.: 4305001280

Budget: 995.000,00 **Award:** 09.05.2012 **Duration:** 30 days

Job Description:

- 1. Construction of a new part of the T-101 atmospheric pipestill column. (h=7452mm, D=4608mm, t=19mm)
 - New part construction including internals support rings.

Shel material: clad plates [SA S16Gr.60 (16+3)mm type SS316L clad] Support rings material: SS316L th=12mm Supports material: A420 Gr316 th=12mm

- New nozzles (1", 2", 6", 8", 10", 20" SA106 Gr.B), reinforcement pads (SA S16 Gr. 70) and manhole 20" construction and installation.
- New nozzles and manhole Weld Overlay (Type 316L)
- 2. Internal inspection (Trays) of the atmospheric pipestill column T-101.
- 3. Partial shell replacement (EL+10048 to EL+17500)
 - A. Atmospheric pipestill column cut into four (4) parts. (EL+10048 EL+17500, EL+17500 EL+26612, EL+26612 EL+36537, EL+36537 top of column)
 - New (EL+10048 EL+17500) and old parts rebuilding and welding.
 - Dismantling and assembly of the column's trays.
 - Insulation works

B. Electrical works / Instruments

- Dismantling / Disconnection and Assembly / Connection: Lighting panels, power supply cables, junction boxes, instruments, instrument cables etc.

C. Piping

- Atmospheric pipestill column T-101 pipelines cut, dismantling and welding.
- Partial replacement of the piping network.
- Pipeline washing.
- Insulation works.



- 4. (Monel) Internal corrosion resistance improvement.
 - Working Area: EL+37500 to EL+38010 and TRAY#47 to TRAY#48 Total 1182mm. Internal Dim: 3674mm
- 5. Atmospheric pipestill column insulation works.

We are pleased to confirm that ETMER S.A. has successfully completed the above project at desired time and to the utmost quality.

For and on behalf of Hellenic Petroleum S.A.,

D. P. Karagiannidis Maintenance Manager