

AMBELLIA CONSULTANCY

SUMMARY OF SERVICES :

Ambellia Consultancy provides Integrated Oilfield Water Management services to the worldwide oil industry under the direction of Dr. Robin Evans (MBA. Ph.D, M.Sc., B.Sc).

For 35 years, staff at Ambellia Consultancy have undertaken integrated oilfield water management projects for;

- ◆ produced water re-injection,
- ◆ aquifer water injection,
- ◆ seawater injection
- ◆ river water injection
- ◆ mixed water source injection
- ◆ matrix injection and above fracture pressure injection.
- ◆ Shale gas water management

The integrated studies have incorporated;

- ◆ on-site water sampling and characterization
- ◆ on-site source water testing
- ◆ injection well testing
- ◆ inorganic and organic scale risk assessments
- ◆ laboratory and site process chemical testing
- ◆ reservoir data interpretation
- ◆ modelling of injectivity, souring, scaling, fracturing, waterflood efficiency
- ◆ water injection system design
- ◆ cost and risk analysis
- ◆ partner presentations
- ◆ training, commissioning, monitoring and troubleshooting

SUMMARY OF REFERENCE LIST FOR UEA :

Staff at Ambellia Consultancy have undertaken oil industry integrated oilfield water management services in the UAE for more than 30 years.

Most recently this has included extensive studies for ZADCO's Upper Zakum water injection operations including

- i) a reassessment of the injection water quality requirements
- ii) an investigation of reservoir souring
- iii) an investigation of inorganic scaling problems
- iv) a study of thermal fracturing of water injection wells
- v) a study of the use of natural isotopes to monitor water injection

Integrated oilfield water management services has also been undertaken in the UAE for water management for the Bu Hasa, Satah and Thamama C fields

SUMMARY OF WORLDWIDE REFERENCE LIST :

Integrated oilfield water management studies have been undertaken for more than 50 different oil company clients worldwide.

Integrated oilfield water management studies have been undertaken all around the globe including

- ◆ Asia
- ◆ Australiasia,
- ◆ West Africa, North Africa & Southern Africa,
- ◆ Russia,
- ◆ Middle East,
- ◆ North Sea,
- ◆ South America and North America.

Integrated produced water injection studies have been conducted worldwide for, e.g.

- ◆ Addax. Nigeria. OML 123 & Okwok
- ◆ Addax Gabon. Tsiengui & Obangue
- ◆ ADNOC. UAE. Thamama C
- ◆ AFPC. Syria. Omar region. 6 fields
- ◆ Akakus. Libya. Akakus Field
- ◆ Petro-Canada. Libya. Amal
- ◆ BP. Colombia. Cusiana Field
- ◆ KOC. Kuwait. S.E. Kuwait Fields
- ◆ Tatneft. Russia. Romashkino
- ◆ Petrocorp. N.Zealand. McKee Field
- ◆ Talisman. N.Sea. Piper Field
- ◆ TNK/BP. Russia. Kammenoe Field
- ◆ BHP. Australia. Pyrenees
- ◆ CNR. N. Sea. Murchison
- ◆ TTOPCO Kurdistan/Iraq. Taq Taq
- ◆ Mubarak Oil Operations (Total). Libya
- ◆ ROC Oil. Australia. Cliff Head
- ◆ ROC Oil. China. Zhao Dong
- ◆ Repsol. Libya. El-Sharara
- ◆ KMOC. W. Siberia. Potanay & E.Kamenoye
- ◆ Shell/NAM. Netherlands. Schoonebeek
- ◆ Tullow Oil. Ghana. DWT

Integrated aquifer water injection studies have been conducted worldwide for, for example

- ◆ ROC Oil. Australia. Cliff Head
- ◆ Repsol. Libya. El-Sharara
- ◆ KMOC. W. Siberia. Potanay & E.Kamenoye
- ◆ Lagoven. Venezuela. El Furrial
- ◆ ADCO. UAE. Bu Hasa
- ◆ Hocol. Columbia
- ◆ ADNOC. UAE. Thamama C
- ◆ Akakus. Libya. Akakus Field
- ◆ Mubarak Oil Operations (Total). Libya

Integrated seawater water injection studies have been conducted worldwide for, for example

- ◆ Addax. Nigeria. Adanga & Okwok
- ◆ Amerada Hess. North Sea. Hudson
- ◆ Amoco. North Sea. Valhal
- ◆ BHP Billiton. Australia. Stybarrow
- ◆ Bohai Oil. China. BZ34
- ◆ BP. North Sea. Ula
- ◆ CNR. Ivory Coast. Baobab & Espoire
- ◆ CNR. N. Sea. Murchison
- ◆ Energy Africa & Triton. Eq. Guinea. Ceiba.
- ◆ Kerr McGee. North Sea. Gryphon
- ◆ Kerr McGee. North Sea. Janice
- ◆ Norsk Hydro. North Sea. Oseberg
- ◆ Petro-Canada. North Sea. Clapham
- ◆ Ranger Oil. North Sea. Columba
- ◆ Soekor. South Africa. EBT
- ◆ Tullow Oil. Ghana. Enyenra & Tweneboa
- ◆ Vietsovpetro. Vietnam. White Tiger
- ◆ ZADCO. UAE. Upper Zakum