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Engineering Office / Belgrade Branch

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BELGRADE,
REPUBLIC OF SERBIA

UAE OFFICE

PO BOX-120409,
SAIF Office, P8-11-48,
Saif Zone, Sharjah,
UNITED ARAB EMIRATES

Company Related Web Sites:

www.voltecltd.com

Activities

Group: Design, Engineering and Construction.



THE GROUP

ECL

Voltec Engineering

Voltec ltd Free Zone

Voltec for Oil Services

IK consultant

The Group have been incorporated in London, United Kingdom in 1988 with initial shareholding of GBP 1,000,000 fully issued and fully paid at time of Incorporation.

The Group established by a number of professional engineers who gained World class experience in firms like Ove Arup, DSSR, GMW and Energoprojekt .

In 1992 the Group established a specialized company in Water Engineering, Dams and Hydro Power in the UK as an affiliate of ECL Ltd, named ITSC Hydroengineering with GBP 500,000 fully issued and fully paid. The shareholders in this company were 51% ECL and 49% EnergoProjekt Hydroengineering of Belgrade.

The Group have started to shift all consulting engineering works and production to Belgrade Branch.in 2002 ECL bought all EnergoProjekt Hydroengineering shares and the Group became independent with Engineering Staff in (4) four main locations. In the UK overall management and Group Headquarters, Main Design and Engineering Offices in Belgrade, Serbia and Montenegro .

Voltec Engineering is a local Iraqi company and an independent legal entity registered in Sulaimaniyah-IRAQ in 2009 responsible for all Iraq Operations.

The Group have a multi-disciplinary team of engineers and provide a wide range of Engineering Services with particular expertise in Water Engineering, Water and Wastewater Treatment, Dams and Hydropower Irrigation Systems and Solid Waste Treatment. Power Generation and Oil & Gas

The Project list in the last ten years includes the following:-

1) Serbia and Montenegro

- 3 WWTP for Belgrade Preliminary Design and Feasibility Study.
- Sewage Network in 7 Towns in Montenegro.
- Survey and Maintenance Programme for 25 Dams, including Celijc, Bovan, Vruljci, Gruza, and Barje.
- Hydropower Dam – Ducola, Montenegro.
- 4 Desalination Plants in Montenegro.
- Water Treatment Plant in Tamarin.

No. 10 Malik Mahmood St., 305 Rojhalat, Sulaimaniyah-IRAQ

2) Russian Federation

- Jaroslave Water Treatment Plant – Turnkey.
- 6 Indoor Sports Arenas in six cities in Tumen Region – Turnkey.
- 3 Office Buildings in Nizhnyevartovsk – Turnkey.
- General Hospital in Nizhnyevartovsk – Turnkey.
- Solid Waste Treatment, Moscow BOT – Contract Stage in JV with FISIA BABCOCK.

3) Cyprus

- 2 WWTP and Sewage Networks for Nicosia – Design, Engineering and Site Supervision.

4) Macedonia

- Water Treatment Plant, Kocani – Design, Engineering and Site Supervision.

5) Tunis

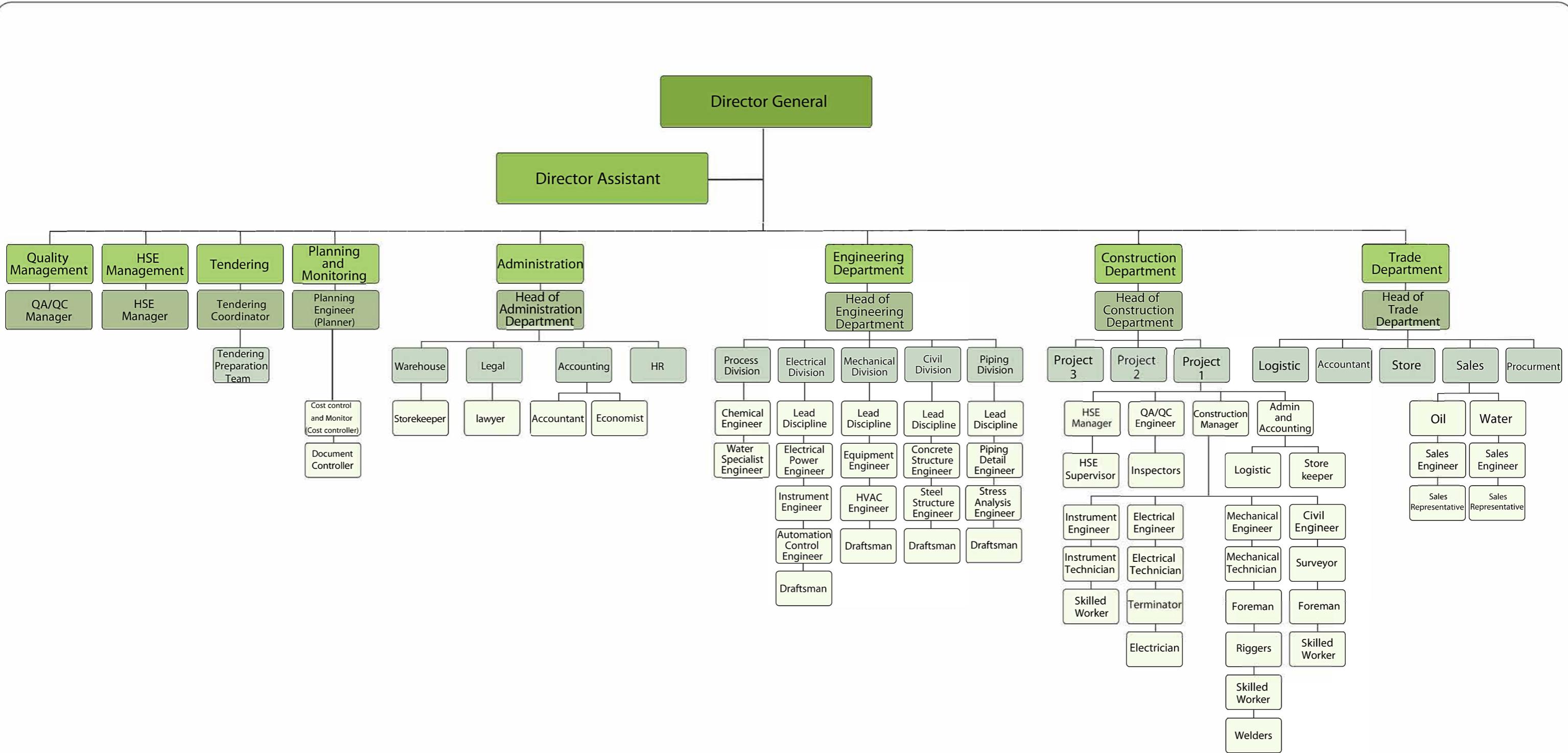
- Solid Waste Separation System, Tunis.

6) Algeria

- Environmental Impact Assessment, Ksar Sebahi – Dam and Irrigation Project.

7) Iraq

- Nassiriya Water Treatment Plant – Design and Engineering.
- Makhool Dam – Evaluation of Feasibility Study.
- Kerkh WWTP – Rehabilitation.
- Diwaniya WWTP – Rehabilitation.
- Zaafaraniya Waste Water Pumping Station – Design and Build.
- Shariq Dijlah Water Intake- Detailed Design and Put in Operation.
- Azmar Tunnel Design and Supervision
- Sarchinar Power Station , Design & Built
- Tasluja-Taq Taq 132 KV overhead line design.
- Sulaimaniyah University power station, Design & Built
- Samawa Electricity Network Study, load analysis, substation upgrade, Network GIS
- Kut Electricity Network Study, load analysis, substation upgrade, Network GIS
- Airport Cargo Village design and supervision
- Zubair & Rafidhiya Oilfield development projects
- Electrical, Mechanical, Instrument and control commissioning support at West Qurna 1
- Electrical & Instrumentation Supply & Installation and Commissioning Works for Crude Oil Blending, Degassing Project at Qaiyarah Oilfield
- Water Supply Improvement project in Kurdistan Region package II
- Khor Al-Zubair Power Station –Rehabilitation Of Gas Turbines



- PRESENTATION OF THE CONSORTIUM

Thanks to the multi-disciplined orientation, we can offer a broad spectrum of services, based on water, power generation and distribution, oil & gas and process engineering.

Experts from various specialist fields work out multi-disciplined solutions, which are technically, ecologically, socio-economically and financially optimized and well balanced.

From the establishment of programs for geological surveys through preparation of Tender Documents, to undertaking construction supervision, we are qualified partners for projects of the most varied kind and size.

The Group brings a disciplined and controlled approach to:

- Data collection and interpretation
- Assessment of existing facilities and structures
- Feasibility studies for funding agencies
- Socio-economic investigations
- Demand and revenue assessment
- Environmental audit and impact studies

The Group applies these skills to the assessment of a wide range of projects in the environmental and energy sectors, including:

- **Water resource and regional development**
- **Dams and hydroelectric power engineering**
- **Water & Wastewater treatment**
- **Land reclamation and irrigation**
- **Infrastructure and environmental engineering**
- **Hydropower Plants and electro-mechanical systems**
- **Oil & Gas**
- **Electrical Network and Substations**

We support our Clients through all stages of the project from planning through setting up of the networks, to the development of the processes and applications. We have accumulated knowledge needed to achieve full management and control of its projects.

The Group offers a wide range of options to secure the construction, commissioning and operation of the project in the manner that best supports the Client's financial plan and the funding agency budget.

The multidisciplinary teams provide a comprehensive design service in:

- **Water and wastewater treatment and effluent reuse**
- **Dams and hydroelectric power engineering**
- **Foundation design**
- **River hydraulics**
- **Electrical and mechanical plant design**
- **Control system**
- **Solid waste control**
- **Oil & Gas Production Facility**



- **Complex structures**

Within the selected form of contract, ECL group can provide consulting services including:

- Project planning
- Cost evaluation and budget control
- Customized proposals
- Contractor documentation and bills of quantities
- Contractor pre-qualification and evaluation
- Bid analysis and evaluation
- Construction supervision
- Inspection and testing of plants and materials
- Quality assurance procedures
- Analysis and certification of payment
- Program monitoring and management
- Commissioning and acceptance of the works
- Maintenance and operation manuals
- Training of Client personnel



- EQUIPMENT SUPPLY

We are the sole representative and agent of some high Technology Manufacture from Europe and United States in the field of water and power system:

- 1- **VAG–Armaturen**; German Manufacture of Quality Valves and Fittings for Water, Waste Water and Gas.
- 2- **F.G Wilson**; British Manufacturer of Diesel, Gas, Power Generators up to 2.5 MVA.
- 3- **US Pipe** ; U.S Manufacturer of Pipes
- 4- **HYDRO-VACUUM**: Pumps Manufacturer
- 5- **Hawker Sedley**; U.K Leading Manufacturer of Switch Gears, Substations and Control.
- 6- **Brush Transformers**; U.K Leading Manufacturer of Power, Control, Distribution Transformers.
- 7- **Hambaker Ductile Pipes and Fittings**; British Leading Company in Europe for Fabricating Ductile Iron Pipes, Fittings and Penstocks.
- 8- **DAB** ; Leading European Manufacturer of Water and Waste Water Pumps.
- 9- **KLINGER**: German Manufacturer of Gaskets of Water, Oil & Gas

Our Products





- VOLTEC REFERENCES WORLD WIDE

- BUILDING & CONSTRUCTIONS**
- POWER AND ENERGY**
- OIL & GAS**
- WATER SUPPLY SYSTEMS AND WATER TREATMENT PLANTS**
- SEWERAGE SYSTEMS AND WASTEWATER TREATMENTS**
- ENVIRONMENTAL ENGINEERING**
- MASTER PLANNING & CONSULTANCY**
- DAMS**

VOLTEC SELECTED REFERENCES

POWER AND ENERGY

**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: 165 MW Power Generation Plant		Country: IRAQ
Location within Country: Kalar Town, Iraq		Professional Staff Provided by VOLTEC
Name of Client: Aggreko Middle East Limited FZE		No. of Staff: 45 Personnel
Address: UAE , Sharjah		Duration of Assignment: 7 Months
Start Date (Month/Year): Nov 2020	Completion Date Ongoing	Approx. Value of Services (650,000.00 US\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-Ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Hawzhin Azad Karim - Hamza M Ibrahim 		
Narrative Description of Project: <ul style="list-style-type: none"> - Supply and construct of cooling water system, fire fighting system, gas pipe work and skids, fire and gas system for 165 MW power station serve Kalar Oil field 		
		

**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: Umm Qasir Power Plant Project		Country: IRAQ
Location within Country: Umm Qasir Port		Professional Staff Provided by VOLTEC
Name of Client: BUTEC		No. of Staff: 150 Personnel
Address: Basrah-IRAQ		Duration of Assignment: 7 Months
Start Date (Month/Year): Aug 2019	Completion Date Feb. 2020	Approx. Value of Services (765,000.00US\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Khaldoon Sami - Hamza M Ibrahim 		
Narrative Description of Project: <ul style="list-style-type: none"> - Electrical & Mechanical Works at Umm Qasir Power plant Project Installation of Wartsela Generation Units, installation of Power Transformers, switchgears, instrumentation, Fire and Gas, All Mechanical System and pipe works include fire fighting networks, water treatment and gas skid. Final Acceptance Certificate issued in 2021 		
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Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: 4 substations 132/33kV , 3X63MVA		Country: IRAQ
Location within Country: Nasiriya & Kut		Professional Staff Provided by VOLTEC
Name of Client: DG Transmission Project		No. of Staff:
Address: IRAQ,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 2012	Completion Date (Month/Year): 2013	Approx. Value of Services (in current US\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Nawar Thamer– Senior Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Ahmed Salim – Senior Electrical Engineer		
Narrative Description of Project: filtration testing of power transformers , testing of switchgears		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Testing of 400/15kV single phase transformers , eight 132kV/ 6.6kV transformers , six 132/ 33/11kV Transformers , GIS switchgears 400kV, 132kV Gis		Country: IRAQ
Location within Country: Aukashat / Akaz Gas		Professional Staff Provided by VOLTEC
Name of Client: DG Transmission Project		No. of Staff:
Address: IRAQ,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Jan 2013	Completion Date (Month/Year): Nov 2013	Approx. Value of Services (in current US\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Nawar Thamer– Senior Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Ahmed Salim – Senior Electrical Engineer		



Firm's References
Relevant Services
That Best Illustrate Qualifications

Assignment Name: Sarchinar 8 MW Power Station		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 5
Name of Client: Directorate of Water in Sulaimaniyah		No. of Staff: 35
Address: Sulaimaniyah,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Nov 2007	Completion Date (Month/Year): March 2008	Approx. Value of Services (in current US\$): one million USD
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Nawar Thamer– Senior Electrical Engineer Eng Khaldoun Sami- Senior Automation & SCADA Engineer Eng Omar Majeed- Senior Design Engineer Eng Tariq Bazirgan- Senior Civil Engineer		
Narrative Description of Project: <p>Design and construction of 8 MW power supply station for Sarchinar water project. The work includes complete design of civil works, electrical system synchronization, and PLC control, fuel storage and feeding, supply of all equipment and materials, installation and startup.</p>		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Tasluja 53 MW Power station-Marine type engine generators		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 10
Name of Client: UIENC Korean Company		No. of Staff: 35
Address: Sulaimaniyah,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): JUN 2006	Completion Date (Month/Year): JAN 2008	Approx. Value of Services (in current US\$): 1.4 million USD
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Nawar Thamer– Senior Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Omar Majeed- Senior Design Engineer Eng Hanza Maoulod - Senior Mechanical Engineer		
Narrative Description of Project: Installation of 30 marine type Generators ,Design ,supply & fabrication of Nine fuel Tanks with total capacity of 4100 Cubic meters , installation of pipes network, cable ways and cable termination .		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: University of Sulaimaniyah 12 MVA Power Station		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 4
Name of Client: TEPE-FDC		No. of Staff: 6
Address: Sulaimaniyah,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): JUN 2007	Completion Date (Month/Year): DEC 2007	Approx. Value of Services (in current US\$): 1.6 million USD
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Nawar Thamer– Senior Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Omar Majeed- Senior Design Engineer		
Narrative Description of Project: Supply and installation of 6x2200KVA, F.G.Wilson generators, and the work include the installation and parallel operation to achieve the safe, KVAR/KW load sharing and start/stop load sequences All control panels wiring and programming (power, data and network) where locally done as standby mode power station.		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Samawa Electricity Network Engineering Services		Country: IRAQ
Location within Country: Samawa		Professional Staff Provided by VOLTEC 6
Name of Client: ALMIDRAR Company		No. of Staff: 25
Address: Samawa,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Nov 2017	Completion Date (Month/Year): April 2018	Approx. Value of Services (in current US\$): 305,000.00 USD
Name of Associated Firm(s), if any: enzen		No. of Months of Professional Staff Provided by Associated Firm(s): 1 staff for the whole period
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Abdulammer Abdulhussain– Senior Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Krishna V- Software Analysis Eng Shahad Sami- GIS Expert Eng Ali Saib Abd – Site Survey		
Narrative Description of Project: The assignment envisions benchmarking the baseline performance, analyzing the current Infrastructure (132kv substation ,33/11kv substation , 11kv feeders)with the purpose to achieve optimization of the network and also to give recommendations from the perspective of future planning. The scope of work includes voltage studies and load growth studies, network vulnerability studies ,power analysis field measurement and improvement measures, network planning and optimization after mapping the network on Digital platform. On the basis of the analysis, recommendations submitted which include Bill of Quantity (BOQ) for proposed substation , network and planning report.		
		<p style="text-align: center;">INDEX</p> <ul style="list-style-type: none"> 33kV_SS 132kV_SS HT LINE 132 kV Single Feeder 132 kV Double Feeder 33 kV Single Feeder 33 kV Double Feeder Samawa AOI
System Study and Proposal for Samawah City		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: KUT Electricity Network Engineering Services		Country: IRAQ
Location within Country: Samawa		Professional Staff Provided by VOLTEC 5
Name of Client: ALMIDRAR Company		No. of Staff: 25
Address: Samawa,		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Feb 2018	Completion Date (Month/Year): Ongoing	Approx. Value of Services (in current US\$): 305,000.00 USD
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Mohammed Shahir–Electrical Engineer Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Ahmed Jasim- Software Analysis Eng Shahad Sami- GIS Expert		
Narrative Description of Project: The assignment envisions benchmarking the baseline performance, analyzing the current Infrastructure with the purpose to achieve optimization of the network and also to give recommendations from the perspective of future planning. The scope of work includes voltage studies and load growth studies, network vulnerability studies and improvement measures, network planning and optimization after mapping the network on Digital platform. On the basis of the analysis, recommendations submitted which include Bill of Quantity (BOQ) for proposed network and planning report.		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: West Qurna – Basrah 35 MW power plant for Degassing Station 7		Country: IRAQ
Location within Country: Basrah-West Qurna 1		Professional Staff Provided by VOLTEC 5
Name of Client: Wood Group		No. of Staff: 15
Address: Dubai		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): March 2016	Completion Date (Month/Year): Ongoing	Approx. Value of Services (in current US\$): 4 Million
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Mustafa A. Rasheed –Commissioning Leader Eng Khaldoon Sami- Senior Instruments Engineer Eng Nawar Thamer- Senior Electrical Engineer Eng Ali Jaafar- Mechanical Engineer		
Narrative Description of Project: Electrical, Mechanical, Instrument & control commissioning of the early power solar turbine power generation ,balance of plant.		
  		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Mussaieb Power Station		Country: IRAQ
Location within Country: Mussaieb		Professional Staff Provided by VOLTEC 25
Name of Client: Ministry of Electricity		No. of Staff: 100
Address: Dubai		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): April 2004	Completion Date (Month/Year): March 2005	Approx. Value of Services (in current US\$): 1.5 Million
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said– Project Director Eng Khaldoon Sami- Senior Automation & SCADA Engineer Eng Nawar Thamer- Senior Electrical Engineer Eng Qasim Al Obaidi- Senior Mechanical Engineer Eng Tariq Bazirgan- Senior Civil Engineer		
Narrative Description of Project: Civil and electro Mechanical Works including 8300m3 concrete casting, design of utilities and piping network, tanks fabrication and installation of 4000m3 and 8000m3 capacity, installation of 10 gas turbine including utilities and polishing unit .		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Design of Hydropower generation and 132 KV substation for Taq Taq Dam		Country: IRAQ
Location within Country: Taq Taq		Professional Staff Provided by VOLTEC 5
Name of Client: Ministry of Municipality		No. of Staff:
Address:		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 2017	Completion Date (Month/Year): 2018	Approx. Value of Services (in current US\$): 1.5 Million
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Vicko Letica (Project Manager) Bana petrovic Mechanical Engineer (ME) Marina Vasiljevic (Project Manager for environmental part of Hydro Power Plant) Miomir Vasiljevic Leading project Engineer Biljana Trajkovic (Team Engineer) Sinan Said (Electrical Designer)		
Narrative Description of Project: Hydrology study, basic design for the hydro power generation, detail design of the Penstock, power house, turbine and MV switch yard and substation.		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Iraq Distribution Network		Country: IRAQ
Location within Country:		Professional Staff Provided by VOLTEC 5
Name of Client: Washinton Group		No. of Staff:
Address:		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Jan 2006	Completion Date (Month/Year): May 2006	Approx. Value of Services (in current US\$): 6 Million
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Haki Ismael Kadhum senior electrical engineer Nawar thamer electrical engineer Mohamed ihsan electrical engineer Yehea alobaidi electrical engineer		
Narrative Description of Project: Complete Supply and Commission of 25 Power Transformer 33/11 KV Substations.		
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Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Cathodic Copper Smelting Plant		Country: IRAQ
Location within Country:		Professional Staff Provided by VOLTEC 20
Name of Client: Al Shaheed General Company		No. of Staff:
Address:		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 1999	Completion Date (Month/Year): 2003	Approx. Value of Services (in current US\$): 6.5 Million
Name of Associated Firm(s), if any: BORE COPPER INSTITUTE		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Zoran senior process engineer Molos Popovic senior electrical engineer Ivan Ninkov senior mechanical engineer Andra Tucovic senior process engineer		
Narrative Description of Project: Design, Supply and supervision of copper refinery to produce cathodic copper for cable industry ,design include the process equipment electrochemical cells and power supply .		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Taq Taq-Tasluja 132 KW overhead line		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 4
Name of Client: KRG/ Ministry of Electricity		No. of Staff:
Address: Erbil		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 2009	Completion Date (Month/Year): 2010	Approx. Value of Services (in current US\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Wasfi alhayali project manager Ahmad salim kurdi senior electrical engineer		
Narrative Description of Project: Design and supervision of complete turnkey work 80 km line length. Of 132kv O.H.L		
		

VOLTEC SELECTED REFERENCES

Oil & Gas



Project Name: Cathodic Protection for 60 wells

Voltec successfully completed a cathodic protection project for 60 wells, which included the installation of anodes, power supply, and a solar power system to feed the cathodic protection system. The project involved securing the well head and pipelines against corrosion using a comprehensive cathodic protection setup. We installed steel structure frames and a photovoltaic array consisting of 10 solar panels, complemented by a reliable 12V battery bank with 6 cells to ensure consistent power storage. Our team also implemented an efficient charge controller, along with cable pulling and termination, and earthing system installation. Additionally, excavation and backfilling processes were conducted, and canister anodes were installed to complete the setup, providing long-term protection for the oil well and pipelines

Location: Basra – West Qurna 1

Client Name: Exxon Mobil

Start Date: 21st Jan 2024

Finish Date: 31st May 2024

voltec





Project Name: Re-Instrumentation DS2 Control System Upgrade

Voltec successfully completed the conversion from pneumatic to electronic control loops for DS-2 Train-1, enhancing operational efficiency and reliability. The project scope of work included modification of existing control system, fabrication of pipe spools, new steel structure platforms fabrication for all the vessels, installation of new junction boxes, cable tray construction, cable pulling, installation of pressure transmitters, level transmitters, and new control valve electronic positions. Procurement, construction, and commissioning of all converted control loops in DS-2 Train-1 were also integral parts of the project.

Location: Basra – North Rumaila

Client Name: Wood Group PLC (Ghabet El Iraq for General Contracting & Engineering Services, Engineering Consultancy Company Ltd)

Start Date: August 2023

Finish Date: March 2024

voltec





Project Name: Gas Pipe Network

The scope of work consisted of precision pipe fabrication, which included cutting, beveling, welding, and valve installation as per design specifications. We constructed robust pipe supports from reinforced concrete and ensured quality through radiographic testing of weld joints. Our pre-commissioning work involved nitrogen flushing and pneumatic pressure testing. We applied specialized paint and thermal insulation, using rock wool and aluminum cladding. Additionally, our team fabricated steel structures for cable tray bridges and platforms, installed and constructed concrete slabs for equipment mounting, and managed earthworks for service water and sewage networks, encompassing excavation and piping. We also provided certified heavy lifting and access equipment, operated by our skilled professionals.

Location: Sulaymaniyah – Khormor Gas Field

Client Name: Aggreko

Start Date: 8th Jan 2024

Finish Date: 25th Feb 2024

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 Sonangol
Pesquisa & Produção

IRAQ

Electrical & Instrumentation Supply & Installation and
Commissioning Works for Crude Oil Blending, Degassing
Project at Qaiyarah Oilfield



QAIYARAH OILFIELD

Supply of Transformer, Switchgears, RMUs, MCC, Cables, Fire & Gas Instrument, Installation of E & I and Commissioning of Crude Oil Blending Project at South Degassing Station, North Degassing Station and Oil Wells.

Work Started in August 2020, SDS completed, NDS Phase 0 Completed, NDS Phase 1 is Ongoing, Oil Well Upgradation site is on going.



voltec

 Sonangol
Pesquisa & Produção

IRAQ

Engineering Design For the Rail Loading Facility at Qaiyarah Refinery

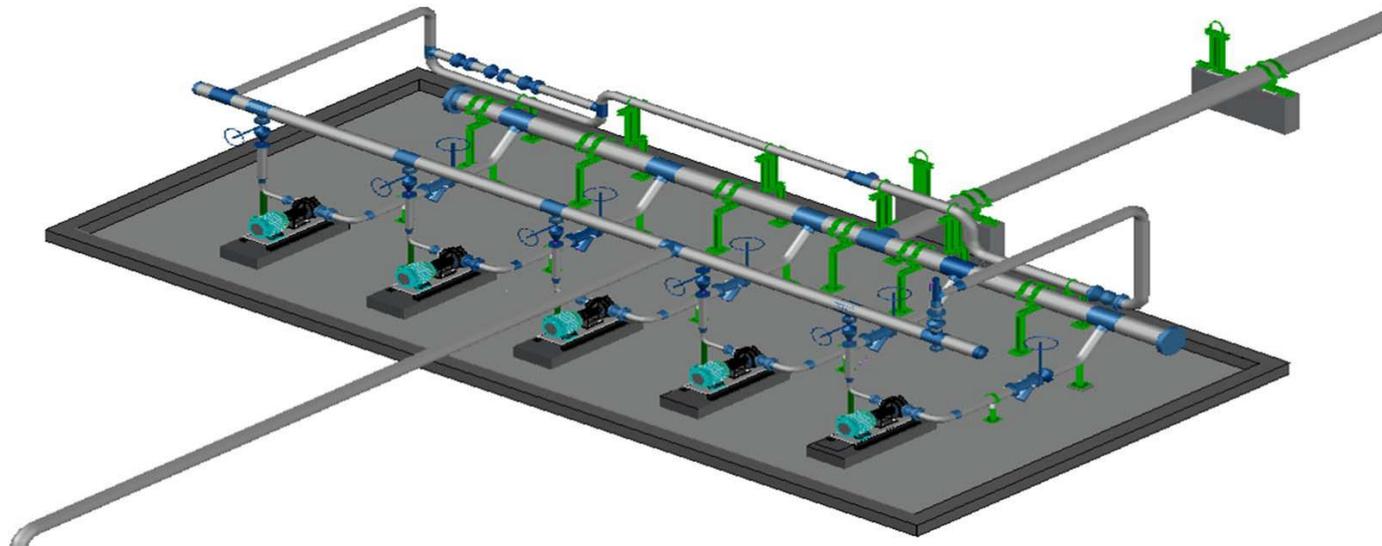


QAIYARAH OILFIELD

- Engineering Design For the Rail Loading Facility at Qaiyarah Refinery

Basic design, detail design, tender document for rail loading facility, work includes design of storage tanks, pump station, flow meters, rail loading arms. All civil, piping, mechanical, electrical, SCADA, detail drawing, specifications, data sheets, procurement package...etc.

Work started in July 2020 and completed in April 2021.



voltec

 Sonangol
Pesquisa & Produção

IRAQ

Refurbishment of 11,000 M3 Tanks at
Qaiyarah Refinery

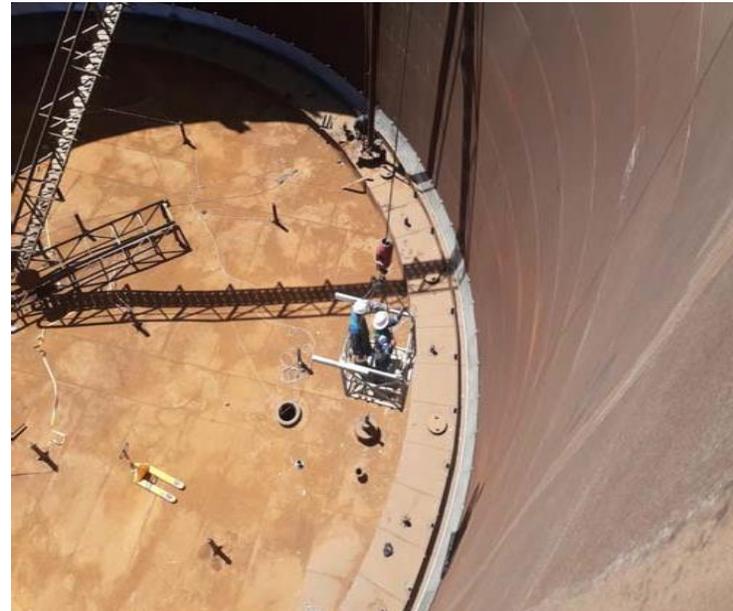


QAIYARAH OILFIELD

- Refurbishment of 11,000 M3 Tanks at Qaiyarah Refinery

Semi finished two float roof crude oil tanks, works include Technical evaluation of tank integrity , design and construction of float roof Rim Seal, fire fighting and foam system, tank nozzels, earthing system, lightening, lights, radar level, mixers, heaters, hydrostatic testing and painting.

Work started in Feb 2021 and ongoing.



voltec

 Sonangol
Pesquisa & Produção

IRAQ

Mechanical Works at Qaiyarah Refinery



QAIYARAH OILFIELD

- Fabrication, installation of North Degassing station, piping and Mechanical. Works Include crude oil piping, Naphtha Decanting Facility, Naphtha Transfer Facility, Modification on Existing Tanks, Installation of Pumps, Fire Fighting Network.
Work started in July 2020 and completed in March 2021.



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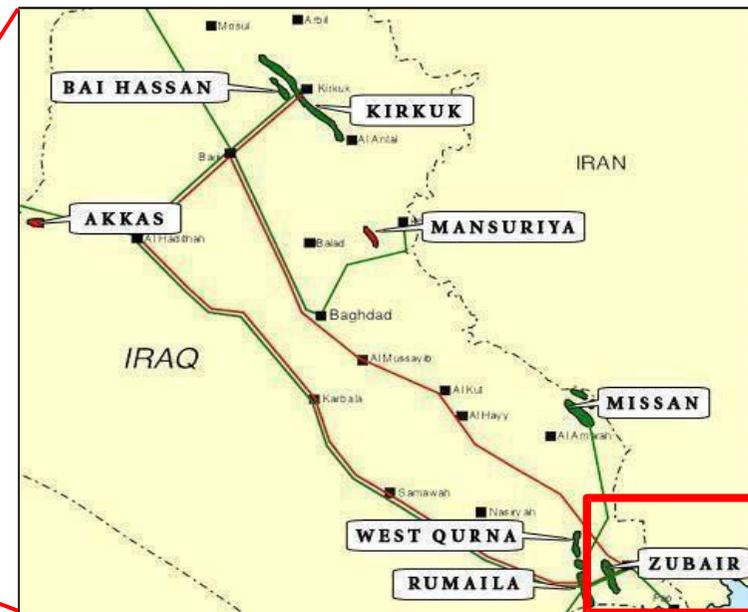
Weatherford®



Zubair Oil Field Development Project Iraq

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Zubair Oil Field Development Project





Zubair Oil Field Development Project

Project Highlights:

- **Client:** ENI IRAQ
- **Contractor:** Weatherford Oil Tools Middle East
- **Year:** 2014 - ongoing
- **Project:** Zubair Oil Field – Initial Production Facilities (Zubair and Rafidiya)
- **Scope of Work:** Complete electrical and instrumentation works
 - 160 personnel in Zubair
 - 160 personnel in Rafidiya

Zubair/Rafidiya: Scope Of Work

Electrical Installation Works

- Earthing and Lightning Protection
- Cable laying (LV, MV, HV, Control, space heater, UPS)
- Glanding and Termination (LV, MV, HV, Control, space heater, UPS)
- Cable Ladder Trays and Fittings with Accessories
- Lighting and Small Power (street lighting installation, convenience sockets, welding sockets)
- Testing

Zubair/Rafidiya: Electrical Installation Work



Cable Ladder Work



Cad Welding



Excavation Work



Cable Pulling

Zubair/Rafidiya: Scope Of Work

Instrument Installation Works

- Tubing
- Instrument Installation
- Instrument Cable Laying
- Instrument Cable Glanding and Termination
- Junction Box Frames and Supports
- Fire and Gas Detection: installation, cable laying, glanding and termination
- Telecommunication/PAGA/CCTV Systems: equipment installation, cabling, glanding and termination

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Zubair/Rafidiya: Instrument Installation Work



Light Fixture Installation



Instrumentation Termination



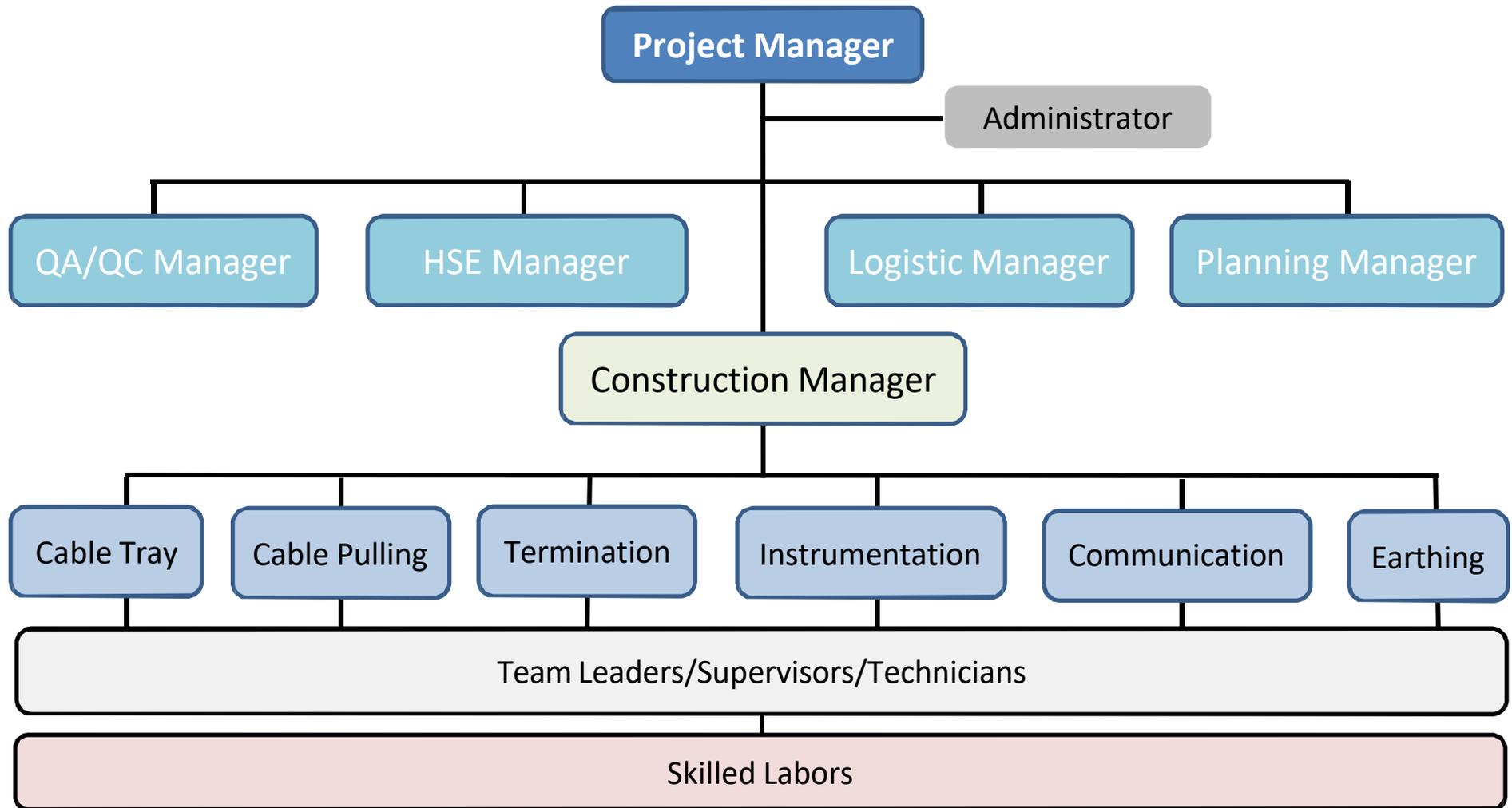
Installation of Tubing



Installation of Instrument Devices



Project Organizational Chart



Zubair/Rafidiya: HSE Practices

30:1 ratio of workers to supervisors and HSE inspectors

- HSE Plan
- Daily Tool Box Talk
- Maintenance of equipment registers
- Reporting of safety incidents and near misses
- Supply of Personal Protective Equipment
- Supply of harness and fall arrest lanyards (working at height)

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Zubair/Rafidiya: HSE Practices



Daily Tool Box Meeting



TSI Personnel Winning HSE awards



TSI joining Weatherford HSE Meeting



Housekeeping Work



Zubair/Rafidiya: Project Quality Documents

- Quality Plan
- Request For Inspection (RFI)
- Inspection Test Plan (ITP)
- Punch list
- Inspection Test Record (ITR)
- Material Record Book (MRB)

PROJECT: Weatherford		TAG No: 25121820087PL	
UNIT: ELECTRICAL		TAG DESCRIPTION: FROM Street Lighting Pole Junction Box To Street Lighting Pole Junction Box	
SYSTEM: 855		DATE: 13/06/2018	
SUB SYSTEM: 13-655-8		CREATE DATE: 8/16/2018	
Weatherford		Mechanical Completion Checksheet	
		LV & Control Cable Glands, Terminations and Final Installation Checks	
		Electrical E-A-304	
Item	Inspection Test/Description	PL	Complete Yes/No
01	Equipment must be inspected in de-energised state. Check for no voltage.		YES
02	Confirm building, JB, equipment etc. has been aligned and levelled		YES
03	Confirm cable is as per IFC cable schedule or cable diagram (size, type and rating)		YES
04	Check labeling, numbering and core furling correct.	YES	
05	Check that bending radius, cleating and support according to specification.		YES
06	Check that cable has been dressed correctly on cable ladder and secured as it enters building or junction box so that there is no vertical or lateral force exerted on the gland or gland plate i.e. cable is perpendicular to gland plate. Confirm that any cable entry outside is suitably weatherproof.		YES
07	Complete point to point continuity check of Cable		YES
08	Complete insulation resistance test on LV cables, test voltage 500VDC; minimum reading 10 MΩ/ins. Instrument cables at 250VDC minimum reading 10 MΩ/ins		YES
09	After termination make sure that all cuttings and debris are cleared away.		YES
10	Confirm correct type of glands have been installed according to area classification, NB for areas designated as hazardous on the IFC hazardous area drawings, a separate Mechanical Completion Checksheet for Certified Equipment needs to be completed.		YES
11	Confirm that glands have been fitted correctly and tightened to the correct torque, correct IP washer and earth tag serrated washer and earth lead are fitted. (where applicable). Confirm that gland shroud has been installed where required.		YES
12	Check earth bonding is correct to design drawings and specifications. Confirm that that gland to earth resistance is < 0.1 Ohm		YES
13	Check that cable stripping has been done correctly		YES
14	Single core cables earthed as per Project Specification		NA
15	Check that terminations have been completed in accordance with the IFC termination drawings and a continuity and phasing check has been carried out on each one		YES
16	Check that all terminations have the correct lug terminal ferrule, sleeving and label etc fitted and are correctly tightened and that there is no core damage. Spare cores earthed and left!		YES
17	Check that all spare cores are identified and earthed down.		YES
18	Check that all cable lug nuts have been tightened to the specified torque and then marked as such. (unless specifically requested by commissioning team to leave cables un-bolted for purposes of in-gut testing but less)		NA
19	Check that any punch list items raised are entered on to the master punch list		YES

Punchlist Report										
Weatherford										
No.	Cat	Priority	Tag Number	Description	Completed	Raised By	Raised Date	Responsible Person	Responsible Group	Area
3246	E	Medium	25026173847016	Remove tag from cable at B & D Service	<input type="checkbox"/>	Manohar Datta	11/08/2018	Manohar Datta	CONSTRUCTION	2502
3247	C	Medium	25026173847031	Shield cable raised at device	<input type="checkbox"/>	Manohar Datta	12/08/2018	Manohar Datta	CONSTRUCTION	2502
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**VOLTEC SELECTED
REFERENCES WATER SUPPLY
SYSTEMS & WATER
TREATMENT PLANTS**

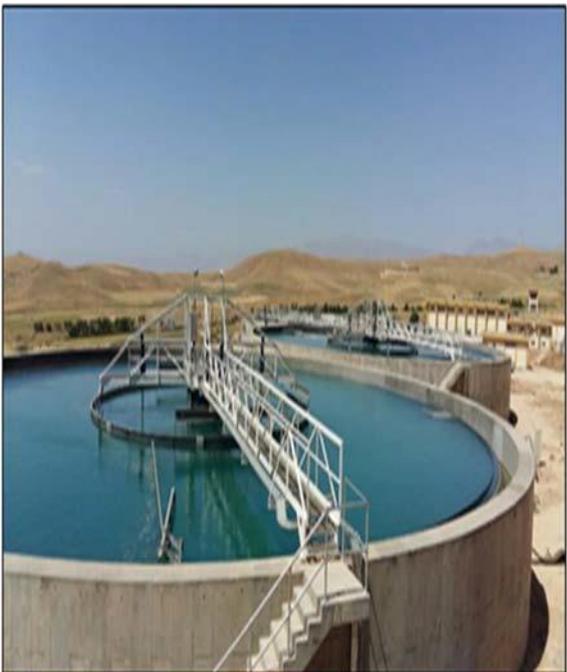
**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: Water Supply Improvement Project In Kurdistan Region (II)		Country: IRAQ
Location within Country: Sulaimaniyah & Halabja Cities		Professional Staff Provided by VOLTEC
Name of Client: KRG General Directorate of Water & Sewerage Contact with Japanese Fund Institute JICA		No. of Staff: 70 Personnel
Address: Erbil-IRAQ		Duration of Assignment: 1 Year
Start Date (Month/Year): Feb 2021	Completion Date Feb. 2022	Approx. Value of Services (6,530,627.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Khaldoon Sami - Hamza M Ibrahim - Bassim Qassim 		
Narrative Description of Project: Upgrade of Sulaimaniyah & Halabja Water Supply System, works include Supply and installation of Ductile pipes & HDPE Pipes, valves, flowmeters, Solar Energy, Flow & Control System.		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: OPERATION & MAINTENANCE OF WATER SUPPLY IMPROVEMENT PROJECT IN KURDISTAN REGION PACKAGE II		Country: IRAQ
Location within Country: IRAQ		Professional Staff Provided by VOLTEC
Name of Client: SsangYong Engineering & Construction Company Ltd		No. of Staff: 68
Address: Sulaimania -Iraq		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Sep 2016	Completion Date (Month/Year): June 2018	Approx. Value of Services (in current US\$): 990,000.00
Name of Associated Firm(s), if any: VOLTEC, Iraq		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Alkesandar Putnik – Head of Operation Moayed Zedan– Mechanical Engineer -Khaldoon Sami Fyadh– Automation and SCADA Engineer Nawar Thamer – Electrical Engineer Mohammed Ameer- Planning Engineer		
Narrative Description of Project: Full Operation & Maintenance of Halabja WTP (2200 m3/hr) <ul style="list-style-type: none"> - Water production and water quality control. - Preventative maintenance of all mechanical, electrical and instrument equipment, as well as SCADA. 		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: WATER SUPPLY IMPROVEMENT PROJECT IN KURDISTAN REGION PACKAGE II		Country: IRAQ
Location within Country: IRAQ		Professional Staff Provided by VOLTEC
Name of Client: SsangYong Engineering and Construction Company		No. of Staff: 106
Address: Sulaimania -Iraq		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Aug 2015	Completion Date (Month/Year): Sep 2016	Approx. Value of Services (in current US\$): 1,010,000.00
Name of Associated Firm(s), if any: VOLTEC, Iraq		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Sinan Said – Project Director Moayed Zedan– Mechanical Engineer -Khaldoon Sami Fyadh– Automation and SCADA Engineer Nawar Thamer – Electrical Engineer Gunther Trumheler – Commissioning Expert Stephan Girgic – Mechanical Engineer		
Narrative Description of Project: All Mechanical, Electrical & Instruments installation, Start Up and Commissioning Works. <ul style="list-style-type: none"> - Installation of all Switch Gears 33 KV & 11 KV, all electrical and instruments cables termination etc.... - Installation of all pumps, valves and pipes, - Grit removal, clariflocculators, filtration building and cranes. 		
		
		

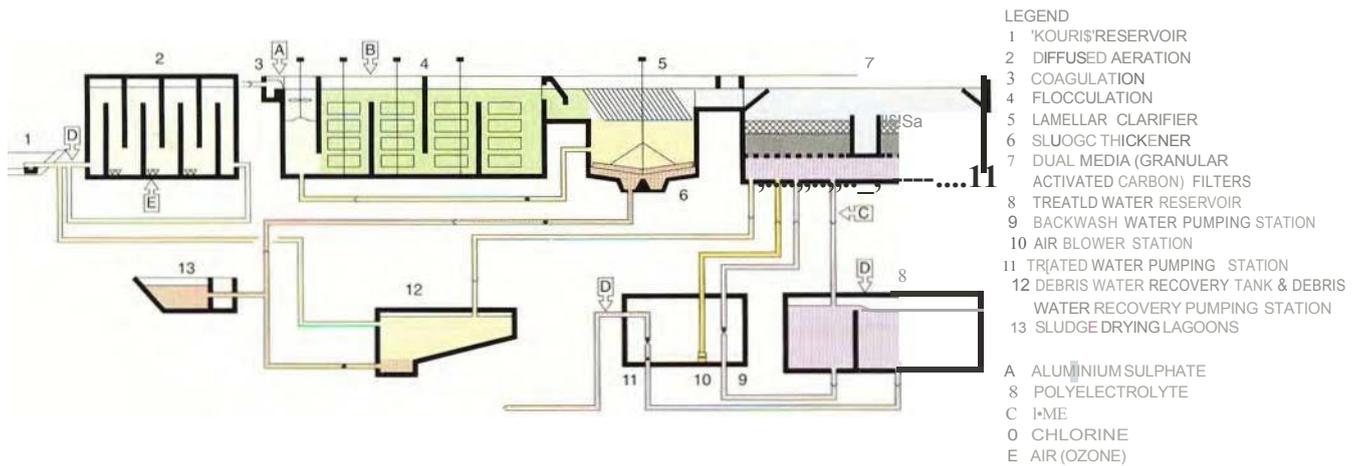
Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: SUPPLY & INSTALLATION OF DOKAN – SULAIMANIYAH WTP		Country: IRAQ
Location within Country: IRAQ		Professional Staff Provided by VOLTEC
Name of Client: Nokan Group		No. of Staff: 95
Address: Sulaimania -Iraq		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Jul 2008	Completion Date (Month/Year): Mar 2009	Approx. Value of Services (in current US\$): 11,000,000.00
Name of Associated Firm(s), if any: VOLTEC, Iraq		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Sinan Said – Project Director Othman Aziz– Mechanical Engineer -Khaldoon Sami Fyadh– Automation and SCADA Engineer Nawar Thamer – Electrical Engineer Imad Namdar- Mechanical Engineer Tareq Salahaddin Abdulkarim- Civil Engineer		
Narrative Description of Project: Supply and Installation of Dokan-Sulaimaniyah WTP 12000m3/hr WTP. <ul style="list-style-type: none"> - Installation of 56 Vertical Multistage turbine 1.2 MW 6.6KV pumps. - Installation of all pump stations valves and pipes. - Supply of 33KV substation, 6.6KV soft starter, 50,000 meter cabling. - Supply of Valves and Pipes. 		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: DESIGN FOR DOKAN WATER Treatment Plant Sulaimania – IRAQ		Country: IRAQ
Location within Country: IRAQ		Professional Staff Provided by VOLTEC 8
Name of Client: DOKAN WTP		No. of Staff: 12
Address: Sulaimania -Iraq		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 2008	Completion Date (Month/Year): 2009	Approx. Value of Services (in current US\$): 160,000 USD \$
Name of Associated Firm(s), if any: VOLTEC, Iraq		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed: Dipl.-Ing. Andra Tucovic – Project Director Dipl.-Ing. Ivan Nenkov– Mechanical Engineer Dipl.-Ing. Visoslav Ristic– Hydraulic Engineer Dipl.-Ing. Milos Popovic – Electrical Engineer Dipl. Arch. Dragan Manojlovic - Architect Dipl.-Ing. Slobodan Mojsic – Structural Expert		
<p>Narrative Description of Project: Water intake and raw water pumping station water treatment and 2 boosting station , upgrade the exist project to 12000 m3/hr</p> <ul style="list-style-type: none"> - Hydraulic calculations • Mechanical design • Power supply and control of the pumps • Preparation of drawings • Preparation of the bill of quantities • Selection of the equipment • Estimation of Total Cost of the Works • Contract Administration and Project Management 		
		

Limassol Plant Serving Limassol, Cyprus



PURPOSE

Treatment of water from the 'Kouris' reservoir for potable water supply to the City of Limassol. Removal of organic and mineral suspended matter, iron, manganese and asbestos, followed by disinfection of water.

PLANT CHARACTERISTICS

Nominal Plant capacity 3500 m³/h; first phase 1750 m³/h.

Aeration: diffused air, nominal retention time 6 min.

Blowers: phase 1 - 170 m³/h (2+1); provision for ozone application.

Coagulation: through hydraulic jump.

Flocculation: three steps with variable speed mixers, total retention time of 20 minutes.

Sedimentation: three lamellar clarifiers (phase 1), nominal surface load 1,2 m/h; integrated sludge thickeners; sludge recirculation to rapid mixing compartment.

Chemical storage and dosing facilities for aluminium sulphate, polyelectrolyte, lime, and chlorine.

Filtration: six open rapid gravity sand/antracite filters (phase 1) each with filtration area of 46m², nominal filtration rate 8 m/h; constant level control; provision for granular activated carbon application.

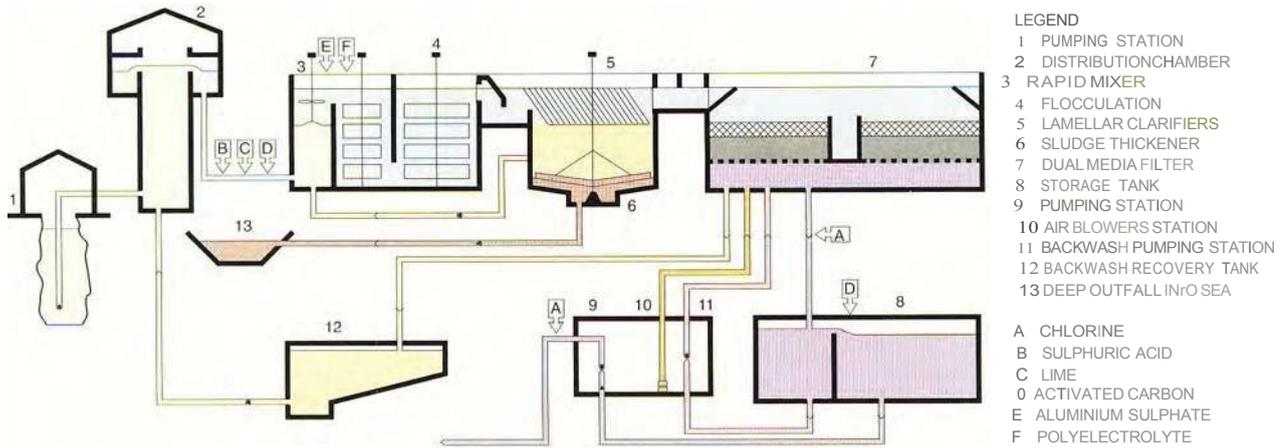
Backwash water recovery system.

Sludge dewatering in eight sludge drying lagoons (phase 1).

Treated water reservoir: capacity 10,000 m³.



Fonte Gaj Plant
Serving Labin, Croatia



PURPOSE

Treatment of Karst spring water for potable water supply of the City of Labin. Removal of organic and mineral suspended matter followed by disinfection of water.

PLANT CHARACTERISTICS

Total Plant capacity 1,800 m³/h in 2 phases.

Two intakes.

Two pumping stations: first two pumps - capacity 360 m³/h each; second two pumps - capacity 1,180 m³/h each

Coagulation rapid propeller type mixer

Flocculation: two steps with variable speed mixers, total retention time 16 minutes.

Sedimentation: two lamellar clarifiers- surface load 18 m/h with integrated sludge thickeners.

Chemical storage and dosing facilities for sulphuric acid, aluminium sulphate, polyelectrolyte, lime, chlorine.

Filtration: twelve open rapid gravity sand filters each with filtration area of 26m²; nominal filtration rate 7 m/h; declining rate filtration control.

Filter backwash: two backwash water pumps - velocity 40 m/h; one air scour blower - velocity 90 m/h.

Sludge conditioning with lime.

Sludge dewatering by means of drying beds.

Storage tank: capacity 4,000 m³.

Distribution pumping station: three pumps of 600 m³/h with heads up to 400 m.

VOLTEC SELECTED REFERENCES

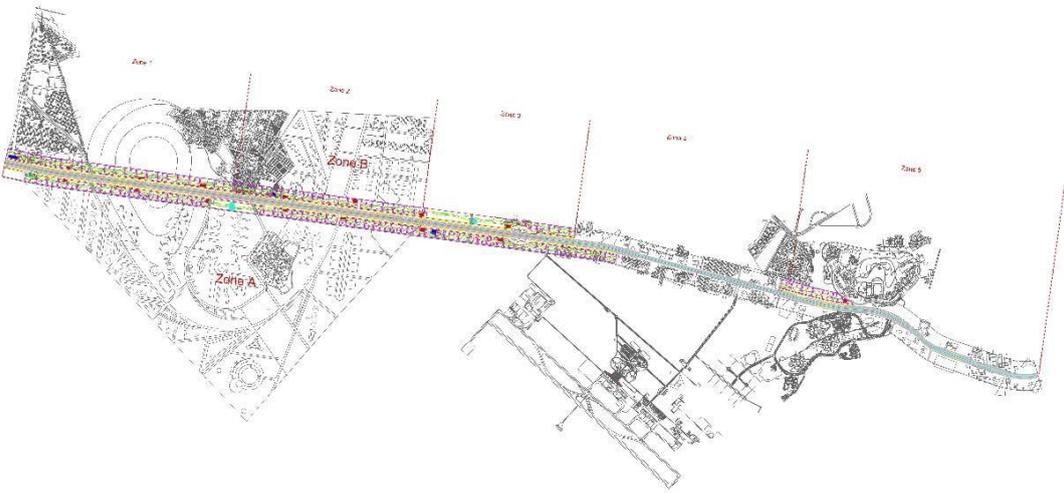
MASTER PLANNING &

CONSULTANCY SERVICES

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Master plan for Sulaimaniyah International Airport		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 5
Name of Client: Sulaimaniyah International Airport		No. of Staff: 20
Address: Sulaimaniyah		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): March 2011	Completion Date (Month/Year): August 2011	Approx. Value of Services (in current US\$): 1 Million
Name of Associated Firm(s), if any: GMW/URS Scottwilson		No. of Months of Professional Staff Provided by Associated Firm(s): 6
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said - Project Director Eng Nabeel Ahmed – Architect Eng Maurice Rosario-Airport Architect Eng Michael Jackson – Global Head of Airport Planning Eng Kieron Bradely – Associate planner		
Narrative Description of Project: Data Collection, Traffic forecast, Terminal proposal, future master plan for the airport		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Master Plan and Development of Slemani-Tasluja Corridor		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC 5
Name of Client: Sulaimaniyah Municipality		No. of Staff: 10
Address: Sulaimaniyah		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Jan 2014	Completion Date (Month/Year): September 2018	Approx. Value of Services (in current US\$): 1 Million
Name of Associated Firm(s), if any: GMW Architects		No. of Months of Professional Staff Provided by Associated Firm(s): 2
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said - Project Director Eng Nabeel Ahmed – Architect Eng Maurice Rosario-Architect Eng Marina Valsjevic – Environment Report Eng Niaz Said – Urban planning		
Narrative Description of Project: Preparing master plan and detailed urban plan for Slemani-Tasluja Corridor, preparing pre design studies followed by Master plan and detailed urban plan based on the state of the art technology and high standard and planning Regulations. Include power substation ,energy centers and utilities		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Sulaimaniyah Airport Cargo Village		Country: IRAQ
Location within Country: Sulaimaniyah Airport		Professional Staff Provided by VOLTEC4
Name of Client: GulfMar		No. of Staff: 4
Address: Sulaimaniyah		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): 2012	Completion Date (Month/Year): 2014	Approx. Value of Services (in current US\$): 300,000.00 USD
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said - Project Director Eng Khaldoon Sami- Automation Engineer Eng Nawar Thamer- Electrical Engineer Eng Mofaq Al Saor – Civil Engineer		
Narrative Description of Project: Consultancy work, assisting the client to efficiently implement the project applying the highest internationally recognized engineering standards and practice. Checking All workshop Drawings, Checking Quality of Materials and verification of specification and country of Origin.		
		
		

Firm's References Relevant Services That Best Illustrate Qualifications

Assignment Name: Ventilation, Fire Fighting, Automation and Lighting System for Azmar Tunnel In Sulaimaniyah		Country: IRAQ
Location within Country: Sulaimaniyah		Professional Staff Provided by VOLTEC4
Name of Client: Directorate General of Roads, Reconstruction and Huosing in Sulaimaniyah		No. of Staff: 4
Address: Sulaimaniyah		No. of Staff Months: Duration of Assignment:
Start Date (Month/Year): Jan 2011	Completion Date (Month/Year): Dec 2013	Approx. Value of Services (in current US\$): 1 Million
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s):
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: Eng Sinan Said - Project Director Eng Khaldoon Sami- Automation Engineer Eng Nawar Thamer- Electrical Engineer Eng Qasim Al Obaidi – Mechanical Engineer		
Narrative Description of Project: Consultancy work, assisting the client to efficiently implement the project applying the highest internationally recognized engineering standards and practice.		
		
		

**VOLTEC SELECTED REFERENCES
BUILDING & CONSTRUCTIONS**

**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: GRAND MILLINUM 5 STAR HOTEL		Country: IRAQ
Location within Country: SULAIMANIYAH		Professional Staff Provided by VOLTEC
Name of Client: FAROUK GROUP		No. of Staff: 100 Personnel
Address: Sulaimaniyah, IRAQ		Duration of Assignment: 2 Year
Start Date (Month/Year): 2007	Completion Date 2013	Approx. Value of Services (7,500,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -

Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed:

- Sinan Said
- Dhirar ahmad
- Nawar Thamer

Narrative Description of Project: Supply and installation of Electrical works; Selection, procurement and Installation of all Electrical equipment ,M.V substation, main distribution boards, motor control center, bus riser, final distribution boards, and total of 70.0000 meter of cables.



**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: Erbil Medical Diagnosis Center		Country: IRAQ
Location within Country: Erbil		Professional Staff Provided by VOLTEC
Name of Client: MDC		No. of Staff: 25 Personnel
Address: Erbil-IRAQ		Duration of Assignment: 1 Year
Start Date (Month/Year): 2008	Completion Date Feb. 2009	Approx. Value of Services (350,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Ahmed M Rasheed - Sinan Said - Dhirar Salim - Mustafa rasheed - 		
Narrative Description of Project: <p>Medical Diagnosis Center Building of New Diagnosis Center which includes all radiology, MIR, x-rays, and scanning facilities. The work includes the supply and installation of all architectural materials electro-mechanical systems.</p>		
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**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: REHABILITATION OF MINISTRY OF CULTURE BUILDING		Country: IRAQ
Location within Country: Baghdad		Professional Staff Provided by VOLTEC
Name of Client: Ministry of Culture		No. of Staff: 70 Personnel
Address: Baghdad, IRAQ		Duration of Assignment: 2 Year
Start Date (Month/Year): Dec 2003	Completion Date June 2005	Approx. Value of Services (6,500,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Nabeel Ahmed - Muhammed Hilmi - wahab alhasani 		
Narrative Description of Project: <p>The work included the re-instatement of the building to its pre-war condition and renewal of all services and fittings. VOLTEC added value by introducing new materials and techniques that harmoniously integrated within the existing building framework. Design orientated construction is VOLTEC approach to evolve existing buildings to survive new demands adequately and independently</p>		
		

**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: AL SHA'AB STADIUM		Country: IRAQ
Location within Country: Baghdad		Professional Staff Provided by VOLTEC
Name of Client: Iraq Olympic Committee		No. of Staff: 60 Personnel
Address: Baghdad, IRAQ		Duration of Assignment: 1 Year
Start Date (Month/Year): Apr 2004	Completion Date Feb 2005	Approx. Value of Services (3,400,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Nabeel Ahmed - Muhammed Hilmi 		
<p>Narrative Description of Project:</p> <p>This building of national importance an icon of Iraqi Football tradition has gone through much needed refurbishment and maintenance in a long time. The work involved a regeneration of the original concept with adaptation to new realities as a result of four decades of changing requirements by the sport as well as the space purification from the past political dependency. The works included a general face lift and a new look for the VIP section, as well as rehabilitation of all Mechanical, Electrical and all other services</p>		
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**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: Medina Airport Hotel		Country: Saudi Arabia
Location within Country: Medina City		Professional Staff Provided by VOLTEC
Name of Client: Scott Brownrigg		No. of Staff: 15 Personnel
Address: UK		Duration of Assignment: 1 Year
Start Date (Month/Year):	Completion Date	Approx. Value of Services (26,000,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Nabeel Ahmed - Maurice Rozario 		
Narrative Description of Project: This project consists of Design Coordination, Civil, Structural Design and MEP Design.		
		

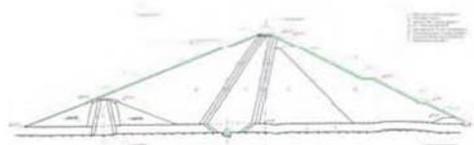
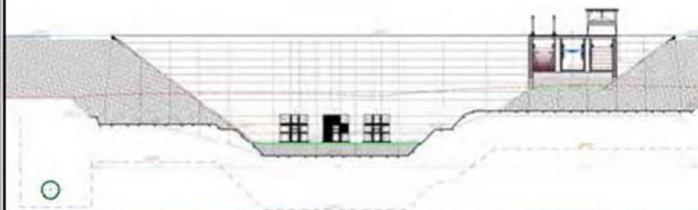
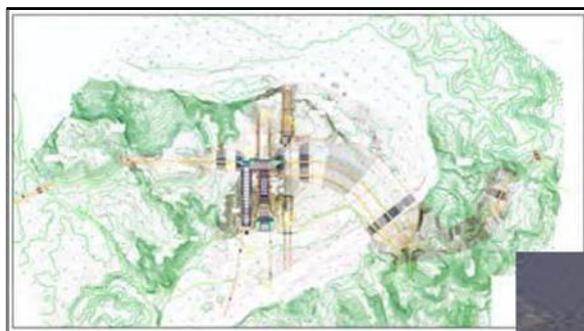
**Firm's References
Relevant Services
That Best Illustrate Qualifications**

Assignment Name: ITSC BUILDING		Country: IRAQ
Location within Country: SULAIMANIYAH		Professional Staff Provided by VOLTEC
Name of Client: VOLTEC		No. of Staff: 50 Personnel
Address: Sulaimaniyah, IRAQ		Duration of Assignment: 2 Year
Start Date (Month/Year): 2018	Completion Date Jan 2020	Approx. Value of Services (2,500,000.00\$):
Name of Associated Firm(s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s): -
Name of Senior Staff (Project Director/Co-ordinator, Team Leader) involved and functions performed: <ul style="list-style-type: none"> - Sinan Said - Nabeel Ahmed <li style="padding-left: 20px;">Farhad Sabir - Maurice Rozario 		
Narrative Description of Project: Complete Design & Build of Office Building consists of six Floors, Showroom and Two Basements		
		

VOLTEC SELECTED REFERENCES

DAMS

TAQ-TAQ DAM PROJECT



Contract title: **PLANING REPORT & INVESTIGATION WORKS FOR TAQ-TAQ DAM**

Location/River: Taq-Taq town / Lesser Zab River – IRAQ

Employer: Ministry of Water Resources IRAQ

Commencement date: 2004.

Completion date: 2006.

Contract price: 1,485,840 USD

Investments cost: 1,050,000,000 USD

Hydrology data

Catchment area 1850 km²
Average discharge 217 m³/s
PMF flood 8700 m³/s

Dam

Type Fill dam with central clay core and concrete gravity part
Height 90 m
Crest length 1900 m
Embankment vol. 14 x 10⁶ m³
Concrete vol. 0.54 x 10⁶ m³

Reservoir total storage

2858 x 10⁶ m³

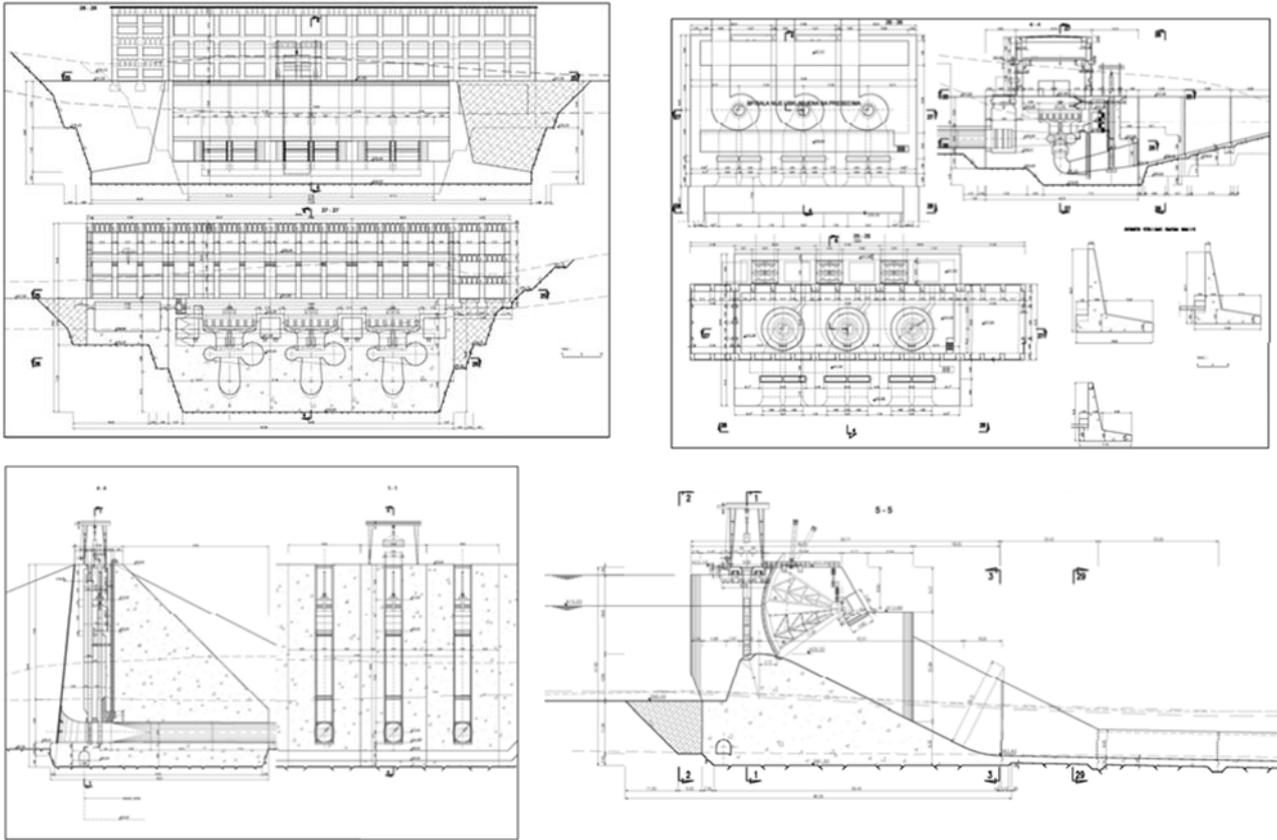
Spillway

Type Gated (radial gates) / 3 bays

Hpp

Installed Capacity (270 MW, 3 Unit)

Turbine Type Fransis



Description of the Project: Location of designed Taq-Taq Dam is on river Lesser Zab, some 5 km upstream from Taq-Taq town in Iraq. Taq-Taq Dam presents the second step on Lesser Zab river, downstream from Dokan Dam and upstream from Dibbis Dam. The main purpose of 2900 x 10⁶ m³ large Taq-Taq reservoir is irrigation, regulation of water released from Dokan power station, flood control for downstream area and power generation.

Taq-Taq Dam, 90 m high, is designed as a fill dam with central clay core. It will regulate the river average annual discharge providing the water for irrigation (Kirkuk irrigation system and other downstream consumers). Three gated spillway bays with chute and ski jump bucket have sufficient capacity to convey the maximum designed flood with retention in the reservoir storage available. Designed power station has the installed capacity of 270 MW with discharge of 450 m³/sec. Other appurtenant structures include diversion tunnels, bottom outlet, power intake and fuse plug.

The Services Provided: Performance of Topographical & Geological Investigation Works and Preparation of Planning Report have been the most essential goals of the Project, including the following specific Consulting Services:

- Preparation of Investigation Works Program & Performance of Investigation Works;
- Determination of General Layout, optimization and engineering design of the Dam, Appurtenant Structures & HPP;
- Preparation of Hydrological, Topographical, Geological & Earthquake Hazard Study;
- Implementation of Cost Estimate with Construction Time Schedule & Economic with Financial analysis;
- Preparation of Environmental Impact Assessment Study.

STUDY OF NEW IRRIGATION AREA IN TAQ-TAQ DAM VICINITY



Contract title:	PRE-FEASIBILITY STUDY OF THE NEW IRRIGATION AREA – TAQ-TAQ DAM PROJECT
Location/River:	Taq-Taq town / Lesser Zab River - IRAQ
Employer:	Ministry of Water Resources IRAQ
Commencement date:	2006.
Completion date:	2006.
Contract price:	1,485,840 USD
Investments cost:	1,050,000.00 USD

Hydrology data

Catchment area	1850 km ²
Average discharge	217 m ³ /s
PMF flood	8700 m ³ /s

Dam

Type	Fill dam with central clay core and concrete gravity part
Height	90.0 m
Crest length	1900 m
Embankment vol.	14 x 10 ⁶ m ³
Concrete vol..	0.54 x 10 ⁶ m ³

Reservoir total storage

2858 x 10⁶ m³

Spillway

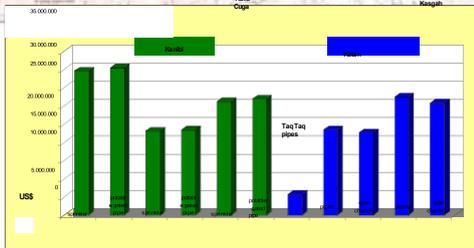
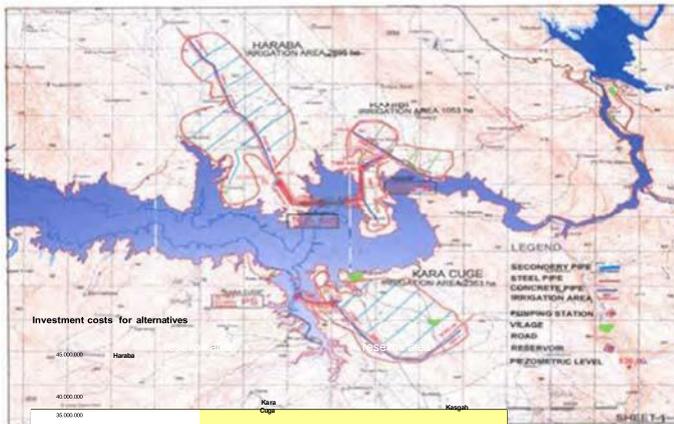
Type	Gated / 3 bays
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HPP

Installed capacity	270 MW (3 units)
Turbina type	Fransis

New irrigation area

In reservoir area	6300 ha
Downstream of reservoir	8965 ha



Description of the Project: After construction of the designed Taq-Taq Dam, the area of 90 km² will be impounded, and total of 17000 inhabitants will be resettled. In order to mitigate negative effects induced by resettlements and to provide better life conditions possibility of resettlement to the region in the vicinity of the dam and reservoir as well as possibility and feasibility of irrigation of the new area which will be given as compensation was analyzed in the Pre-feasibility study.

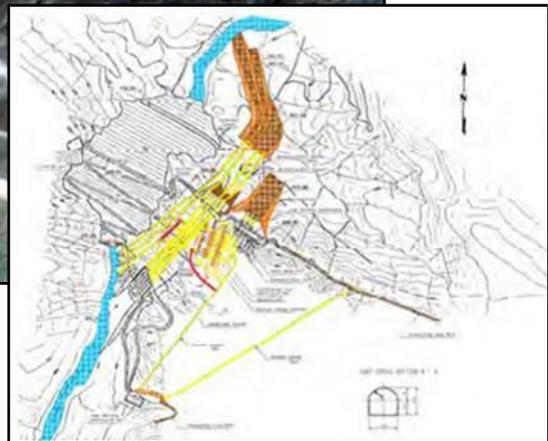
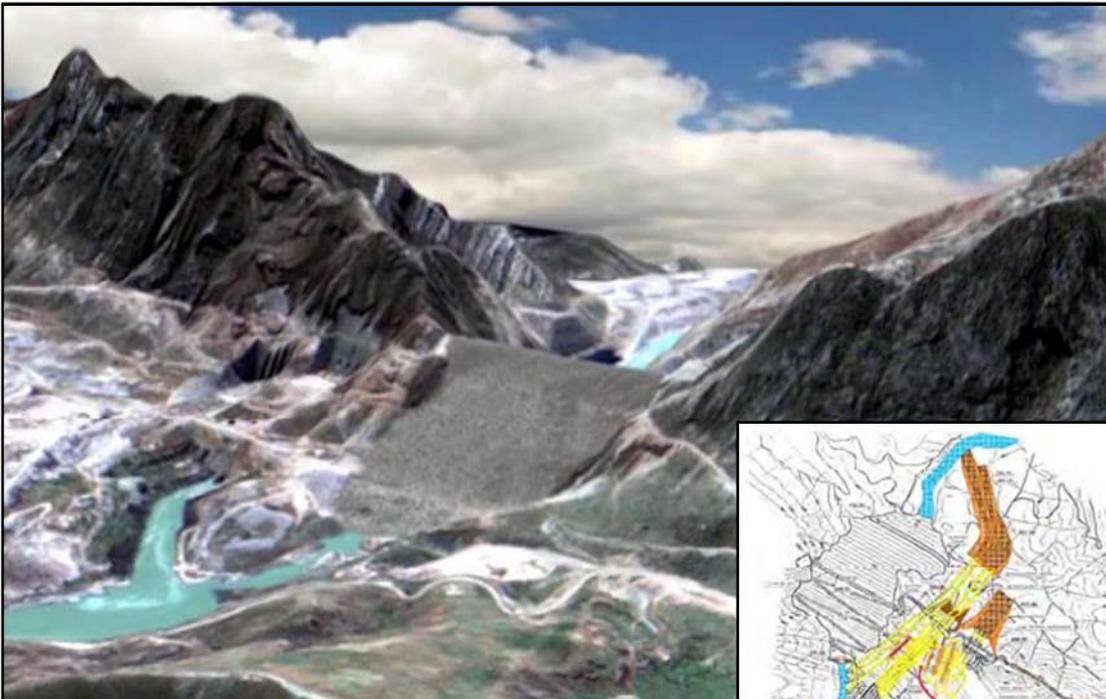
The appropriate areas for irrigation in the vicinity of dam (8965 ha) and reservoir (6300 ha) were determined based on the available maps and satellite images. Water demands were estimated in accordance with climatic characteristics, demands of typical crops in the area etc. Irrigation systems and their technical solutions were elaborated and costs and benefits estimated. Economical analyses was performed and feasibility confirmed.

Additional study was performed to evaluate impact of new irrigation areas on the performance of the Taq-Taq reservoir. Additional water balance simulations indicated that the impact is negligible.

The Services Provided:

- Preparation and analyses of available documents and maps;
- Determination of general layout, and preliminary design of the irrigation systems;
- Implementation of Cost Estimate and Benefit analyses;
- Evaluation of new irrigation systems on original Taq-Taq Dam Project.

BEKHME DAM PROJECT



Contract title: UPDATING OF PLANNING REPORT & TENDER DOCUMENTS FOR BEKHME DAM

Location/River: Bekhme gorge / Greater Zab River IRAQ

Employer: Ministry of Water Resources IRAQ

Commencement date: 2004.

Completion date: 2005.

Contract price: 1,200,000 USD

Investments cost: 3,100,000,000 USD

Hydrology data

Catchment area 16600 km²
Average discharge 377 m³/s
PMF flood 25850 m³/s

Dam

Type Rockfill dam with central clay core
Height 230 m
Crest length 600 m
Embankment vol. 34 x 10⁶ m³

Reservoir total storage

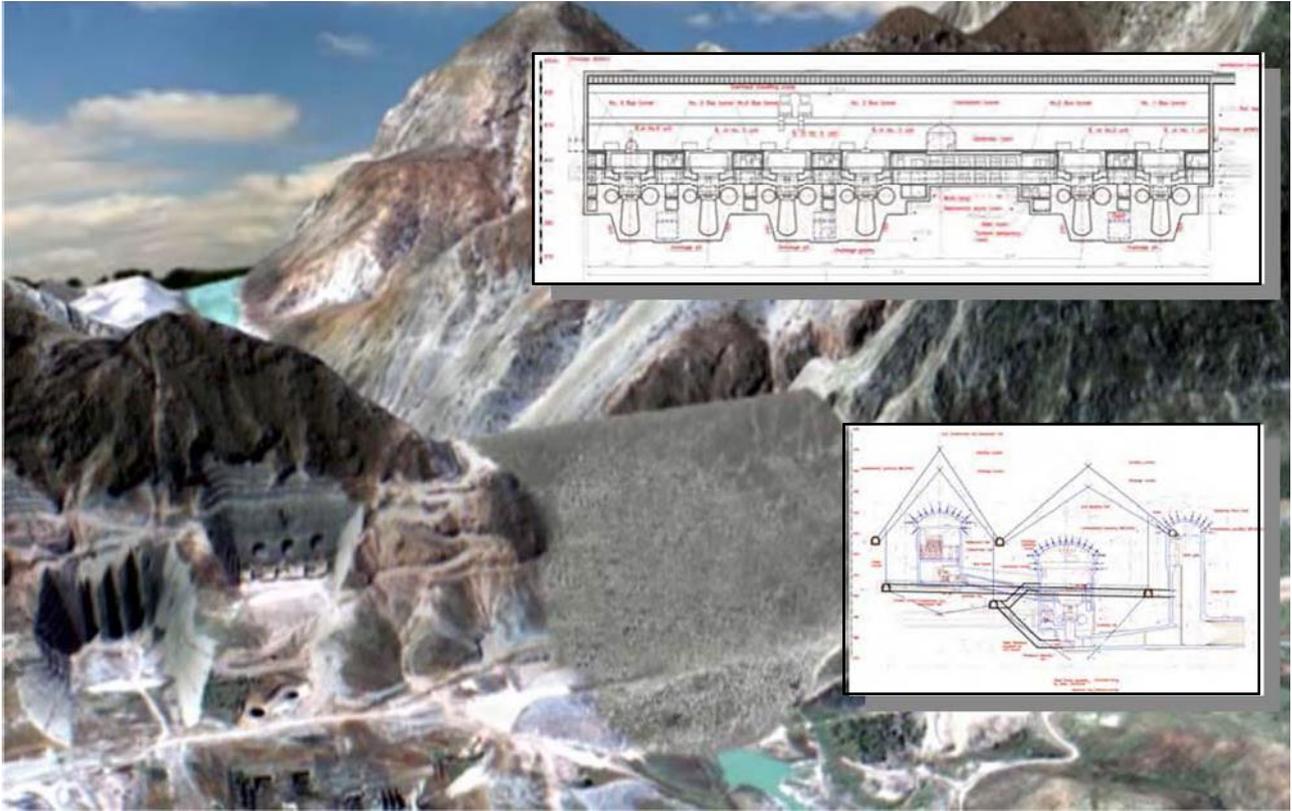
17000 x 10⁶ m³

Spillway

Type Gated (radial gates) / 3 tunnels
Capacity: 8865 m³/s

HPP

Installed capacity 1500 MW (6 units)
Turbine type Fransis



Description of the Project: Main purpose of Bekhme Dam Project is power generation, irrigation and flood control. System is composed of the following structures: Rockfill dam; Spillway, Bottom outlet & Diversion tunnels; Water conveyance facilities; Underground power house, Transformer & Switchyard hall.

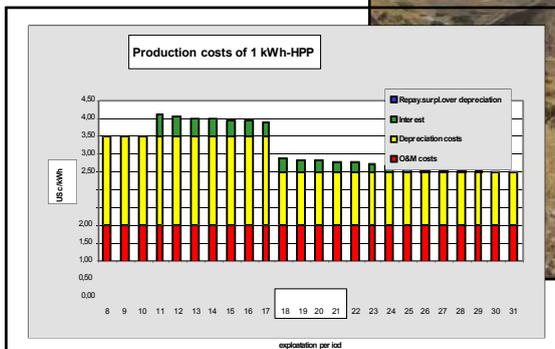
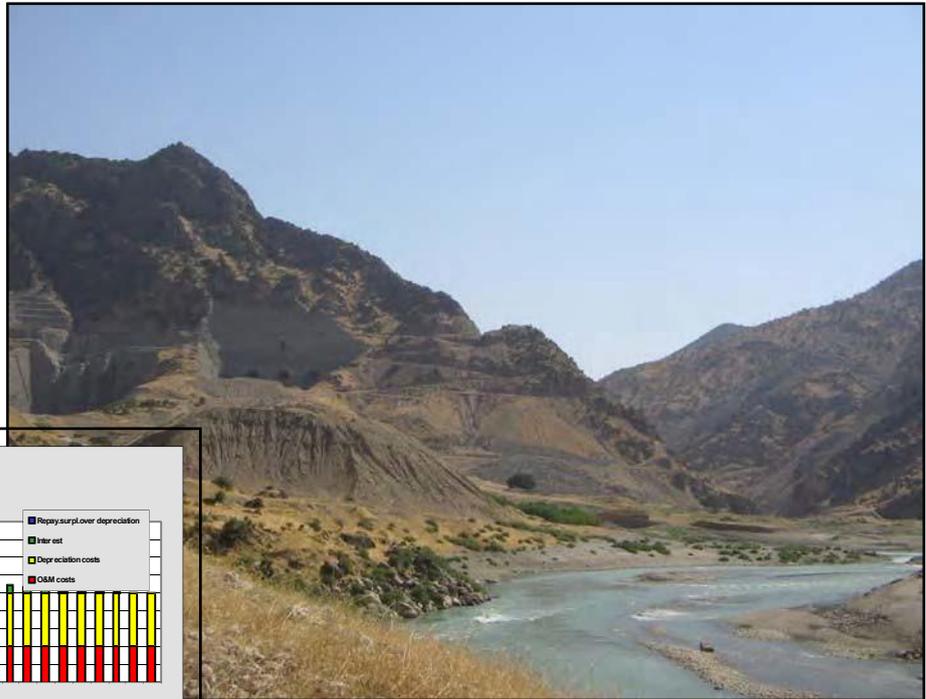
The commencement of Bekhme Dam Project construction, based on original EPDC (Japan) project was in 1986. The works were suspended in 1990, due to Kuwait-Iraq war together with the following UN sanctions and it haven't been continued, yet. The estimation of percentage of completed permanent works, made in 2004, was about 27%.

In the light of mentioned above the following Consulting Services within this Contract have been provided:

The Services Provided: Updating of original EPDC (Japan) Planning Report & Tender Documents have been the most essential goals of the project, including the following specific Consulting Services:

- Assistance to Ministry of Water Resources and State Commission for Dams and Reservoirs in continuing activities for Bekhme Dam Project;
- Review of status of executed works at Bekhme site;
- Engineering evaluation of the previous projects and works;
- Estimation of total cost of the remaining works;
- Updating of Hydrological, Topographical & Geological Report;
- Preparation of Environmental Impact Assessment Study;
- Updating of Contract Documents for Civil works & Equipment;
- Establishment of Tendering Procedure and rendering assistance to Client during Tendering Procedure.

BEKHME DAM PROJECT- ECONOMIC AND FINANCIAL EVALUATION



Contract title: **ECONOMIC AND FINANCIAL EVALUATION OF BEKHME DAM MULTIPURPOSE PROJECT**

Location: Bekhme gorge / Greater Zab River – IRAQ

Employer: Ministry of Water Resources IRAQ

Commencement date: 2006.

Completion date: 2006.

Contract price: 150,000 USD

Investments cost (including irrigation): 4,900,000,000 USD

Hydrology data

Catchment area 16600 km²
Average discharge 377 m³/s
PMF flood 25850 m³/s

Dam

Type Rockfill dam with central clay core
Height 230 m
Crest length 600 m
Embankment vol. 34 x 10⁶ m³

Reservoir total storage

17000 x 10⁶ m³

Spillway

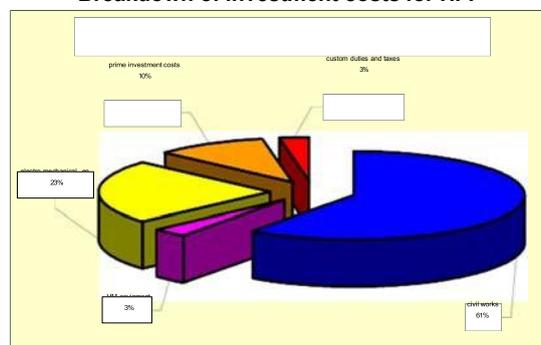
Type Gated (radial gates) / 3 tunnels
Capacity: 8865 m³/s

HPP

Installed capacity 1500 MW (6 units)
Turbine type Francis

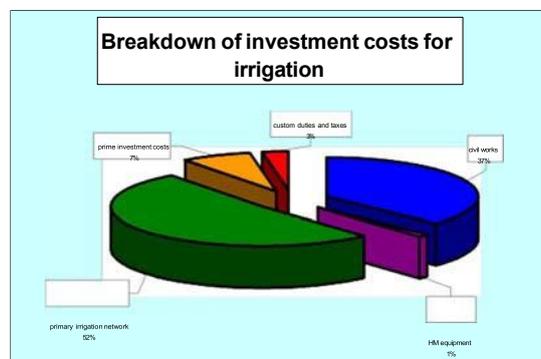
No	ITEM	IRR	B-C in US\$ for disc.rate 6%	B/C for disc.rate 6%
A	Bekhme Multipurpose Project			
	basic analysis	14.74%	6,732,810,889	2.09
	Investment and operating costs +10%	13.42%	6,117,594,785	1.90
	Investment and operating costs -10%	16.30%	7,348,026,994	2.33
	Alternative TPP, total costs +10%	15.36%	7,269,020,198	2.18
	Alternative TPP, fuel costs rise yearly +3%	15.73%	9,483,054,415	2.54
	Alternative TPP, total costs -10%	14.12%	6,196,601,581	2.01
	Irrigation benefits +10%	15.40%	7,420,730,718	2.21
	Irrigation benefits -10%	14.06%	6,044,891,061	1.98
	Flood control benefits +10%	14.89%	6,797,178,946	2.10
	Flood control benefits -10%	14.60%	6,668,442,833	2.08
	Without Flood control benefits	13.42%	6,089,130,322	1.99
	without multiplicative effects	12.33%	4,439,744,796	1.72
	without flood control and mult.effects	11.06%	3,796,064,228	1.62
	All costs +35 % and all benefits - 32 %	5.99%	-8,317,157	1.00

Breakdown of investment costs for HPP



No	ITEM	IRR	B-C in US\$ for disc.rate 6%	B/C for disc.rate 6%
B	Bekhme Irrigation only			
	basic analysis	10.15%	1,397,462,542	1.44
	Investment and operating costs +20%	8.04%	759,728,612	1.20
	Investment and operating costs +44%	6.00%	1,781,838	1.00
	Irrigation benefits -20%	7.58%	480,236,104	1.15
	Irrigation benefits -30%	6.00%	526,677	1.00
	All costs +20 % and irrigation benefits - 17 %	6.00%	265,122	1.00

Breakdown of investment costs for irrigation



No	ITEM	IRR	B-C in US\$ for disc.rate 6%	B/C for disc.rate 6%
C	Bekhme HPP only			
	basic analysis	11.79%	2,398,601,686	1.81
	Investment and operating costs +10%	10.72%	2,102,252,546	1.64
	Investment and operating costs -10%	13.05%	2,694,950,826	2.01
	Alternative TPP, total costs +10%	12.93%	2,934,810,995	1.99
	Alternative TPP, fuel costs rise yearly +3%	13.97%	5,148,845,212	2.74
	Alternative TPP, total costs -10%	10.61%	1,862,392,378	1.63
	All costs +28 % and all benefits - 30 %	6.00%	125,063	1.00

Description of the Project: The Bekhme Dam design was finished and construction begun in 1986, but construction works were suspended in 1991 due to the war. The Updated Planning report and Tender Documentation for continuation of works on this dam were finished in 2006.

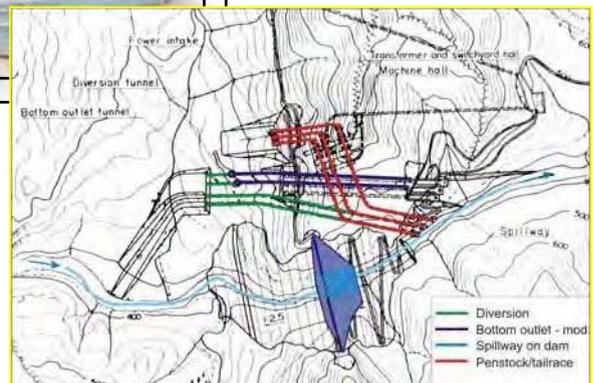
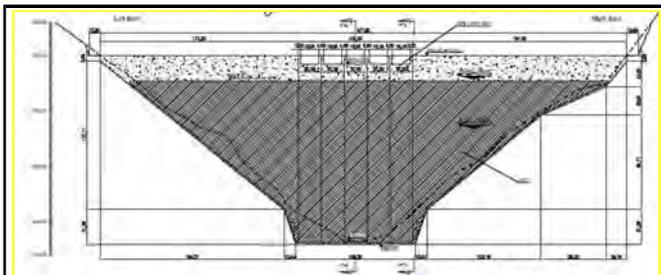
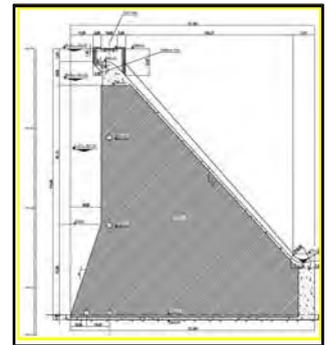
This economic and financial evaluation was done in course of assessment the project economic and financial viability today, and to provide and overview of possible issues in the financing of such a multipurpose project. This analysis integrates economical, financial, institutional, technical, sociological and environmental considerations.

In this project more than 500 million USD is already invested and the total remaining works amount 4,400 million USD. Performed analyses shows that this project is both economically and financially feasible.

The Services Provided:

- Identifying, evaluating and comparing economic costs and analysing sensitivities;
- Analyses of HPP production effects;
- Analyses of irrigation effects;
- Economical evaluation of project;
- Financial evaluation of project.

ALTERNATIVES WITH REDUCING BEKHME DAM HEIGHTS



Contract title: PRE-FEASIBILITY STUDY OF THE ALTERNATIVES WITH REDUCING BEKHME DAM HEIGHTS

Location/River: Bekhme gorge / Greater Zab River IRAQ

Employer: Ministry of Water Resources IRAQ

Commencement date: 2006.

Completion date: 2007.

Contract price: 400,000 USD

Investments cost (including irrigation): 3,510,000,000 USD

Hydrology data

Catchment area 166000 km²
Average discharge 377 m³/s
PMF flood 25 850 m³/s

Dam-Alternative 1

Type RCC dam
Height 170 m
Crest length 471 m
Concrete vol. 2.6 x 10⁶ m³

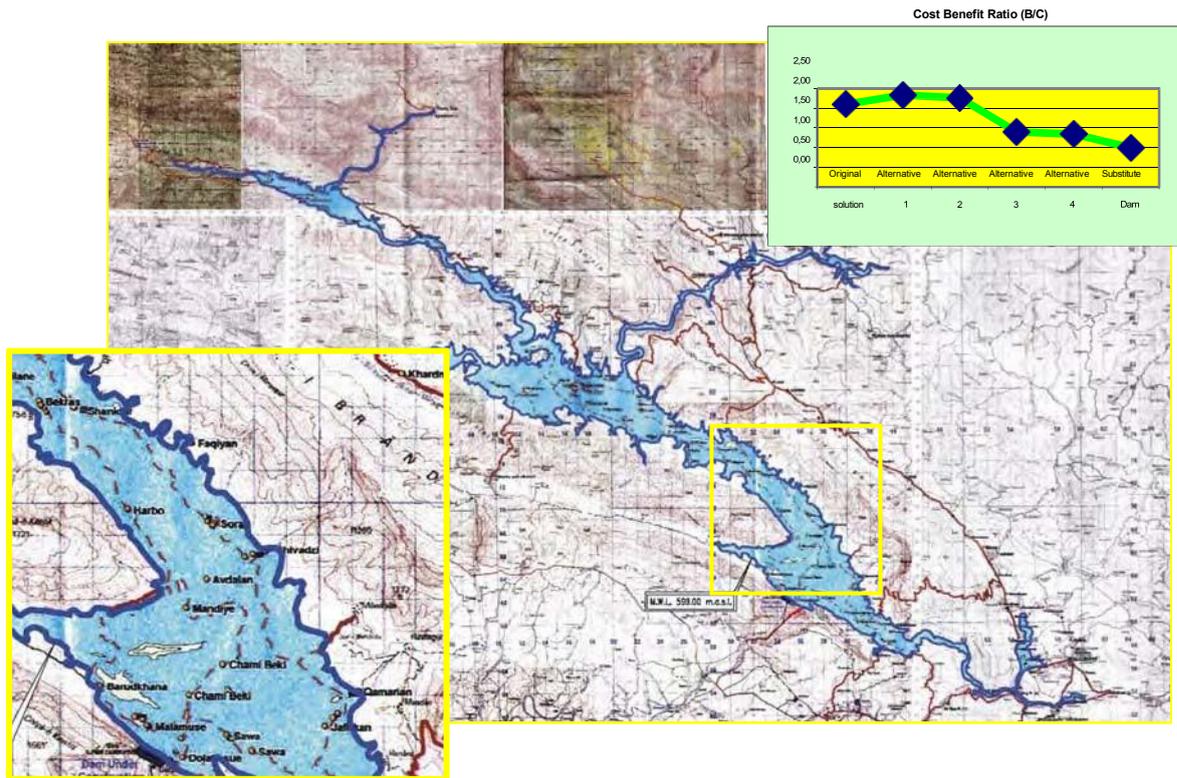
Reservoir total storage 8110 x 10⁶ m³

Spillway

Type Ungated / 5 bays

HPP

Installed capacity 840 MW (6 units)
Turbine type Fransis



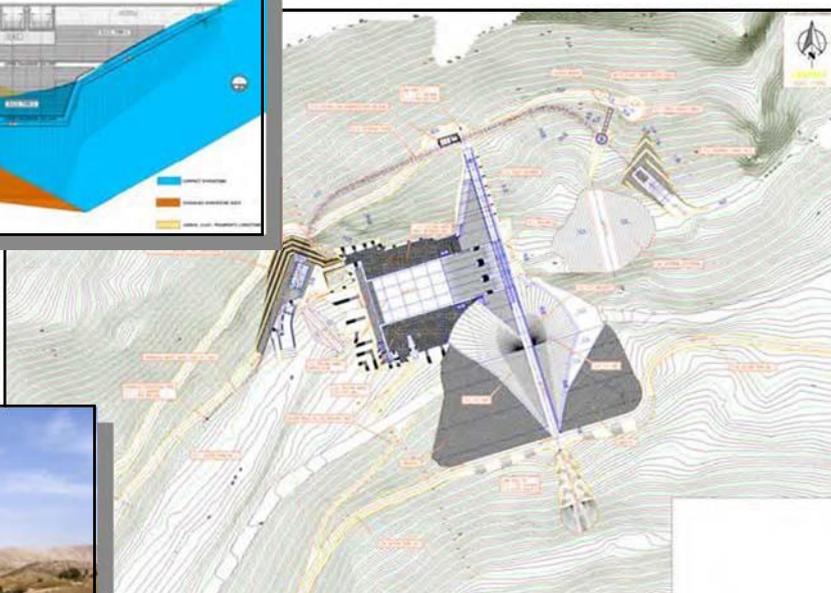
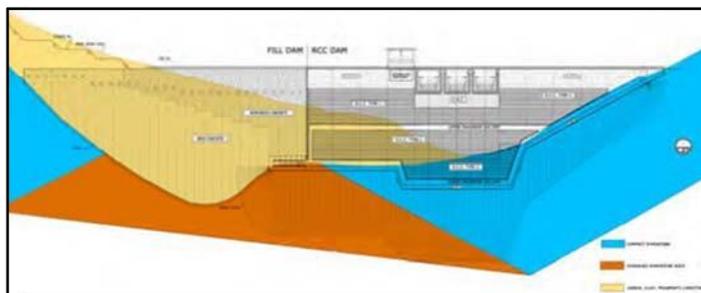
Description of the Project: The commencement of Bekhme Dam Project construction, based on original EPDC (Japan) project started in 1986. The works were suspended in 1990. Since then, a lot of villages have been founded in the area envisaged for the impoundment, so resettlement of the villagers became a serious issue. Due to that reason, an analysis of alternatives with reduced dam heights was performed.

A pre-feasibility study of four alternative technical solutions was done. Two dam types – RCC and fill dam type – as well as two maximum impoundment levels (reduction from 599 m a.s.l. to 550 m a.s.l. and to 517 m a.s.l.) were analyzed. Proposed technical solutions incorporated more than 90 % of already executed constructions at the dam site. For each alternative, construction costs and resettlement costs were estimated as well as reduced effects of irrigation and power production. A thorough economical analysis was performed. Characteristic parameters B-C (Net Present Value), B/C, EIRR (Economic internal rate of return) and LRIC (Long Run Incremental Costs) were evaluated for alternatives and compared with parameters for original solution. An optimal alternative (RCC, 550 m a.s.l.) was recommended.

The Services Provided:

- Review of existed documents and data and their systematisation ;
- Determination of general layout, optimization and engineering design of the Dam, Appurtenant Structures & HPP for each alternative;
- Engineering calculations;
- Estimation of total cost for each alternative;
- Analyses and evaluation of potential irrigation and power production effects for each alternative;
- Estimation of reduction of resettlement costs as well as preparation of list of impoundment villages for each alternative;
- Evaluation of characteristic economic parameters and recommendation of optimal alternative.

BASSARA DAM and IRRIGATION PROJECT



Contract title: PRELIMINARY & PLANNING REPORT WITH INVESTIGATION WORKS, FINAL DESIGN & TENDER DOCUMENTS FOR BASSARA DAM

Location/River: Bassara gorge / Tawooq Chai River
IRAQ

Employer: Ministry of Water Resources
IRAQ

Commencement date: 2005.

Completion date: 2007.

Contract price: 2,305,000. USD

Investment cost: 110,600,000. USD

Hydrology data

Catchment area 574 km²
Average discharge 8 m³/s
PMF flood 2870 m³/s

Dam

Type RCC & Fill dam with central diaphragm
Height 67.0 m
Crest length 284.7 m
Concrete vol. 0.26 x 10⁶ m³
Embankment vol. 0.26 x 10⁶ m³

Reservoir total storage

54 x 10⁶ m³

Spillway

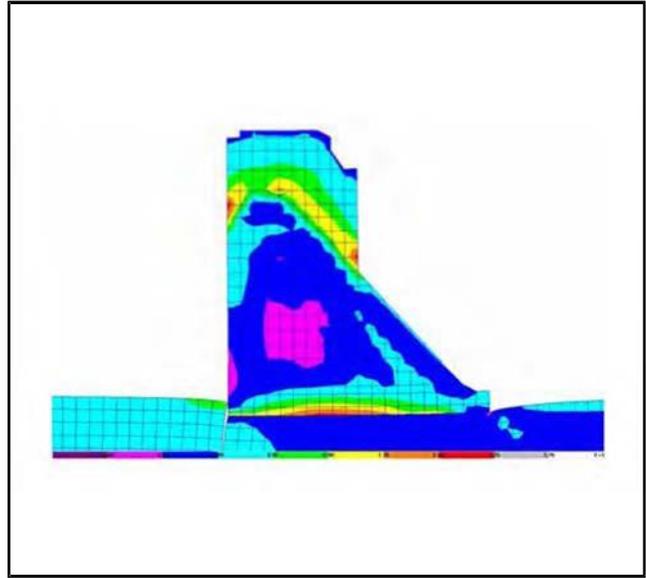
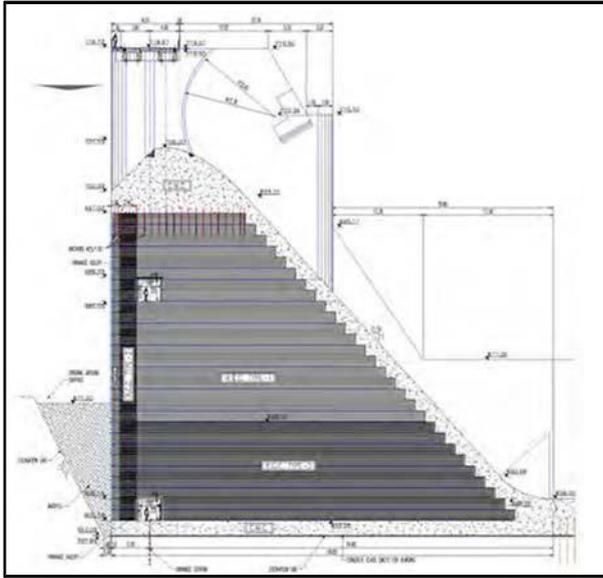
Type Gated (radial gates) / 3 bays

HPP

Installed capacity 4.8 MW (2 units)
Turbine type Francis

Irrigation area

2900 ha



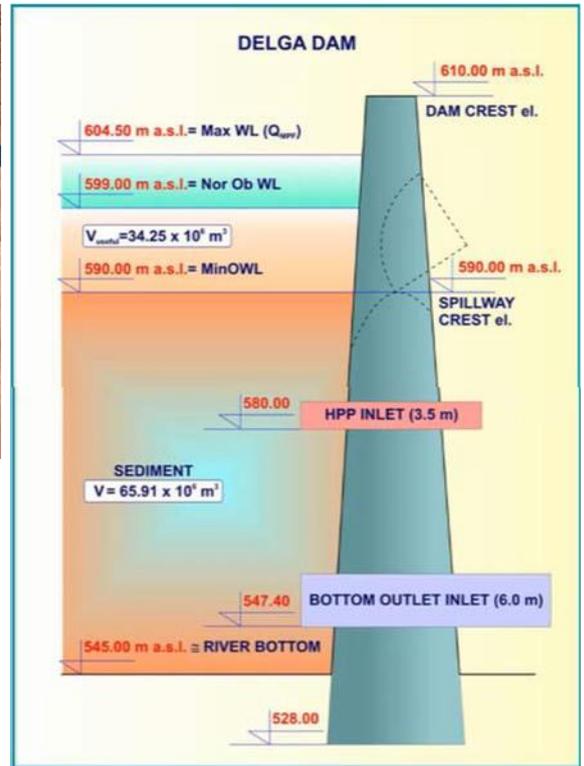
Description of the Project: Location of designed Bassara Dam is on river Tawooq Chai, some 20 km far from Sulaimanyah town in Iraq. The main purpose of 54 millions m³ large Bassara reservoir is to enable regulation of Tawooq Chai for irrigation of 2900 ha of cultivated land. Beside this, construction of the dam will improve river low flows regime. The water head difference which will be formed with the dam will be used for electric power production, so the HPP of 4.8 MW is proposed. Bassara dam is designed as a combination of RCC Dam with Spillway & Fill Dam with central concrete diaphragm. Appurtenant structures includes diversion tunnel, water intake tower, bottom outlet with penstock & irrigation pipe and HPP.

Location of the Irrigation field is some 11 km downstream of the dam location. Water from the Bassara reservoir to the irrigation field is conveyed through a 1400 mm main pipe. For further water distribution a network of primary and secondary level pipes is designed. The total length of all pipes in the network including the main pipeline is approx. 90 km.

The Services Provided: Performance of Topographical & Geological Investigation Works and Preparation of Preliminary & Planning Report, Final Design & Tender Documents have been the most essential goals of the Project, including the following specific Consulting Services:

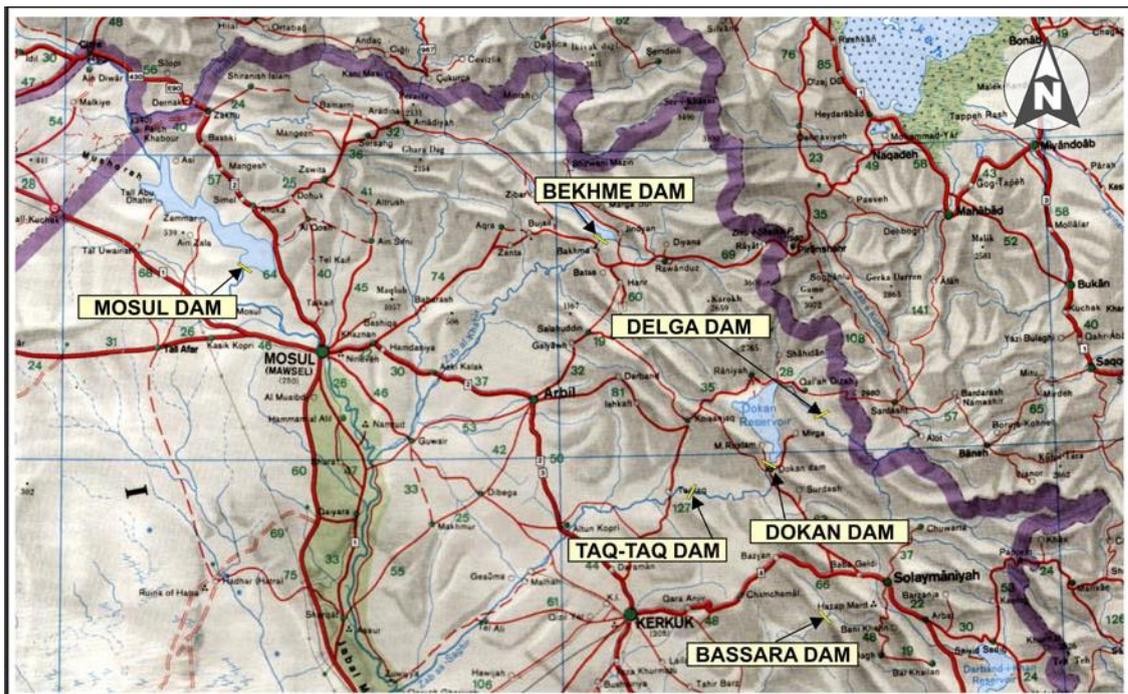
- Preparation on Investigation Works Program & Performance of Investigation Works;
- Determination of General Layout, Optimization and Engineering Design of the Dam, Appurtenant Structures & HPP at Preliminary with Planning Report & Final Design stage;
- Preparation of Hydrological, Topographical & Geological Study at Preliminary & Planning Report stage;
- Implementation of Earthquake Hazard Study at Planning Report stage;
- Preparation of Environmental Impact Assessment Study at Preliminary & Planning Report stage;
- Implementation of Cost Estimate with Construction Time Schedule at Preliminary with Planning Report & Final Design stage;
- Preparation of Economic & Financial Analysis at Preliminary & Planning Report stage;
- Establishment of Tendering Procedure and Rendering Assistance to Client during Tendering Procedure.

DELGA DAM and IRRIGATION PROJECT



Contract title: FEASIBILITY STUDY AND DESIGN FOR DELGA DAM IN PISHDAR DISTRICT/ SULAIMANIYA GOVERNORATE

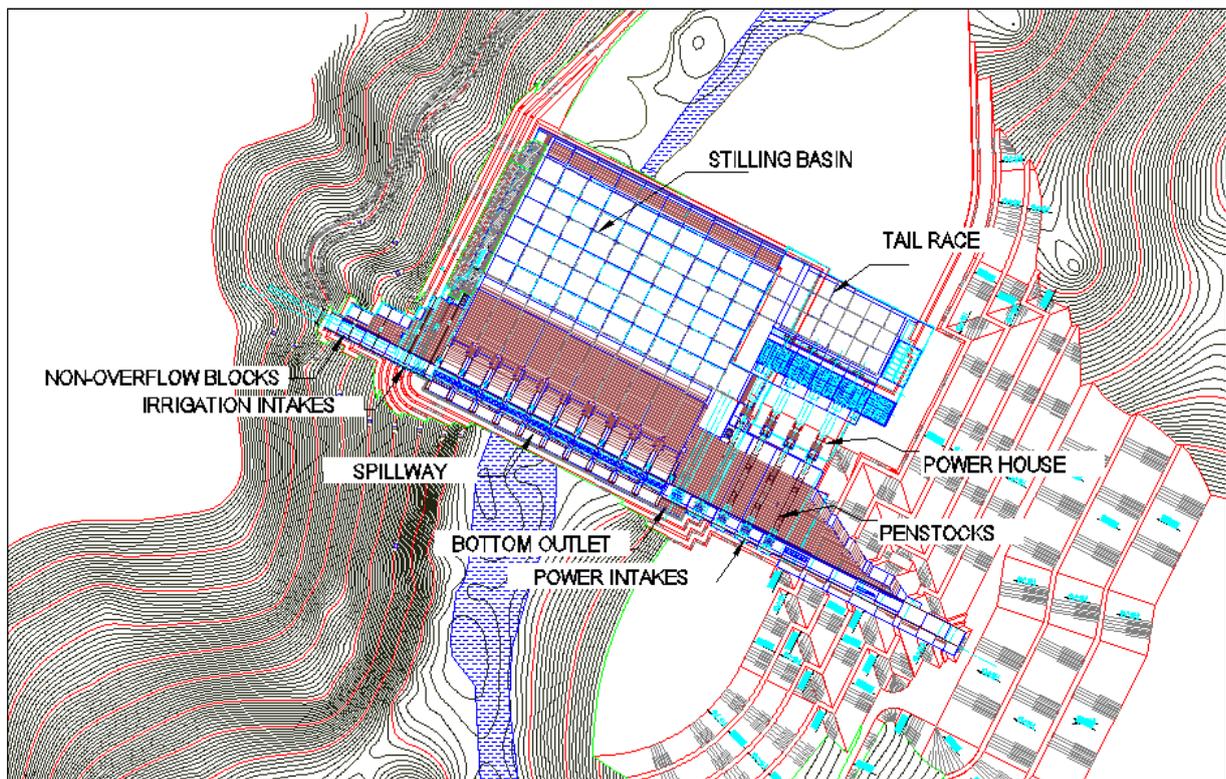
Delga Dam is located at Lesser Zab River at app. 20 km upstream of existing Dokan reservoir and app. 26 km from Iranian border line measured along to Lesser Zab River. Dam profile is located app 10 km southeast of Quala Diza town and app 5 km southeast of Nuraddin village. Some 2 km downstream from the dam location Delga village is located. Elevation of this village is about 580 m a.s.l., so Delga Dam and reservoir will not jeopardize this settlement.



Dam site is located app. 20 km upstream from existing Dokan Dam and 25.6 km downstream from Iranian border. The Delga Dam with the crest level of 610.00 m a.s.l. will form a reservoir of sufficient storage for irrigation requirements and energy production. Hydro power plant is proposed to utilize water which will be normally released from the reservoir to the river downstream.

On the basis of detailed geological site investigation concrete gravity dam is proposed.

River diversion during dam construction is proposed to be carried out in phases and for this purpose are designed following temporary structures: one diversion channel and three stages cofferdams. Diversion channel is located in concrete gravity block between spillway and power intake parts in location of future bottom outlet.



Delga Dam layout



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IAF 28, 34

Certificate No: AQR-30004

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IAF 28, 34

Certificate No: AQR-10004

Originally Registered: 15 APR 2020

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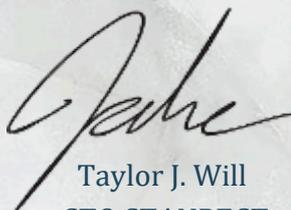
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Electrical and Mechanical Work, Water
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Date: 05.06.2024 Expiry Date:
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