Spectra Chem ™
Atyaf Al-Kimiya

Licensed Environmental Consultancy by
Iraqi Ministry of Environment (MOEN)
Iraqi Chemists Syndicate (ICS)

ENVIRONMENTAL CONSULTANCY

Environmental Consultancy & Impact Assessment Services



EIA | ESIA | BASELINE SURVEYS | MONITORING | ESMP | ENVID | ESG | GHG

OUR COMMITMENT

- Sustainable Development
- Regulatory Compliance
- Local Expertise in Iraq
- Practical Solutions
- Partnership for a Cleaner Future

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ABOUT US

Environmental Advisory for Oil, Gas & Industrial Operations

Atyaf Al-Kimiya | Spectra Chem™ is a licensed Environmental Consulting Office in Ministry of Environment (MOEN) based in Iraq, providing environmental consultancy supported solutions for projects across Iraq. We help clients understand, manage and reduce environmental impact through practical science-based assessment and compliance support.

Integrated Consultancy & Testing Support	Environmental consultancy combined with laboratory analysis to deliver reliable, end-to-end solutions.
Experience Across Key Sectors	Serving oil & gas, infrastructure and industrial clients with a deep understanding of local project needs.
Local Field Capability Across Iraq	Field teams operating throughout Iraq to conduct sampling, surveys and on-site assessments.
Practical, Regulator-Focused Deliverables	Clear, actionable reports aligned with Iraqi regulatory requirements and international good practice.
Responsive Project Execution	Flexible and efficient support to meet project timelines and client expectations.

Why Clients Choose Us

Local Expertise
In-depth knowledge of Iraq's environmental regulatory landscape

Practical Solutions
Realistic and cost-effective recommendations

Multidisciplinary Support
Environmental,Industrial Chemical, Process, HSE, Ecology, Hydrogeology, GIS and social specialists

Timely Reporting
Reliable data and clear reports to keep projects on track

Regulatory Alignment
Deliverables aligned with MOEN requirements and Iraqi standards







CONSULTANCY SERVICE MAP

Environmental support across the full project lifecycle

From first screening to site closure, each phase draws on the same integrated team of consultants, field specialists and laboratory analysts.

01 · Screening & Permitting Pre-project	02 · Design & Construction Build phase	03 · Operation Production phase	04 · Decommissioning & Closure End of life
Site screening & constraints mapping	ESMP & construction EMPs	Compliance & self-monitoring programmes	Contaminated land investigation
Environmental baseline survey	Construction dust, noise & water monitoring	Stack, ambient & effluent monitoring	Waste-pit & drilling-waste assessment
EIA / ESIA studies	Waste management plans	Occupational hygiene surveys	Remediation design & verification
MOEN submission & permitting	Route & river-crossing assessments	ESG reporting GHG reporting	Closure & rehabilitation plans
Due diligence & gap assessment	Treatability & jar testing for WTP / WWTP design	Environmental audits & amendments	NORM screening

ACROSS ALL PHASES

Laboratory testing
MOEN-licensed laboratory (No. 987)

GIS & data
Geotagged data and constraint maps

Stakeholder engagement
Consultation and grievance systems

Regulatory interface
MOEN and lender standards





CORE CONSULTANCY SERVICES

EIA, ESIA & Environmental Planning

Environmental Impact Assessment (EIA)

Comprehensive EIA studies to identify, predict and evaluate environmental impacts and recommend practical mitigation, in line with national regulations and international best practice.

Environmental & Social Impact Assessment (ESIA)

Integrated environmental and social assessments covering biophysical, socio-economic and cultural aspects for oil, gas and industrial projects.

Environmental Baseline Survey (EBS)

Detailed baseline data collection and analysis of air, water, soil, noise, ecology and socio-economic conditions to support impact assessment and project planning.

Environmental Management Plan (EMP / ESMP)

Practical, site-specific EMPs and ESMPs to manage risks, ensure compliance and promote sustainable project operations.

Environmental Addendum & Gap Assessment

Review of existing studies, identification of data gaps and preparation of addenda to meet regulatory requirements and project changes.

Environmental Surveillance & Sampling

Field monitoring, sampling and laboratory analysis of air, water, soil and noise to track compliance and environmental performance.

Stakeholder Engagement & Social Studies

Stakeholder mapping, consultation and social impact studies to support community relations and inclusive project development.

Regulatory Advisory & Submission Support

Expert advice on environmental regulations and preparation of technical reports for submission to MOEN and relevant authorities, ensuring a smooth approval process.





BASELINE STUDIES & MONITORING

Field Surveys, Sampling & Analytical Support

Reliable baseline data is essential for impact assessment, regulatory compliance and sustainable project development. We provide field surveys, monitoring and laboratory analytical support for oil & gas and industrial projects across Iraq.

Air Quality, Emissions & Modelling
Ambient air monitoring, stack emissions and dispersion support.

Noise Monitoring & Modelling
Ambient noise measurements and predictive modelling.

Surface Water & Groundwater
Quality assessment of rivers, lakes, ponds and groundwater.

Wastewater & Brine
Industrial wastewater, produced water and brine analysis.

Soil, Sludge & Solid Waste
Soil quality, drilling waste, sludge and solid waste characterisation.

Ecology & Biodiversity
Flora and fauna surveys, habitat assessment and biodiversity studies.

Land Use, Traffic & Socio-Economic Surveys
Land use, traffic counts and community socio-economic studies.

GIS Mapping & Environmental Data
Spatial data collection, GIS mapping and environmental data management.

TYPICAL BASELINE THEMES

- Air quality
- Surface & groundwater
- Soil
- Noise
- Ecology & biodiversity
- Community receptors

SUITABLE FOR

Oil fields, production facilities, camps, well pads, power plants, steel and cement factories, chemical plants and other industrial sites

FIELD OPERATIONS & LOGISTICS

Field Sampling & Shipping Services Across Iraq

Field Sampling
Trained teams for oilfield and remote sites

Sample Handling
Preservation, cold chain and chain of custody

Transport Coordination
Sample shipping to the laboratory from sites across Iraq

BASELINE & MONITORING DESIGN

Key parameters by study component

The core parameter sets we deploy for baseline surveys and monitoring programmes, refined for each project, permit and lender requirement.

Component	Key parameters	Reference criteria
Ambient air	PM10, PM2.5, TSP, NO_2, SO_2, CO, O_3, H_2S, VOCs / BTEX, meteorology	Iraqi ambient limits · WHO AQG · IFC EHS
Noise	LAeq day / night, LAmax, L90 background, octave bands, PPV	Law No. 41 of 2015 · IFC EHS
Surface & groundwater	pH, EC, TDS, DO, BOD_5, COD, nutrients, major ions, TPH, heavy metals, coliforms	Regulation No. 25 of 1967 · IQS 417 · WHO
Wastewater & produced water	pH, TSS, BOD_5, COD, oil & grease, phenols, sulfide, metals, chloride, NORM	Iraqi discharge limits · IFC EHS
Soil & sediment	TPH bands, BTEX, PAHs, heavy metals, Cr(VI), salinity, texture, TOC	International soil screening values
Ecology & biodiversity	Flora and fauna inventories, habitat mapping, protected species, plankton and benthos	Law No. 17 of 2010 · IFC PS6
Socio-economic	Demographics, livelihoods, land use, community health, cultural heritage, traffic counts	IFC PS1, PS4, PS5, PS8
Climate & GHG	Scope 1 and 2 emissions, flaring and venting, energy and water use	GHG Protocol

TYPICAL MONITORING FREQUENCY

Baseline
Wet and dry season campaigns before construction

Construction
Monthly to quarterly at sensitive receptors

Operation
Per permit: continuous, monthly or quarterly







OUR PROJECT DELIVERY PATHWAY

From Scoping to Final Environmental Reporting

1
Initiation & Project Planning
Understand project objectives, regulatory requirements and stakeholder expectations. Define scope, methodology and work plan.

2
Screening & Scoping
Assess project type and potential environmental and social risks, and determine the level of study (EIA or ESIA) and key issues.

3
Baseline Data Gathering
Conduct field surveys and collect environmental and social baseline data: air, water, soil, biodiversity and socio-economic conditions.

4
Impact Assessment & ESMP
Identify and evaluate potential impacts, propose mitigation measures and develop a comprehensive Environmental and Social Management Plan.

5
Report Preparation to Regulatory Standards
Prepare EIA/ESIA reports in line with MOEN requirements, the Iraqi regulatory framework and, for Kurdistan Region projects, Ministry of Natural Resources (MNR) requirements.

6
Optional Upgrade to International Standards
Align studies with lender and investor requirements, including IFC Performance Standards, the World Bank Environmental and Social Framework and the Equator Principles.

Typical Deliverables

- **EIA / ESIA Reports**
- **Non-Technical Summary (NTS)**
- **ESMP**
- **Management Plans**
  Waste, biodiversity, community health & safety
- **Monitoring Plan**
  Indicators, frequency and reporting
- **GIS-Ready Maps & Data**
  Shapefiles, figures and spatial analysis



OIL & GAS APPLICATIONS

Project-Focused Environmental Support

Practical and compliant environmental solutions tailored to the full oil and gas project lifecycle, from exploration to production and decommissioning.

Drilling Pads & Rig Sites

Baseline studies, impact assessment and mitigation measures for onshore drilling activities.

Production & Early Production Facilities

Environmental assessment and compliance for production facilities (PF), early production facilities (EPF), CPFs and associated infrastructure.

Tanker Loading Stations & Camps

Environmental assessment for loading operations, supporting facilities and worker camps.

Flowlines, Pipelines & River Crossings

Route selection support, impact assessment and environmental management during construction and operation.

Water Wells, Waste Pits & Flare Pits

Assessment and monitoring of water sources, drilling waste, produced-water pits and flare systems.

Contaminated Land & Waste Management

Site investigation, risk assessment and sustainable waste management for hydrocarbon and industrial wastes.

Sensitive Receptors & Communities

Air, water, soil, noise and socio-environmental monitoring around communities, farmland and ecologically sensitive receptors.

Oil Spill Assessment & Response

Spill delineation, soil and water sampling (TPH, BTEX, PAHs), impact assessment, clean-up verification and contingency planning.

Key Deliverables

- ✓ Approved EIA / ESIA reports
- ✓ Non-technical summaries in English and Kurdish
- ✓ ESMP / EMP
- ✓ Monitoring and management plans
- ✓ Maps and geotagged data
- ✓ Regulator-ready documentation





TECHNICAL STUDIES

Predict impacts. Plan with confidence.

Advanced modelling, GIS and risk-led decision support.

Air Dispersion

Source inventories, meteorology, receptor mapping and air quality impact predictions.

Noise

Operational and construction noise assessment, sensitive receptors and mitigation options.

Water Impacts

Effluent and river-crossing assessments, runoff management and groundwater vulnerability.

GIS & Remote Sensing

Constraint maps, geotagged datasets, land-use change and spatial risk screening.

Deliverables designed for project decisions

Modelling assumptions · receptor maps · impact contours · mitigation options · GIS-ready data

POLLUTION & SITE MANAGEMENT

Understand liabilities. Restore site value.

Risk-based investigation and waste management support for petroleum assets.

Site Investigation

Historical records, reconnaissance, sampling plans, soil and groundwater screening.

Hydrocarbon Impacts

TPH, BTEX, PAHs, metals, oily sludge, waste pits and legacy contamination.

Waste Characterisation

Drilling cuttings, produced-water residues, tank bottoms, hazardous waste and leachability.

Remediation Options

Conceptual site models, exposure pathways, clean-up options and monitoring plans.

For brownfield and legacy oilfield sites

Spill assessment · waste handling advisory · closure and rehabilitation planning

ESG / CLIMATE ADVISORY

From baseline data to ESG performance.

Actionable sustainability advisory for oil, gas and industrial operators.

E

ENVIRONMENT

GHG inventories, water and waste KPIs, resource efficiency and climate risks.

S

SOCIAL

Community impacts, stakeholder mapping, local content and social indicators.

G

GOVERNANCE

ESG gaps, material topics, policy support and reporting readiness.

Selected advisory deliverables

ESG baseline and gap matrix · Scope 1/2 GHG data support · KPI registers · reporting roadmap

SOCIAL PERFORMANCE & CSR

Stronger communities. Smarter projects.

CSR and social performance advisory aligned to project needs.

Stakeholder Engagement

Stakeholder identification, consultation schedules and engagement records.

Socio-Economic Baseline

Livelihoods, community facilities, land use and vulnerable groups.

Social Impact

Assessing community risks and designing realistic mitigation measures.

Grievance Systems

Grievance channels, issue tracking and resolution protocols.

CSR Programme Design

Community priorities, local-content initiatives and investment plans.

Impact Measurement

Social performance KPIs and transparent progress reporting.

Designed for responsible, locally informed project delivery

NATIONAL REGULATIONS

Iraqi Regulatory Framework

As an Iraq-based company, Atyaf Al-Kimiya (Spectra Chem™) has a comprehensive understanding of the Iraqi environmental regulatory framework, national standards and compliance requirements, supported by practical experience serving local and international companies in Iraq's oil and gas sector.

APPLICABLE AUTHORITIES

- Ministry of Environment (MOEN)
- Ministry of Health (MOH)
- Ministry of Oil (MOO)
- Ministry of Water Resources (MOWR)
- Central Organization for Standardization and Quality Control
- Iraqi Chemists Syndicat (ICS)
- World Health Organization (WHO)
- International Finance Corporation (IFC)
- World Bank Group (WBG)

KEY ENVIRONMENTAL LAWS & REGULATIONS

Issuing category	Law / Regulation	Scope
Ministry of Environment / Water Resources	Law No. 37 of 2008	Establishment of the Ministry of Environment
	Law No. 27 of 2009	Protection and Improvement of the Environment
	Law No. 17 of 2010	Protection of Wildlife and Birds
	Regulation No. 2 of 2001	Preservation of Water Resources
	Law No. 2 of 2009	Protection and Improvement of the Environment and Natural Resources
	Instructions No. 3 of 2014	Conditions for accrediting environmental consulting offices and laboratories
	Executive Instructions No. 3 of 2011	Environmental requirements for establishing projects and monitoring their implementation
	Regulation No. 25 of 1967 – Rivers and Water Resources Protection	Protection of rivers and water resources from pollution, including wastewater and brine discharge and receiving-water quality
Other Ministries	Law No. 55 of 2002	Antiquities and Heritage Law
	Law No. 12 of 1981	Law of Land Expropriation
	Law No. 41 of 2015	Noise Control Law
	Law No. 37 of 2015	Labour Law
	Ministerial Instructions No. 12 of 2016	Pharmacy and health-medical requirements

ENVIRONMENTAL & SOCIAL STANDARDS

Iraqi Law & IFC Reference Standards

Standard / Reference	Scope
Iraqi Law No. 27 of 2009	Primary federal law on environmental protection, pollution prevention and project obligations
IFC Performance Standard 1 (2012)	Assessment and management of E&S risks and impacts
IFC Performance Standard 2 (2012)	Labour and working conditions
IFC Performance Standard 3 (2012)	Resource efficiency and pollution prevention
IFC Performance Standard 4 (2012)	Community health, safety and security
IFC Performance Standard 5 (2012)	Land acquisition and involuntary resettlement
IFC Performance Standard 6 (2012)	Biodiversity conservation and living natural resources
IFC Performance Standard 7 (2012)	Indigenous peoples
IFC Performance Standard 8 (2012)	Cultural heritage
IFC General EHS Guidelines (2007)	Environmental, health and safety guidelines of the International Finance Corporation


REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT
LEGAL DIRECTORATE
Division of Consulting Offices

جمهورية العراق
وزارة البيئة
الدائرة القانونية
شعبة المكاتب الاستشارية


REPUBLIC OF IRAQ
Ministry of trade
Registrar of Companies

وزارة التجارة
دائرة تسجيل الشركات

شهادة تأسيس شركة

اطياف الكيمياء للتجارة العامة والخدمات البيئية والمختبرية محدودة المسؤولية شركة خاصة

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رشاد خالد هاشم
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٢١ تموز ٢٠٢٥

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Practical environmental studies, baseline surveys, monitoring and regulator-focused reporting across Iraq.

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