**TOR**

**Amu Darya Basin Upstream Operations Assessment**

**In accordance with international standards and best practices**

**Background**

The Ministry of Mines and Petroleum of the Islamic Emirate of Afghanistan plans to conduct an assessment of the technical, safety, environmental, and production status of upstream operations in the Amu Darya Basin in accordance with international standards. This assessment will be based on international standards such as: API, ISO, IOGP, IFC, EBRD, WB HSE, and the International Society of Petroleum and Gas (SPE) and International Best Practices.

**The purpose of this assessment is:**

* To Verify / improve the technical and operational status of the site in accordance with international standards.
* To Improve the production process and reduce environmental risks.
* To Gain the trust of domestic and foreign investors.

**Objectives:**

The assessment should ensure that Amu Darya Basin operations are conducted in accordance with API (American Petroleum Institute), ISO (International Organization for Standardization), IOGP (International Association of Oil & Gas Producers), IFC/World Bank HSE Performance Standards, and SPE (Society of Petroleum Engineers) standards.

**Specific objectives:**

* Technical analysis of production operations according to ISO 29001, API Q1, ISO 9001 standards.
* Asset Integrity assessment according to API 570, API 653, ISO 55000 standards.
* Well Integrity according to ISO 16530, API STD 53 standards.
* HSE and Environmental Assessment according to ISO 45001, ISO 14001, API RP 75, IFC/EBRD Environmental Standards.
* Artificial Lift System Assessment according to API RP 11AX, API RP 11S1.
* Reservoir & Production Management according to SPE Best Practices.
* Emergency Response according to API RP 1174.
* Regulatory Compliance according to Afghanistan Hydrocarbon Law and IOGP Best Practices.

**Scope of the Work:**

**Technical & Production Evaluation**

* Technical inspection of all relevant production equipment (Separators, Pumps, Compressors, Tanks) according to API 650, 620, 610 standards.
* Inspection of all existing well technical files, such as logs, GTOs, PVT Data, Well Test Results and other relevant data.
* Production regime and well Pressures Surveillance.
* Analysis of artificial lift (Gas Lift, ESP, Rod Pump) and other relevant systems evaluation.

**Asset Integrity & Maintenance**

* + Analysis of oil storages, pipes, tubes, and surface equipment according to API 570, API 653, ISO 55001.
	+ Preventive Maintenance of field facilities according to ISO 14224.
	+ Risk Analysis according to API RP 580.
	+ And other relevant assessment required.

**Well Integrity Assessment**

• Well Design Analysis (Casing, Cement, Completion) as per ISO 16530, API STD 53.

• Well Integrity (Pressure Integrity, Annular Pressure Management) & other relevant well integrity assessment needed as per API RP 90, ISO 15156

**Health, Safety & Environment assessment**

* Evaluation of HSE policies and measures according to ISO 45001, ISO 14001, API RP 75.
* Fire protection system analysis according to NFPA, API RP 2001.
* Environmental risks (Air Emission, Water Discharge, Waste Handling) according to IFC, WB, EBRD Performance Standards.
* Emergency Response Plan according to API RP 1174, ISO 22320.

**Production Optimization assessment**

* + SPE Reservoir Management Best Practices for Production Analysis and Improvement.
	+ New Strategies for Production Enhancement (EOR, IOR).
	+ Artificial Enhancement Systems and Effectiveness Assessment.

**Expert Qualifications assessment**

**•** At least 10 years of experience in petroleum technical accounting, production, and HSE.

• Extensive knowledge of international standards (API, ISO, IOGP, IFC).

• Expertise in technical analysis of Oil and gas exploration, production field equipment and other relevant oil and gas operations.

**Deliverables:**

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| --- | --- | --- |
| **Reports** | **details** | **duration** |
|  Inception Report | Explanation of work method & plan | Within7 days of starting work |
|  Field Inspection Reports | Field assessment  | Within 2 weeks |
|  Well Integrity Report | Well assessment and analyses | Within 3 weeks |
| HSE report | HSE assessment and recommendations | Within 3 weeks |
|  General technical Report | All findings, risks, recommendations | Within 4 weeks |
| Presentation to management | Conclusion and recommendations | Within 4 weeks |

**Payment Terms:**

 100% payment after final report and approval.

**Reporting**

• Directly to the Ministry of Mines and Petroleum.

• All reports will be shared with the Ministry.

**Confidentiality**

• All documents will be the property of the Ministry of Mines and Petroleum.

**Other terms**

• Visa, transportation, and accommodation facilities provided by the Ministry.

**Submission proposals**

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| **Conditions** | **Details** |
| Technical proposal | Job description |
| experience | Company experts background |
| schedule | Task completion time |
| Financial offer | Price |