BEng. CEng. MIChemE.

Tel: (Mobile)0795 092 0902Email:wainers@blueyonder.co.ukTwickenham, West London, TW2 6PP.Linked In:www.linkedin.com/in/mikewainer

Summary

Years of experience

25+ years

Industries

- Oil and Gas
- Petrochemical
- Water Treatment
- Energy from Waste
- Mining
- Chemicals

Types of facilities

- Onshore & Offshore
- Production Facilities
- Water Treatment and Injection (Oil & Gas)
- Municipal Water Treatment

Areas of expertise

- Project Engineering
- Process Design
- Conceptual Studies
- Detailed Design
- Oil and Gas Facilities
- Water Treatment
- Expert Witness

Professional summary

Mike is an articulate and collaborative Chartered Engineer with over 25 years' experience in Senior, Principal and Lead roles. 10+ years of Oil and Gas Project Engineering and Process Design experience with international design contractors, working on world scale projects for major Oil and Gas companies including BP, Shell, Chevron, Statoil and Saudi Aramco. A further 10+ years of Design, Project Engineering and Commissioning experience with contractors and consultants within the UK municipal water treatment industry. Additional experience within the mining, chemical, nuclear and energy from waste industries. Has acted as an Expert Witness for a major oil and gas project arbitration, and is listed with the National Expert Witness Agency (NEWA)

Qualifications

Registrations / Certifications / Licenses

- BEng. in Chemical and Process Engineering
- Chartered Engineer (CEng.)
- MIChemE
- CSCS Construction Safety Professionally Qualified Person
- Prince2 for Projects Registered Practitioner

Recent projects

- Principal Project Engineer Duqm refinery Petrochemical Integration Project. New petrochemical facility alongside existing refinery.
- Principal Project Engineer Petrokemya North PK Cluster project for SABIC. Carbon Fibre and Cyanides facilities.

Key Relevant Experience

- Acting in an advisory capacity, in relation to an English High Court case relating to claims for environmental damages arising out of the treatment and discharge of wastewater.
- Technical Expert witness for the Waterflood system in the Arbitration for the Gumusut-Kakap offshore oil & gas platform. Attended the hearing in Malaysia and was cross-examined by the panel of Arbitrators.
- Process Engineering Lead on the Sakhalin 2 gas project which subsequently went to arbitration. Involved in preparation of response to claim.
- Registered with National Expert Witness Agency (NEWA)

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CAREER.

Confidential Expert Witness Consultancy Services

(Jan.'21 onwards) Acting for the Claimants as an expert, in an advisory capacity, in relation to an English High

Court case regarding claims for environmental damages arising out of the treatment and

discharge of wastewater and other activities of an onshore oil & gas field owner.

Wood Group Principal Project Engineer

(Nov.'19 - Nov.'20) Project Engineer responsible for Value Engineering screening and implementation for the

Duqm refinery Petrochemical Integration Project for Oman.

Area Project Engineer for the Utilities areas for the SABIC PK Cluster Project (Carbon Fibre and Cyanides), with additional oversight of the Electrical, C&I and Piping disciplines.

(Aug. '18 - Nov. '19) Principal Process Consultant

Area Lead Process Engineer for the Utilities scope for the Petrochemical-Refinery Integration Project, Al-Zour refinery for KIPIC. Responsible for overseeing India office engineers.

Area Lead Process Engineer for the Utilities and Offsites for a petrochemical improvement project for SABIC. Project to increase capacity by replacing an existing licensed unit with a SABIC technology unit, and upgrading the existing units to increase throughput.

Houlder Ltd. Expert Witness Consultancy Services

(Mar.'18 – Mar.'19) Technical Expert witness for the Waterflood system for an Arbitration for the Gumusut-Kakap

Project (offshore platform - Malaysia), appointed by the Claimant. Responsible for the water system expert report, input and response to expert joint statements, and was called to attend the hearing and cross-examination by the panel of arbitrators. Arbitration panel comprised of Sir Vivian Ramsey (Chairman), Dr. Robert Gaitskell and Professor Doug Jones. Claimant QC was Ms. Serena Cheng.

M+W Group Senior Project / Process Engineer

(Jul. '17 – Aug. '18) Site-based Process / Project engineer responsible for supervising the Anaerobic Digestion plant sub-contractor on a large energy from waste facility in Shepperton, UK for Suez.

Black & Veatch Senior Project / Process Engineer

(May '16 – Jul. '17) High level study work to review options and produce proposals and costs to meet Asset Planning future needs for various clean drinking water treatment works for Thames Water.

Project Engineering support closing a series of outstanding AMP5 sewage treatment projects for Thames Water. Duties included arranging performance testing and site sampling, reporting and scheduling, and analysis of results, and client liaison. Also reviewed commissioning results of six CHP plants to verify that they met performance and financial targets.

Biwater Intl. Mechanical Design Engineer

(Feb.'16 – Apr.'16) Package Engineer responsible for the rapid gravity filter (RGF) under-drain/lateral system and Backwash pumps, and also the Treated Water Distribution pumps (5 sets of pumps comprising 33 pumps in total serving a distribution network of approximately 100km) for Erbil, Kurdistan.

Costain Process Engineer

(Nov.'15 – Dec.'15) Process Engineer working as part of Costain's Asset Optimisation team within the Thames Water 'Eight 2O' alliance, working on efficiency savings at Bicester and Swindon STWs.

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WorleyParsons Principal Water Management Engineer

(Sept.'15 - Oct.'15) Process Consultant producing water demand calculations, and reviewing and updating process data sheets for various water and sewage treatment packages, for the manned compressor and metering stations on the TANAP gas pipeline project across Turkey.

Wood Group Principal Process Engineer

Mustang Ivar Aasen platform for Det Norske for the Norwegian sector of the North Sea. Responsible (Sept.'13 - Nov.'14) for produced water system design, review and integration of the vendor packages (based on compact flotation units), and the Water Injection. Designed to NORSOK standards.

WorleyParsons Principal / Lead Process Engineer

(Feb.'06 - Sept.'13) Various Lead and Principal Process Engineering roles, including acting as water treatment Lead and Consultant engineer. Key roles include :-

Lead Water Systems Engineer for BP Khazzan gas field development in Oman. Responsible for FEED design for all water systems including for drilling and hydraulic fracturing of 300+ gas wells, water supply network, produced water disposal, and potable and process water supplies. Developed the overall water demand profile through the life of the project.

Lead Water Systems Engineer for a feasibility study for a Mauritanian Iron Ore project for Glencore / Xstrata. Process design of the mining water, domestic and waste water systems, to support both construction activities and ongoing operations, together with Project work to support Vendor enquiries and submissions.

Water Systems Consultant to the WP Beijing office for the Chuandongbei Gas Plant project for Chevron. Responsible for oversight of Beijing office Water Treatment team for $600 \times 10^4 \text{ m}^3/\text{day gas plant}$.

Pre-FEED for Statoil Gudrun and treatment at Kårstø. Responsible for treatment and disposal of produced water/effluent, including producing all specifications and package vendor liaison.

Senior / Lead Process Engineer for Sakhalin 2 Onshore Gas and Condensate Processing Facility for Shell (*Detailed Design*). Responsible for process design of MEG regeneration system and associated MEG reclaimer, methanol injection and all of the waste water treatment and disposal systems. Subsequently spent seven months as the Lead Process Engineer, managing all of the process team (14 engineers & 2 CAD).

Foster Wheeler Senior Process Engineer

(Sept.'05 – Feb.'06) **FEED** study for the Khurais oil processing facility for Saudi Aramco (1.2 million bbl / day). Responsible for process design for all oily water and sanitary wastewater collection systems, plus some involvement in other utilities design (air and steam systems).

Air Products Senior Process Systems Engineer

(Dec.'04 - Sept.'05) Co-ordinated all P&ID production within the Generated Gases group. Projects included air separation plants for a platinum refinery in South Africa, microelectronics plants in Korea, olefins plant in Israel and chemicals plant in Brazil.

Black & Veatch Process Systems / Project Engineer

(May '01 – Nov.'04) Project Engineer for odour control packages for Ringsend WWTP in Dublin. Responsible for managing Vendor scopes of work, installation procedures and overseeing delivery.

Lead Process Designer for 5 UF membrane treatment plants for Severn Trent. Deputised for the project manager and was main project contact during the latter stages of the contract.

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Montgomery Lead Design Engineer

Watson (MWH) Team leader for a Thames Water alliance, responsible for programme development and (Jan. '00 - May '01) planning, concept design and costings for a 5-year programme of works to 2005 for the

'Provinces' areas.

ERG - Lancy (Aug.'99 - Jan.'00) Project Engineer for an anaerobic digester project to treat industrial effluent in N. Ireland.

Design Engineer for a borehole de-contamination project, and for disinfection upgrades for

various sites across Kent and Sussex for Southern Water.

Taylor Woodrow Process / Commissioning Engineer.

(**Taymel**) Hampton WTW Ozonation project for Thames Water. Led the commissioning team and (**July '94 - July '99**) liaised with the Client's operational and engineering staff for all commissioning activities.

Client's representative for Pirelli Cables Optical Fibre Manufacturing Unit. Supervised the subcontractor commissioning of the clean room HVAC systems, waste water and waste gas treatment plants, and the process cooling water systems.

Lead Process designer for Hornsey WTW tender. Carried out initial design, produced process report and commissioning plan, and involved in final presentation, resulting in award of contract.

Lead Process designer for Hampton WTW Ozonation project for Thames Water. Produced all P&IDs / PFDs, line lists, pump sizing & hydraulic profiles and chemical dosing packages.

Mechanical Commissioning Engineer at Atomic Weapons Establishment (AWE), Aldermaston. Responsible for commissioning all domestic, Active Effluent and HVAC systems. Produced all commissioning procedures, and demonstrated systems to the client for acceptance and handover.

Commissioning Engineer for Ashford Common WTW for Thames Water. Responsible for process and mechanical commissioning of new water treatment plant.

Earlier Career Details

1991 – 1994Plant Technologist / Production Supervisor, Chemson Ltd(Chemical Manufacturing)1989 – 1990Industrial Engineer, Rhone-Poulenc Rorer (now Sanofi)(Pharmaceuticals)1989Industrial Engineer, Taylor Woodrow (Taymel)(Nuclear)

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