## SCHEDULE OF REQUIREMENT

Hiring of Hydrology Expert to Conduct Hydrological Study of Bettani Oil & Gas Field, Lakki Marwat as specified hereunder:

Service Required for	Requirements/Specifications
	Hydrology is the study of the distribution and movement of water both on and below the earth's surface, as well as the impact of human activity on water availability and conditions.
Hydrological Study	With reference to Environmental Approval No. EPA/ EIA/ OGDCL/ WaliField/ Lakki Marwat/23/71-73 dated 13.04.2023 issued by Director General KP-EPA, Hydrological Study is mandatory for acquiring operational approval (NOC) for Bettani Oil & Gas Field, Lakki Marwat.

## Hiring of Hydrology Expert to Conduct Hydrological Study of Bettani Oil & Gas Field, Lakki Marwat

### **Objective:**

Hydrological Study of Bettani Field, Lakki Marwat, is required from an independent Hydrology Expert with the objective to quantify the water resources, aquifers, water table, water quality, recharge pattern, consumption, and maintenance/ arrangement for adequacy of water resources including the assessment of floods'/ flash-floods' risks and impacts on Bettani Oil & Gas Field, Lakki Marwat.

#### Deliverables:

- To prepare a detailed **Hydrological Assessment Report** that includes findings, results, maps and recommendations.
- To present the findings and recommendations of the hydrological study to Khyber Pakhtunkhwa Environmental Protection Agency (KP-EPA).

#### Key Considerations:

- Historical and current data, including rainfall record, water discharge/ charge data, topographical maps and previous floods/ flash floods related data of the area.
- Description of the study area, geographic setting and watershed (streams, watershed and wetlands characteristics, surface geology and groundwater conditions)
- Assessment of existing as well as future water requirements for the field operations and camp areas, highlighting the importance of water conservation.
- Identify vulnerable areas within and around the operating field that may be prone to flooding during torrential rainfalls.
- Potential effects of climate change on rainfall patterns and flood risks as well as impacts of surface run off and ground water on the operating field, infrastructure, and nearby communities.
- Utilize Geographic Information Systems (GIS) technology and Maps (with relevant topographic features such as elevation contours, landforms, water bodies, and infrastructure) to aid the study.

#### Study Tenure/ Time Period:

45 days after the issuance of Work Order

# **TERMS AND CONDITIONS:**

### TE/BOGF/09/2023

1. The technical and financial details of the hydrology expert/ firm including the quote should be sent in a closed envelope addressed to:

#### Field Manager,

Bettani Oil & Gas Field (OGDCL), C/o Manager TCS Office Lakki Marwat, Khyber Pakhtunkhwa.

- 2. The quotes will be opened on the date as mentioned in the web tender notice; the supplier can mobilize his representative to the site to participate in the bid opening meeting.
- 3. The award of W.O. will be based on lowest quote/ comparative statement.
- 4. Bid bond of PKR 50,000/- in favor of Field Manager Bettani Oil & Gas Field is mandatory along with the bid submission documents.
- 5. The successful bidder will be responsible to conduct the said study within 45days after the issuance of W.O. date.
- 6. No advance payment/ mobilization charges will be made at the time of W.O.
- 7. The transportation charges during the said study will be paid/ borne by the supplier/ bidder.
- Payment will be made only after completion of the assigned study and submission of detailed report upon the satisfaction of field management as per this TOR against duly signed formal invoice and submission of Annex-C in FBR by the supplier.
- 9. Successful bidder will be responsible/ liable to address any issues and complaints arises in the said study/ report up to a period of six months from the study completion date and endorsement by KP-EPA.
- 10. All Govt. taxes including GST will be applicable.
- 11. Payment will be made through cross cheque or through online banking transaction in the supplier's bank account through given IBAN.