

### Selected Projects Reference List

| S/N | PROJECT TITLE  | DESCRIPTION OF PROJECT   | CLIENT / LOCATION    | SCOPE OF SERVICES  | COMMENCING / COMPLETION DATE |
|-----|--|--|----------------------|--|------------------------------|
| 1.  | VTT VASSILIKOS OIL TERMINAL & JETTY                    | Provision of a grass root petroleum products terminal and Jetty including : <ul style="list-style-type: none"> <li>• Thirty four (34) storage tanks for white and black products with capacities ranging from 26.000 m<sup>3</sup> to 2.000 m<sup>3</sup></li> <li>• Truck loading/unloading station</li> <li>• Pumpstations</li> <li>• Vapor Recovery Units</li> <li>• Jetty facilities (including 14 No. Marine Loading Arms)</li> <li>• Firefighting facilities</li> <li>• Oily Water Treatment facilities</li> <li>• Automation / Controls / Telecommunication</li> <li>• Electrical substation and networks</li> <li>• Utilities (Hot Oil package, Nitrogen package, plant air, etc.)</li> <li>• Buildings and other civil works</li> </ul> | J&P / VTTI<br>CYPRUS | Basic Design, Process, Civil, Mechanical, Piping, Electrical, Instrumentation, Control and Telecommunication Detailed Engineering Design, Bidders' Technical Evaluation, Vendors' documentation review and approval, Issue for Construction Drawings   | 2012 / 2014                  |
| 2.  | 10" GAS PIPELINE CONDENSATES ANALYSIS & HANDLING STUDY | The study scope are : <ul style="list-style-type: none"> <li>• Alternative ways of handling the condensates formed and mitigation measures for the smoke and ice formation</li> <li>• Minimization of water condensates drop out in the pipeline by suitable new installations</li> </ul>  | REPSOL<br>LIBYA      | Process simulations using HYSYS and Feasibility Study - Process design (including Process Flow Diagrams & Heat and Material Balances) as follows : <ul style="list-style-type: none"> <li>– Study of the potential of hydrates formation and options related to modifications in the plant to mitigate the problem</li> <li>– Spiking of the condensate formed to the 30" crude oil export pipeline</li> <li>– Stabilization of the condensate formed (through a new stabilizer column or other facilities)</li> <li>– Installation of a TEG dehydration Unit to eliminate water drop-out and minimize hydrates formation</li> <li>– Alternatively, installation of a refrigeration package</li> </ul> | 2013 / 2014                  |

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|-----|----------------------------------|---|----------------------------------|--|------------------------------|
| 3.  | SEA COOLING WATER SYSTEM UPGRADE | Performance of study for debottlenecking the sea cooling water system of the refinery   | MOH Corinth Refineries<br>GREECE | Hydraulic study and analyzing of options to boost the supply of Sea Cooling Water (SCW) to remote units of the refinery including :<br><ul style="list-style-type: none"> <li>– Calculation of SCW demand</li> <li>– Hydraulic simulation of the SCW system</li> <li>– Increase of supply pumps impeller size to max allowed taking into consideration existing pumps' motors</li> </ul> | 2014 / ongoing               |
| 4.  | CEYHAN TERMINAL EXPANSION        | Expansion of the existing petroleum products terminal at Ceyhan, Turkey. The expansion includes :<br><ul style="list-style-type: none"> <li>• Twenty nine (29) new storage tanks for white and black products with capacities ranging from 27.000 m3 to 2.000 m3</li> <li>• Ship loading/unloading facilities</li> <li>• Truck loading/unloading station</li> <li>• Pumpstations</li> <li>• Vapor Recovery Units</li> <li>• Firefighting facilities</li> <li>• Oily Water Treatment facilities</li> <li>• Automation / Controls / Telecommunication</li> <li>• Electrical substation and networks</li> <li>• Utilities (steam, condensates and nitrogen networks)</li> <li>• Buildings and other civil works</li> </ul> | DELTA RUBIS<br>TURKEY            | Basic Design, Process, Civil, Mechanical, Piping, Electrical, Instrumentation, Control and Telecommunication Detailed Engineering Design, Bidders' Technical Evaluation, Vendors' documentation review and approval, Issue for Construction Drawings   | 2012 / 2014                  |

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| 5.  | NC-115 GOSP-A & NC-186 GOSP-A LP/HP FLARE AND TANK FLARE RELOCATION STUDY            | The scope of the study is to establish the new capacity of the existing LP/HP and tank flare systems of NC-115 GOSP-A due to the plant modifications made since its first installation and examine the relocation of the existing flare stacks to reduce the thermal radiation at plant fence area, improve/increase the reliability of the flare pilot systems to a level required for safe flare operation under all conditions (normal and emergency) and provide smokeless operation for environmental compliance purposes | REPSOL<br>LIBYA              | <ul style="list-style-type: none"> <li>– Flare load analysis and flare load summary calculation for all contingencies and normal operation</li> <li>– Flare radiation calculation (FLARESIM) and consolidation of new height and location of flares</li> <li>– Verification of adequacy of existing facilities (KO drums, flare headers) and debottlenecking hydraulic studies (FLARENET)</li> <li>– Basic design of modifications (Flare specifications, Flare stacks data sheets, PFD, P&amp;ID, tie-ins, piping layouts, plot plans etc.)</li> <li>– MTO and Budget Cost Estimation</li> <li>– Preparation of Tender Documentation for EPCC</li> </ul> | 2013 / 2014                  |
| 6.  | YANBU 2 POWER & WATER PLANT – SEAWATER COOLING PIPELINES NETWORK & MARINE FACILITIES | EPC of Marine Facilities for the new Power & Water Plant, including Seawater intake and associated pumping station, GRP distribution pipelines, multi-purpose building, electro-chlorination plant, associated utility distribution systems, C&I systems, etc.   | ARCHIRODON / MARAFIQ<br>KSA  | Endorsement of Basic Design provided by client, Process, Mechanical, Piping, Electrical, Instrumentation, and Telecom Engineering Design, Bidders' Technical Evaluation, Vendors documentation review and approval, Issue for Construction drawings.  | 2011 / 2013                  |
| 7.  | COOLING WATER SYTEM REVAMPING  | Replacement of underground Fiber Reinforced Plastic piping with above ground carbon steel piping.  | TASNEE PETROCHEMICALS<br>KSA | Basic Design, Detail Engineering, EPC package Tender Documentation, Construction Supervision  | 2011 / 2011                  |

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|-----|--|---|--------------------------------|---|------------------------------|
| 8.  | UNITS 3100 & 3900 MODIFICATIONS  | Modifications of Units 3100 & 3900 heat exchangers for the preheating of the Atmospheric Residue  | Hellenic Petroleum<br>GREECE   | Basic Design,<br>Detailed Engineering,<br>Budget Cost Estimation,<br>Procurement services   | 2009 / 2010                  |
| 9.  | SRAR NETWORK MODIFICATIONS   | Modifications of Straight Run Atmospheric Residue network including new heat exchangers at Unit 2100  | Hellenic Petroleum<br>GREECE   | Basic Design,<br>Detailed Engineering,<br>Budget Cost Estimation,<br>Procurement services   | 2009 / 2010                  |
| 10. | TPA NETWORK MODIFICATIONS  | Modifications of Top Pump Around network including hydraulic calculations and study for the protection of existing air coolers from overpressure                                  | Hellenic Petroleum<br>GREECE   | Basic Design,<br>Detailed Engineering,<br>Budget Cost Estimation,<br>Procurement services   | 2009 / 2010                  |
| 11. | NEW VENT DRUM  | Design of a new vent drum and vent line for connection to the 24" flare line  | Hellenic Petroleum<br>GREECE   | Basic Design,<br>Detailed Engineering,<br>Budget Cost Estimation,<br>Procurement services   | 2009 / 2010                  |
| 12. | SKOURIES MINERAL PROCESSING PLANT  | Installation of a Mineral Processing Plant (concentrator and associated facilities) for processing 8 million tpa of ore and producing copper concentrate and gold                 | Eldorado-Hellas Gold<br>Greece | Project Management<br>Services, Basic & Detailed<br>Engineering Design,<br>Procurement Services,<br>Construction Management<br>& Supervision Services | 2009 / Ongoing               |
| 13. | MPTS Pipeline Networks for Industrial, Domestic and Commercial Customers, at several cities in Greece  | Installation of MPTS Pipeline Networks (19 barg) at Lamia, Thiva, Corinth, Serres, Xanthi, Komotini and Alexandroupolis for Industrial, Domestic and Commercial Customers, Greece | DEPA<br>GREECE                 | Construction Supervision<br>Services  | 2007 / 2010                  |
| 14. | Detailed Engineering, Procurement, Installation and Integration Works for SCADA and Telecommunication Systems of the Greek Natural Gas Transmission System | Detailed Engineering, Procurement, Installation and Integration Works for SCADA and Telecommunication Systems of the Greek Natural Gas Transmission System                        | DEPA<br>GREECE                 | Review of Detailed<br>Engineering and Construction<br>Supervision Services  | 2007 / 2010                  |

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|-----|---|--|------------------------------------|---|------------------------------|
| 15. | MARAFIQ YANBU IWTP-II   | Design, Supply, Erection/Construction, Test on Site, Commission and put into service a new 48,000 m <sup>3</sup> / day Industrial Water Treatment Plant at Marafiq Yanbu.  | SETE / MARAFIQ KSA                 | Detailed Engineering (all disciplines)  | 2010 / 2012                  |
| 16. | I&R DEVELOPMENT - GOSP  | Design & Scheme Optimization of a 100,000 BOPD GOSP facility including : <ul style="list-style-type: none"> <li>• Two production trains with separator, degasser, dehydrator, degassed crude pumps</li> <li>• Crude oil storage &amp; transport facilities consisting of tanks, booster and shipping pumps and a 30 km 18" export pipeline</li> <li>• Fuel gas compression and export pipeline</li> <li>• Fuel gas treatment facilities for use in power generation plant</li> <li>• Condensate stabilization and handling unit</li> <li>• Produced water treatment and re-injection facilities</li> <li>• Power generation plant</li> </ul> | REPSOL / LIBYA                     | Review & consolidation of fluids basic design data such as composition, PVT, EOS Simulation of the crude oil gathering network. Simulation & Optimization of crude oil and fuel gas facilities (including condensate reuse – spiking). Export pipelines hydraulics & flow assurance | 2010 / 2011                  |
| 17. | MARAFIQ JUBAIL IWTP # 8 EXPANSION STAGE III                           | Design, Supply, Erection/Construction, Test on Site, Commission and put into service the New Plant as Stage III of Marafiq Jubail Industrial Water Treatment Plant #8, to increase the capacity of the existing facilities by 55,000 m <sup>3</sup> / day.   | SETE/MARAFIQ KSA                   | Detailed Engineering (all disciplines)  | 2009 / 2011                  |
| 18. | NC-115 & NC-186 GAS UTILIZATION- PHASE II                             | Provision of : <ul style="list-style-type: none"> <li>• A Third Gas Compressor Train at NC-115 GOSP with Slug Catcher and Gas Treatment Facilities</li> <li>• Two (2) Gas Compressor Trains at Nc-186 FIELD "A" GOSP</li> <li>• Interconnecting 10" Gas Pipeline (30 km) between NC-186 FIELD "A" GOSP and NC-115 GOSP "A" with Scraper Facilities</li> </ul>  | J&P / REPSOL LIBYA                 | Feed Verification and Completion, Hydraulic Calculations & Pipeline Dynamic Simulation, Detailed Engineering, Procurement services  | 2009 / 2010                  |
| 19. | CRUDE DISTILLATION UNIT REVAMPING                                     | <ul style="list-style-type: none"> <li>• New HH Gasoil stream to the FCC unit, including new Stripper and air cooler</li> <li>• Upgrading of preheating train</li> <li>• Existing air coolers duty change</li> </ul>   | Hellenic Petroleum GREECE          | Basic Design, Detailed Engineering, Budget Cost Estimation, Procurement services  | 2010 / 2011                  |
| 20. | EPIC OF THE TOPSIDE FACILITIES TO THE MPB AT MESAIEED INDUSTRIAL CITY | Installation of a New Flow Control Valves Skid in the Crude Oil Export System to the Multiproduct Berth and Single Point Mooring Facilities at MESAIEED Industrial City of Qatar Petroleum (QP)  | ARCHIRODON / QATAR PETROLEUM QATAR | Basic Design, Detailed Engineering, Procurement services  | 2008 / 2009                  |
| 21. | NC-115 GOSP "A" INSTALLATION OF A NEW GAS TURBINE GENERATOR SET       | Installation of a new gas turbine generator set to operate in parallel with the six (6) existing gas turbine sets.   | J&P / REPSOL LIBYA                 | Detailed Engineering, Procurement services  | 2008 / 2009                  |

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| 22. | HF MITIGATION SYSTEM                                | Provision of a Water Deluge System for protection against accidental HF releases in the Alkylation Unit 5700 of MOH Refinery at Corinth, GREECE.<br>Facilities include : <ul style="list-style-type: none"><li>• Special Water Monitors for absorption of HF Vapory</li><li>• Acid HF Water Collection and Neutralization System</li><li>• ESD System for Activation of the HF Mitigation Systems</li></ul>                        | MOTOR OIL HELLAS<br>GREECE   | Basic Design,<br>Detailed Engineering,<br>Procurement services  | 2008 / 2009                  |
| 23. | NUAYYIM ASL CRUDE INCREMENT FACILITIES (100 MBCD)   | Installation of a grass roots facility to process an additional 100 MBOPD crude oil, expansion of existing capacity of Remote Injection Stations (RIS-A and RIS-C) and upgrading the facilities at Hawtah Stabilizer for additional crude degassing.   | J&P / ARAMCO<br>SAUDI ARABIA | Basic Design,<br>Detailed Engineering,<br>Procurement services<br>Construction follow-up  | 2006 / 2009                  |
| 24. | SCADA Upgrade Project                               | Upgrade of the SCADA system of the Greek HP NGTS   | DEPA<br>GREECE               | Detailed Engineering, Factory Acceptance Test, Construction Supervision   | 2004 /2007                   |
| 25. | COMPAGNIE DES PETROLES TOTAL LIBYE - MABRUK PHASE 4 | Development of the Great Mabruk Area including the following facilities : <ul style="list-style-type: none"><li>• Oil &amp; Water Wells</li><li>• Flowlines / Trunklines</li><li>• Satellites &amp; Node facilities (6 No.)</li><li>• Power Generation Plant (3x8 MW) and power distribution system</li><li>• New GOSP Plant</li></ul>   | J&P / TOTAL<br>LIBYA         | Basic Design,<br>Detailed Engineering,<br>Procurement services,<br>Pre-commissioning /<br>Commissioning procedures,<br>Operating Manual,<br>Start-up assistance | 2004 / 2006                  |
| 26. | NAFOORA WATER DISPOSAL AT GOSP 4 & GOSP 102D        | Oily Water Treatment, Oil Recovery and Treated Water Disposal to Wells. The facilities include : <ul style="list-style-type: none"><li>• Settlement Tanks with Internals</li><li>• Water Disposal Pumping Stations</li><li>• Recovered Oil Pumping Stations</li><li>• Chemical Injection Packages</li><li>• Control Rooms</li><li>• Electrical Substations</li><li>• Pipelines from/to GOSPs and to Water Disposal Wells</li></ul> | J&P / AGOCO<br>LIBYA         | Basic Design,<br>Detailed Engineering,<br>Procurement services,<br>Operating Manual   | 2003 / 2004                  |

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| 27. | NC 186 DEVELOPMENT PROJECTS   | Provision of :<br><ul style="list-style-type: none"> <li>Crude Oil Treating Facilities (GOSP) with production and test separators, degassers, dehydrators, wash &amp; surge tanks, flare system, utilities, instrumentation &amp; controls, crude shipping pumps, metering facilities, pig launcher, etc.</li> <li>18" Crude Oil Pipeline.</li> </ul>  | J&P / REPSOL<br>LIBYA           | Basic Design,<br>Detailed Engineering,<br>Procurement services,<br>Operating Manual  | 2003 / 2004                  |
| 28. | NAFOORA GAS LIFT SYSTEM CAPACITY EXPANSION & NAFOORA GAS UTILIZATION          | Expansion of the Nafoora Gas Lift System capacity in order to increase the oil production from Nafoora Field as well as installation of Export Facilities for exporting compressed, dehydrated and sweetened gas. The new facilities include :<br><ul style="list-style-type: none"> <li>Compressors</li> <li>Dehydration Units (2 No.)</li> <li>Sweetening Unit (Mole Sieves)</li> <li>Pipelines, Export Gas Custody Transfer Metering, etc.</li> </ul> | J&P (Overseas) Ltd.<br>LIBYA    | Basic Design, Detailed Engineering, Procurement Services, Support During Construction  | 2002 / 2004                  |
| 29. | AGIP OIL - LASMO PIPELINE PROJECT   | Provision of :<br><ul style="list-style-type: none"> <li>16" dia crude oil trunklines (approx. 9 km) from oil well pads to GOSP, with pig launchers and receivers.</li> <li>Approx. 72,5 km 24" dia crude oil export pipeline from AGIP GOSP to ROO pipeline, with pig launcher and receiver</li> <li>Approx 3.6 km 8" dia water injection pipeline.</li> </ul>  | J&P (Overseas) Ltd.<br>LIBYA    | Detailed Engineering,<br>Engineering Management for Electrical Distribution Network  | 2002 / 2004                  |
| 30. | REFINERY TRUCK LOADING TERMINAL   | Provision of a Terminal for Black and White Oil products, including :<br><ul style="list-style-type: none"> <li>Interconnecting with the Refinery</li> <li>Storage tanks (14 No.)</li> <li>Pumpstations (18 No. Pumps)</li> <li>Vapor Recovery Unit</li> <li>Truck Loading Facilities (Top and Bottom Loading)</li> <li>Terminal Automation System and Controls</li> <li>Firefighting facilities, utilities, buildings, etc.</li> </ul>                  | MOTOR OIL HELLAS S.A.<br>GREECE | Project Management,<br>Preparation of Plot Plan, Conceptual Study, Basic Design, Permits Acquisition, Detailed Engineering, Cost Estimation, Procurement Services, Construction Management & Supervision | 2001 / 2003                  |
| 31. | REPSOL OIL OPERATIONS EL SHARARA (NC-115) DEVELOPMENT WATER INJECTION PROJECT | Provision of :<br><ul style="list-style-type: none"> <li>Water gathering network from Water Source Wells</li> <li>Produced Water Treatment Plants at GOSPs</li> <li>Water Injection Pumping Stations</li> <li>Water Injection Distribution Network</li> </ul>  | J&P (Overseas) Ltd.<br>LIBYA    | Basic Design, Detailed Engineering, Operating Manual   | 2000 / 2003                  |

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| 32. | MOTOR OIL HELLAS<br>CORINTH REFINERIES SEA<br>COOLING WATER SYSTEM<br>UPGRADE | Upgrading of Refinery's Sea Cooling Water System to cope with the increased (new process units added) cooling demand including :<br><ul style="list-style-type: none"> <li>• Revamping of the existing sea cooling water pumpstation and addition of 3 No. sea water pumps</li> <li>• Addition of a new 24" cement line sea cooling water header</li> <li>• Debottlenecking of existing system</li> </ul> | MOTOR OIL HELLAS<br>S.A.<br>GREECE | Project Management, Feasibility Study, Basic Design, Detailed Engineering, Cost Estimation, Procurement, Construction Management and Supervision | 2000 / 2001                  |
| 33. | METHANOL TERMINAL<br>RECEIVING FACILITIES,<br>STORAGE & TRUCK<br>LOADING      | Provision of a Methanol Terminal at Alexandroupolis, Greece, including :<br><ul style="list-style-type: none"> <li>• Ship mooring</li> <li>• Subsea pipelines</li> <li>• Storage tanks</li> <li>• Loading pumpstation</li> <li>• Truck loading &amp; Firefighting facilities, utilities, etc.</li> <li>• Automation, Controls, ESD</li> </ul>   | HADJILUCAS S.A.<br>GREECE          | Basic Design, Permits Acquisition, Detailed Engineering, Construction Management and Supervision   | 1999 / 2000                  |
| 34. | HEL.PE. S.A. -<br>THESSALONIKI INDUSTRIAL<br>COMPLEX<br>POLYPROPYLENE PLANT   | Provision of a Polypropylene Plant at Thessaloniki Refinery (EKO) Complex   | ASPROFOS S.A.<br>GREECE            | Construction Management and Supervision Services   | 1999 / 2001                  |
| 35. | KOMOTINI COMBINED<br>CYCLE POWER PLANT  | Provision of a 476 MW Combined Cycle Power Plant for PPC at Komotini, Greece  | AEGEK S.A.<br>GREECE               | Detailed Engineering for piping including isometric drawings, stress analysis and MTO.   | 1999 / 2000                  |