Ministry Of Water Sanitation And Irrigation

REPUBLIC OF KENYA

WaterFund
Financing the Water Sector

THE WORLD BANK

Department of Water Services, County Government of Turkana

The Horn of Africa Groundwater for Resilience Project

Turkana County Urban Water and Sewerage Company (TUWASCO)

Request for Bids

Bidding Document for:

Procurement of Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County

Volume 1 of 2

Lot I:

RFB No:

1. KE-TURKANA-582719-CW-RFB-BATCH II-LOT I**:**Kibish,Liwan, Katilu(2) and Korinyang
2. KE-TURKANA-582732-CW-RFB-BATCH II-LOT II: Nge'u, Lokichoggio,Lopuski and Kainuk
3. KE-TURKANA-582737-CW-RFB-BATCH II-LOT III: Kalokutanyang, Lolupe and Morulem
4. KE-TURKANA-582743-CW-RFB-BATCH II-LOT IV- Lochor-Ekuyen,Nachechea-Lorengippi,Kakong'u and Lokapel

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Project:	**Horn of Africa Groundwater for Resilience Project (HoAGW4R) Programme**
Employer:	**County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).**
Country:	**Kenya**
Issued on:	**November 2026**

Specific Procurement Notice

Request for Bids

Country: *Kenya*

Name of Project: *HORN OF AFRICA - GROUND WATER FOR RESILIENCE PROJECT (HoAGW4RP)*

Contract Title: *Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County*

Loan No./Credit No./ Grant No.: IDA-7082-KE

RFB Reference No.:
1. KE-TURKANA-582719-CW-RFB-BATCH II-LOT I
2. KE-TURKANA-582732-CW-RFB-BATCH II-LOT II
3. KE-TURKANA-582737-CW-RFB-BATCH II-LOT III
4. KE-TURKANA-582743-CW-RFB-BATCH II-LOT IV

1. The ***Government of the Republic of Kenya (GoK)*** *has received* financing from the World Bank toward the cost of ***The Horn of Africa Groundwater for Resilience Project, Kenya. (HoAGW4RP)***, and intends to apply part of the proceeds toward payments under the contracts for Lots I, II, III and IV.

2. The ***County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO)*** now invites sealed Bids from eligible Bidders for ***Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County as detailed below. The Works comprise twenty-five (25) production boreholes with a total design drilling depth of 5,150 m, divided into four (4) Lots: Lot I – Kibish and Turkana South (6 boreholes, 1,100 m); Lot II – Turkana West and Turkana South (6 boreholes, 1,470 m); Lot III – Loima and Turkana East (6 boreholes, 980 m); and Lot IV – Loima and Turkana South (7 boreholes, 1,600 m).***

For each Lot the Works comprise, for every borehole:

- general mobilisation from Nairobi to the designated project base for each Lot and demobilisation on completion, priced once per contract, and inter-site mobilisation, setting up and dismantling of the drilling unit and the test pumping unit at each site;
- drilling at a nominal diameter of 10 inches (minimum bit size 10½ in) to the depths given in the Bill of Quantities, ranging from 70 m to 320 m, by down-the-hole (DTH) hammer, air/foam rotary or mud rotary methods, with temporary surface casing of not less than 6 m;
- formation sampling at 2 m intervals, continuous lithological and drilling-parameter logging, recording of water strikes, air-lift yields and field electrical conductivity (EC), and field fluoride testing at each principal water strike;

- downhole geophysical logging (spontaneous potential, normal resistivity and natural gamma, with fluid temperature/conductivity and caliper logs) before casing;
- supply and installation of 8-inch nominal casings and machine-slotted screens – **uPVC (heavy-duty deep-well class) where the drill depth is less than 250 m and mild steel where the drill depth is 250 m or more** – with screens comprising approximately one-third of the drilled depth, centralisers, sump and bottom plug;
- supply and placement of graded gravel pack, inert backfill, bentonite seals and cement-bentonite sanitary grout, including sealing of the thick clay and poor-quality horizons identified by the hydrogeological investigation;
- well development by air-lifting, surging, jetting and chemical dispersion to the specified sand and turbidity limits;
- step-drawdown, 24-hour constant-rate and recovery pumping tests, with analysis of aquifer and well hydraulics;
- collection and laboratory analysis of water samples (full physico-chemical and bacteriological suite) at a KENAS-accredited (ISO/IEC 17025) laboratory;
- two downhole CCTV surveys with a camera review report, verticality and alignment testing, well disinfection, temporary wellhead capping and locking, and site reinstatement; and
- preparation of daily records, Water Resources Authority (WRA) borehole completion records and a borehole completion report for each borehole, and implementation of all environmental, social, health and safety (ESHS) requirements of the Contract.

Bidders may submit bids for one, several or all Lots. Each Lot shall be evaluated separately. However, the Employer shall award each Lot to the Bidder whose Bid is determined to be the lowest evaluated cost, subject to the Bidder(s) meeting the qualification requirements, including specific experience, Key Personnel and Key Equipment, for the combination of Lots to be awarded, in accordance with Section III – Evaluation and Qualification Criteria.

3. Bidding will be conducted through national competitive procurement using a Request for Bids (RFB) as specified in the World Bank's "Procurement Regulations for IPF Borrowers" dated ***July 2016, revised in September 2023, 5th Edition*** ("Procurement Regulations"), and is open to all Bidders as defined in the Procurement Regulations.

4. Interested eligible Bidders may obtain further information from **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO), Mr. Kelly K. Lemuya, *info@turkanaurbanwater.co.ke*** and inspect the bidding document during office hours ***0800 to 1700 hours local time from Monday to Friday, except public holidays***. at the address given below.

5. Bids must be delivered to the address below on or before ***5th January 2027 at 12.00noon***. Electronic Bidding ***will not*** be permitted. Late Bids will be rejected. Bids will be publicly opened in the presence of the Bidders designated representatives and anyone who chooses to attend at the address below on ***5th January 2027 at 12.10pm***.

6. All Bids must be accompanied by a ***Bid Security*** of ***KES 2,000,000.00 in the form of a bank guarantee or in a Bankers Check and shall be valid for 152 days***.

7. The address referred to above is:

For the attention: Mr. Kelly K. Lemuya

Title/position: *The Managing Director*

Employer: **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).**

Address: ***Lodwar – Kanamkemer Road, Ministry of Water Services (TUWASCO Offices).***

Floor/ Room number***: TUWASCO Office.***

City: ***Lodwar.***

ZIP Code: ***30500***

Country: ***Kenya.***

Telephone: **+254 725 059 737**

Facsimile number: ***N/A***

Electronic mail address***: info@turkanaurbanwater.co.ke***

Standard Procurement Document

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PART 1 – Bidding Procedures

Section I - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

1. Scope of Bid

1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified in the BDS, issues this bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification and number of lots (contracts) of this RFB are specified in the BDS.

The Works are divided into four (4) lots (contracts), as specified in the BDS.

Bidders may submit a Bid for one (1) lot, two (2), three (3) or for all lots.

Contracts will be awarded on a lot-by-lot basis. A Bidder may be awarded **ONLY** one lot, subject to meeting the qualification requirements.

1.2 Throughout this bidding document:

(a) the term **"in writing"** means communicated in written form (e.g. by mail, e-mail, and fax, including if specified **in the BDS**, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;

(b) if the context so requires, **"singular"** means **"plural"** and vice versa;

(c) **"Day"** means calendar day, unless otherwise specified as **"Business Day".** A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays;

(d) **"ES"** means environmental and social (including Occupational and Community Health and Safety (O/CHS) Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));

(e) **"Sexual Exploitation and Abuse" "(SEA)"** means the following:

"Sexual Exploitation" is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting

monetarily, socially or politically from the sexual exploitation of another;

"Sexual Abuse" is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;

(f) **"Sexual Harassment" "(SH)"** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel;

(g) **"Contractor's Personnel"** is as defined in Sub- Clause 1 (ii) of the General Conditions of Contract; and

(h) **"Employer's personnel"** is as defined in GCC Sub-Clause 1 (nn) of the General Conditions of Contract.

A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called "Borrower") specified **in the BDS** has received or has applied for financing (hereinafter called "funds") from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called "the Bank") in an amount specified **in the BDS**, toward the project named **in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

3. Fraud and Corruption

3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section VI.

3.2 In further pursuance of this policy, bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, or a state-owned enterprise or institution, subject to ITB 4.6, or any combination of them in the form of a joint venture (JV), under an existing agreement, or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified **in the BDS**, there is no limit on the number of members in a JV.

4.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:

(a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or

(b) receives or has received any direct or indirect subsidy from another Bidder; or

(c) has the same legal representative as another Bidder; or

(d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

(e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or

(f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager for the Contract implementation;

(g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the

BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm;

(h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the contract.

4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a Subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.

4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or subconsultants for any part of the Contract including related Services.

4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS.

4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii)

operate under commercial law, and (iii) are not under supervision of the Employer.

4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid–Securing or Proposal-Securing Declaration.

4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. When the Works are implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.

4.9 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.10 A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment;

(a) relates to fraud or corruption, and

(b) followed a judicial or administrative proceeding that afforded the firm adequate due process.

5. Eligible Materials, Equipment and Services

5.1 The materials, equipment and services to be supplied under the Contract and financed by the Bank may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1 Bidding Procedures

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

PART 2 Works' Requirements

- Section VII - Works' Requirements

PART 3 Conditions of Contract and Contract Forms

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Particular Conditions of Contract (PCC)
- Section X - Contract Forms

6.2 The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.

6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

7.1 A Bidder requiring any clarification of the bidding document shall contact the Employer in writing at the Employer's address specified **in the BDS** or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified **in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the bidding

document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified **in the BDS**, the Employer shall also promptly publish its response at the web page identified in the BDS. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2.

7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

7.4 If so specified **in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of Works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.5 The Bidder is requested, to submit any questions in writing, to reach the Employer not later than one week before the meeting.

7.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the bidding document in accordance with ITB 6.3 Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

8.1 At any time prior to the deadline for submission of bids, the Employer may amend the bidding document by issuing addenda.

8.2 Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Employer in accordance with ITB 6. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in the language specified **in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified **in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise the following:

(a) **Letter of Bid** prepared in accordance with ITB 12;

(b) **Bill of Quantities or Activity Schedule**: completed in accordance with ITB 12 and ITB 14, as specified **in the BDS**;

(c) Bid Security **or Bid-Securing Declaration**, in accordance with ITB 19.1;

(d) Alternative **Bid**, if permissible, in accordance with ITB 13;

(e) Authorization**:** written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3;

(f) Bidder's **Eligibility:** documentary evidence in accordance with ITB 17 establishing the Bidder's eligibility to Bid;

(g) Qualifications: documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract if its Bid is accepted;

(h) Conformity: a technical proposal in accordance with ITB 16;

(i) any other document required **in the BDS**.

11.2 In addition to the requirements under ITB 11.1, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

11.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. Letter of Bid and Schedules

12.1 The Letter of Bid and Schedules shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1 Unless otherwise specified **in the BDS**, alternative Bids shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included **in the BDS** and the method of **evaluating** different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer **technical** alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.

13.4 When specified **in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified **in the BDS** and described in Section VII, Works' Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Activity **Schedule** or Bill of Quantities shall conform to the requirements specified below.

14.2 The Bidder shall submit a Bid for the whole of the Works for each lot for which it submits a Bid by filling in prices for all items of the Works, as identified in Section IV. Bidding Forms. In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

14.3 The price to be quoted in the Letter of Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.

14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid in accordance with ITB 12.1.

14.5 Unless otherwise specified **in the BDS** and the Conditions of Contract, the **prices** quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data in Section IV- Bidding Forms and the Employer may require the Bidder to justify its proposed indices and weightings.

14.6 If so specified in ITB 1.1, Bids are invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all lots (contracts) are opened at the same time.

14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, **or** for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the rates and prices[1] and the total Bid price submitted by the Bidder.

15. Currencies of Bid and Payment

15.1 The currency(ies) **of** the Bid and the currency(ies) of payments shall be the same and shall be as specified **in the BDS**.

15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency

[1] In lump sum contracts, delete "rates and prices and the."

requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data are reasonable[2], in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.

16. Documents Comprising the Technical Proposal

16.1 The Bidder shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time.

17. Documents Establishing the Eligibility and Qualifications of the Bidder

17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the **Letter** of Bid, included in Section IV, Bidding Forms.

17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

17.3 If a margin of preference applies as specified in accordance with ITB 33.1, domestic **Bidders**, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB 33.1.

18. Period of Validity of Bids

18.1 Bids shall remain valid until the date specified **in the BDS** or any extended **date** if amended by the Employer in accordance with ITB 8. A Bid that is not valid until the date specified **in the BDS,** or any extended date if amended by the Employer in accordance with ITB 8, shall be rejected by the Employer as nonresponsive.

18.2 In exceptional **circumstances**, prior to the date of expiration of the Bid validity, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for twenty-eight (28) days beyond the extended date for Bid validity. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.

18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the date of expiry of the Bid validity specified in accordance with ITB 18.1, the Contract price shall be determined as follows:

[2] For lump sum contracts, delete "unit rates and prices and shown in the Schedule of Adjustment Data are reasonable" and replace with "Lump Sum."

(a) in the case of **fixed price** contracts, the Contract price shall be the Bid **price** adjusted by the factor specified **in the BDS;**

(a) in the case of **adjustable** price contracts, no adjustment shall be made; or

(b) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

19.1 The Bidder shall furnish as part of its Bid, either a Bid-Securing Declaration **or** a Bid Security as specified **in the BDS**, in original form and, in the case of a Bid Security, in the amount and currency specified **in the BDS**.

19.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.

19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:

(a) an **unconditional** guarantee issued by a bank or non-bank financial institution (such as an insurance, bonding or surety company);

(b) an **irrevocable** letter of credit;

(c) a **cashier's** or certified check; or

(d) another **security** specified **in the BDS**,

from a reputable source from an eligible country. If an unconditional guarantee is issued by a non-bank financial institution located outside the Employer's Country, the issuing non-bank financial institution shall have a correspondent financial institution located in the Employer's Country to make it enforceable, unless the Employer has agreed in writing, prior to Bid submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Employer prior to Bid submission. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 18.2.

19.4 If a Bid Security or Bid Securing Declaration is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive

Bid Security or Bid-**Securing** Declaration shall be rejected by the Employer as non-responsive.

19.5 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the **Performance** Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 48.

19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security. and if required in the BDS, the Environmental and Social (ES) Performance Security.

19.7 The Bid **Security** may be forfeited:

(a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidder; or

(b) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB 47; or

(ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 48.

19.8 The Bid Security or the Bid-Securing Declaration of a JV shall be in the name of the JV that **submits** the Bid. If the JV has not been constituted into a legally enforceable JV, at the time of Bidding, the Bid Security or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1 and ITB 11.2.

19.9 If a Bid Security is not required **in the BDS**, pursuant to ITB 19.1, and;

(a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid or any extended date provided by the Bidder; or

(b) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB 47; or

(ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 48,

the Borrower may**,** if provided for **in the BDS,** declare the Bidder ineligible to be awarded a contract by the Employer for a period of time stated **in the BDS**.

20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the documents comprising the Bid as described in ITB 11 and clearly mark it "ORIGINAL". Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE". In addition, the Bidder shall submit copies of the Bid in the number specified **in the BDS,** and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 Bidders shall mark as "CONFIDENTIAL" information in their Bids which is confidential to their business. This may include **proprietary** information, trade secrets, or commercial or financially sensitive information.

20.3 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of **the** Bidder. This authorization shall consist of a written confirmation as specified **in the BDS** and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.

20.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

20.5 Any interlineations, **erasures**, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

21.1 The Bidder shall deliver the Bid in a single, sealed envelope (one-envelope Bidding process). Within the single envelope the Bidder shall place the following separate, sealed envelopes:

(a) in an envelope marked "ORIGINAL", all documents comprising the Bid, as described in ITB 11; and

(b) in an envelope marked "COPIES", all required copies of the Bid; and

(c) if alternative Bids are permitted in accordance with ITB 13, and if relevant:

(i) in an envelope marked "ORIGINAL - ALTERNATIVE BID", the alternative Bid; and

(ii) in the enveloped marked "COPIES – ALTERNATIVE BID" all required copies of the alternative Bid.

21.2 The inner and outer envelopes shall:

(a) bear the name and address of the Bidder;

(b) be addressed to the Employer in accordance with ITB 22.1;

(c) bear the specific identification of this Bidding process specified in accordance with BDS 1.1; and

(d) bear a warning not to open before the time and date for Bid opening.

21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

22. Deadline for Submission of Bids

22.1 Bids must be received by the Employer at the address and no later than the date and time specified **in the BDS**. When so specified **in the BDS**, Bidders shall have the option of submitting their Bids **electronically**. Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified **in the BDS.**

22.2 The Employer may, at its discretion, extend the deadline for the **submission** of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 22. Any Bid **received** by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized **representative**, and shall include a copy of the authorization in accordance with ITB 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:

(a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in

addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION"; and

(b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.

24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned **unopened** to the Bidders.

24.3 No Bid may be withdrawn, substituted, or modified in the interval between **the** deadline for submission of Bids and the date of expiry of the Bid validity specified by the Bidder on the Letter of Bid or any extended date thereof.

25. Bid Opening

25.1 Except in the cases specified in ITB 23 and ITB 24.2, the Employer shall publicly open and read out in accordance with this ITB, all Bids received by the deadline, at the date, time and place specified **in the BDS**, in the **presence** of Bidders' designated representatives and anyone who chooses to attend. All Bidders, or their representatives and any interested party may attend a public opening. Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as specified **in the BDS**.

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the **envelope** with the corresponding Bid shall not be opened, but returned to the Bidder. No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.

25.3 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening.

25.4 Next, envelopes marked "MODIFICATION" shall be opened and read out with the **corresponding** Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening.

25.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Price, per lot (contract) if applicable, including any discounts and alternative Bids; the presence or absence of a Bid

Security, or Bid Securing Declaration, if required; and any other details as the Employer may consider appropriate.

25.6 Only Bids, alternative Bids and discounts that are opened and read out at Bid **opening** shall be considered further for evaluation. The Letter of Bid and the priced Schedules are to be initialed by representatives of the Employer attending Bid opening in the manner specified **in the BDS**.

25.7 The Employer shall neither discuss the merits of any Bid nor reject any Bid (**except** for late Bids, in accordance with ITB 23.1).

25.8 The Employer shall prepare a **record** of the Bid opening that shall include, as a minimum:

(a) the name of the Bidder and whether there is a withdrawal, substitution, or modification;

(b) the Bid Price, per lot (contract) if applicable, including any discounts;

(c) the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required; and

(d) any alternative Bids.

25.9 The Bidders' **representatives** who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

26. Confidentiality

26.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not **officially** concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 43.

26.2 Any effort by a Bidder to influence the Employer in the evaluation of the Bids or Contract **award** decisions may result in the rejection of its Bid.

26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the Bidding process, it shall do so in writing.

27. Clarification of Bids

27.1 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any **Bidder** for a clarification of its Bid given a reasonable time for a response. Any clarification submitted by a

Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 31.

27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

28. Deviations, Reservations, and Omissions

28.1 During the **evaluation** of Bids, the following definitions apply:

(a) "Deviation" is a departure from the requirements specified in the bidding document;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.

29. Determination of Responsiveness

29.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.

29.2 A substantially responsive Bid is one that meets the requirements of the bidding **document** without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) if accepted, would:

(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

29.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

29.4 If a Bid is not substantially responsive to the requirements of the bidding document, **it** shall be rejected by the Employer and may not

subsequently be made responsive by correction of the material deviation, reservation, or omission.

30. Nonmaterial Nonconformities

30.1 Provided that a **Bid** is substantially responsive, the Employer may waive any nonconformities in the Bid.

30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only **to** reflect the price of a missing or non-conforming item or component, by adding the average price of the item or component quoted by substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.

31. Correction of Arithmetical Errors

31.1 Provided that the Bid is **substantially** responsive, the Employer shall correct arithmetical errors on the following basis:

(a) only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1, shall result in the rejection of the Bid.

32. Conversion to Single Currency

32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified **in the BDS**.

33. Margin of Preference

33.1 Unless otherwise specified **in the BDS,** a margin of preference for domestic Bidders[3] shall not apply.

34. Subcontractors

34.1 Unless otherwise stated **in the BDS**, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer, Financial Parts

34.2 The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer **in the BDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications.

34.3 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified **in the BDS**. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.

35. Evaluation of Bids

35.1 The Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Employer shall determine the Most Advantageous Bid. This is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

35.2 To evaluate a Bid, the Employer shall consider the following:

[3] An individual firm is considered a domestic Bidder for purposes of the margin of preference if it is registered in the country of the Employer, has more than 50 percent ownership by nationals of the country of the Employer, and if it does not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign contractors. JVs are considered as domestic Bidders and eligible for domestic preference only if the individual member firms are registered in the country of the Employer or have more than 50 percent ownership by nationals of the country of the Employer, and the JV shall be registered in the country of the Borrower. The JV shall not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign firms. JVs between foreign and national firms will not be eligible for domestic preference.

(a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities[4] for admeasurement contracts, but including Daywork[5] items, where priced competitively;

(b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;

(c) price adjustment due to discounts offered in accordance with ITB 14.4;

(d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;

(e) price adjustment for nonconformities in accordance with ITB 30.3; and

(f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.

35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

35.4 If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section III, Evaluation and Qualification Criteria.

36. Comparison of Bids

The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.2 to determine the Bid that has the lowest evaluated cost.

37. Abnormally Low Bids

37.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.

37.2 In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the

[4] In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."

[5] Daywork is work carried out following instructions of the Project Manager and paid for on the basis of time spent by workers, and the use of materials and the Contractor's equipment, at the rates quoted in the Bid. For Daywork to be priced competitively for Bid evaluation purposes, the Employer must list tentative quantities for individual items to be costed against Daywork (e.g., a specific number of tractor driver staff-days, or a specific tonnage of Portland cement), to be multiplied by the Bidders' quoted rates and included in the total Bid price.

subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

37.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.

38. Unbalanced or Front-Loaded Bids

38.1 If the Bid for an admeasurement contract, which results in the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or, front loaded, the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid price as with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.

38.2 After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:

(a) accept the Bid; or

(b) require that the amount of the Performance Security be increased at the expense of the Bidder to a level not exceeding 20% of the Contract Price; or

(c) reject the Bid.

39. Qualification of the Bidder

39.1 The Employer shall determine to its satisfaction whether the eligible Bidder that is selected as having submitted the lowest evaluated cost and substantially responsive Bid meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

39.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm(s) different from the Bidder.

39.3 Prior to Contract award, the Employer will verify that the successful Bidder (including each member of a JV) is not disqualified by the Bank due to noncompliance with contractual SEA/SH prevention and response obligations. The Employer will conduct the same verification for each subcontractor proposed by the successful Bidder. If any proposed subcontractor does not meet the requirement, the Employer will require the Bidder to propose a replacement subcontractor.

39.4 An affirmative determination of qualification shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the substantially responsive Bid which offers the next lowest evaluated cost to make a similar determination of that Bidder's qualifications to perform satisfactorily.

40. Most Advantageous Bid

40.1 Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

41. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

41.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid securities, shall be promptly returned to the Bidders.

42. Standstill Period

42.1 The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 46. The Standstill Period commences the day after the date the Employer has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply.

43. Notification of Intention to Award

43.1 The Employer shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:

(a) the name and address of the Bidder submitting the successful Bid;

(b) the Contract price of the successful Bid;

(c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;

(d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;

(e) the expiry date of the Standstill Period;

(f) instructions on how to request a debriefing and/or submit a complaint during the standstill period.

F. Award of Contract

44. Award Criteria

44.1 Subject to ITB 41, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 40.

Contracts will be awarded per lot.

45. Notification of Award

45.1 Prior to the expiration of the Bid validity, and upon expiry of the Standstill Period specified in ITB 42.1 or any extension thereof, and, upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").

45.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

(a) name and address of the Employer;

(b) name and reference number of the contract being awarded, and the selection method used;

(c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;

(d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;

(e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and

(f) successful Bidder's Beneficial Ownership Disclosure Form, if specified in BDS ITB 47.1.

45.3 The Contract Award Notice shall be published on the Employer's website with free access if available, or in at least one newspaper of national circulation in the Employer's Country, or in the official gazette.

45.4 Until a formal contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

46. Debriefing by the Employer

46.1 On receipt of the Employer's Notification of Intention to Award referred to in ITB 43.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

46.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Employer shall promptly inform, by the quickest means available, all Bidders of the extended standstill period

46.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.

46.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.

47. Signing of Contract

47.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

47.2 The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.

48. Performance Security

48.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 38.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms, or another form acceptable to the Employer.

48.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security, or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.

49. Adjudicator

49.1 The Employer proposes the person named **in the BDS** to be appointed as Adjudicator under the Contract, at the hourly fee specified **in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

50. Procurement Related Complaint

50.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II - Bid Data Sheet (BDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

<table>
<tr><th>ITB Reference</th><th>A. General</th></tr>
<tr><td>ITB 1.1</td><td>The number of the Invitation for Bids is: KE-TURKANA-487460-CW-RFB

The Employer is: County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO)

The name of the RFB is: Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County

The number and identification of lots (contracts) comprising this RFB is: Four (4) Lots

The reference number of the Request for Bids (RFB) is:
<table>
<tr><th>Contract Number</th><th>Lot</th><th>Sites</th></tr>
<tr><td>KE-TURKANA-582719-CW-RFB-BATCH II-LOT I</td><td>I</td><td>Kibish (2), Liwan (1),in Kibish subcounty; Katilu (2) and Korinyang (1) – Kibish, in Turkana South Sub-County; 6 boreholes, 1,100 m.</td></tr>
<tr><td>KE-TURKANA-582732-CW-RFB-BATCH II-LOT II</td><td>II</td><td>Nge'u (1), Lokichoggio (1), Lopuski (2)in Turkana west subcounty; and Kainuk (2) – Turkana West and Turkana South Subcounty; 6 boreholes, 1,470 m.</td></tr>
<tr><td>KE-TURKANA-582737-CW-RFB-BATCH II-LOT III</td><td>III</td><td>Kalokutanyang (2), Lolupe (2) in Loima Subcounty; and Morulem (2); Turkana East Sub-Couny; 6 boreholes, 980 m.</td></tr>
<tr><td>KE-TURKANA-582743-CW-RFB-BATCH II-LOT IV</td><td>IV</td><td>Lochor-Ekuyen (2), Nachechea-Lorengippi (2), in Loima subcounty ;Kakong'u (2) and Lokapel (1) Turkana South Sub-County; 7 boreholes, 1,600 m.</td></tr>
</table></td></tr>
<tr><td>ITB 1.2(a)</td><td>Not Applicable</td></tr>
</table>

ITB 2.1	The Borrower is: ***The Government of the Republic of Kenya (GoK).*** Loan or Financing Agreement amount: ***Euros 121.7 million*** The name of the Project is: ***The Horn of Africa Groundwater for Resilience Project, Kenya. (P-174867)***
ITB 4.1	Maximum number of members in the Joint Venture (JV) shall be: ***Not Applicable***
ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr.
B. Contents of Bidding Document	
ITB 7.1	For **Clarification of Bid purposes** only, the Employer's address is: Attention: **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).** Address: **Lodwar – Kanamkemer Road, Ministry of Water Services (TUWASCO Offices).** Floor/ Room number***: TUWASCO Office.*** City: ***Lodwar.*** ZIP Code ***30500*** Country: ***Kenya.*** Telephone: **+254 725 059 737** Facsimile number: *N/A* Electronic mail address***: info@turkanaurbanwater.co.ke***
ITB 7.1	Requests for clarification should be received by the Employer no later than: ***14 days before the bid submission deadline.***
ITB 7.1	Web page: https://www.turkanaurbanwater.co.ke
ITB 7.4	A pre-bid meeting ***shall take*** place. Date and Time of Pre-Bid meeting: **24th November 2026** ***from 10:00 am*** ***Meeting link:*** https://meet.google.com/jrr-heyt-ufc Place: ***TUWASCO offices, Lodwar*** Site Visit: ***The bidders shall undertake a mandatory site visit at their own cost before the submission of a bid. The employer shall facilitate the site visit through the respective local county project coordinator between the dates of*** **30th November 2026 – 4th December 2026.**
C. Preparation of Bids	
ITB 10.1	The language of the Bid is: ***English*** All correspondence exchange shall be in ***English*** language.

	Language for translation of supporting documents and printed literature is **English.**
ITB 11.1 (b)	The following schedules shall be submitted with the Bid: • ***Duly completed and signed Priced Bill of Quantities in accordance with ITB 12 and ITB 14, in PDF and Excel Sheet*** • ***Guaranteed Technical Particulars*** • ***Construction/ Work Schedule*** • ***Key Personnel Schedule*** • ***Key Equipment Schedule***
ITB 11.1 (i)	The Bidder shall submit the following additional documents in its Bid: • ***Valid Business Registration Certificate issued by the relevant authority of the country of registration.*** • ***Valid tax compliance certificate,*** • ***Certificate of Incorporation,*** • ***NCA Water Works Contractor-Class 6 and above,*** • ***Registration as a Drilling/Borehole Construction Contractor by MoWSI - Class 2 and above,*** • ***Valid Business Permit*** **Duly completed and signed Code of Conduct for Contractor's Personnel (ES)** The Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-Clause 1 (ii) of the General Conditions of Contract), to ensure compliance with the Contractor's Environmental and Social (ES) obligations under the Contract. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks. **Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks** The Bidder shall submit Management Strategies and Implementation Plans (MSIPs) to manage the following key Environmental and Social (ES) risks: • ***Sexual Exploitation and Abuse and Sexual Harassment (SEA /SH) prevention and response action plan;*** • ***Traffic Management Plan to ensure safety of local communities from construction traffic;*** • ***Water Resource Protection Plan to prevent contamination of surface and groundwater resources;*** • ***Health and Safety of workers and community management plan;*** • ***The MSIP should include the Contractor's ESMP (C-ESMP)*** • ***Security risk assessment and management plan;***

	• ***Age verification plan to avoid child labor.***
ITB 13.1	Alternative Bids ***shall not be*** considered.
ITB 13.2	Alternative times for completion ***shall not be*** permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: ***Not Applicable.***
ITB 14.5	The prices quoted by the Bidder ***shall not be*** subject to adjustment during the performance of the Contract.
ITB 15.1	The price shall be quoted by the Bidder in: ***Kenya Shillings (KES)***
ITB 18.1	*The Bid shall be valid for:* ***124 days****.*
ITB 18.3 (a)	The Bid price shall be adjusted by the following factor (s): ***Not Applicable.***
ITB 19.1	A Bid Security ***shall be*** required. A Bid-Securing Declaration ***shall not be*** required. The amount and currency of the Bid security shall be **KES 2,000,000.00** in the form of a bank guarantee in the format provided in Section IV or in a Bankers cheque and shall be valid for **152 days**
ITB 19.3 (d)	Other types of acceptable securities: ***Not Applicable.***
ITB 20.1	In addition to the original of the Bid, the number of copies is**: *One Scanned copy in USB memory clearly marked copy and Two hard copies.***
ITB 20.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of**: *Power of Attorney confirming that the assigned person is authorized to sign all the documents related to this bid on behalf of the Bidder. The power of attorney shall be issued by a competent person(s) with authority to grant Power of attorney and duly executed by a notary public, commissioner of oaths or an advocate of the high court.***
D. Submission and Opening of Bids	
ITB 22.1	For **Bid submission purposes** only, the Employer's address is: Attention: **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).** Address: **Lodwar – Kanamkemer Road, Ministry of Water Services (TUWASCO Offices).** Floor/ Room number***: TUWASCO Office.*** City: ***Lodwar.*** ZIP Code: ***30500*** Country: ***Kenya.*** Telephone: **+254 725 059 737** Facsimile number: *N/A* Electronic mail address***: info@turkanaurbanwater.co.ke***

	The deadline for Bid submission is: Date: **5th January 2027** Time: **12:00 pm** Bidders ***shall not*** have the option of submitting their Bids electronically.
ITB 25.1	The Bid opening shall take place at: Street Address: **County Government of Turkana – Directorate of Supply Chain Management Services Offices.** Address: **Lodwar – Nawoitorong Road, Ministry of Finance and Economic Planning (Directorate of Supply Chain Management Services)** Floor/ Room number***: Directorate of Supply Chain Management Services (Boardroom).*** City: ***Lodwar.*** ZIP Code: ***30500*** Country: ***Kenya.*** Telephone: **+254 725 059 737** Facsimile number: *N/A* Electronic mail address***: info@turkanaurbanwater.co.ke*** Date: **5th January 2027** Time: ***12:10 pm***
ITB 25.6	The Letter of Bid and Schedules shall be initialed by ***Three*** representatives of the Employer conducting the Bid opening. Each Bid shall be initialed by the Employer's representatives and shall be numbered. The tender opening register shall record the tender reference number, name, address, and signature of the bidder's representative attending the Bid opening, read out prices and the name of the appointed Employer's representatives.
E. Evaluation and Comparison of Bids	
ITB 32.1	The currency that shall be used for Bid evaluation and comparison purposes to convert at the selling exchange rate all Bid prices expressed in various currencies into a single currency is: **Not Applicable.** Bids will be submitted in ***Kenya Shillings*** The source of the exchange rate shall be: **Not Applicable** The date for the exchange rate shall be: **Not Applicable**
ITB 33.1	A margin of domestic preference ***shall not*** apply.

ITB 34.1	At this time the Employer ***does not intend*** *to* execute certain specific parts of the Works by subcontractors selected in advance.
ITB 34.2	***Not applicable***.
ITB 34.3	Contractor's proposed subcontracting: Maximum percentage of subcontracting permitted is: ***25% of the total contract amount.*** Bidders planning to subcontract more than 10% of total contract amount shall specify, in the Letter of Bid, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
F. Award of Contract	
ITB 47.1	The successful Bidder ***shall submit*** the Beneficial Ownership Disclosure Form.
ITB 49	The Adjudicator proposed by the Employer is: **Architect Julius Muthui Mutunga FCIArb**. The hourly fee for this proposed Adjudicator shall be: ***KES 25,000.00*** The biographical data of the proposed Adjudicator is as follows: ***Holder of Bachelor's Degree in Architecture, Registered with Board of Registration of Architects and Quantity Surveyors and a Fellow Member of the Chartered Institute of Arbitrators (FCIArb).***
ITB 50.1	The procedures for making a Procurement-related Complaint are detailed in the "Procurement Regulations for IPF Borrowers (Annex III)." If a Bidder wishes to make a Procurement-related Complaint, the Bidder shall submit its complaint following these procedures, In Writing (by the quickest means available, such as by email or fax), to: **For the attention**: Mr. Kelly K. Lemuya **Title/position**: *The Managing Director* **Employer**: **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).** Address: ***Lodwar – Kanamkemer Road, Ministry of Water Services (TUWASCO Offices).*** Floor/ Room number***: TUWASCO Office.*** City: ***Lodwar.*** ZIP Code: ***30500*** Country: ***Kenya.*** Telephone: **+254 725 059737** Facsimile number: ***N/A*** Electronic mail address***: info@turkanaurbanwater.co.ke***

	In summary, a Procurement-related Complaint may challenge any of the following: **1.** the terms of the Bidding Documents; and **2.** the Employer's decision to exclude a Bidder from the procurement process prior to the award of contract; and **3.** the Employer's decision to award the contract

Section III - Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post-qualification. No other factors, methods or criteria shall be used other than specified in this bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Wherever a Bidder is required to state a monetary amount, Bidders should indicate the USD equivalent using the rate of exchange determined as follows:

- for construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year are to be converted) was originally established; or

- value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified in the ITB 32.1. Any error in determining the exchange rates in the Bid may be corrected by the Employer

Table of Criteria

1. Margin of Preference: Not applicable 45

2. Evaluation 45

3. Qualification 65

4. Key Personnel 73

5. Equipment 74

1. Margin of Preference:

Not applicable

2. Evaluation

In addition to the criteria listed in ITB 35.2 (a) – (e) the following criteria shall apply:

2.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements.

The minimum (or maximum) requirements stated in the Specification for functional guarantees required in the Specification are as per the following schedules

2.2 Functional Guarantees of the Borehole Drilling Works

The minimum (or maximum) requirements stated in the Specification for functional guarantees required in the Specification are as per the following schedules

Schedule of Guaranteed Technical Particulars (GTP) for Technical Evaluation

Instructions to Bidders

1. Complete this Schedule for **each Lot bid** (tick: Lot 1 ☐ Lot 2 ☐ Lot 3 ☐ Lot 4 ☐). Columns headed *Bidder's Offer* and *Evidence Ref.* must be filled in by the Bidder. Do not alter columns 1–4.
2. Entries such as "as per specification" or "complied" without stating the actual value, make, model, standard or certificate number will be treated as **non-responsive**. Where a numeric value is required, state the actual guaranteed value.
3. The values stated are **guaranteed**. They are binding and will be verified against manufacturers' data sheets, certificates, inspection records and delivered materials (Hold Point H4). Any false or misleading particular may lead to bid rejection or to rejection of materials.
4. Evidence (data sheets, mill/manufacturer certificates, calibration certificates, test reports, ownership/lease/commitment letters) must be attached and cross-referenced by tab and page number.
5. Deviations must be listed in Part Q. Equivalent standards must be proven equivalent in writing (Section VII, 1.6). Where a Standard and the Specification conflict, the more stringent requirement applies.
6. Evaluation is **Pass/Fail** on the mandatory items marked **(M)**. Items marked **(S)** are scored as set out in the Evaluation Criteria in Section III.

Bidder: _____ Lot(s): _____ Bid Ref: _____ Date: _____

Column key: Ref | Parameter | Required (Section VII reference) | Standard | **Bidder's Offer** | **Evidence Ref.** | Evaluator (Y/N)

PART A – Drilling Rigs and Drilling Plant (Section VII 2.3, 2.4; Table A.2 items 1–6)

Complete one column set per rig. Required numbers: Lot 1 = 2, Lot 2 = 2, Lot 3 = 2, Lot 4 = 2 rigs.

Ref	Parameter	Required	Standard / Basis	Bidder's Offer (Rig 1 / 2)	Evidence Ref.	Eval.
A1	Make, model, serial no., year of manufacture (M)	≤ 15 years, or major overhaul within last 3 years (state date)	Part A.3			
A2	Ownership status (M)	Owned / leased / firm commitment letter	Part A.3			
A3	Rig type and mounting (M)	Top-head-drive, truck or crawler mounted	Table A.2			
A4	Drilling methods capable (M)	DTH hammer, air/foam rotary and direct mud rotary	Sect. 2.4			
A5	Rated depth capacity with 10½ in bit (M)	≥ 450 m, and ≥ 120 % of deepest instructed borehole	Sect. 2.3			
A6	Hook load / pull-back (M)	≥ 20 t	Table A.2			
A7	Mast-mounted winch, breakout tools (M)	Yes	Table A.2			
A8	Production bit size (M)	≥ 10½ in (267 mm)	Sect. 2.4			
A9	Surface section drilling diameter and capability (M)	≥ 15 in to ≥ 6 m; surface casing ID passing 10½ in bit with ≥ 6 mm clearance (e.g. 12¾ in)	Sect. 2.4			
A10	Capability to drill the production hole at 10 in nominal diameter (bit ≥ 10½ in) to ≥ 320 m – all Lots (M)	Yes / No; bit and casing available	Sect. 2.4			
A11	Bits supplied: tricone, button bits and DTH hammers (M)	Include bits suitable for fresh gneiss > 2,000 Ωm; state sizes and quantities	Table A.2 / Sect. 2.3			
A12	Drill pipe, collars, stabilisers and fishing tools (M)	Sufficient for 450 m; list quantities	Table A.2			

Ref	Parameter	Required	Standard / Basis	Bidder's Offer (Rig 1 / 2)	Evidence Ref.	Eval.
A13	Air compressor: make, pressure, free-air delivery (M)	≥ 24 bar and ≥ 28 m³/min (≈ 1,000 cfm), one per rig	Table A.2			
A14	Booster pressure (M)	≥ 30 bar	Table A.2			
A15	Silencers and spill containment on compressor (M)	Yes	Table A.2 / Sect. 2.2			
A16	Mud pump type and capacity (M)	Duplex/triplex ≥ 1,000 L/min, one per rig	Table A.2			
A17	Mud mixing hopper, tanks, desander/shale shaker (M)	Yes; state tank volume (m³)	Table A.2			
A18	Mud test kit (M)	Mud balance, Marsh funnel, sand-content kit, filter press, pH meter	API RP 13B-1			
A19	Water bowser capacity (M)	≥ 10,000 L per rig	Table A.2			
A20	Support truck with crane/hiab (M)	≥ 5 t per rig	Table A.2			
A21	Generator-welder and oxy-acetylene set, silenced (M)	One per rig	Table A.2			
A22	Hydrocarbon containment (drip trays, bunding) and exhaust/dust/noise control (M)	Yes	Sect. 2.2 / Part A.3			
A23	Portable multi-gas detector (LEL, H_2S, CO, O_2), calibrated (M)	One per rig; state make and calibration date	Sect. 2.31			
A24	Last inspection/maintenance record date (M)	Evidence attached	Part A.3			

PART B – Drilling Fluids and Additives (Section VII 2.5)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
B1	Certification of all muds, foams, polymers, lubricants, LCM and development chemicals (M)	Certified for drinking-water wells; SDS and product data sheets submitted	NSF/ANSI/CAN 60 or approved equivalent			
B2	Bentonite: brand, grade, certificate (M)	High-yield sodium bentonite	API Spec 13A			
B3	Polymers: PAC/CMC/xanthan product names (M)	Potable-water approved	NSF/ANSI/CAN 60			
B4	Inhibitive PHPA polymer product (M)	Provided for swelling clay sections	Sect. 2.5			
B5	Foaming agent product (M)	Certified water-well drilling foam; detergents, soaps and diesel prohibited	Sect. 2.5			
B6	Mud-cake dispersant product (M)	Phosphate-free preferred (e.g. AQUA-CLEAR PFD, BARAFOS or equivalent)	Sect. 2.5			
B7	Disinfectant (M)	Calcium or sodium hypochlorite; state % available chlorine	ANSI/AWWA C654			
B8	Guaranteed mud density (M)	≤ 1.10 kg/L (≤ 1.15 kg/L with approval)	Sect. 2.5			
B9	Marsh funnel viscosity (M)	32–45 s/qt	API RP 13B-1			
B10	Sand content (M)	≤ 2 % by volume	API RP 13B-1			
B11	pH	8.0–9.5	Sect. 2.5			
B12	API filtrate (M)	≤ 15 mL/30 min	API RP 13B-1			
B13	Make-up water EC limit (M)	Not used above 3,000 µS/cm without approval; water source stated	Sect. 2.5 / 4.11			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
B14	Frequency of mud testing (M)	Start of shift, every 4 h, before adding fluid	Sect. 2.5			

PART C – Casing and Screens (Section VII 2.11, Table 2.1)

Complete for mild-steel and uPVC. State manufacturer, country of origin and product designation. Attach mill/manufacturer certificates and collapse/burst/tensile data.

C-1 Mild Steel Casing and Screens (drill depth ≥ 250 m)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
C1.1	Manufacturer / brand / country (M)	New, factory-manufactured, with mill certificates	Sect. 2.11			
C1.2	Material standard and grade (M)	API 5CT (J55/K55 or higher) or API 5L Grade B or higher; seamless or HFW/ERW	API Spec 5CT / 5L; EN 10217-1 / EN 10219			
C1.3	Nominal size and OD (M)	8⅝ in (8 in nominal), OD 219.1 mm	Table 2.1			
C1.4	Wall thickness and mass per metre (M)	≥ 7.7 mm (≈ 41 kg/m)	Table 2.1			
C1.5	Certified collapse rating (M)	≥ 10 MPa	Table 2.1			
C1.6	Burst and tensile data	State values (MPa / kN)	Manufacturer			
C1.7	Joint type (M)	API threaded and coupled, or bevelled for full-penetration welding by qualified welder	Table 2.1			
C1.8	Welder qualification (if welded) (M)	Certificates attached	Sect. 2.12			
C1.9	Screen type and base pipe (M)	Machine-slotted or bridge-slot on same base pipe; stainless wire-wrap (AISI 304/316) optional	Table 2.1			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
C1.10	Open area (cm²/m and %) (M)	≥ 5 %	Table 2.1			
C1.11	Slot aperture and pattern (M)	1.5–3.0 mm as instructed	Table 2.1			
C1.12	Calculated entrance velocity at 5 m³/h and at 15 m³/h (M)	≤ 0.03 m/s at maximum test discharge	Table 2.1 / Sect. 2.11			
C1.13	Length of joints (M)	API Range 2/3 (≈ 8–12 m) or 6 m	Table 2.1			
C1.14	Coating (M)	Uncoated or NSF/ANSI/CAN 61 epoxy; bitumen, tar, lead-based prohibited	Table 2.1			
C1.15	Centralisers and bottom plate (M)	Steel bow-spring or welded-fin; welded bottom plate	Table 2.1			
C1.16	Factory slotting confirmed (M)	No field slotting, torch or grinder cutting	Sect. 2.11			

C-2 uPVC Casing and Screens (drill depth < 250 m)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
C2.1	Manufacturer / brand / country (M)	New, factory-manufactured, with certificates	Sect. 2.11			
C2.2	Product standard (M)	Heavy-duty deep-well series	DIN 4925 or ASTM F480			
C2.3	Potable-water certification (M)	Certificate number and issuing body	NSF/ANSI/CAN 61 or equivalent (WRAS, KEBS)			
C2.4	Nominal size and OD (M)	8 in (DN 200), OD 225 mm	Table 2.1			
C2.5	SDR and wall thickness (M)	SDR ≤ 17 (≥ 13.2 mm for OD 225 mm)	Table 2.1			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
C2.6	Certified collapse resistance (M)	≥ 1.5 MPa	Table 2.1			
C2.7	Tensile limit of string (kN) and maximum string length/weight	State; must support string (Sect. 2.12)	Manufacture r			
C2.8	Joint type (M)	Factory trapezoidal or square flush thread with O-ring; no solvent-cement joints except bottom plug	Table 2.1			
C2.9	Screen: machine-slotted, horizontal slots (M)	Yes	Table 2.1			
C2.10	Open area (cm²/m and %) (M)	≥ 8 %	Table 2.1			
C2.11	Slot aperture and pattern (M)	1.5–3.0 mm as instructed	Table 2.1			
C2.12	Entrance velocity at 5 m³/h and 15 m³/h (M)	≤ 0.03 m/s	Table 2.1			
C2.13	Lengths (M)	3 m or 6 m	Table 2.1			
C2.14	Centralisers and bottom plug (M)	uPVC or stainless-steel centralisers; uPVC plug	Table 2.1			

C-3 Supply Contingency

Ref	Parameter	Required	Bidder's Offer	Evidence Ref.	Eval.
C3.1	Contingency quantity of casing/screen per Lot (M)	State % and storage location at project base			
C3.2	Delivery lead time to project base (days) (M)	Consistent with 120-day programme			
C3.3	Capability to supply stainless-steel screens as variation (S)	State supplier and lead time			

PART D – Gravel Pack (Section VII 2.13)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
D1	Source/supplier and location (M)	Approved source; 5 kg sample with sieve analysis	Sect. 2.13			
D2	Material (M)	Siliceous, ≥ 95 % quartz, well-rounded, free of clay, silt, organics, limestone, shale	Sect. 2.13			
D3	Sphericity and roundness (M)	≥ 0.6	API RP 58 / ISO 13503-2			
D4	Acid solubility (M)	≤ 5 %	API RP 58 / ISO 13503-2			
D5	Crush resistance	State test result	API RP 58 / ISO 13503-2			
D6	Grading offered (M)	2–4 mm (1.5 mm slot); 3–6 mm (2–3 mm slots); formation-designed for sandstone sites	Sect. 2.13			
D7	Uniformity coefficient (M)	≤ 2.5; ≥ 90 % retained on slot aperture	Sect. 2.13			
D8	Supply condition (M)	Graded and washed off site, bagged; no on-site sieving	Sect. 2.13			
D9	Placement method (M)	Tremie (or controlled pour with approval) to ≥ 6 m above top screen; volume check within ± 15 % of caliper-derived volume	Sect. 2.13			

PART E – Seals, Backfill, Grout and Concrete (Section VII 2.14)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
E1	Sand cap (M)	0.5–1.0 mm, 1 m thick	Sect. 2.14			
E2	Bentonite pellets/chips: product (M)	≥ 3 m seal; e.g. Holeplug / Pelplug or equivalent	Sect. 2.14			
E3	Seals across clay/poor-	≥ 3 m above and below interval	Sect. 2.14			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
	quality zones (M)					
E4	Inert backfill source (M)	Clean washed sand/gravel; cuttings not used	Sect. 2.14			
E5	Cement type (M)	Sulphate-resistant Portland cement	KS EAS 18-1 / EN 197-1			
E6	Grout mix (M)	2–5 % bentonite by weight of cement; w/c 0.45–0.55; density ≥ 1.75 kg/L	Sect. 2.14			
E7	Grout placement (M)	Tremie, bottom-up, continuous, from ≥ 12 m bgl to surface; surface casing withdrawn progressively	Sect. 2.14			
E8	Concrete collar (M)	C25/30 minimum, ≥ 1.0 × 1.0 × 0.3 m	BS EN 206 / BS 8500			
E9	Grout mixer and pump (M)	State make and capacity	Sect. 2.14			

PART F – Downhole Geophysical Logging and CCTV (Section VII 2.9; Table A.2 items 7–8)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
F1	Logging system make/model/serial (M)	Owned, leased or approved specialist subcontractor	Part A.3			
F2	Sondes (M)	SP, short-normal (16 in) and long-normal (64 in) resistivity, natural gamma, fluid temperature, fluid conductivity, three-arm caliper	ASTM D5753			
F3	Depth capacity (M)	≥ 450 m	Table A.2			
F4	Calibration certificate date (M)	Not older than 12 months	Sect. 2.9			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
F5	Check sources for on-site verification (M)	Available	Sect. 2.9			
F6	Logging speed (M)	≤ 9 m/min; repeat section ≥ 30 m	Sect. 2.9			
F7	Data format and software (M)	LAS 2.0; state processing software	LAS 2.0 (CWLS)			
F8	Delivery times (M)	Field prints ≤ 12 h; LAS and interpretation ≤ 48 h	Sect. 2.9			
F9	CCTV camera make/model (M)	Axial and radial view, depth counter, on-screen depth overlay, digital recording	Table A.2			
F10	CCTV depth capacity (M)	≥ 450 m	Table A.2			
F11	Camera review report delivery (M)	≤ 5 days after Survey 2; annotated video, feature log, stills	Sect. 2.9			
F12	Camera disinfection procedure (M)	Stated	Sect. 2.30 item 2.16			

PART G – Well Development (Section VII 2.15)

Ref	Parameter	Required	Bidder's Offer	Evidence Ref.	Eval.
G1	Air-lift surging: double surge block, compressor capacity and submergence achievable (M)	≥ 60 % submergence where achievable			
G2	Jetting equipment (M)	High-velocity horizontal jetting with simultaneous air-lift			
G3	Chemical dispersion procedure (M)	Mandatory for mud-drilled holes; contact time ≥ 12 h; surging every 2 h			
G4	Guaranteed sand content at end of development (M)	≤ 5 mg/L (Rossum sand tester)			
G5	Guaranteed turbidity (M)	≤ 5 NTU			

Ref	Parameter	Required	Bidder's Offer	Evidence Ref.	Eval.
G6	Specific capacity stability (M)	Change < 5 % over 2 consecutive hours			
G7	Sand tester and Imhoff cones (make) (M)	Per Table A.2 item 14			

PART H – Test Pumping Equipment and Procedures (Section VII 2.16; Table A.2 items 9–11)

Required: Lot 1 = 1, Lot 2 = 1, Lot 3 = 1, Lot 4 = 1 test pumping unit.

Ref	Parameter	Required	Standard	Bidder's Offer (Unit 1 / 2)	Evidence Ref.	Eval.
H1	Pump make/model, diameter (M)	4-in submersible	Table A.2			
H2	Discharge range and head (M)	0.5–20 m³/h at TDH up to 300 m as mandatory but not limited to; attach pump curves	Table A.2			
H3	Variable-speed drive (M)	Yes	Table A.2			
H4	Generator rating (kVA) (M)	Adequate for pump and VSD	Table A.2			
H5	Rising main length/suction pipes (M)	≥ 300 m with non-return valve, gate valve, safety cable	Table A.2			
H6	Discharge pipeline (M)	≥ 100 m	Sect. 2.16.1			
H7	Dip tube (M)	25 mm below pump intake	Sect. 2.16.1			
H8	Flow meter make, type, accuracy (M)	Electromagnetic or turbine, calibrated, ± 2 %; calibration certificate date	Table A.2			
H9	Volumetric tank (M)	≥ 200 L calibrated	Table A.2			
H10	Electric dippers (M)	≥ 450 m, 1 cm graduation; two per unit	Table A.2			

Ref	Parameter	Required	Standard	Bidder's Offer (Unit 1 / 2)	Evidence Ref.	Eval.
H11	Pressure transducers and data loggers (M)	Vented; accuracy ≤ 0.1 % full scale; two per unit; logging at ≤ 1-min intervals	Table A.2 / Sect. 2.16			
H12	Step drawdown test (M)	4–5 steps × 60 min at 25/50/75/100 (120) %	BS ISO 14686			
H13	Constant-rate test (M)	24 h; discharge within ± 5 %; restart rule accepted	BS ISO 14686			
H14	Recovery measurement (M)	≥ 12 h or 95 % recovery	BS ISO 14686			
H15	Observation borehole monitoring (M)	Transducer at neighbouring/site-group boreholes	Sect. 2.16.1			
H16	Analysis software and methods (M)	AQTESOLV or equivalent; Cooper–Jacob, Theis, Hantush–Bierschenk, derivative plots; state licence	Sect. 2.16.5			
H17	Discharge management (M)	≥ 100 m downslope; saline water contained	Sect. 2.16.1			

PART I – Water Sampling, Laboratory and Field Quality Instruments (Section VII 2.8, 2.17)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
I1	Laboratory name and location (M)	Accredited by KENAS	ISO/IEC 17025			
I2	Accreditation certificate number, expiry and scope (M)	Scope covers chemical and bacteriological parameters below	ISO/IEC 17025			
I3	Parameters analysed (M)	pH, EC, TDS, turbidity, colour, alkalinity, hardness, Ca, Mg, Na, K, HCO_3, CO_3, Cl, SO_4, NO_3, NO_2, NH_4, F, Fe, Mn, SiO_2, PO_4, B, As, Pb, Cd, Cr, Ni, Cu, Zn, Hg, Se, U, SAR	Sect. 2.17 / Standard Methods			
I4	Bacteriological parameters (M)	Total coliforms, E. coli/thermotolerant	Standard Methods			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
		coliforms, faecal streptococci				
I5	Sampling and preservation (M)	Containers, 4 °C cool boxes, chain-of-custody	ISO 5667-1, -3, -11			
I6	Transport to laboratory and field incubation kit for remote sites (M)	Bacteriological sample ≤ 24 h or approved portable kit	Sect. 2.17			
I7	Ion balance error (M)	≤ 5 %	Sect. 2.17			
I8	Reporting time (M)	Certificates ≤ 14 days from sampling per site	Sect. 2.17			
I9	Reference limits for comparison (M)	KS EAS 12 and WHO Guidelines	KS EAS 12; WHO 4th ed.			
I10	Field meters: EC/TDS, pH, temperature, turbidity (M)	Calibrated; one per rig and test unit (L1: 3, L2: 3, L3: 3, L4: 3)	Table A.2 item 12			
I11	Fluoride kit makes and method (M)	Ion-selective electrode or photometer; test at each principal strike, end of development, final hour of constant-rate test	Sect. 2.8			
I12	Water-strike EC/fluoride stop criteria acknowledged (M)	EC > 2,000 µS/cm or F > 4 mg/L	Sect. 2.6			

PART J – Disinfection, Wellhead, Verticality and Decommissioning (Section VII 2.18–2.22)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
J1	Disinfection method and dosage (M)	50–100 mg/L free chlorine; ≥ 24 h contact; flush to < 0.5 mg/L; dechlorinated discharge	ANSI/AWWA C654			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
J2	Bacteriological acceptance (M)	No E. coli / thermotolerant coliforms in 100 mL	Table 2.3			
J3	Wellhead cap and lock (M)	6 mm steel plate lockable cap with hasp and heavy-duty padlock (or bolted tamper-proof flange); two keys	Sect. 2.19			
J4	Identification plate (M)	Corrosion-resistant; project, borehole/WRA no., site, date, depth, SWL, yield	Sect. 2.19			
J5	Deviation tool make/model (M)	Inclinometer or gyro; stations ≤ 10 m	Table A.2 item 13			
J6	Verticality guarantee (M)	Deviation ≤ ⅔ of smallest casing ID per 30 m; ≤ 1° in pump-housing section	ANSI/AWWA A100			
J7	Alignment dummy (M)	12 m long, OD 13 mm less than casing ID; passes freely	Sect. 2.20			
J8	Plumbness station spacing (M)	≤ 10 m, surface to TD	Sect. 2.20			
J9	Well-loss guarantee (M)	$C \le 1{,}900\ s^2/m^5$ (Walton), or Engineer-approved fractured-aquifer exception	Table 2.3			
J10	Decommissioning procedure (M)	Gravel/sand backfill, bentonite seals, top 10 m cement-bentonite grout, casing cut 1 m below ground, concrete plug	ASTM D5299			
J11	Replacement of lost borehole (M)	Within 7 days, at Contractor's cost	Sect. 2.22			

PART K – Surveying, Communications, Vehicles and Safety Equipment (Table A.2 items 15–17)

Ref	Parameter	Required	Bidder's Offer	Evidence Ref.	Eval.
K1	GNSS receiver make/model and accuracy (M)	Horizontal accuracy ≤ 3 m; set to UTM 36N WGS 84; number: 1 per Lot			
K2	4×4 support vehicles (M)	L1: 3, L2: 3, L3: 3, L4: 3; with satellite or HF/VHF radio, GPS tracking, first-aid kit, fire extinguisher, spill kit			
K3	Radio calls for remote and border sites (M)	State number and type			
K4	Stretcher, first-aid kit and standby evacuation vehicle at every rig (M)	Yes			

PART L – Quality, Health, Safety and Environmental Systems (Section VII 1.6, 2.27, 4)

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
L1	Quality management certification (S)	Certificate no./expiry	ISO 9001			
L2	OHS management certification (S)	Certificate no./expiry	ISO 45001			
L3	Environmental management certification (S)	Certificate no./expiry	ISO 14001			
L4	Quality Management Plan and ITP outline with hold points H1–H7 (M)	Submitted within 21 days of Commencement	Sect. 2.27			
L5	C-ESMP contents and management plans (M)	Plans listed in Sect. 4.3 outlined	World Bank ESF ESS1–ESS10			
L6	Code of Conduct and SEA/SH Prevention and Response (M)	Signed by all workers; zero tolerance	WB Good Practice Note SEA/SH			
L7	Security Management Plan approach (M)	Security risk assessment per Lot; daylight convoy only	WB GPN Security Personnel			

Ref	Parameter	Required	Standard	Bidder's Offer	Evidence Ref.	Eval.
L8	Water Use Plan (M)	Licensed sources only; recycling	Sect. 4.11			
L9	Waste, spill and saline discharge management (M)	Lined pits, NEMA-licensed handlers	Sect. 4.12			
L10	Noise limits (M)	≤ 55 dB(A) day / 45 dB(A) night at nearest residence	WBG EHS			
L11	Minimum age and labour compliance (M)	No persons under 18	ESS2 / Employment Act			

PART M – Key Personnel Particulars (Part A, Table A.1)

One line per nominee; attach signed CV, certificates, practicing licenses and availability statement.

Ref	Position	Required (L1/L2/L3/L4)	Nominee name	Registration no. and validity	Years general / specific	Reference contract and client contact	Eval.
M1	Project Manager	1/1/1/1					
M2	Lead Hydrogeologist	1/1/1/1					
M3	Site Geologist/Hydrogeologist	1/1/1/1					
M4	Drilling Supervisor/Tool pusher	2/2/2/2					
M5	Lead Driller	2/2/2/2					
M6	Test Pumping Technician	1/1/1/1					
M7	Plant Mechanic/Fitter	1/1/1/1					
M8	Borehole Geophysical Logging Engineer	1/1/1/1					
M9	ESHS Manager	1/1/1/1					
M10	OHS Officer	1/1/1/1					
M11	SEA/SH (GBV) Specialist	1/1/1/1					

Ref	Position	Required (L1/L2/L3/L4)	Nominee name	Registration no. and validity	Years general / specific	Reference contract and client contact	Eval.
M12	Community Liaison Officer	1/1/1/1					

PART N – Production Capacity and Programme Guarantees (Section VII 2.28)

Ref	Parameter	Required	Bidder's Offer	Evidence Ref.	Eval.
N1	Rigs deployed (M)	L1: 2, L2: 2, L3: 2, L4: 2			
N2	Test pumping units deployed (M)	L1: 1, L2: 1, L3: 1, L4: 1			
N3	Guaranteed Time for Completion (M)	≤ 120 calendar days per Lot			
N4	Average drilling rate assumed (m/day per rig) by formation	State for DTH, mud rotary, clay, fresh gneiss			
N5	Project base and storage arrangements (M)	State location of the project base for each Lot bid (within Turkana County); fuel, water, casings, spares stock			
N6	Reaction times (M)	Hold point notice 24 h (4 h for depth points); design submission within 24 h of logs			
N7	Reporting commitments (M)	Daily forms 1–5; WRA record ≤ 14 days; completion report ≤ 15 days; Lot report ≤ 28 days			

PART O – Method Statement Declarations by Formation (Section VII 1.5, 2.4, A.5)

Ref	Formation	Drilling method, fluid and temporary casing proposed (M)	Bidder's Offer	Evidence Ref.
O1	Thick swelling clays / sandy clays (2–20 Ωm, up to 250 m)	Inhibitive polymer mud or foam with temporary casing		
O2	Loose dry sands near surface	Stabilisation / temporary casing		

Ref	Formation	Drilling method, fluid and temporary casing proposed (M)	Bidder's Offer	Evidence Ref.
O3	Weathered and fractured basalt, phonolite, rhyolite	DTH or rotary; state bit types		
O4	Weathered sandstone	Mud rotary; formation-designed gravel pack		
O5	Weathered and fresh gneiss (> 2,000 Ωm)	DTH with button bits		

PART P – Acceptance Criteria Acknowledgement (Section VII 2.21, Table 2.3)

The Bidder guarantees compliance with each criterion below and accepts the stated consequence of failure. *(Initial each line.)*

No.	Criterion	Guaranteed	Initials
P1	Screen positions within ± 0.5 m of approved design; diameters, materials and seals as approved	Yes / No	
P2	Plumbness and alignment as Section 2.20	Yes / No	
P3	CCTV Survey 2: no damaged/separated joints, no sand ingress, clean sump	Yes / No	
P4	Sand ≤ 5 mg/L and turbidity ≤ 5 NTU at end of constant-rate test	Yes / No	
P5	Well loss C ≤ 1,900 s^2/m^5 or Engineer-approved exception	Yes / No	
P6	No E. coli or thermotolerant coliforms in 100 mL after disinfection	Yes / No	
P7	No contamination introduced by Contractor (hydrocarbons, additives, chemicals)	Yes / No	
P8	Complete records submitted (LAS logs, tallies, test data, CCTV files, lab certificates, WRA record, completion report)	Yes / No	

PART Q – Deviations and Clarifications

No.	Spec. clause	Deviation / equivalent standard offered	Justification and evidence
Q1			
Q2			
Q3			

Bidder's Declaration

I/We certify that the particulars above are true, accurate and guaranteed, and that all materials and equipment delivered will conform to them and to Section VII.

Name: _____ Title: _____ Signature: _____ Duly

authorised for and on behalf of: _____ Date and stamp: _____

Evaluator's Summary (Employer use only)

Part	Mandatory items passed (count / total)	Scored marks (S items)	Deviations accepted?	Remarks
A – Rigs and plant				
B – Fluids				
C – Casing and screens				
D–E – Gravel, seals, grout				
F – Logging and CCTV				
G–H – Development and test pumping				
I – Sampling and laboratory				
J–K – Completion, tests, safety equipment				
L – QHSE systems				
M–N – Personnel and programme				
O–P – Methods and acceptance				

Technical responsiveness: ☐ Responsive ☐ non-responsive

Evaluator: _____ Date: _____

The above requirement is mandatory.

2.3 Multiple Contracts:

Not applicable

2.4 Alternative Completion Times:

Not applicable

2.5 Sustainable procurement:

Not applicable

2.6 Alternative Technical Solutions for specified parts of Works:

Not applicable.

2.7 Specialized Subcontractors*:*

If permitted under ITB 34, only the specific experience of Subcontractors for specialized works permitted by the Employer will be considered. The general experience and financial resources of the Specialized Subcontractors shall not be added to those of the Bidder for purposes of qualification of the Bidder.

3. Qualification

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
1. Eligibility							
1.1	**Nationality**	Nationality in accordance with ITB 4.4	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	**Conflict of Interest**	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	**Bank Eligibility**	Not having been declared ineligible by the Bank, as described in ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.4	**State-owned enterprise or institution of the Borrower country**	Meets conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.5	**United Nations resolution or Borrower's country law**	Not having been excluded as a result of prohibition in the Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 and Section V.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
2. Historical Contract Non-Performance							
2.1	**History of Non-Performing Contracts**	Non-performance of a contract[1] did not occur as a result of contractor default since 1st January *2020*.	Must meet requirement[1] & [2]	Must meet requirements	Must meet requirement[2]	N/A	Form CON-2
2.2	**Suspension Based on Execution of Bid /Proposal Securing Declaration by the Employer**	Not under suspension based on execution of a Bid/Proposal Securing Declaration pursuant to ITB 4.7 and ITB 19.9.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
2.3	**Pending Litigation**	Bidder's financial position and prospective long term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2
2.4	**Litigation History**	No consistent history of court/arbitral award decisions against the Bidder[3] since 1st January *2020*	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON – 2

[1] Nonperformance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

[2] This requirement also applies to contracts executed by the Bidder as JV member.

[3] The Bidder shall provide accurate information on the Letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
2.5	**Declaration: Environmental and Social (ES) past performance**	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for breach of environmental or social (including Sexual Exploitation and Abuse) contractual obligations in the past five years.[4]	Must make the declaration.	N/A	Each must make the declaration.	N/A	Form CON-3 ES Performance Declaration
2.6	**Bank's SEA and/or SH Disqualification**	At the time of the Contract Award, not subject to disqualification by the Bank for non-compliance with SEA/ SH obligations	Must meet requirement	N/A	Must meet requirement)	N/A	Letter of Bid, Form CON-4
		If the Bidder had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations, the Bidder shall either (i) provide evidence of an arbitral award on the disqualification made in its favour; or (ii) demonstrate that it has adequate capacity and commitment to comply with SEA/SH prevention and response obligations; or (iii) provide evidence that it has already demonstrated such capacity and commitment on another Bank financed works contract.	Must meet requirement	N/A	Must meet requirement	N/A	Letter of Bid, Form CON-4
3. Financial Situation and Performance							
3.1	**Financial**	(i) The Bidder shall demonstrate that it	Must meet	Must meet	N/A	N/A	Form FIN – 3.1,

[4] The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
	Capabilities	has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as KES 75 million for each Lot for the subject contract(s) net of the Bidder's other commitments	requirement	Requirement			with attachments
		(ii) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.	Must meet requirement	Must meet requirement	N/A	N/A	
		(iii) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the Employer, for the last 3 years (2025, 2024 and 2023) shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.	Must meet requirement	N/A	Must meet requirement	N/A	
3.2	**Average Annual Construction Turnover**	Minimum average annual construction turnover of KES 150 million, calculated as total certified payments received for contracts in progress and/or completed within the last 3 years, divided by 3	Must meet requirement	Must meet requirement	Must meet 30 % of the requirement	Must meet *50*% of the requirement	Form FIN – 3.2

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
		years					
4. Experience							
4.1 (a)	**General Construction Experience**	Experience under construction contracts in the role of prime contractor, JV member, subcontractor, or management contractor for at least the last 5 years before the bid submission deadline, the following experience in key activities, either as prime contractor, joint venture member or subcontractor. Experience shall be evidenced by completion certificates or client letters identifying the number and depth of boreholes, the methods and casing types used, and the client contact as per ***Table 4.1a Minimum specific experience in key activities per Lot***.	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP – 4.1
4.2 (a)	**Specific Construction & Contract Management Experience**	A minimum number of one (1) similar contract specified below that have been satisfactorily and substantially completed as a prime Contractor, joint	Must meet requirement	Must meet	N/A	N/A	Form EXP 4.2(a)

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
		venture member[5], management contractor or sub-contractor between 1st January 2020 and bid submission deadline: (i) One contract of minimum value KES 50 million; Or (ii) Two (2) contracts of combined value of KES 50 million or more. The similarity of the contracts shall be based on the following: Drilling, Development and Test Pumping works of similar magnitude and complexity.		requirement[6]			
4.2 (b)		For the above and any other contracts [substantially completed and under implementation] as prime contractor, joint venture member, or sub-contractor between 1st January *2020* and Application submission deadline, a minimum borehole drilling experience in the following key activities successfully completed[7]: Specifically, Borehole drilling capacity in the following aspects: • Experience executing borehole drilling in Northern Kenya /	Must meet requirements	Must meet requirements	N/A	***N/A***	Form EXP – 4.2 (b)

[5] For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

[6] In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

[7] Volume, number or rate of production of any key activity can be demonstrated in one or more contracts combined if executed during same time period.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each Member	At least one Member	
		ASAL areas • Demonstrated experience in drilling and borehole flushing up to 600m depth. • Experience in acquiring and installing both uPVC (≤ 250m) and Mild Steel (> 250m) casing/screen systems. • Demonstrated execution of complete 40-hour test pumping procedures (4h step + 24h constant + 12h recovery).					
4.2 (c)		For contracts [substantially completed and under implementation] as prime contractor, joint venture member, or Subcontractor between 1st January *2020* and Application submission deadline, experience in managing ES risks and impacts in the following aspects: **Social** • Grievance, Labor influx, cultural heritage, traffic management, stakeholder engagement, SEAH, child protection, forced labor and vulnerable groups *Environmental:* • Water, noise, air and soil pollution, water management, material utilization, health and safety community safety and security.	Must meet requirements	Must meet requirements	N/A	N/A	Form EXP – 4.2 (c)

Specific Experience in Key Activities (Section 4.1a)

Table 4.1a: Minimum specific experience in key activities per Lot

Key activity	Lot 1 – Kibish and Turkana South	Lot 2 – Turkana West and Turkana South	Lot 3 – Loima and Turkana East	Lot 4 – Loima and Turkana South
(a) Drilling, construction, development and test pumping of production water boreholes, in not more than two (2) contracts	≥ 3 boreholes and ≥ 550 m drilled	≥ 3 boreholes and ≥ 750 m drilled	≥ 3 boreholes and ≥ 500 m drilled	≥ 4 boreholes and ≥ 800 m drilled
(b) Deepest borehole completed in hard rock (crystalline basement or volcanic rock) by DTH or rotary methods	≥ 250 m	≥ 300 m	≥ 250 m	≥ 250 m
(c) Boreholes completed with mild-steel casing and screens, gravel pack and cement-bentonite sanitary seal	≥ 1 borehole	≥ 2 boreholes	≥ 2 boreholes	≥ 2 boreholes
(d) Contracts with ESHS requirements of the World Bank, another MDB or a bilateral development partner, implemented in arid and semi-arid areas	≥ 1 contract	≥ 1 contract	≥ 1 contract	≥ 1 contract

A Bidder bidding for more than one Lot shall meet the sum of the requirements in rows (a) and (c) for the Lots concerned, and the most stringent requirement in rows (b) and (d).

4. Key Personnel

The Bidder must demonstrate that it will have suitably qualified Key Personnel in adequate numbers for each Lot. The Bidder shall provide details of the Key Personnel, and of such other personnel as it considers appropriate, together with academic qualifications, professional registration and work experience, using the relevant Forms in Section IV, Bidding Forms. Curricula vitae shall be signed by the nominee and accompanied by copies of certificates and current registration/practicing certificates. Specific experience shall be demonstrated by named assignments with client contacts that the Employer may verify.

Personnel nominated for more than one Lot may be accepted only for positions marked "may be shared" below and only where the Bidder demonstrates that the combined workload is practicable. Positions tied to a drilling rig or test pumping unit are required per unit deployed and may not be shared. Each nominee shall sign a statement of availability for the duration of the assignment.

Key Personnel for Well Drilling

#	Position	Minimum number L1 / L2 / L3 / L4	Qualification and registration	General exp. (yrs)	Specific experience (yrs)
1	Project Manager (may be shared between not more than two Lots)	1 / 1 / 1 / 1	BSc in Civil/Water Engineering, Geology or Hydrogeology. Registered Professional Engineer (Engineers Board of Kenya) or Registered Geologist (Geologists Registration Board, GRB) with a valid practicing licence, or equivalent registration in the country of practice.	10	10 managing borehole drilling contracts, including at least three (3) contracts with boreholes ≥ 200 m deep, at least one financed by the World Bank or another multilateral development bank (MDB)
2	Lead Hydrogeologist (may be shared between not more than two Lots)	1 / 1 / 1 / 1	BSc in Geology; MSc in Hydrogeology or Groundwater Engineering preferred. Registered with GRB (practicing licence) and member of the Geological Society of Kenya, or equivalent.	10	8 in borehole supervision, lithological and geophysical log interpretation, borehole design and pumping-test analysis in volcanic, sedimentary basin-fill and crystalline basement terrains of arid and semi-arid lands (ASALs); Turkana or northern Kenya experience an advantage
3	Site Geologist / Hydrogeologist (one per drilling rig)	1 / 1 / 1 / 1	BSc in Geology or Hydrogeology; registered (or eligible for registration) with GRB.	6	4 in on-site logging of rotary/DTH boreholes, EC/water-strike monitoring, sampling and well completion
4	Drilling Supervisor / Tool pusher (one per drilling rig)	1/ 1 / 1 / 1	Diploma in Drilling Engineering, Mechanical Engineering or Geology, or certified master driller.	10	8 supervising DTH and mud-rotary water-well drilling to ≥ 250 m, including drilling through swelling clays, casing, gravel packing and grouting
5	Lead Driller (one per drilling rig)	1 / 1 / 1 / 1	Certificate or diploma in drilling technology; valid driver/operator licence for the rig class.	10	8 operating top-head-drive rigs with DTH, air/foam and mud systems, including fishing operations

#	Position	Minimum number L1 / L2 / L3 / L4	Qualification and registration	General exp. (yrs)	Specific experience (yrs)
6	Plant Mechanic / Fitter	1 / 1 / 1 / 1	Diploma in Mechanical Engineering or Plant Maintenance.	8	5 maintaining drilling rigs, high-pressure compressors and boosters
7	Environmental and Social (ESHS) / Occupational Health and Safety Expert (may be shared between not more than two Lots)	1 / 1 / 1 / 1	BSc in Environmental Science or related field; registered EIA/Audit Expert with NEMA.	8	5 in a similar role on works financed by the World Bank or another MDB under the ESF or equivalent safeguards
8	SEA/SH (GBV) / Community Liaison Expert (may be shared between not more than two Lots)	1 / 1 / 1 / 1	Bachelor's degree in Sociology, Gender Studies, Social Work, Clinical Psychology or related field.	8	5 in SEA/SH prevention and response on World Bank or MDB-financed works

5. Key Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter:

Key Equipment for Well

The equipment listed below is considered essential to demonstrate the Bidder's technical capacity.

Each equipment shall comply with the minimum functional requirements specified in Section VII – Works' Requirements (Technical Specifications for Borehole Drilling).

The Bidder must demonstrate that it will have access, by ownership, lease or hire, to the Key Equipment listed below for the duration of the Contract. The Bidder shall submit documentary evidence (ownership documents, lease agreements or firm commitment letters, together with manufacturers' technical data sheets and recent inspection/maintenance records) demonstrating that each item meets the minimum characteristics stated. Equipment shall not be more than 15 years old unless the Bidder provides evidence of a major overhaul within the last three years. Numbers are per Lot; a Bidder awarded more than one Lot shall provide the cumulative numbers unless the Employer agrees otherwise in writing on the basis of an approved work programme.

No.	Equipment type and minimum characteristics	L1	L2	L3	L4
1	Top-head-drive water-well drilling rig, truck- or crawler-mounted, capable of DTH, air/foam rotary and direct mud rotary drilling; rated depth capacity ≥ 450 m with 10½ in bit; hook load / pull-back ≥ 20 t; fitted with mast-mounted winch, breakout tools, and all drill pipe, collars, stabilisers, DTH hammers, tricone and button bits (including bits suitable for fresh gneiss of > 2,000 Ωm resistivity) and fishing tools for the specified depths	2	2	2	2

No.	Equipment type and minimum characteristics	L1	L2	L3	L4
2	High-pressure air compressor, ≥ 24 bar and ≥ 28 m³/min (≈ 1,000 cfm), with booster to ≥ 30 bar, fitted with silencers and spill containment (one per rig)	2	2	2	2
3	Mud system: duplex/triplex mud pump ≥ 1,000 L/min, mixing hopper, steel or lined mud tanks, desander/shale shaker, and API RP 13B-1 field test kit (mud balance, Marsh funnel, sand-content kit, filter press, pH meter) (one per rig)	2	2	2	2
4	Water bowser ≥ 10,000 L (one per rig)	2	2	2	2
5	Support truck with crane/hiab ≥ 5 t for casing handling (one per rig)	2	2	2	2
6	Diesel generator-welder and oxy-acetylene cutting set (silenced) (one per rig)	2	2	2	2
7	Downhole geophysical logging system (natural gamma, SP, short- and long-normal resistivity, fluid temperature and conductivity, and caliper), depth capacity ≥ 450 m, with calibration certificates not older than 12 months	1	1	1	1
8	Downhole CCTV camera (axial and radial view), depth capacity ≥ 450 m, with depth counter, on-screen depth overlay and digital recording	1	1	1	1
9	Test pumping unit: 4-inch submersible pumps covering 0.5–20 m³/h at total dynamic heads up to 300 m, variable-speed drive, generator of adequate rating, ≥ 300 m rising main with non-return valve, gate valve, safety cable and discharge pipeline ≥ 100 m	1	1	1	1
10	Flow measurement: calibrated electromagnetic or turbine flow meter (± 2 %) and calibrated volumetric tank (≥ 200 L) for each test pumping unit	1	1	1	1
11	Water-level measurement: electric-contact dippers (≥ 450 m, 1 cm graduation) and vented pressure transducers with data loggers (accuracy ≤ 0.1 % full scale), two of each per test pumping unit	1 set	1 set	1 set	1 set
12	Field water-quality meters (EC/TDS, pH, temperature, turbidity) and fluoride test kit (ion-selective electrode or photometer), calibrated, one per rig and one per test pumping unit	3	3	3	3
13	Deviation (inclinometer/gyro) survey tool and 12 m alignment dummy	1	1	1	1
14	Sand-content tester (Rossum type) and Imhoff cones	1	1	1	1
15	Portable multi-gas detector (LEL, H_2S, CO, O_2), calibrated (one per rig)	2	2	2	2
16	GNSS receiver, horizontal accuracy ≤ 3 m, for setting out and as-built coordinates	1	1	1	1
17	4×4 support vehicles with satellite or HF/VHF radio communication, GPS tracking, first-aid kits, fire extinguishers and spill kits	3	3	3	3

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.

All equipment shall be in good working condition and maintained according to manufacturer’s manuals and instructions. Additionally, all equipment shall be fitted with the requisite features to prevent or minimize environmental pollution, including, but not limited to hydrocarbon containment systems, and measures to control air and noise emissions.

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Letter of Bid

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: [*insert date (as day, month and year) of Bid submission*]
RFB No.: [*insert number of RFB process*]
Alternative No.: [*insert identification No. if this is a Bid for an alternative*]

To: **[*insert complete name of Employer*]**

(a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;

(b) **Eligibility**: We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;

(c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's Country in accordance with ITB 4.7;

(d) **Exploitation and Abuse (SEA) and/or Sexual Harassment (SH):** [*select the appropriate option from (i) to (v) below and delete the others*].

We *[where JV, insert:* "including any of our JV members"*]*, and any of our subcontractors:

i. [have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]

ii. [are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]

iii. [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor.]

iv. [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have subsequently provided and demonstrated that we have adequate capacity and commitment to comply with SEA and SH prevention and response obligations.]

v. [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have attached documents demonstrating that we have adequate capacity and commitment to comply with SEA and SH prevention and response obligations.]

(e) **Conformity:** We offer to execute in conformity with the bidding document the following Works: **[***insert a brief description of the Works]* _____

(f) **Bid Price**: The total price of our Bid, excluding any discounts offered in item (f) below is: *[Insert one of the options below as appropriate]*

[Option 1, in case of one lot:] Total price is: [*insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies*];

Or

[Option 2, in case of multiple lots:] (a) Total price of each lot [*insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies*]; and (b) Total price of all lots (sum of all lots) [*insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies*];

(g) **Discounts:** The discounts offered and the methodology for their application are:

(i) The discounts offered are: [*Specify in detail each discount offered.*]

(ii) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify in detail the method that shall be used to apply the discounts*];

(h) **Bid Validity:** Our Bid shall be valid until *[insert day, month and year in accordance with ITB 18.1]*, and it shall remain binding upon us and may be accepted at any time on or before this date;

(i) **Performance Security:** If our Bid is accepted, we commit to obtain a performance security, in accordance with the bidding document;

(j) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;

(k) **Suspension and Debarment**: We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;

(l) **State-owned enterprise or institution:** [*select the appropriate option and delete the other*] [*We are not a state-owned enterprise or institution*] / [*We are a state-owned enterprise or institution but meet the requirements of ITB 4.6*];

(m) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: [*insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity*]

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

(n) **Binding Contract**: We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(o) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive;

(p) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and

(q) **Adjudicator:** We accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator.

[or]

We do not accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator, and propose instead that *[insert name]* be appointed as Adjudicator, whose daily fees and biographical data are attached.

Name of the Bidder: *[*insert complete name of the Bidder*]

Name of the person duly authorized to sign the Bid on behalf of the Bidder:**[*insert complete name of person duly authorized to sign the Bid*]

Title of the person signing the Bid: [*insert complete title of the person signing the Bid*]

Signature of the person named above: [*insert signature of person whose name and capacity are shown above*]

Date signed [*insert date of signing*] **day of** [*insert month*], [*insert year*]

*****: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

**: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

Schedules

Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

(a) to provide sufficient information on the quantities of Works to be performed to enable bids to be prepared efficiently and accurately; and

(b) when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and contents of the Bill of Quantities should be as simple and brief as possible.

Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Employer of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

(a) A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor shall be paid for work executed on a daywork basis.

(b) Nominal quantities for each item of daywork, to be priced by each Bidder at daywork rates as Bid. The rate to be entered by the Bidder against each basic daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary priced Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the Special Conditions of Contract should state the manner in which they shall be used, and under whose authority (usually the Project Manager's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Employer to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

These Notes for Preparing a Bill of Quantities are intended only as information for the Employer or the person drafting the bidding document. They should not be included in the final bidding document.

BoQs are annexed under a separate volume.

ESMP Summary

ESS 1: Assessment and Management						
Environmental and social risks and impacts must be fully evaluated and accounted for	Preparation of this ESIA Report; Stakeholder engagement to understand and capture the potential social and environment risks and impacts, including community concerns Site visits to both the village and project area Engineering design takes into account potential E&S impacts, to avoid when possible and mitigate when avoidance is not possible	ESIA Report cleared by WB Documentation of E&S tools (E&S checklist, etc) Records of stakeholder engagement Photographs of site visits CIR and other engineering reports	As necessary	PIU	PIU	
ESS 2: Labor and Working Conditions						
OHS Risks	All workers operating or working near heavy machinery (e.g., drilling rigs, trucks, cranes) must undergo certified health and safety training before starting work. Only certified and experienced operators should be permitted to use machinery and power tools. Secure tools, pipes, and materials at elevation. Use tool lanyards or restraints when working at height. Enforce the use of hard hats, steel-toed boots, and gloves on all construction sites. Provide and enforce the use of gloves, goggles, overalls, and respirators when handling hazardous substances. Store all lubricants, fuel, and chemicals in designated, ventilated, bunded areas with secondary containment.	Safety risk assessment and management plan and implementation record Training of workers on OHS including safe handling of equipment, traffic safety, security measures and use of PPEs Toolbox meetings reinforce key safety protocols All incidents recorded PPE issuance register Monitoring reports Pictures of posters displayed	Daily by the contractor site supervisor/ Weekly visits from PIU	Contractor/PIU	Contractor/PIU	

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
	Implement shift rotation and mandatory rest breaks, especially during the hottest hours (11:00 a.m. to 3:00 p.m.) Ensure constant access to clean drinking water and encourage hydration breaks.					
Traffic accidents cause injury or death of workers	All drivers undergo safe driving checks. Traffic safety protocols are closely adhered to.	Checks on drivers' documentation (qualifications and driving licenses) Traffic safety awareness raising and monitoring are documented.	Monthly	Contractor/PIU	Contractor/PIU	No additional cost
Risks of child and forced labour	Strict age verification process and documentation for all workers Ensure that all contractshave contractual provisions to comply with the minimum age requirements including penalties for non-compliance Include minimum age (18 years) in procurement documents. Raise awareness on child protection with contractors and in the communities. Posters prohibiting child labor at all sites	Labor register showing age and sex of persons engaged Worker's GRM in place Provisions in the contracts Records of awareness sessions Pictures of posters displayed	Monthly	PIU	PIU	No additional cost

Labor and Working Conditions	Require all contractors and subcontractors to sign and comply with a Labor Management Procedure (LMP) aligned with national laws and World Bank ESS2. Ensure that all workers—skilled and unskilled—receive at least the national minimum wage, with equal pay for equal work and no wage discrimination based on gender, clan, or status. Provide workers with written contracts in English, clearly stating wages, work	Records of workers and recruitment processes and criteria. All employment related grievances and resolution times are logged.	Monthly	Contractor/PIU	PIU	No additional cost

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
	hours, job duties, duration of employment, and grievance procedures. Enforce limits on working hours, rest breaks, and provide access to paid sick leave and weekly rest, in line with Kenyan land labor regulations. Establish and enforce procedures to verify the minimum age of all workers (typically 18 years) before employment. Require identity documents at hiring. Include explicit anti-child labor clauses in all contracts, and conduct spot checks on subcontractor laborers. Make first-aid kits available on-site and train workers in basic health and safety. Link to a nearby health clinic for emergencies. All employees should sign a code of conduct addressing behavior expectations, health and safety, GBV/SEA/SH prevention, and respect for community norms. There is a confidential, accessible grievance mechanism for workers to raise concerns about wages, conditions, discrimination, or misconduct. Ensure that grievances are investigated promptly and resolved within a set timeframe. Communicate the grievance procedure during worker onboarding and display it at the worksite in Turkana.					

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Workers are not observing safety requirements	Sensitize workers on importance of adherence to site safety protocols All workers sign a code of conduct including responsibilities and rights regarding GBV, Grievances, observing OHS and security protocols etc.	Proper records of all signed forms Training records	Daily by the contractor site supervisor/ Weekly visits from PIU	Contractor/PIU	Contractor/PIU	No additional cost
ESS 3: Resource Efficiency and Pollution Prevention Management						
Potential soil contamination	Store fuel, oil, and lubricants in clearly marked, bunded areas with impermeable flooring. Refuel and maintain machinery only in designated containment zones. Equip construction sites with spill kits (absorbent materials, gloves, disposal bags). Train all workers in spill prevention, containment, and clean-up procedures. Collect used oils, lubricants, and filters in sealed containers and dispose of them through approved handlers or in lined pits approved by NEMA. Prohibit dumping of any liquids or waste on bare soil.	Proper records of oil & lubricant change and disposal	Monthly	Contractor	Contractor/PIU	

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Impacts of waste generation (drilling mud and cuttings, packaging waste, oil and fuel waste)	Construct lined waste pits or other disposal area at the drilling site to collect and contain drilling mud and cuttings. Ensure these are at least 50 meters from the borehole and outside any recharge zone. Prohibit the dumping of drilling fluids directly onto the ground. After drilling, backfill and seal waste pits to prevent seepage or accidental reuse. Coordinate with NEMA or local authorities for any required permits or inspections of waste handling procedures. Deliver training to workers on proper sorting and disposal procedures. Ensure regular waste collection and transport to approved local waste disposal or recycling facilities. Reuse wooden pallets and crates where possible; otherwise, dispose of them through approved channels or offer them for local repurposing. Prevent wind-blown litter by using covered bins or containers at all work areas. Designate a fuel handling and equipment maintenance zone, at least 100 meters from the borehole, with a concrete or impermeable surface and bunding (containment walls). Store oil, lubricants, and fuel in labeled, leak-proof containers, in shaded and ventilated locations with secondary containment (bunds or trays).	Waste management plan Records of amount of solid waste re-used, recycled, and disposed of	Monthly	Contractor	Contractor/PIU	

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
	Use drip trays under generators and fuel-dispensing areas to catch accidental leaks. Collect used oil and lubricants in sealed, labeled drums and store them in a covered hazardous waste area until collected by approved waste handlers. Train all staff in spill response procedures, and keep spill response kits (absorbent pads, gloves, disposal bags) at fuel handling locations					

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Impacts on water quality (contamination from chemicals, improper well casing, wastewater and livestock contamination)	Use non-toxic or biodegradable drilling fluids whenever possible. Store all chemicals, fuels, and lubricants in bunded, covered areas with impermeable surfaces, away from the borehole site. Avoid surface discharge of drilling fluids—dispose of them in lined waste pits or other method approved by NEMA. Use high-quality, corrosion-resistant casing materials that meet national and international borehole standards. There will be pressure and integrity testing of casing and sealing before final commissioning. Avoid over-pumping, which can draw saline water into freshwater zones—follow extraction limits based on aquifer tests. Construct drainage channels around the water kiosk and livestock troughs to divert runoff to lined soak pits or gravel infiltration beds. The livestock and human water access points have been designed to be 80 meters apart, with fencing to avoid co-use and crowding. Rotate livestock access to prevent overuse of any single trough area; consider vegetation buffer zones.	Waste management plan Records of amount of solid waste re-used, recycled, and disposed of	Monthly	Contractor	Contractor/PIU	

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Impact on air quality (dust and noise)	Spray water on unpaved access roads, drill pads, and cleared areas at least twice per day during dry, windy periods. Store drilling cuttings, sand, gravel, and other materials under tarpaulins or shade netting to prevent wind dispersion. Limit vehicle speeds on-site and along access roads to a maximum of 20 km/h to reduce dust emissions. Provide masks or respirators to all workers exposed to dust and conduct regular training on respiratory protection. Restrict high-noise activities (e.g., drilling, hammering, generator operation) to daylight hours (e.g., 7:00 a.m.–6:00 p.m.) to avoid nighttime disturbance. Provide ear protection (earplugs or earmuffs) to workers near high-decibel equipment and rotate tasks to limit prolonged exposure.	Number of sound machinery and equipment Frequency of watering of surfaces to reduce dust Frequency & maintenance plan	Monthly	Contractor	Contractor/PIU	No additional cost

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Health and safety risks from an influx of workers	Prioritize local hiring to reduce the influx of outside workers and minimize the potential for social disruption. There will be a code of conduct for all workers, covering behavioral expectations, including respect for local cultures, gender equality, and avoiding alcohol or substance abuse. A GM has been established for the community to report any security or behavioral concerns related to workers.	GM complaints related to workers Number of security or other incidents reported	Monthly	Contractor	PIU	No additional cost

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Exposure of community members to physical/biological hazards on the project site (vehicular accidents, stagnant water pools, etc)	Implement speed limits (e.g., 20 km/h) on unpaved access roads to reduce the risk of accidents. Design and implement proper drainage systems at the water collection points, especially at kiosks and livestock troughs, to prevent the formation of stagnant water pools that could act as breeding grounds for mosquitoes.	Records to show community sensitization on safety	Monthly	Contractor	PIU	No additional cost
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement						

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Conflict over land	Before signing land agreements, consult all owners (private land) or users and residents (community land) and ensure that agreements and certificates are in place. Ensure that any complaints about land use restrictions or unfair treatment are addressed through the project's grievance mechanism, with attention to marginalized and vulnerable groups. Include land-related grievances as a specific category in grievance tracking.	Land agreements and certificates. Records of consultations with land owners and users	As necessary	PIU	PIU	No additional cost
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources						

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
Erosion from construction activities	Limit vegetation clearing strictly to the footprint of the borehole, pipelines, and necessary access roads. Clearly demarcate construction boundaries to avoid unnecessary site disturbance. Design and enforce controlled livestock routes and resting areas near troughs to reduce trampling. Use gravel or concrete bases at watering points to minimize soil damage and erosion. Install shallow diversion channels or berms around cleared areas to redirect stormwater.	Record of appropriate measures taken	Monthly	Contractor	Contractor/PIU	No additional cost
Habitat Disturbance (loss of vegetation and disturbance to wildlife)	Restrict clearing to the exact footprint needed for infrastructure. Avoid clearing buffer zones or grazing areas unnecessarily. Install fencing or barriers to guide livestock to designated watering points, preventing free roaming and trampling in sensitive zones. Work with the community to implement seasonal rotation of livestock access around the borehole, allowing vegetation recovery. Schedule noisy construction activities (e.g., drilling) during daylight hours only. Avoid nighttime lighting around the borehole. If lighting is necessary for security, use low-intensity, downward-facing, motion-activated lights. Educate residents and the Water User Committee on the importance of wildlife conservation and how to avoid	Record of appropriate measures taken	Monthly	Contractor	Contractor/PIU	No additional cost

E&S Risks and Impacts	Mitigation Measures	Monitoring Indicators	Monitoring Frequency	Responsibility		Cost
				Mitigation	Monitoring	
	behaviors that provoke wildlife (e.g., leaving waste or chasing animals).					
ESS8: Cultural Heritage						
Risk of damage to as-yet undiscovered items/areas of cultural significance	Have a "Chance Find" procedure in place Train workers to be aware of the potential of a chance find and what to do	Chance Find Procedure in place	As necessary	Contractor	Contractor	No additional cost
ESS10: Stakeholder Engagement and Information Disclosure						
Inadequate, ineffective, and inappropriate stakeholder and community engagements and disclosure of information	Keep community leaders informed of progress/delays or activities that may impact community. Conduct regular community consultations as necessary Consultation to be held in culturally appropriate means and language	Stakeholder engagement documentation Records of meetings	Monthly	PIU	PIU	No additional cost
Poor access or low trust in GM	Poster of GM and contacts always displayed outside project sites. All complaints are logged and resolved within 7 days Undertake consultations on the effectiveness of the GM	Posters and displays in place Records of consultation meetings	Monthly	PIU	PIU	No additional cost

2. Schedule of Payment Currencies

For _____ *[insert name of Section of the Works]*

Separate tables may be required if the various sections of the Works (or of the Bill of Quantities) will have substantially different foreign and local currency requirements. The Employer should insert the names of each section of the Works.

	A	B	C	D
ame of Payment Currency	**Amount of Currency**	**Rate of Exchange to Local Currency**	**Local Currency Equivalent C = A x B**	**Percentage of Total Bid Price (TBP) 100xC / TBP**
ocal currency _____		**1.00**		
oreign Currency #1 _____				
oreign Currency #2 _____				
oreign Currency #3 _____				
otal Bid Price				**100.00**
rovisional Sums Expressed in ocal Currency		**1.00**		
OTAL BID PRICE (Including rovisional sum)				

Forms of Bid Security

Form of Bid Security - Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary:

[Insert name and address of the Employer*]*

Request for Bids No: *_[Insert reference number for the Request for Bids]*

Date: [*Insert date of issue]*

BID GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *_[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]* (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Bid (hereinafter called "the Bid") for the execution of *[insert description of contract]* under Request for Bids No. [*insert number*] ("the RFB").

Furthermore, we understand that, according to the Beneficiary's conditions, Bids must be supported by a Bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in letters]* (*insert amount in numbers*) upon receipt by us of the Beneficiary's complying supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating either that the Applicant:

(a) has withdrawn its Bid prior to the Bid validity expiry date specified by the Applicant in the Letter of Bid, or any extended date provided by the Applicant; or

(b) having been notified of the acceptance of its Bid by the Beneficiary prior to the expiry date of the Bid validity or any extension thereto provided by the Applicant, (i) fails to execute the contract agreement or (ii) fails to furnish the performance security and, if required, the Environmental and Social (ES) Performance Security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security and, if required, the Environmental and Social (ES) Performance Security, issued to the Beneficiary in relation to such contract agreement; and (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Bidding process; or (ii) twenty-eight days after the expiry date of the Bid validity.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

_____

[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

Manufacturer's Authorization Form

[The Bidder shall require the Manufacturer to fill in this form in accordance with the instructions indicated. This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. The bidder shall include it in its bid if so, indicated in BDS]

Date: *[insert date (as day, month and year)]*
RFB No.: *[insert number of Bidding process]*
Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of the Purchaser]*

WHEREAS …… [*name of the manufacturer]* who are established and reputable manufacturers of ……. [*name and/or description of the goods*] having factories at …… [*address of factory],* do hereby authorize …… *[name and address of Bidder]* to submit a tender, and subsequently negotiate and sign the Contract with you against tender No. ……. *[reference of the Tender]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty for 12 months after the goods, or any such duration as may be provided for under the technical specifications, have been delivered to and accepted at the final destination with respect to the goods offered for supply by the above firm against this Invitation for Tenders.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Date: (day month year): _____

Technical Proposal Forms

The Bidder shall submit with its Bid, for each Lot bid, a technical proposal that includes at least:

- **Key Personnel Schedule**

- **Equipment**

- **Site Organization**

- **Method Statement**

A Method Statement describing the drilling method, fluid system and temporary casing proposed for each formation type expected in the Lot (thick swelling clays and sandy clays; weathered and fractured basalt, phonolite and rhyolite; weathered sandstone; weathered and fresh gneiss), the procedures for EC and water-strike monitoring, borehole design, gravel packing, sealing of clay and poor-quality horizons, development and test pumping;

- **Quality Management Plans**

The Quality Management Plan outline and the source, manufacturer's authorizations, standard, compliance and certification of the following but not limited to: casings, screens, gravel pack, bentonite and drilling additives proposed.

- **Mobilization Schedule**

A mobilization and logistics plan for the project base, including but not limited to fuel, water, materials storage and security arrangements for remote and border sites;

- **Construction Schedule**

A work programme (Gantt chart) showing the sequence of sites, the deployment of each rig and test pumping unit, procurement of casings and screens, logging and laboratory turnaround, reporting and the rainy seasons, consistent with the indicative Time for Completion in Section VII, 2.28.

- **ES Management Strategies and Implementation Plans**

ESHS Management Strategies and Implementation Plans (including the Code of Conduct, SEA/SH prevention and response, security risk assessment approach and Water Use Plan) required by the bidding document.

- **Code of Conduct (ES)**

- **Others**

FORM PER -1

1.Key Personnel

Schedule

Bidders should provide the names and details of the suitably qualified Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Key Personnel

1.	**Title of position:**	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time and location schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
2.	**Title of position:** *[Environmental, Social, Health and Safety (ESHS) Specialist]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*] NB: *The ESHS Specialist is required to be at the site full time for the duration of the drilling works*
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*] NB: *The ESHS Specialist is required to be at the site full time for the duration of the drilling works*
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*] NB: *The ESHS Specialist is required to be at the site full time for the duration of the drilling works*
5.	**Title of position: Sexual Exploitation, Abuse and Harassment Expert** *[Where a Project SEA risks are assessed to be substantial or high, Key Personnel shall include an expert with relevant experience in addressing sexual exploitation, sexual abuse and sexual harassment cases]*	
	Name of candidate	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]

	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
6.	**Title of position:** *[insert title]*	
	Name of candidate	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]

Form PER-2:

Resume and Declaration

Key Personnel

Name of Bidder

Position [*#1*]: [*title of position from Form PER-1*]		
Personnel information	**Name:**	**Date of birth:**
	Address:	**E-mail:**
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency:*[language and levels of speaking, reading and writing skills]*	
details		
	Address of employer:	
	Telephone:	**Contact (manager / personnel officer):**
	Fax:	
	Job title:	**Years with present employer:**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	**Role**	**Duration of involvement**	**Relevant experience**
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

Declaration

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	**Details**
Commitment to duration of contract:	*[insert period (start and end dates) for which this Key Personnel is available to work on this contract]*
Time commitment:	*[insert the number of days/week/months/ that this Key Personnel will be engaged]*

I understand that any misrepresentation or omission in this Form may:

(a) be taken into consideration during Bid evaluation;

(b) my disqualification from participating in the Bid;

(c) my dismissal from the contract.

Name of Key Personnel: [*insert name*]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Name of Bidder

Position [*#1*]: [*title of position from Form PER-1*]		
Personnel information	**Name:**	**Date of birth:**
	Address:	**E-mail:**
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency:*[language and levels of speaking, reading and writing skills]*	
details		
	Address of employer:	
	Telephone:	**Contact (manager / personnel officer):**
	Fax:	
	Job title:	**Years with present employer:**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	**Role**	**Duration of involvement**	**Relevant experience**
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

Declaration

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	**Details**
Commitment to duration of contract:	*[insert period (start and end dates) for which this Key Personnel is available to work on this contract]*
Time commitment:	*[insert the number of days/week/months/ that this Key Personnel will be engaged]*

I understand that any misrepresentation or omission in this Form may:

(d) be taken into consideration during Bid evaluation;

(e) my disqualification from participating in the Bid;

(f) my dismissal from the contract.

Name of Key Personnel: [*insert name*]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

5. Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*		
Equipment Information	**Name of manufacturer,**	**Model and power rating**
	Capacity*	**Year of manufacture***
Current Status	**Current location**	
	Details of current commitments	
Source	**Indicate source of the equipment** **☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured**	

The following information shall be provided only for equipment not owned by the Bidder.

Owner	**Name of owner**	
	Address of owner	
	Telephone	**Contact name and title**
	Fax	**Telex**
Agreements	**Details of rental / lease / manufacture agreements specific to the project**	

Site Organization

[insert Site Organization information]

Method Statement

[insert Method Statement]

Mobilization Schedule

[insert Mobilization Schedule]

Construction Schedule

[insert Construction Schedule]

ES Management Strategies and Implementation Plans

(ES-MSIP)

The Bidder shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 11.1 (i) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Works Requirements in Section VII

Code of Conduct for Contractor's Personnel (ES) Form

***Note to the Employer**:*

***The following minimum requirements shall not be modified**. The Employer may add additional requirements to address identified issues, informed by relevant environmental and social assessment.*

The types of issues identified could include risks associated with: labor influx, spread of communicable diseases, and Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH) etc.

Delete this Box prior to issuance of the bidding documents.

Note to the Bidder:

The minimum content of the Code of Conduct form as set out by the Employer shall not be substantially modified. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

We are the Contractor, [*enter name of Contractor*]. We have signed a contract with [*enter name of Employer*] for [*enter description of the Works*]. These Works will be carried out at [*enter the Site and other locations where the Works will be carried out*]. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as "**Contractor's Personnel"** and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
    a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
    b. wearing required personal protective equipment;
    c. using appropriate measures relating to chemical, physical and biological substances and agents; and
    d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling gender-based violence, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [ ] or by telephone at [ ] or in person at [ ]; or
2. Call [ ] to reach the Contractor's hotline *(if any)* and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.
There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors:

(1) **Examples of sexual exploitation and abuse** include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) **Examples of sexual harassment in a work context**

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Others

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

Form ELI -1.1: Bidder Information Form

Date: _____
RFB No. and title: _____
Page _____of _____pages

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's actual or intended country of registration: *[indicate country of Constitution]*
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of regist the legal entity named above, in accordance with ITB 4.4. ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. ☐ In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Employer 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. *[If required und ITB 47.1, the successful Bidder shall provide additional information on beneficial ownership, using the Benefic Ownership Disclosure Form.]*

Form ELI -1.2: Information Form for JV Bidders

(to be completed for each member of Joint Venture)

Date: _____
RFB No. and title: _____
Page _____ of _____ pages

Bidder's Joint Venture name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal e above, in accordance with ITB 4.4. ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordan commercial law, and is not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. *[If required under BDS ITB 47.1 successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Own Disclosure Form.]*

Form CON – 2:
Historical Contract Non-Performance, Pending Litigation and Litigation History

Bidder's Name: _____
Date: _____
Joint Venture Member's Name_____
RFB No. and title: _____
Page _____of _____pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
☐ Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Q Criteria, Sub-Factor 2.1.			
☐ Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification C requirement 2.1			
Year	**Non-performed portion of contract**	**Contract Identification**	**Total Co (current v exchang eq**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amo*
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicate			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	

Litigation History in accordance with Section III, Evaluation and Qualification Criteria

☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.

☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.

Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)

[insert year]	*[insert percentage]*	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Employer" or "Contractor"]* Reason(s) for Litigation and award decision *[indicate main reason(s)]*	*[insert amount]*

Form CON – 3
Environmental and Social Performance Declaration

[The following table shall be filled in for the Bidder, each member of a Joint Venture and each Specialized Subcontractor]

Bidder's Name: *[insert full name]*
Date: *[insert day, month, year]*
Joint Venture Member's or Specialized Subcontractor's Name: *[insert full name]*
RFB No. and title: *[insert RFB number and title]*
Page *[insert page number]* of *[insert total number]* pages

Environmental and Social Performance Declaration
in accordance with Section III, Qualification Criteria, and Requirements

☐ **No suspension or termination of contract**: An employer has not suspended or terminated a contract and/or called security for a contract for reasons related to Environmental, or Social (ES) performance since the date specified in Secti and Qualification Criteria, Sub-Factor 2.5.

☐ **Declaration of suspension or termination of contract**: The following contract(s) has/have been suspended or t Performance Security called by an employer(s) for reasons related to Environmental, or Social (ES)performance since in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.5. Details are described below:

Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (current
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s) e.g. for gender-based violence; sexual exploitation or sexual abuse breaches]*	*[insert amount]*
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s)]*	*[insert amount]*

…	…	*[list all applicable contracts]*	…
Performance Security called by an employer(s) for reasons related to ES performance			
Year	Contract Identification		Total Contract Amount (current va
[insert year]	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for calling of performance security: *[indicate main reason(s) e.g. for gender-based violence; sexual exploitation, or sexual abuse breaches]*		*[insert amount]*

Form CON – 4
Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration

[The following table shall be filled in by the Bidder, each member of a Joint Venture and each subcontractor proposed by the Bidder]

Bidder's Name: *[insert full name]*
Date: *[insert day, month, year]*
Joint Venture Member's or Subcontractor's Name: *[insert full name]*
RFB No. and title: *[insert RFB number and title]*
Page *[insert page number]* of *[insert total number]* pages

SEA and/or SH Declaration

in accordance with Section III, Evaluation and Qualification Criteria

We:

☐ (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations

☐ (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations

☐ (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the d case has been made in our favor.

☐ (d) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. subsequently demonstrated that we have adequate capacity and commitment to comply with SEA/ SH obligations.

☐ (e) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. attached evidence demonstrating that we have adequate capacity and commitment to comply with SEA/ SH obligations.

**[*If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualifi*

[If (d) or (e) above are applicable, provide the following information:]

Period of disqualification: From: _____ To: _____

If previously provided on another Bank financed works contract, details of evidence that demonstrated adequate capacity and co comply with SEA/ SH obligations (**as per (d) above)**

Name of Employer: _____

Name of Project: _____

Contract description: _____

Brief summary of evidence provided: _____

_____

Contact Information: (Tel, email, name of contact person): _____

_____
As an alternative to the evidence under (d), other evidence demonstrating adequate capacity and commitment to comply wi obligations (**as per (e) above)** *[attach details as appropriate]*.

Form CCC: Current Contract Commitments / Works in Progress

Bidders and each member of a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Employer, contact address/tel/fax	Value of outstanding work (current US$)	Estimated completion date	Average monthly invoicing over last six mon (US$/month)
1.				
2.				
3.				
4.				
5.				
etc.				

Form FIN – 3.1: Financial Situation and Performance

Bidder's Name: _____
Date: _____
Joint Venture Member's Name_____
RFB No. and title: _____
Page _____of _____pages

1. Financial data

Type of Financial information in (currency)	**Historic information for previous _____*years*, _____ (amount in currency, currency, exchange rate, US$ equivalent)**				
	Year 1	Year 2	Year 3	Year4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

2. Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount US$
1		
2		
3		

3. Financial documents

The Bidder and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.2. The financial statements shall:

(a) reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements[1] for the _____years required above; and complying with the requirements

[1] If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

Form FIN - 3.2: Average Annual Construction Turnover

Bidder's Name: _____
Date: _____
Joint Venture Member's Name__ _____
RFB No. and title: _____
Page _____of _____pages

	Annual turnover data (construction only)		
Year	**Amount** **Currency**	**Exchange rate**	**US$ equivalent**
[indicate year]	*[insert amount and indicate currency]*		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

Form FIN - 3.3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria.

Source of financing	Amount US$
1.	
2.	
3.	
4.	

Form EXP - 4.1: General Construction Experience

Bidder's Name: _____
Date: _____
Joint Venture Member's Name_____
RFB No. and title: _____
Page _____of _____pages

Starting Year	Ending Year	Contract Identification	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	

Form EXP - 4.2(a): Specific Construction and Contract Management Experience

Bidder's Name: _____
Date: _____
Joint Venture Member's Name_____
RFB No. and title: _____
Page _____of _____pages

Similar Contract No.	**Information**			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			US$	
If member in a JV or subcontractor, specify participation in total Contract amount			*	
Employer's Name:				
Address: Telephone/fax number E-mail:				

Form EXP - 4.2(a) (cont.)
Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

Form EXP - 4.2(b): Construction Experience in Key Activities

Bidder's Name: _____
Date: _____
Joint Venture Member's Name_____
Subcontractor's Name[2] (as per ITB 34.2 and 34.3): _____

RFB No. and title: _____
Page _____of _____pages

Subcontractor's Name (as per ITB 34.2 and 34.3): _____
All subcontractors for key activities must complete the information in this form as per ITB 34.2 and 34.3 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			US$	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				

[2] If applicable.

Employer's Name:	
Address: Telephone/fax number E-mail:	

	Information
Employer's Name:	
Address: Telephone/fax number E-mail:	

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

2. Activity No. Two

3. ……

Form EXP - 4.2(c): Specific Experience in Managing ES aspects

[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]

Bidder's Name: _____
Date: _____
Bidder's JV Member Name: _____
RFB No. and title: _____
Page _____of _____pages

1. Key Requirement no 1 in accordance with 4.2 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Su
Total Contract Amount			US$	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): _____

3. Key Requirement no 3 in accordance with 4.2 (c): _____

4. ...

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

In reference to ITB 4.8, and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) and 5.1: None

Under ITB 4.8 (b) and 5.1: None

Section VI - Fraud and Corruption

(Section VI shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

(a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

(b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;1 (ii) to be a nominated2 sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;

e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect3 all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

---

[1] For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

[2] A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

[3] Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

PART 2 – Works' Requirements

Section VII – Works' Requirements

Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County

Lot I:Kibish and Liwan schemes in Kibish Sub-County; Katilu and Korinyang in Turkana South Sub-County.

Lot II: Nge'u, Lokichoggio, and Lopuski schemes in Turkana West Sub-County; Kainuk scheme in Turkana South Sub-County.

Lot III: Kalokutanyang schemes and Lolupe schemes in Loima Sub-County,; and Morulem scheme in Turkana East Sub-County.

Lot IV: Lochor-Ekuyen schemes and Nachechea-Lorengippi schemes in Loima Sub-County, and Kakong'u schemes and Lokapel scheme in Turkana South Sub-County.

Horn of Africa – Groundwater for Resilience Project (HoA-GW4RP, P174867)

1. Introduction and Scope of Works

1.1 Project background

The Government of Kenya, through the Ministry of Water, Sanitation and Irrigation, is implementing the **Horn of Africa – Groundwater for Resilience Project (HoA-GW4RP, P174867)** with financing from the International Development Association (IDA). The project supports drought resilience in the arid and semi-arid counties of northern Kenya by expanding sustainable access to groundwater for domestic, institutional and livestock use. In Turkana County the Water Sector Trust Fund (WSTF) implements sub-projects in batches. Batch 1 rehabilitated and restored existing boreholes; **Batch 2** comprises the drilling and equipping of new strategic boreholes in underserved and water-scarce communities. These Works cover the drilling, construction, development, testing and water-quality analysis of the Batch 2 production boreholes. Pump equipping, solar power systems, storage, water kiosks, livestock watering facilities and distribution works will be procured separately.

The boreholes have been sited on the basis of a hydrogeological and geophysical investigation combining a desk review of geological and hydrogeological maps, borehole records and previous reports; remote sensing and GIS analysis of lineaments, drainage and recharge zones; PQWT multi-channel (audio-magnetotelluric, ADMT) reconnaissance profiling to about 500 m depth; and Vertical Electrical Sounding (VES, Schlumberger array). Fieldwork was carried out between 24 May and 12 June 2026 (*Hydrogeological/Geophysical Survey Report for Turkana County Batch 2 Sites*, CAS Consultants Ltd, July 2026). Of the sites investigated, Kagete and Kasuroi (Greater South) were found unfavourable and are not included in the Works. The relevant findings for each borehole are summarised in Appendices A to D.

1.2 Lots

The Works are divided into four (4) Lots, grouped by Sub-County as shown in Table 1.1. The technical specifications, standards and general requirements in this Section VII are common to all Lots unless otherwise specified. Lot-specific information (site locations, drill depths, completion type, anticipated geology and target aquifers) is given in Section 3 (Bill of Quantities – site schedules) and Appendices A to D.

Table 1.1: Summary of Lots

Lot	Coverage (Sub-Counties)	No. of boreholes	Total drilling (m)	Depth range (m)	Completion type	Project base
Lot 1 (I)	Kibish, and Turkana South	6	1,100	100 – 250	2 mild steel / 4 uPVC	Designated by the Contractor (Section 2.28)
Lot 2 (II)	Turkana West and Turkana South	6	1,470	200 – 320	4 mild steel / 2 uPVC	Designated by the Contractor (Section 2.28)
Lot 3 (III)	Loima and Turkana East	6	980	70 – 250	3 mild steel / 3 uPVC	Designated by the Contractor (Section 2.28)
Lot 4 (IV)	Loima and Turkana South	7	1,600	200 – 250	4 mild steel / 3 uPVC	Designated by the Contractor (Section 2.28)
Total	**Five Sub-Counties**	**25**	**5,150**	**70 – 320**	**13 mild steel / 12 uPVC**	

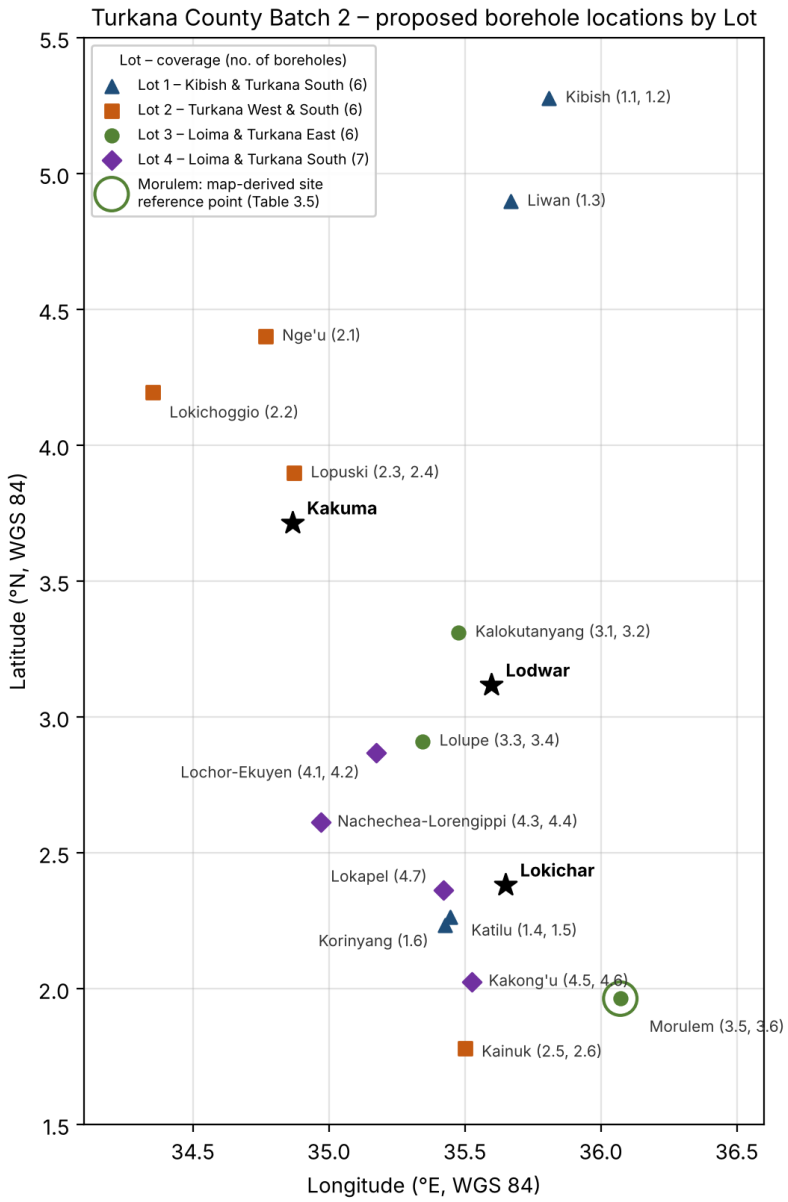


Figure 1.1: Locations of the Batch 2 boreholes by Lot (harmonised coordinates, UTM Zone 36N / WGS 84; Morulem at its map-derived site reference point – see Table 3.5)

1.3 Scope of works

The scope of works applies to all Lots unless otherwise specified. For each borehole the Contractor shall carry out, to the satisfaction of the Engineer, the following operations:

- obtain or support the Employer in obtaining all permits, verify site coordinates, and conduct community entry and stakeholder engagement before setting up;
- mobilise drilling, testing and support plant, equipment, materials and personnel, prepare the drill pad, lined mud/settling pits and access;

- drill the borehole to the design depth by an approved method, with continuous lithological and drilling-parameter logging, formation sampling at 2 m intervals, and recording of water strikes, air-lift yields, field EC and other water-quality parameters, including field fluoride tests;
- carry out downhole geophysical logging and, where conditions permit, an open-hole CCTV survey, and submit the proposed borehole design for the Engineer's approval;
- supply and install casings, screens, centralisers, sump and bottom plug in accordance with the approved design;
- place gravel pack, bentonite seals, inert backfill and the cement-bentonite sanitary seal, isolating clay, saline and other poor-quality horizons;
- develop the borehole to the specified acceptance criteria;
- carry out step-drawdown, constant-rate and recovery pumping tests, monitor any neighbouring borehole of the same site group, and analyse the results;
- collect, preserve and transport water samples and have them analysed at an accredited laboratory;
- disinfect the borehole, carry out verticality and alignment tests and the final CCTV survey, prepare the camera review report, and install the temporary lockable wellhead cap and identification plate;
- restore the site, dispose of all wastes lawfully, and demobilise; and
- submit daily records, WRA borehole completion records and a borehole completion report for each borehole, and a Lot completion report.

All ESHS obligations described in Section 4 and in the Conditions of Contract form part of the scope for every activity listed above.

1.4 Site conditions

1.4.1 Physiography and climate

Turkana County, in the far north-west of Kenya, is characterised by extensive arid and semi-arid plains, isolated volcanic hills and ranges, basement inselbergs and broad sedimentary basins associated with the Turkana Rift. The low-lying Lake Turkana basin lies at its core, flanked by volcanic complexes (Barrier, Nyiru and Loriu) to the east and south and by basement-cored highlands (Labur, Mogila) to the west and south-west. Elevations range from about 360 m at Lake Turkana to more than 1,600 m in the surrounding ranges. Rainfall is low, erratic and bimodal, and ambient temperatures on the plains frequently exceed 35–40 °C, with strong, persistent winds and dust. The Turkwel and Kerio rivers and numerous ephemeral channels (laggas) carry flash floods during rain events and are dry for most of the year. The Contractor shall plan the works to account for heat, dust, high winds and the risk of flash floods, and shall not locate camps, materials stores or mud pits within lagga or river beds or flood paths.

1.4.2 Access and logistics

The principal access is the A1 road (Kitale – Lokichar – Lodwar – Kakuma – Lokichoggio). Most sites are reached by unpaved roads and tracks that may become impassable after rain and require 4×4 vehicles. Distances between sites are large and several Lots combine widely separated Sub-Counties: Lot 1 links Kibish and Liwan in the remote Ilemi area near the South Sudan and Ethiopia borders (reached via Lokichoggio and Nadapal) with Katilu and Korinyang on the Turkwel plains of Turkana South; Lot 2 links Nge'u, Lokichoggio and Lopuski in Turkana West with Kainuk on the Turkana–West Pokot boundary; Lot 3 extends from Kalokutanyang and Lolupe in Loima to Morulem in Turkana East; and Lot 4 extends from Lochor-Ekuyen and Nachechea-Lorengippi in Loima to Kakong'u and Lokapel in Turkana South. Fuel, water, gravel pack, casings and spare parts are not reliably available

locally; the Contractor shall establish adequate stores at its project base and plan logistics accordingly. No claim will be entertained for difficulties of access that an experienced contractor could have foreseen.

1.4.3 Water for drilling

Water is scarce throughout the project area, is shared by people and livestock, and is saline in places. The Contractor shall source drilling and construction water only from licensed water service providers or other sources authorised by the Water Resources Authority (WRA) and agreed with the community, as set out in Section 4. Abstraction from community water points without documented consent is prohibited. The quality of make-up water shall be checked before use (Section 2.5).

1.4.4 Security

Parts of Turkana County experience periodic insecurity, livestock raiding and inter-communal conflict, in particular in the cross-border areas adjoining South Sudan, Ethiopia and Uganda (including Kibish and the Ilemi area, Nadapal and Lokichoggio), along the Turkana–Pokot boundary (including Kainuk and the Turkwel corridor) and in parts of Turkana East. The Contractor shall prepare and implement a Security Management Plan based on a security risk assessment (Section 4.15), maintain liaison with the County Security and Intelligence Committee, the County Commissioner and the National Police Service, and shall not move plant or personnel between sites at night.

1.5 Geology and hydrogeology

Turkana County lies within the Turkana Depression of the East African Rift System, at the junction of the Main Ethiopian Rift and the Kenya (Gregory) Rift. Its geology comprises (i) Neoproterozoic Mozambique Belt basement (gneisses, schists, migmatites and granitoids) exposed in inselbergs and basement highs, notably in the west and south-west and around Lokichar; (ii) Mesozoic to Cenozoic sedimentary fill of half-graben basins such as the Lokichar and Lotikipi basins; (iii) extensive Oligocene to Recent volcanic rocks – basalts, phonolites, trachytes, rhyolites, ignimbrites and pyroclastics; and (iv) Plio-Pleistocene to Recent fluvial, lacustrine, alluvial and colluvial deposits infilling the rift. Faults trend broadly NW–SE and N–S. Geological maps of the three regions, taken from the hydrogeological report, are reproduced in Figures 1.2 to 1.4.

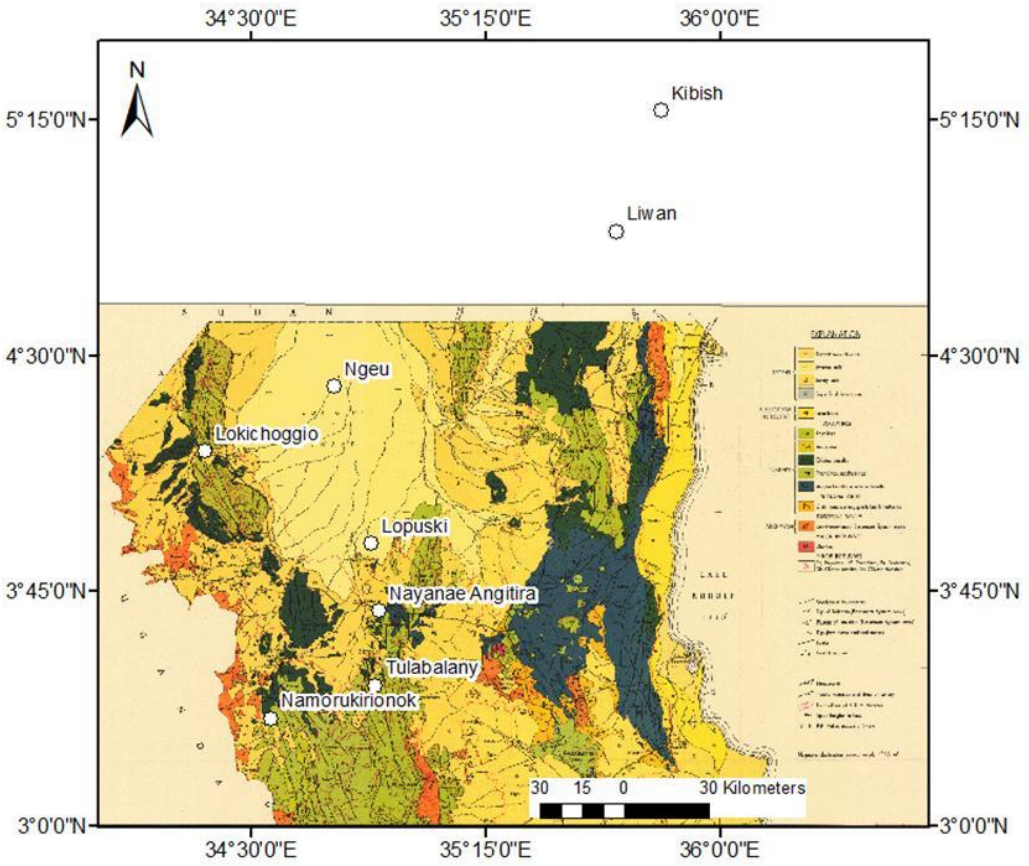


Figure 1.2: Geological map of the Greater North region – Kibish, Liwan, Nge'u, Lokichoggio and Lopuski (Lots 1 and 2) (source: Hydrogeological/Geophysical Survey Report, July 2026, Figure 1)

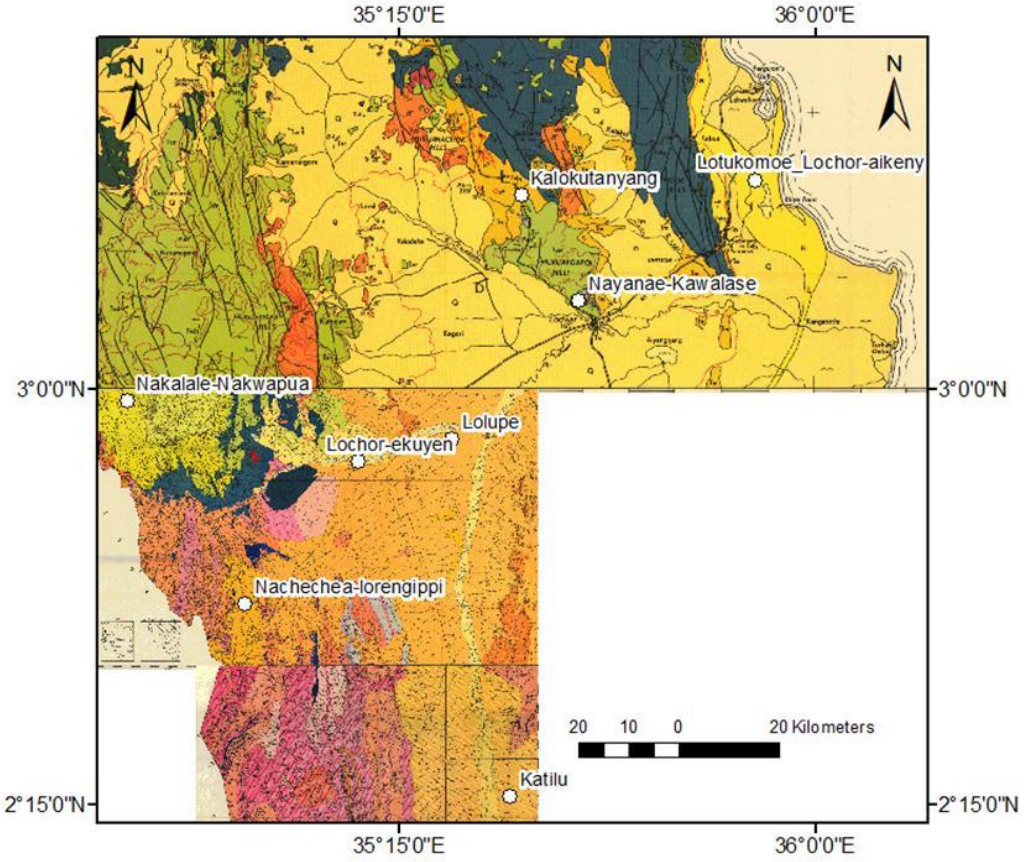


Figure 1.3: Geological map of the Greater Central region – Kalokutanyang, Lolupe, Lochor-Ekuyen and Nachechea-Lorengippi (Lots 3 and 4) (source: as above, Figure 2)

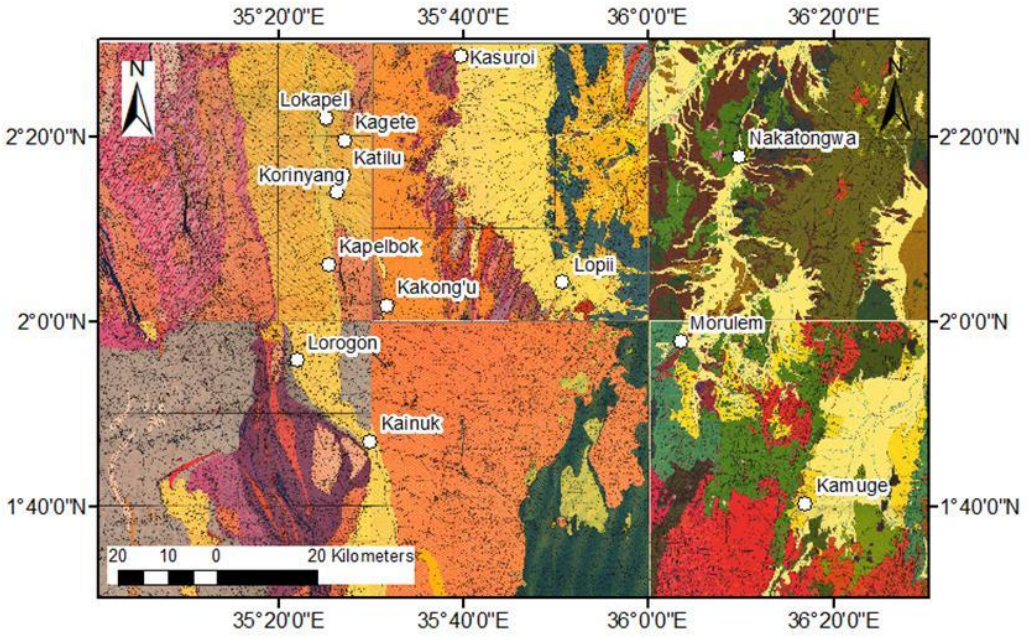


Figure 1.4: Geological map of the Greater South region – Katilu, Korinyang, Kainuk, Morulem, Kakong'u and Lokapel (Lots 1 to 4) (source: as above, Figure 3)

Groundwater occurrence is controlled mainly by weathering, fracturing and faulting of the basement and volcanic rocks and by the porosity of weathered sandstones and coarse alluvium. Aquifers are heterogeneous and compartmentalised; the depth to the productive horizon commonly varies by more than 100 m between soundings at the same site, and dry or low-yielding boreholes can occur in all rock types. A recurring feature across all four Lots is a thick cover of very low-resistivity clay, sandy clay or clayey sand (commonly 2–20 Ωm, locally below 1 Ωm and up to 250 m thick) above the target aquifer. These clays act as aquitards, are prone to swelling and hole closure, and – where resistivities fall below about 5 Ωm – may contain saline pore water. The salient conditions by Lot are:

Table 1.2: Anticipated ground conditions by Lot

Lot	Host rocks	Anticipated aquifers	Key drilling and completion considerations
1 – Kibish and Turkana South	Quaternary sediments over weathered basalts (Kibish, Liwan); Precambrian gneisses on the Turkwel plains (Katilu, Korinyang), with basalt below about 184 m at Korinyang	Weathered basalt 15–41 m (Kibish VES 1) and below 50 m (Liwan); slightly aquiferous clayey sands below 47 m (Kibish VES 2); weathered gneiss 9–52 m (Katilu) and 21–184 m (Korinyang)	Remote border sites (Kibish, Liwan) – security clearance and evacuation arrangements; fresh, very hard gneiss (2,300–3,000 Ωm) below about 50 m at Katilu – DTH with button bits; possible circulation loss at the gneiss–basalt contact at Korinyang; sandy clays to be cased and sealed
2 – Turkana West and Turkana South	Quaternary–Tertiary sediments with thick clays over weathered basalts (Nge'u, Lokichoggio, Lopuski); basement inliers around Lokichoggio and Lopuski; basement and volcanics near Kainuk	Highly to very highly weathered basalt below 78 m (Nge'u), from 16 m (Lopuski VES 3) and below 265–268 m (Lokichoggio, Lopuski VES 2); not defined quantitatively at Kainuk	Thick clays (68 m at Nge'u, 2–5 Ωm) to be drilled with inhibitive mud, cased and sealed; primary aquifer below the 250 m design depth at 2.2 and 2.3 – deepening likely; Kainuk weakly supported and on the Turkana–West Pokot boundary – security clearance

Lot	Host rocks	Anticipated aquifers	Key drilling and completion considerations
3 – Loima and Turkana East	Weathered phonolites (Kalokutanyang), sandstone beneath clay (Lolupe) and basalts (Morulem) in the transition to Turkana East	Weathered phonolite below 80 m and at/below 250 m (Kalokutanyang); weathered sandstone below 65–104 m (Lolupe); weathered basalt below 55–150 m (Morulem)	Kalokutanyang VES 3 aquifer at or below design depth; Lolupe 80 m design depth ends in or just below a heavy clay (0.5–3.8 Ωm) – deepening expected; very conductive units and a 0.9 Ωm "aquifer" at Morulem VES 1 – high salinity risk; Morulem coordinates to be confirmed
4 – Loima and Turkana South	Basalts (Lochor-Ekuyen); gneiss beneath sedimentary cover (Nachechea-Lorengippi); Precambrian gneisses and basalts on the Turkwel plains (Kakong'u, Lokapel)	Weathered basalt below 67–86 m (Lochor-Ekuyen) and below 143 m (Kakong'u VES 2); weathered gneiss 9–106 m and below 26 m (Nachechea-Lorengippi), 15–60 m (Kakong'u VES 3) and 26 m to TD (Lokapel)	Anomalously low resistivity at Lochor-Ekuyen VES 2 – salinity risk; Nachechea-Lorengippi VES 3 aquifer bounded at about 106 m – lesser final depth likely; very conductive upper clay (1.6 Ωm) at Kakong'u VES 3 and thick sandy clay at Kakong'u VES 2 – inhibitive mud, case and seal

The hydrogeological report recommends that EC be measured at 2 m intervals and at every significant water strike, and that drilling be discontinued where the EC of the formation water exceeds 2,000 µS/cm, in order to preserve the better-quality water of the upper fracture zones. Other groundwater-quality concerns in Turkana County include elevated fluoride (frequently above the 1.5 mg/L limit of KS EAS 12 and the WHO Guidelines), salinity and sodicity, hardness and, locally, iron and manganese. Recorded resistivity models, interpreted aquifers and drilling guidance for each site are given in Appendices A to D. **The information provided is the Employer's interpretation of available data and is given in good faith for guidance. The Contractor shall make its own assessment of ground conditions; actual conditions may differ materially from those anticipated.**

1.6 Standards and codes

The Works shall comply with the laws of Kenya and with the latest editions (at the Base Date) of the standards listed below or approved equivalents. Where a standard and this Specification conflict, the more stringent requirement shall apply unless the Engineer directs otherwise. The Contractor may propose equivalent standards; equivalence shall be demonstrated in writing and approved by the Engineer before use.

Subject	Standard / reference
Water-well construction (general)	ANSI/AWWA A100 Water Wells; NGWA Water Well Construction Standard (ANSI/NGWA 01); BS ISO 14686 (pumping tests for water wells)
Kenyan regulatory requirements	Water Act, 2016; Water Resources Regulations, 2021 and WRA guidelines for borehole drilling, test pumping and completion records; Environmental Management and Co-ordination Act (Cap. 387) and its regulations
Ground description and logging	BS 5930 Code of practice for ground investigations; ISO 14688-1 and ISO 14689 (identification of soil and rock)
Steel casing and screens	API Spec 5CT or API Spec 5L (Grade B or higher); EN 10217-1 / EN 10219 or equivalent
Thermoplastic (uPVC) casing and screens	DIN 4925 (well casing and screens) or ASTM F480; materials in contact with water certified to NSF/ANSI/CAN 61 or equivalent (e.g., WRAS, KEBS)
Drilling fluids and additives	API Spec 13A (drilling-fluid materials); API RP 13B-1 (field testing of water-based fluids); NSF/ANSI/CAN 60 (drinking-water treatment chemicals)
Gravel pack	API RP 58 / ISO 13503-2 (sphericity, roundness, acid solubility, crush resistance)
Grout and concrete	KS EAS 18-1 / EN 197-1 cement; BS EN 206 / BS 8500 concrete (C25/30 minimum)

Subject	Standard / reference
Borehole geophysical logging and CCTV	ASTM D5753 (planning and conducting geophysical borehole logging); LAS 2.0 (Canadian Well Logging Society) data format; NGWA/ASTM good practice for downhole video inspection
Disinfection	ANSI/AWWA C654 Disinfection of Wells
Decommissioning	ASTM D5299 Standard Guide for Decommissioning of Groundwater Wells
Water sampling and analysis	ISO 5667-1, -3 and -11; Standard Methods for the Examination of Water and Wastewater (APHA/AWWA/WEF); laboratory accredited to ISO/IEC 17025 by KENAS or equivalent
Drinking-water quality	KS EAS 12 Potable water – Specification; WHO Guidelines for Drinking-water Quality (4th edition incorporating the first and second addenda)
Quality, OHS and environmental management	ISO 9001, ISO 45001 and ISO 14001 (Contractor's management systems; certification desirable)
ESHS	World Bank Environmental and Social Framework (ESS1–ESS10); World Bank Group General EHS Guidelines; World Bank Good Practice Notes on SEA/SH and on the use of security personnel; Environmental and Social Incident Response Toolkit (ESIRT); Kenyan legislation listed in Section 4

1.7 Definitions

- **bgl** – below ground level; **TD** – total depth drilled; **SWL** – static water level; **DWL** – dynamic (pumping) water level; **EC** – electrical conductivity (µS/cm at 25 °C).
- **Drill depth** – the depth stated in the Bill of Quantities, which is the Employer's design depth; the Engineer may instruct a greater or lesser final depth.
- **Successful borehole** – a borehole completed, developed and tested in accordance with this Specification that yields not less than 0.5 m³/h on test, irrespective of natural water quality.
- **Dry or unsuccessful borehole** – a borehole that, through no fault of the Contractor, fails to yield 0.5 m³/h at the final depth instructed by the Engineer, or that the Engineer decides not to complete owing to natural water quality (Section 2.22).
- **Lost borehole** – a borehole that cannot be completed or fails a test on completion owing to the Contractor's method, workmanship, materials, equipment or negligence (Section 2.22).
- **Site group** – two or more boreholes at the same named site drilled at different VES points (e.g., Kakong'u VES 1, 2 and 3).
- **Hold point** – a stage at which work shall not proceed until the Engineer has given written approval (Section 2.27).

2. Technical Specifications for Borehole Drilling

The following specifications apply to all Lots unless otherwise stated. Lot- and site-specific conditions are given in Section 3 and Appendices A to D.

2.1 Permits, setting out and site handover

The Employer will obtain the WRA authorisation to drill (permit) and the NEMA Environmental Impact Assessment licence for each site and will provide copies to the Contractor; the cost of statutory WRA permit fees is covered by the provisional sum in the Bill of Quantities (item 2.19). The Contractor shall comply with all conditions of these instruments, shall obtain all other permits and licences required for its own operations (e.g., county permits, transport notices, waste-handler contracts, water-supply agreements), and shall notify WRA of drilling commencement and completion where required by the authorisation.

Site coordinates are given in Section 3 in a single harmonised grid – **UTM Zone 36N (WGS 84)** – with geographic equivalents; the harmonisation of the source data is recorded in Section 3.5. The Contractor's GNSS receivers shall be set to UTM Zone 36N (WGS 84) for all setting out and as-built records. Before mobilising to any site the Contractor's hydrogeologist shall, jointly with the Engineer and the community representatives, locate the VES station with a GNSS receiver (horizontal accuracy ≤ 3 m), verify it against the field pegs and photographs of the survey, and record the agreed drilling point. **The borehole shall be drilled within 10 m of the agreed point.** Any relocation beyond 10 m requires the Engineer's written approval and, beyond 50 m, re-confirmation by the Employer's hydrogeologist.

For Morulem (3.5 and 3.6) Section 3 gives a single map-derived site reference point (accuracy about ± 2 km), because the source coordinates duplicate the Lopii coordinates. The Engineer shall obtain or re-survey the coordinates of each of the two Morulem VES stations from the field pegs (Section 3.5) and record them on the site handover certificate before setting out. No claim will arise from these confirmations provided the confirmed points lie within the limits stated in Section 3.5.

Site handover shall be documented with a site handover certificate signed by the Engineer, the Contractor, the land owner/institution or community representatives (including the Water User Committee and area chief) and recording the agreed drill pad, access route, water source, mud-pit location and any pre-existing conditions (photographs). No work shall start on a site before the handover certificate is signed and the C-ESMP (Section 4) has been approved (**Hold Point H1**).

2.2 Mobilisation, site establishment and drill pad

- The drill pad shall be limited to the minimum area required for safe operation, normally not exceeding 30 m × 30 m, levelled and compacted to support the rig and plant. Vegetation clearance shall be minimised; mature trees (in particular *Acacia tortilis*, doum palm and riverine trees) shall not be felled.
- Lined mud and settling pits (or steel tanks) of adequate capacity shall be constructed for each borehole. Pits shall be lined with HDPE geomembrane of not less than 0.5 mm thickness (or equivalent), fenced, provided with warning signs and protected from storm-water inflow.
- The site shall be fenced or cordoned with a 1.2 m high temporary barrier with a controlled entrance; unauthorised persons, children and livestock shall be kept out of the work area at all times.

- Fuel, oils and chemicals shall be stored in bunded areas of 110 % capacity on impermeable bases; refuelling shall be carried out over drip trays. Spill kits shall be kept at every rig.
- Each site shall have sanitary facilities (portable toilets or VIP latrines, separate for men and women), potable drinking water, shade, a first-aid station and fire extinguishers.

2.3 Drilling plant and equipment

The Contractor shall deploy, for each active site, a drilling unit fully equipped to construct, develop and test the borehole to this Specification, with not less than the Key Equipment stated in Section III. The rig shall be capable of drilling to at least 20 % greater than the deepest borehole that may be instructed in the Lot (and in any case to not less than 450 m) at the specified diameter, and of running and, if necessary, withdrawing the full casing string. Air compressors and boosters shall be capable of lifting cuttings and water from total depth under the maximum anticipated submergence. The Contractor shall maintain on site an adequate stock of bits (including button bits for fresh gneiss), hammers, spares and fishing tools so that operations are not interrupted for want of parts. Plant breakdown time is not standby time.

2.4 Drilling methods

Drilling may be carried out by DTH hammer with air, air/foam or air/water; by air rotary; or by direct or reverse mud rotary. The Contractor shall state its proposed method for each formation in its Method Statement, which shall be approved by the Engineer before drilling starts. In fresh or marginally fractured gneiss, massive basalt and phonolite, DTH drilling is expected. In the thick clays, sandy clays and clayey sands that overlie the aquifers at most sites, and in loose dry sands near surface (e.g., Lopuski VES 3), mud rotary with an inhibitive polymer mud, or foam with temporary casing, will be required to control swelling, hole closure and collapse.

The surface section shall be drilled at a diameter of not less than 15 in to a depth of not less than 6 m (deeper where unconsolidated or collapsing material extends below 6 m) and the temporary surface casing installed. The BoQ designation for temporary casing denotes a minimum; the casing shall have an internal diameter that passes the production bit with not less than 6 mm clearance (e.g., 12¾ in casing for a 10½ in bit) at no additional cost.

The production hole shall be drilled at a nominal diameter of 10 in with a bit of not less than 10½ in (267 mm) to the final depth, to receive the 8 in nominal casing and screens specified in Section 2.11. The Contractor may drill at a larger diameter at its own cost. Where the caliper log shows the hole to be undersized by more than 6 mm over any interval to be cased, the Contractor shall ream the hole at its own cost. Where the Engineer instructs a larger production diameter, the additional cost will be valued as a variation.

Where circulation is lost, the Contractor shall use approved lost-circulation materials compatible with potable-water wells (Section 2.5) and shall report the depth and volume lost. Cement or other materials shall not be placed in the hole to regain circulation without the Engineer's written approval.

Drilling shall be continuous, 24 hours a day where safe and permitted, to minimise hole instability. Where drilling is suspended for more than 12 hours the hole shall be protected and, for mud-drilled holes, the mud conditioned before resuming.

2.5 Drilling fluids and additives

- All drilling fluids, foams, polymers, lubricants, lost-circulation materials and development chemicals shall be products formulated for water-well drilling and certified to NSF/ANSI/CAN 60 (or an approved equivalent) for use in drinking-water wells. Safety data sheets, product data sheets and certificates shall be submitted for approval before the products are brought to site.
- Bentonite shall be high-yield sodium bentonite complying with API Spec 13A (e.g., AQUAGEL, QUIK-GEL or approved equivalent). Viscosifiers and fluid-loss reducers shall be potable-water-approved polymers (PAC/CMC, xanthan). Inhibitive PHPA polymers (e.g., EZ-MUD or equivalent) shall be used where swelling clays are drilled.
- Foaming agents shall be certified water-well drilling foams. Ordinary detergents, soaps, diesel, oil-based additives and any product not approved by the Engineer are prohibited. Natural clay shall not be added to the mud or placed in the hole. If any unapproved material is found to have been placed in the borehole, the Engineer may reject the borehole and the Contractor shall drill a replacement at its own cost.
- Make-up water shall be clean, of known quality and from an approved source. Its pH, EC, temperature and hardness shall be recorded before mud is mixed; water with EC above 3,000 µS/cm shall not be used for mud without the Engineer's approval, since it degrades bentonite yield and masks formation-water EC.
- Mud properties shall be maintained within the following limits unless otherwise approved: density ≤ 1.10 kg/L (≤ 1.15 kg/L in unstable ground with approval); Marsh funnel viscosity 32–45 s/qt; sand content ≤ 2 % by volume; pH 8.0–9.5; API filtrate ≤ 15 mL/30 min. Properties shall be measured at the start of each shift, every 4 hours while drilling and before adding fluid, and recorded on the daily log. Mud shall be thinned and conditioned before logging and casing installation.
- The Contractor shall have on site a mud-cake dispersant for well development (AQUA-CLEAR PFD, BARAFOS or approved equivalent, phosphate-free preferred) and calcium or sodium hypochlorite for disinfection.

2.6 Borehole depth and decisions during drilling

- The drill depths in the Bill of Quantities are design depths derived from the hydrogeological investigation. The Engineer may instruct the Contractor to stop at a lesser depth or to drill deeper (up to 400 m) according to the formations encountered; additional or reduced depth will be measured at the rates for the relevant depth band. No claim for loss of profit will be entertained for reduced depths.
- The casing and screen material shall follow the **final depth instructed by the Engineer**: uPVC where the final depth is less than 250 m and mild steel where it is 250 m or more, measured at the corresponding BoQ rates of the Lot. Where the Engineer's decision on final depth is expected to change the material, the Engineer will confirm the material at the depth hold point before casing is ordered for that site.
- The Engineer will review drilling progress at the following **depth hold points (H2)**: at the first significant water strike, at 100 m, at every subsequent 50 m, and at the design depth. At each hold point the Contractor shall present the lithological log, penetration rates, water strikes, air-lift yields and field EC/temperature/fluoride to support the Engineer's decision to continue, stop

or deepen. The Engineer will give instructions within 4 hours; waiting time beyond 4 hours not caused by the Contractor will be paid as standby time.

- **Water-quality stop criterion:** where, below a productive horizon, the EC of the air-lift or formation water exceeds 2,000 µS/cm (or field fluoride exceeds 4 mg/L), drilling shall stop and the Engineer shall decide whether to continue, stop or plug back. Saline or high-fluoride horizons that are penetrated shall be sealed off in the completed borehole (Section 2.14).
- Specific site requirements: the Engineer will review the following sites with particular care, because the interpreted aquifer lies below the design depth, is bounded by clay or fresh rock, carries a salinity risk, or is weakly supported by the geophysical data (Appendices A–D): 1.1 Kibish VES 2; 1.4 and 1.5 Katilu (fresh gneiss below about 50 m); 2.2 Lokichoggio and 2.3 Lopuski VES 2 (aquifer below 265–268 m – deepening to about 300–320 m expected); 2.5 and 2.6 Kainuk; 3.1 Kalokutanyang VES 3 (aquifer below 250 m); 3.3 and 3.4 Lolupe (aquifer below 104 m and 65 m – deepening expected); 3.5 and 3.6 Morulem (salinity risk; 3.6 design depth of 70 m gives only about 15 m of aquifer); 4.1 Lochor-Ekuyen VES 2; 4.4 Nachechea-Lorengippi VES 3 (aquifer bounded at about 106 m – lesser final depth likely); and 4.5 and 4.6 Kakong'u.
- Within a site group the Engineer may direct the order of drilling and may decide, on the results of the first borehole, to relocate, deepen, shorten or omit a subsequent borehole of the group.

2.7 Formation sampling and lithological logging

- Representative cuttings samples shall be collected **at every 2 m of depth** from ground level to total depth (BoQ item 2.3), and in addition at every change of lithology, every water strike and every loss of circulation, with the depth recorded to the nearest 0.1 m. For air/DTH drilling the samples shall be collected from a cyclone or sample splitter; for mud drilling they shall be collected at the shaker after correction for lag time.
- Each sample shall be washed, split into two portions of not less than 0.5 kg, and placed in (a) labelled, compartmentalised chip trays in depth order and (b) labelled heavy-duty sample bags. Labels shall show the project, Lot, site number and name, depth interval and date. One set shall be delivered to the Engineer for onward transmission to WRA; the other shall be retained until the Taking-Over Certificate is issued. Samples from the screened intervals shall be retained for sieve analysis (Section 2.13).
- The site geologist shall prepare a continuous lithological log in accordance with BS 5930/ISO 14689 conventions (rock type, colour, grain size, weathering grade, fracturing, vesicularity, alteration, mineralisation, clay content), together with penetration rate (min/m), weight on bit, rotation speed, air/mud pressure, cuttings return, water strikes and hole conditions. The log shall be updated daily and made available to the Engineer on request.

2.8 Water strikes, air-lift yields and field water quality

- Whenever water is struck, drilling shall pause and the depth, the estimated yield (by timed volumetric measurement of air-lift return or V-notch), and the EC, TDS, pH and temperature of the return water shall be recorded. During air/DTH drilling, field parameters shall be recorded **at every 2 m** below the first water strike and the air-lift yield at the end of every drill rod (or at 6 m intervals).
- During mud drilling, the pH, EC and temperature of the circulating fluid shall be measured at least once per shift, at every change of lithology and whenever saline water is suspected; any sudden change in EC, density or flow shall be reported to the Engineer immediately.

- The rest water level shall be measured with an electric dipper at the start and end of each shift once water has been struck.
- **Field fluoride testing (BoQ item 2.18):** the fluoride concentration of air-lift water shall be measured with a calibrated ion-selective electrode or photometer at each principal water strike, at the end of development and during the final hour of the constant-rate test, in all Lots, so that high-fluoride horizons can be identified and sealed off. Results shall be recorded on the daily report with the calibration check.

2.9 Downhole geophysical logging and CCTV surveys

- On completion of drilling and before casing, each borehole shall be logged from total depth to surface with: spontaneous potential (SP) and short-normal (16 in) and long-normal (64 in) resistivity (or focused resistivity) (BoQ item 2.15a); natural gamma (item 2.15b); and fluid temperature, fluid conductivity and three-arm caliper (included in the rate for item 2.15a). For mud-drilled holes the mud shall be conditioned and its resistivity measured before logging. Logging speed shall not exceed 9 m/min and the depth reference shall be ground level.
- Logging shall be carried out by the Borehole Geophysical Logging Engineer using calibrated equipment (calibration certificates not older than 12 months and on-site verification against the manufacturer's check sources). A repeat section of not less than 30 m shall be run for quality control.
- Field prints shall be provided to the Engineer within 12 hours of logging, and the digital data (LAS 2.0 format) with an interpretation report integrating the lithological log, drilling parameters, EC profile and water strikes within 48 hours. The interpretation shall identify aquifer horizons, clay/aquitard intervals, saline or poor-quality zones and the actual hole diameter, and propose screen positions and seal intervals.
- If the Engineer rejects the logs on technical grounds, logging shall be repeated at the Contractor's cost until satisfactory results are obtained. The open hole shall be kept stable during logging; any hole collapse requiring re-drilling shall be at the Contractor's cost.
- **CCTV surveys (BoQ item 2.16, two per borehole).** *Survey 1* shall be an open-hole survey after logging where the hole is air-drilled or can be flushed to clear water and is stable, to identify fractures, inflow zones and caving; where an open-hole survey is impracticable it shall be carried out after installation of the casing string and before gravel packing, to verify joints, screen positions and centralisation. *Survey 2* shall be a full-depth survey of the completed borehole after development and disinfection (Section 2.21). Surveys shall use axial and radial views with continuous depth overlay, and shall be recorded digitally.
- **Camera review and reporting (BoQ item 2.14):** for each borehole the Contractor's hydrogeologist shall submit, within 5 days of Survey 2, a camera review report with the annotated video files, a depth-referenced log of features (fractures, inflows, joints, screen sections, deposits, damage) and stills of all defects and key features.

2.10 Borehole design

- Within 24 hours of receiving the logs, the Contractor's hydrogeologist shall submit a proposed borehole design drawing showing: final depth; position and length of each plain casing and screen section; sump; centraliser positions; gravel-pack interval and grading; position of bentonite seals and sand caps; backfill; sanitary grout; and casing stick-up (**Hold Point H3**). The

Engineer will approve or amend the design within 24 hours. Casing installation shall not begin until the design is approved.

- Screens shall be placed opposite the productive horizons identified from the logs, water strikes and EC profile; they shall not be placed opposite clay, aquitard, saline or high-fluoride intervals. The top of the uppermost screen shall be not less than 15 m bgl unless the Engineer approves otherwise for a shallow aquifer. The screen length in the BoQ (one-third of drill depth) is provisional; the actual length will be as instructed and measured.
- A sump of 3–6 m of plain casing closed by a bottom plug shall be provided below the lowest screen.
- Where the design cannot accommodate the minimum gravel-pack thickness owing to the hole diameter, the Engineer may instruct reaming of specific intervals, which shall be paid as a variation unless the undersizing is the Contractor's responsibility (Section 2.4).

2.11 Casing and screen materials

All casings and screens shall be new, free from defects, factory-manufactured, and supplied with mill or manufacturer's certificates. In accordance with the Bill of Quantities, **uPVC casings and screens shall be used where the drill depth is less than 250 m, and mild-steel casings and screens where the drill depth is 250 m or more** (subject to Section 2.6). The Contractor shall supply sufficient material, with a reasonable contingency, to complete each borehole without delay. Representative samples and certificates shall be inspected and approved by the Project Manager before delivery to site (**Hold Point H4**).

Table 2.1: Minimum requirements for casings and screens

Parameter	uPVC (drill depth < 250 m)	Mild steel (drill depth ≥ 250 m)
Standard	DIN 4925 heavy-duty deep-well series or ASTM F480; NSF/ANSI/CAN 61 (or equivalent) certified for potable water	API Spec 5CT (J55/K55 or higher) or API Spec 5L Grade B or higher, seamless or high-frequency ERW
Nominal size	8 in (DN 200), OD 225 mm	8 in nominal (8⅝ in), OD 219.1 mm
Wall thickness / pressure class	SDR ≤ 17 (≥ 13.2 mm for OD 225 mm); certified collapse resistance ≥ 1.5 MPa	Wall ≥ 7.7 mm (≈ 41 kg/m); certified collapse rating ≥ 10 MPa
Joints	Factory trapezoidal or square flush threads with O-ring seal; no solvent-cement joints except bottom plug	Threaded and coupled (API) or bevelled ends for full-penetration circumferential welding by a qualified welder
Screen type	Factory machine-slotted, horizontal slots; open area ≥ 8 %	Factory machine-slotted or bridge-slot on the same base pipe as the casing; open area ≥ 5 %. Stainless-steel (AISI 304/316) wire-wrap screens may be offered as an alternative
Slot aperture	1.5–3.0 mm as instructed by the Engineer (default 1.5 mm in weathered/clayey horizons and weathered sandstone; 2–3 mm in fractured rock)	As for uPVC
Entrance velocity	≤ 0.03 m/s at the maximum test discharge	≤ 0.03 m/s at the maximum test discharge
Lengths	3 m or 6 m	API Range 2/3 (≈ 8–12 m) or 6 m
Coatings	n/a	Uncoated or NSF/ANSI/CAN 61 certified epoxy; bitumen, tar and lead-based coatings prohibited

Parameter	uPVC (drill depth < 250 m)	Mild steel (drill depth ≥ 250 m)
Centralisers and accessories	uPVC or stainless-steel centralisers sized to the hole; uPVC bottom plug	Steel bow-spring or welded-fin centralisers; welded steel bottom plate

The Bidder shall state for the offered screens: open area (cm²/m and %), slot aperture and pattern, and calculated entrance velocity at 5 m³/h and at 15 m³/h, together with manufacturer's collapse, burst and tensile data for casings and screens. Field slotting, cutting of slots by torch or grinder, and perforating on site are prohibited. Where water-quality results indicate corrosive groundwater (e.g., Langelier index < –1, chloride > 500 mg/L or pH < 6.5), as may occur at sites with very low formation resistivity, the Engineer may instruct stainless-steel screens as a variation.

2.12 Installation of casing and screens

- Before installation the hole shall be cleaned and conditioned to total depth and, for mud-drilled holes, the mud thinned to the properties stated in Section 2.5.
- A casing tally (length, type, serial/heat number of each joint) shall be prepared and checked jointly with the Engineer before running. The string shall be assembled in the order of the approved design and lowered without force. It shall not be dropped, driven or rotated. Where the weight of a uPVC string exceeds the manufacturer's tensile limit, the string shall be suspended and lowered with the hole full of fluid or by an approved method.
- Centralisers shall be fitted at the bottom of the sump, on every screen joint (minimum three per 12 m of screen) and on every second plain casing joint, so that the string is concentric in the hole.
- Steel joints shall be welded by qualified welders with full-penetration circumferential welds, visually inspected by the Engineer; threaded joints shall be made up to the manufacturer's torque.
- The string shall be suspended in tension from the surface during gravel packing so that it does not rest on the bottom, and shall finish 0.5 m above ground level.
- If the string cannot be landed at the design depth, it shall be withdrawn and the hole reconditioned at the Contractor's cost.

2.13 Gravel pack

- The gravel pack shall consist of clean, hard, well-rounded siliceous (≥ 95 % quartz) material, free from clay, silt, organic matter, limestone, shale and flat or crushed particles, with sphericity and roundness ≥ 0.6 and acid solubility ≤ 5 % (API RP 58/ISO 13503-2).
- The grading shall be selected by the Engineer from sieve analyses of the formation samples and the screen slot: at least 90 % of the gravel shall be retained on the slot aperture and the uniformity coefficient shall not exceed 2.5. Default gradings are 2–4 mm for a 1.5 mm slot and 3–6 mm for 2–3 mm slots. In weathered sandstone and sandy aquifers (e.g., Lolupe) the grading shall be designed from the formation sieve curve (pack-to-aquifer ratio 4–6 on D_{50}). The gravel shall be graded and washed off site and delivered in bags; sieving on site is not permitted. A 5 kg sample with the supplier's sieve analysis shall be approved by the Engineer before delivery.
- Gravel shall be placed through a tremie pipe or, with the Engineer's approval for shallow uPVC boreholes, by slow, controlled pouring while fluid is circulated, from the bottom of the hole to not less than 6 m above the top screen. The volume placed shall be recorded at each 0.5 m³ and the level sounded at regular intervals; the cumulative placed volume shall agree with the

theoretical annular volume computed from the caliper log within ± 15 %. Discrepancies indicating bridging or voids shall be reported immediately and corrected.

- The gravel level shall be checked and topped up during development. A gamma log through the casing after packing may be instructed by the Engineer to check pack continuity.
- The quantity in the BoQ (item 2.5) is provisional; payment will be for the volume actually placed as recorded and approved, up to 115 % of the theoretical volume.

2.14 Annular seals, backfill and grouting

- Above the gravel pack a fine-sand cap (0.5–1.0 mm, 1 m thick) shall be placed, followed by a bentonite seal of not less than 3 m of hydrated bentonite pellets or chips (e.g., Holeplug, Pelplug or approved equivalent) placed slowly and hydrated in accordance with the manufacturer's instructions.
- Clay, aquitard and poor-quality (saline or high-fluoride) intervals identified on the logs shall be isolated by bentonite seals extending at least 3 m above and below the interval, as shown on the approved design. This requirement is of particular importance at the sites where the hydrogeological investigation identified thick or very conductive clays above the aquifer, including 1.6 Korinyang, 2.1 Nge'u (clay 9.5–78 m; the report specifically requires casing and cement–bentonite sealing), 2.4 Lopuski VES 3, 3.2 Kalokutanyang VES 2, 3.3/3.4 Lolupe, 3.6 Morulem VES 2, 4.6 Kakong'u VES 3 and 4.7 Lokapel.
- The annulus between the seals shall be backfilled with inert, clean, washed sand or gravel from an approved source (BoQ item 2.6). Drill cuttings shall not be used as backfill unless approved by the Engineer for specific intervals.
- The annulus from not less than 12 m bgl (or 3 m below the base of the deepest near-surface clay, whichever is deeper) to ground level shall be sealed with a cement-bentonite grout (sulphate-resistant Portland cement with 2–5 % bentonite by weight of cement, water:cement ratio 0.45–0.55 by weight, density ≥ 1.75 kg/L), pumped through a tremie from the bottom of the interval upwards in one continuous operation (BoQ item 2.7). The temporary surface casing shall be withdrawn progressively during grouting. The grout shall be allowed to cure for at least 24 hours before further work at the wellhead.
- Grout volumes shall be recorded and compared with the theoretical volume. Shrinkage shall be topped up. A C25/30 concrete collar of not less than 1.0 m × 1.0 m × 0.3 m shall be cast around the casing at ground level, sloping away from the casing.

2.15 Well development

Development shall begin immediately after the gravel pack and seals have been placed, to remove mud cake and fines, stabilise the formation and gravel pack, and maximise well efficiency. **A borehole that is not fully developed to the criteria below will not be accepted.** Development shall proceed in the following stages, as appropriate to the drilling method:

- **Flushing:** circulate clean water from the bottom until returns are free of mud.
- **Chemical dispersion** (mandatory for mud-drilled boreholes; as instructed for others): introduce an approved dispersant (Section 2.5) through a tremie across the screened intervals at the manufacturer's dosage, calculated on the volume of the screened section plus 50–100 % for the gravel pack and formation, agitate by surging every 2 hours, and leave for a total contact time of not less than 12 hours before pumping to waste.

- **Mechanical development:** air-lift surging with a double surge block (sized to the screen ID) and an airline at ≥ 60 % submergence where achievable, working from the top screen downward in 3–6 m sections; alternating air injection and release ("rawhiding"); and, where instructed, high-velocity horizontal jetting through the screens with simultaneous air-lift so that discharge exceeds jetting rate. Where deep water levels prevent effective air-lifting, development shall be completed by intermittent pumping with the test pump ("backwashing" and step pumping).
- **Final pumping to waste** at 70–100 % of the expected test rate until the acceptance criteria are met.

Development will be considered complete when, at the end of pumping at not less than the intended test rate: (i) the sand content is ≤ 5 mg/L measured with a Rossum-type sand tester (field check: no visible sand spot ≥ 1 cm in a 20 L bucket test); (ii) turbidity is ≤ 5 NTU; and (iii) specific capacity has stabilised (change < 5 % over 2 consecutive hours). Measurements shall be taken every 30 minutes and recorded with the pumping rate, time, EC and (at the end) fluoride. The BoQ provides 8 hours of development per borehole (item 2.8) as a provisional quantity; additional hours instructed by the Engineer will be paid at the rate, but development needed because of poor mud control, unapproved additives or defective gravel placement shall be at the Contractor's cost (**Hold Point H5**).

2.16 Test pumping

2.16.1 General

- Test pumping shall be carried out in accordance with BS ISO 14686 and WRA requirements. Each phase shall start only with the Engineer's written approval and be conducted under his/her supervision (**Hold Point H6**).
- The test pump shall be installed with its intake above the top screen where available drawdown permits, or otherwise fitted with a shroud. A dip tube (25 mm) shall be installed to below the pump intake for water-level measurement. The discharge shall be conveyed by pipeline at least 100 m from the wellhead, downslope, and released onto ground protected against erosion, away from laggas, pans and community water points; saline discharge (EC > 3,000 µS/cm) shall be contained or dispersed as directed by the Engineer.
- The static water level shall be measured before each phase and shall have stabilised (change < 1 cm in 30 minutes).
- Water levels shall be measured with an electric dipper (resolution 1 cm) and simultaneously recorded with a pressure transducer and data logger at 1-minute (or shorter) intervals; manual readings shall follow Table 2.2. Discharge shall be measured by the flow meter and verified volumetrically at the start of each step and every 6 hours during the constant-rate test. EC, pH and temperature shall be measured at the intervals in Table 2.2.
- **Observation boreholes:** where another borehole of the same site group, or any existing borehole within 500 m, is accessible, its water level shall be recorded with a pressure transducer before, during and after the constant-rate test, so that interference and storativity can be assessed. This applies in particular to the site groups at Kibish, Katilu, Lopuski, Kainuk, Kalokutanyang, Lolupe, Morulem, Lochor-Ekuyen, Nachechea-Lorengippi and Kakong'u.

2.16.2 Step-drawdown test

After development and full recovery, a step-drawdown test of four (4) – and, where the yield permits, five (5) – continuous steps of 60 minutes each shall be carried out at approximately 25 %, 50 %, 75 % and 100 % (and 120 %) of the estimated maximum yield, without interruption between steps. On

completion, recovery shall be measured until 95 % of the drawdown has recovered or as instructed. Steps shall be repeated, at the Contractor's cost, if the discharge varies by more than ± 5 % within a step for reasons within the Contractor's control.

2.16.3 Constant-rate test

- After recovery from the step test (≥ 95 %), a constant-rate test of **24 hours** duration shall be carried out at the rate determined by the Engineer from the step test, normally the rate expected to produce a drawdown after 24 hours of not more than 70 % of the available drawdown above the pump intake. The Engineer may instruct a longer test (48 or 72 hours) for high-demand or institutional sites or where boundary effects are suspected; the additional hours will be paid at the BoQ rate.
- The discharge shall be held within ± 5 % of the selected rate throughout. Adjustments shall be recorded.
- Interruptions of more than 5 minutes caused by the Contractor shall require the test to be restarted, after full recovery, at the Contractor's cost. Interruptions caused by the Employer or by events beyond the Contractor's control will be paid as standby time.
- A water sample for laboratory analysis, and a field fluoride test, shall be taken during the last hour of pumping (Section 2.17).

2.16.4 Recovery test

Immediately the constant-rate test ends, recovery shall be measured at the intervals of Table 2.2 for a minimum of 12 hours (BoQ item 2.9b) or until 95 % of the drawdown has recovered, whichever is later, but not exceeding 24 hours unless instructed.

Table 2.2: Manual measurement intervals (drawdown and recovery)

Elapsed time since start of phase	Water level	Discharge	EC, pH, temperature
0 – 10 min	every 1 min	every 2 min	start of phase
10 – 20 min	every 2 min	every 5 min	–
20 – 60 min	every 5 min	every 10 min	60 min
60 – 120 min	every 10 min	every 30 min	–
2 – 6 h	every 20–30 min	every 30 min	every 2 h
6 h – end	every 60 min	every 60 min	every 4 h and at end

2.16.5 Analysis and reporting

The Contractor's hydrogeologist shall analyse the data using appropriate methods (Cooper–Jacob, Theis and Theis recovery; Hantush–Bierschenk/Jacob for well and aquifer losses; derivative diagnostic plots; and fractured-rock, leaky or dual-porosity models where the response so indicates), using AQTESOLV or equivalent software. The analysis shall report transmissivity, storativity where determinable (using observation-borehole data where available), specific capacity, aquifer-loss (B) and well-loss (C) coefficients, well efficiency, boundary effects, interference with neighbouring boreholes, and a recommended sustainable yield, pump setting depth, pump duty point and pumping regime. Field data sheets shall be signed daily by the Contractor and the Engineer and the logger files submitted in native and CSV format.

2.17 Water sampling and laboratory analysis

- Samples shall be collected in the final hour of the constant-rate test in accordance with ISO 5667-11, in laboratory-supplied containers, preserved (ISO 5667-3), kept at 4 °C in cool boxes and delivered with chain-of-custody forms to a laboratory accredited to ISO/IEC 17025 by KENAS (e.g., the WRA Central Water Testing Laboratory or another approved laboratory) within the holding times. Bacteriological samples shall reach the laboratory within 24 hours; where this is impossible from remote sites, field incubation using an approved portable kit shall be performed in addition.
- **Chemical analysis (item 2.10a)** shall include, as a minimum: pH, EC, TDS, turbidity, colour, temperature (field), total alkalinity, total hardness, Ca, Mg, Na, K, HCO_3, CO_3, Cl, SO_4, NO_3, NO_2, NH_4, F, Fe (total), Mn, SiO_2, PO_4, B, and the trace elements As, Pb, Cd, Cr, Ni, Cu, Zn, Hg, Se and U, together with the sodium adsorption ratio (SAR) for livestock and irrigation suitability. The ion balance error shall not exceed 5 %. The Engineer may instruct total petroleum hydrocarbons where contamination is suspected or where hydrocarbon shows are encountered (Section 2.31).
- **Bacteriological analysis (item 2.10b)** shall include total coliforms, E. coli/thermotolerant coliforms and faecal streptococci (MPN or membrane filtration per 100 mL), sampled after disinfection and flushing.
- Results shall be compared with KS EAS 12 and the WHO Guidelines, and the certificates submitted within 14 days of sampling. Natural water quality exceeding guideline values (e.g., fluoride, salinity) shall not of itself constitute a failure of the Works, but contamination introduced by the Contractor (bacteriological, hydrocarbon or chemical) shall be remedied at its cost (Section 2.21).

2.18 Disinfection

After test pumping, and after removal of the test pump, the borehole shall be disinfected in accordance with ANSI/AWWA C654 (item 2.11). A chlorine solution prepared from calcium or sodium hypochlorite shall be introduced through a tremie across the full water column to achieve a free chlorine concentration of 50–100 mg/L, agitated by surging, and left for not less than 24 hours. The borehole shall then be pumped or air-lifted to waste until free chlorine is < 0.5 mg/L, the chlorinated discharge being dechlorinated or contained so that it does not harm vegetation, livestock or water bodies. All equipment entering the borehole after disinfection shall itself be disinfected.

2.19 Wellhead completion and protection

- Upon completion, the casing shall stand 0.5 m above the concrete collar and shall be closed with a lockable cap of 6 mm steel plate with a hasp and heavy-duty padlock (or bolted flange with tamper-proof bolts), allowing access for water-level measurement (BoQ item 2.12). Two keys shall be handed to the Engineer.
- A corrosion-resistant identification plate shall be fixed to the casing or set into the collar showing: Project name, borehole/WRA number, site name, date of completion, total depth, SWL and tested yield.
- At all times during the work the borehole shall be protected against tampering and entry of foreign matter. Any object dropped into the hole shall be recovered at the Contractor's cost.

2.20 Verticality and alignment

- **Plumbness (BoQ item 2.17):** the borehole shall be surveyed with a calibrated deviation (inclinometer or gyro) tool at stations not exceeding 10 m from surface to total depth. The deviation of the borehole centreline from the vertical shall not exceed two-thirds of the smallest inside diameter of the casing per 30 m of depth (ANSI/AWWA A100), and the inclination shall not exceed 1° at any station within the pump-housing section.
- **Alignment:** a rigid cylindrical dummy of 12 m length and outside diameter 13 mm (½ in) less than the casing inside diameter shall pass freely, without binding, through the casing to the pump-housing depth, defined as the top of the uppermost screen or the maximum recommended pump setting plus 10 m, whichever is deeper.
- Failure of either test, if not remedied, shall render the borehole a lost borehole (Section 2.22).

2.21 Tests on completion and acceptance

Each borehole will be accepted only when all the following criteria have been met and the records submitted. Unless stated otherwise, the Contractor shall remedy any failure at its own cost; if the failure cannot be remedied, the borehole shall be treated as a lost borehole.

Table 2.3: Acceptance criteria

No.	Test	Criterion	Consequence of failure
1	Construction	Diameters, depths, materials, screen positions (± 0.5 m of approved design), seals and grout as approved and recorded	Remedy; otherwise lost borehole
2	Plumbness and alignment	As Section 2.20	Lost borehole if not remediable
3	CCTV survey (Survey 2) and camera review	Full cased depth after development and disinfection: no damaged, separated or deformed joints, no sand/gravel ingress, screens at design depth, sump clean; camera review report approved	Remedy; otherwise lost borehole
4	Sand content and turbidity	≤ 5 mg/L sand and ≤ 5 NTU at end of constant-rate test	Further development at Contractor's cost
5	Well loss	Step test produces a valid s/Q–Q plot with positive slope; well-loss coefficient $C \leq 1{,}900$ s²/m⁵ (Walton criterion), or C higher where the Engineer is satisfied that non-linear losses originate in the fractured aquifer and not in the well	Further development and re-test at Contractor's cost; lost borehole if attributable to construction
6	Bacteriological quality	No E. coli or thermotolerant coliforms in 100 mL after disinfection	Re-disinfection and re-sampling at Contractor's cost
7	Contamination	No hydrocarbons, drilling additives or chemicals introduced by the Contractor	Remedy; otherwise lost borehole
8	Records	Complete logs (LAS), tallies, test data, CCTV files and camera review report, laboratory certificates, WRA completion record and completion report	Taking-Over withheld

The Engineer will issue a Taking-Over Certificate for each borehole, or for each Lot, in accordance with the Conditions of Contract, once all tests are passed and the borehole completion report has been approved. The Employer may elect to take over a borehole that has failed one or more tests on

completion; in that case the Contract Price shall be reduced as provided in the Particular Conditions of Contract, without prejudice to the Employer's other rights.

2.22 Dry, unsuccessful, abandoned and lost boreholes

- **Dry or unsuccessful boreholes:** where a borehole is dry or unsuccessful through no fault of the Contractor, the Engineer will instruct the Contractor either to deepen it, to complete it as an observation well, or to decommission it. The Contractor will be paid for mobilisation and setting up, drilling, sampling, logging and any instructed works at the BoQ rates. Materials not installed remain the property of the Contractor; materials installed on the Engineer's instruction will be paid. The Engineer may instruct drilling at an alternative site within the same Lot; inter-site moves will be paid under items 1.1–1.3.
- **Lost boreholes:** where a borehole cannot be completed or fails the tests on completion owing to the Contractor's method, workmanship, materials, equipment or negligence (including stuck or lost tools that cannot be recovered, collapse due to inadequate support, excessive deviation, unapproved additives, or damage to casing), no payment shall be made for that borehole or for any materials or work in it. The Contractor shall, at its own cost and within 7 days of the instruction, decommission the borehole and drill a replacement borehole as near as practicable to the original, as directed by the Engineer.
- **Decommissioning** shall follow ASTM D5299 and WRA requirements: recover salvageable casing where instructed; backfill permeable intervals with clean gravel/sand; place bentonite seals opposite aquitards, saline zones and at the top of each aquifer; grout the top 10 m with cement-bentonite grout; cut the casing 1 m below ground; cap with a concrete plug; and reinstate the ground. A decommissioning record shall be submitted to the Engineer and WRA. Decommissioning of dry boreholes will be paid at rates agreed under the variation procedure.

2.23 Precautions against contamination

The Contractor shall take all necessary precautions, during and after construction, to prevent contaminated water, fuel, oil, drilling fluids or any other contaminant from entering the borehole through the opening or by seepage from the ground surface, and to prevent water of undesirable quality from entering the aquifer to be tapped. If the borehole becomes contaminated, or water of undesirable quality enters it, through the Contractor's negligence, the Contractor shall at its own cost carry out such work and supply such casing, seals, disinfectants and materials as are necessary to eliminate the contamination or shut off the undesirable water.

2.24 Stoppage of drilling

The Engineer may stop drilling operations: (a) where casing, screens, gravel, seals or other materials of the specified quality are not available on site in sufficient quantity when required; (b) where further drilling is unlikely to be advantageous (e.g., unexpected geological conditions, fresh rock without fractures, or poor water quality – Section 2.6); (c) where the work is not being carried out in a satisfactory or safe manner, or ESHS requirements are not being met. Stoppages under (a) and (c) shall be at the Contractor's cost.

2.25 Standby time

Standby time (BoQ item 2.13, rate only) will be paid only for periods during which the drilling or test pumping unit, fully crewed and operational on site, is instructed by the Engineer in writing to stand idle

for reasons not attributable to the Contractor (including waiting for Engineer's decisions beyond the response times stated in this Specification, community or security stoppages not caused by the Contractor, and Employer-instructed suspension). Standby time shall be recorded daily on the Engineer's instruction sheet and countersigned. Plant breakdown, waiting for materials, rest days, weather that an experienced contractor would have foreseen, and stoppages caused by the Contractor's ESHS non-compliance are not standby time.

2.26 Records and reporting

- **Daily drilling report** (Section 7, Form 1) for each rig and each shift, signed by the Contractor's site representative and countersigned by the Engineer, recording work done, depth, bit and method, mud properties, lithology, water strikes, EC and fluoride readings, water levels, casing, materials used, personnel, HSE observations and incidents.
- **Casing and screen tally and installation record** (Form 2); **gravel pack, seal and grout placement record** (Form 3); **development record** (Form 4); and **pumping test field sheets** (Form 5).
- **Weekly progress report** by e-mail every Monday, with the programme updated and the next week's plan, and **monthly progress and ESHS report** (Section 4.19).
- **WRA borehole completion record** in the prescribed WRA format, completed and submitted for every borehole within 14 days of completion of test pumping, with copies to the Engineer.
- **Borehole completion report** for each borehole, submitted within 15 days of test completion, comprising: location (UTM and WGS 84, as-built GNSS fix) and photographs; rig, methods and drilling fluids used; composite log (lithology, penetration rate, geophysical logs, EC profile, water strikes, construction); as-built design drawing; casing tally; gravel, seal and grout volumes; development record; pumping test data, plots, analysis and recommendations (sustainable yield, pump setting and duty); laboratory and field fluoride results with interpretation against KS EAS 12/WHO; verticality, alignment and CCTV results and the camera review report; a comparison of the drilling results with the VES interpretation for the site; problems encountered and measures taken; and a site restoration certificate. Digital data (logs in LAS, logger files and test data in CSV, video files, drawings in PDF and DWG/DXF) shall be submitted on a USB drive and by upload to the Employer's data platform.
- **Lot completion report** within 28 days of approval of the last borehole completion report, summarising all boreholes in the Lot with a comparative evaluation against the hydrogeological investigation and recommendations for future siting in the region.

All records shall be in English. The Contractor shall make all data available to the Employer, the Engineer and WRA; the Contractor shall not publish or disclose project data without the Employer's consent.

2.27 Quality assurance, inspection and hold points

The Contractor shall submit, within 21 days of the Commencement Date, a Quality Management Plan and an Inspection and Test Plan (ITP) for each Lot covering all activities and the hold points below. Work shall not proceed past a hold point without the Engineer's written approval. The Engineer (or his/her site representative) will be present at all hold points; the Contractor shall give at least 24 hours' notice (4 hours for depth hold points).

Table 2.4: Hold points

Hold point	Stage	Required for release
H1	Before setting up on a site	Approved C-ESMP and Method Statement; site coordinates confirmed (Section 2.1); signed site handover certificate; community entry completed; agreed water source; security clearance for the site
H2	Depth decisions	First significant water strike, 100 m, every 50 m thereafter and design depth; EC/fluoride stop criterion (Section 2.6); final depth and casing material confirmed
H3	Borehole design	Geophysical logs and interpretation; CCTV Survey 1 (where open-hole); proposed design drawing
H4	Materials	Certificates and inspection of casing, screens, centralisers, gravel, bentonite, cement and chemicals
H5	End of development	Sand, turbidity and specific-capacity criteria met
H6	Test pumping	Pump, instrument and observation-borehole set-up check; approval of each phase and constant-rate discharge
H7	Completion	Disinfection, CCTV Survey 2 and camera review, verticality and alignment tests; cap and ID plate; site reinstatement

2.28 Programme and time for completion

The Contractor shall submit a detailed programme for each Lot within 14 days of the Commencement Date showing the location of its project base, the sequence of sites, the deployment of each rig and test pumping unit, procurement and delivery of materials, and the ESHS activities. The programme shall allow for the depth hold points, logging, CCTV surveys, design approval, laboratory turnaround and reporting, for the rainy seasons, and for the security constraints of border and conflict-prone areas. The Time for Completion is stated in the Contract Data; for planning purposes the Employer anticipates the following:

Table 2.5: Indicative resources and Time for Completion

Lot	Boreholes / metres	Minimum rigs	Minimum test units	Indicative Time for Completion
Lot 1 – Kibish and Turkana South	6 / 1,100 m	2	1	180 calendar days
Lot 2 – Turkana West and Turkana South	6 / 1,470 m	2	1	180 calendar days
Lot 3 – Loima and Turkana East	6 / 980 m	2	1	180 calendar days
Lot 4 – Loima and Turkana South	7 / 1,600 m	2	1	180 calendar days

2.29 Clean-up and site reinstatement

On completion of each borehole the Contractor shall remove all plant, materials, debris, cuttings and waste; dewater, backfill and compact mud pits (after removal of the liner and of residual mud to an approved disposal site); rip compacted areas; restore drainage; and leave the site in a condition at least equal to that before the works. A site restoration certificate signed by the land owner/community representative and the Engineer shall be obtained for each site.

2.30 Measurement and payment

The Works will be measured and paid in accordance with the Bill of Quantities (Section 3). Rates shall include all labour, plant, materials, consumables, transport, supervision, ESHS measures, insurances, overheads and profit necessary to complete the item in accordance with this Specification. Item numbers below are common to all four Lots. Specifically:

Table 2.6: Measurement and inclusions by BoQ item

BoQ item	Description	Measurement and inclusions
0.1 / 0.2	General mobilisation / demobilisation (Nairobi – project base)	Lump sum, once per contract. 60 % of 0.1 paid when all Key Equipment for the Lot is at the project base and the C-ESMP is approved; 40 % on commencement of drilling at the first site. 0.2 on completion of all sites and site reinstatement.
1.1 / 1.3	Inter-site mobilisation and demobilisation of drilling and test pumping units	Sum per site, including moves between sites, access improvement, and removal on completion.
1.2	Setting up and dismantling of drilling rig	Sum per site, including drill pad, lined pits, fencing, signage, sanitation and site handover.
1.4	Other plant, equipment, stores, personnel and supplies	Sum per site, including site establishment, water supply for drilling, supervision, communications, security arrangements and all items not separately measured.
2.1a–f	Drilling at nominal 10 in diameter, by depth band	Linear metre actually drilled within each 100 m band to the depth instructed, including the 15 in surface section, drilling fluids and additives, lost-circulation materials, reaming required by this Specification, EC monitoring, conditioning, and hole stability.
2.2	Temporary surface casing	Linear metre installed (minimum 6 m), including withdrawal.
2.3	Drilling samples at 2 m intervals	Number of sample sets collected, labelled, stored and delivered.
2.4a / 2.4b	8 in plain casing / 8 in machine-slotted screen (uPVC or mild steel per BoQ and Section 2.6)	Linear metre installed per approved design, including centralisers, sump, bottom plug, couplings, welding, and stick-up.
2.5 / 2.6 / 2.7	Gravel pack / inert backfill / grouting material	Cubic metre placed as recorded and approved (gravel pack up to 115 % of theoretical); 2.7 includes bentonite seals, sand caps and the concrete collar.
2.8	Well development	Hour of development instructed and recorded, including chemicals and all development equipment.
2.9a / 2.9b	Test pumping / recovery measurements	Hour of pumping (step and constant-rate) and hour of recovery measurement; includes installation and removal of pump, discharge line, instruments, observation-borehole monitoring and analysis.
2.10a / 2.10b	Chemical / bacteriological analysis	Number of samples analysed by the accredited laboratory, including sampling, preservation and transport.
2.11	Well disinfection	Number, including chemicals, dechlorination and flushing.
2.12	Temporary wellhead capping and lock	Number, including lockable cap, padlock, ID plate.
2.13	Standby time	Hour, as defined in Section 2.25 (rate only).
2.14	Borehole camera review and reporting	Number (one per borehole): camera review report with annotated video files and feature log (Section 2.9).
2.15a	Downhole geophysical logging – SP and resistivity	Number (one per borehole), including fluid temperature, fluid conductivity and caliper logs, calibration, LAS data and interpretation report.
2.15b	Downhole geophysical logging – natural gamma	Number (one per borehole), including any through-casing gamma log instructed to check gravel-pack continuity.
2.16	CCTV survey	Number of surveys (two per borehole: Survey 1 and Survey 2, Section 2.9), including equipment, recording and disinfection of the camera.

BoQ item	Description	Measurement and inclusions
2.17	Verticality and alignment test	Number (one per borehole), including deviation survey and 12 m dummy test.
2.18	Field fluoride testing	Number (one set per borehole), covering all principal water strikes, end of development and the constant-rate test, including reagents and calibration standards.
2.19	Provisional sum – statutory WRA permits	Expended on the Engineer's instruction against receipts, in accordance with the Conditions of Contract.
2.20	ESHS provisional sum – HIV/AIDS and SEA/SH awareness by an approved service provider	Expended on the Engineer's instruction for the services described in Sections 4.6 and 4.7; the Contractor's own ESHS obligations remain included in its rates (Section 4.21).

2.31 Gas and hydrocarbon precautions

Parts of the project area lie within or close to the Lokichar and Lotikipi sedimentary basins, where petroleum exploration and production take place. Although the design depths are shallow, the Contractor shall keep a calibrated multi-gas detector (LEL, H_2S, CO, O_2) at each rig in operation, shall monitor the cuttings return and wellhead continuously when drilling sedimentary and lacustrine sequences, and shall stop drilling, make the site safe and notify the Engineer immediately if any gas, oil or bitumen shows are encountered. The Engineer will instruct the further course of action, which may include sealing of the interval or decommissioning of the borehole in accordance with Section 2.22. Smoking and naked flames are prohibited within the rig exclusion zone at all times.

3. Bill of Quantities – Basis and Site Schedules

A separate priced Bill of Quantities is provided for each Lot in Section IV (Bidding Forms) / the accompanying Excel workbooks (one Drilling BoQ workbook for each of Lots 1 to 4). Each workbook comprises a Summary, a General Mobilisation/Demobilisation sheet priced once per contract, one sheet per borehole, and a Notes and Assumptions sheet. Prices are in Kenya Shillings and exclude 16 % VAT, which is added on the collection pages. The quantities were derived on the following basis, which the Bidder shall note:

- screen length = one-third of the drill depth (rounded to the nearest metre); plain casing = drill depth less screen length;
- casing and screen material = uPVC where the drill depth is less than 250 m, mild steel where it is 250 m or more (sites at exactly 250 m are mild steel), subject to Section 2.6 where the Engineer instructs a different final depth;
- drilling quantities are split into 100 m depth bands (0–100 m … 500–600 m), quantified only down to the drill depth;
- per borehole: 6 m temporary surface casing; one sample set per 2 m; gravel pack at 0.020 m³ per metre of screen (annulus between a 10½ in hole and 8 in casing, plus 10 %); 1.0 m³ inert backfill; 1.5 m³ grouting material; 8 hours development; 29 hours test pumping (≤ 5 h step test + 24 h constant rate); 12 hours recovery; one chemical and one bacteriological analysis; one disinfection; one temporary wellhead cap; one camera review report; one SP/resistivity and one gamma logging run; two CCTV surveys; one verticality and alignment test; and one set of field fluoride tests;

- standby time is quoted as a rate only; statutory WRA permit fees and the HIV/AIDS and SEA/SH awareness services are provisional sums.

All quantities are provisional and will be re-measured in accordance with Section 2.30. Pump equipping, solar systems, storage and distribution works are not included. In the tables below, coordinates are in UTM (WGS 84) with approximate geographic equivalents; they shall be verified on site (Section 2.1).

3.1 Lot 1 – Kibish and Turkana South: site schedule

6 boreholes, total 1,100 m of drilling (2 mild steel, 4 uPVC), in Kibish, Liwan and Turkana South Sub-Counties.

Table 3.1: Lot 1 borehole schedule and principal quantities

Site	Name	VES	Easting (36N)	Northing (36N)	Lat. (°N)	Long. (°E)	Drill depth (m)	Casing / screen	Plain casing (m)	Screen (m)	Gravel pack (m³)
1.1	Kibish	VES 2	811596	584018	5.2773	35.811	200	uPVC	133	67	1.3
1.2	Kibish	VES 1	811327	584263	5.2795	35.8085	200	uPVC	133	67	1.3
1.3	Liwan	VES 2	796009	541942	4.8977	35.6689	250	Mild steel	167	83	1.7
1.4	Katilu	VES 3	772100	250619	2.2653	35.4464	100	uPVC	67	33	0.7
1.5	Katilu	VES 1	772311	250504	2.2643	35.4483	100	uPVC	67	33	0.7
1.6	Korinyang	VES 3	769959	247055	2.2332	35.4272	250	Mild steel	167	83	1.7
	Total Lot 1						**1,100**	**2 MS / 4 uPVC**	**734**	**366**	**7.4**

3.2 Lot 2 – Turkana West and Turkana South: site schedule

6 boreholes, total 1,470 m of drilling (4 mild steel, 2 uPVC), in Turkana West and Turkana South Sub-Counties.

Table 3.2: Lot 2 borehole schedule and principal quantities

Site	Name	VES	Easting (36N)	Northing (36N)	Lat. (°N)	Long. (°E)	Drill depth (m)	Casing / screen	Plain casing (m)	Screen (m)	Gravel pack (m³)
2.1	Nge'u	VES 1	696127	486724	4.4014	34.7674	320	Mild steel	213	107	2.1
2.2	Lokichoggio	VES 1	650179	463745	4.1944	34.3531	250	Mild steel	167	83	1.7
2.3	Lopuski	VES 2	708387	431290	3.8999	34.8767	250	Mild steel	167	83	1.7
2.4	Lopuski	VES 3	707488	430848	3.8959	34.8686	200	uPVC	133	67	1.3
2.5	Kainuk	VES 2	778581	197374	1.784	35.5039	250	Mild steel	167	83	1.7
2.6	Kainuk	VES 3	777878	196688	1.7778	35.4976	200	uPVC	133	67	1.3
	Total Lot 2						**1,470**	**4 MS / 2 uPVC**	**980**	**490**	**9.8**

3.3 Lot 3 – Loima and Turkana East: site schedule

6 boreholes, total 980 m of drilling (3 mild steel, 3 uPVC), in Loima and Turkana East Sub-Counties. Kagete and Kasuroi were found unfavourable and are not included.

Table 3.3: Lot 3 borehole schedule and principal quantities

Site	Name	VES	Easting (36N)	Northing (36N)	Lat. (°N)	Long. (°E)	Drill depth (m)	Casing / screen	Plain casing (m)	Screen (m)	Gravel pack (m³)
3.1	Kalokutanyang	VES 3	776004	362308	3.2748	35.4836	250	Mild steel	167	83	1.7
3.2	Kalokutanyang	VES 2	774637	370371	3.3477	35.4715	250	Mild steel	167	83	1.7
3.3	Lolupe	VES 1	760603	321952	2.9103	35.3443	80	uPVC	53	27	0.5
3.4	Lolupe	VES 2	760921	322003	2.9108	35.3472	80	uPVC	53	27	0.5
3.5	Morulem	VES 1	841772 ‡	217376 ‡	1.9638 ‡	36.0717 ‡	250	Mild steel	167	83	1.7
3.6	Morulem	VES 2	841772 ‡	217376 ‡	1.9638 ‡	36.0717 ‡	70	uPVC	47	23	0.5
	Total Lot 3						**980**	**3 MS / 3 uPVC**	**654**	**326**	**6.6**

‡ Map-derived site reference point for Morulem. The site summary gives Zone 37N source coordinates of 821901 E, 229191 N (VES 1) and 816495 E, 229120 N (VES 2), which duplicate the Lopii coordinates; the VES stations shall be located from the field pegs (see Section 3.5 and Table 3.5).

3.4 Lot 4 – Loima and Turkana South: site schedule

7 boreholes, total 1,600 m of drilling (4 mild steel, 3 uPVC), in Loima and Turkana South Sub-Counties.

Table 3.4: Lot 4 borehole schedule and principal quantities

Site	Name	VES	Easting (36N)	Northing (36N)	Lat. (°N)	Long. (°E)	Drill depth (m)	Casing / screen	Plain casing (m)	Screen (m)	Gravel pack (m³)
4.1	Lochor-Ekuyen	VES 2	741545	317348	2.869	35.1729	250	Mild steel	167	83	1.7
4.2	Lochor-Ekuyen	VES 1	741690	317362	2.8692	35.1742	250	Mild steel	167	83	1.7
4.3	Nachechea-Lorengippi	VES 2	719148	289030	2.6134	34.9711	250	Mild steel	167	83	1.7
4.4	Nachechea-Lorengippi	VES 3	718992	288857	2.6118	34.9697	250	Mild steel	167	83	1.7
4.5	Kakong'u	VES 2	781201	224613	2.0301	35.5278	200	uPVC	133	67	1.3
4.6	Kakong'u	VES 3	780893	223727	2.0221	35.5251	200	uPVC	133	67	1.3
4.7	Lokapel	VES 3	769320	261526	2.364	35.4216	200	uPVC	133	67	1.3
	Total Lot 4						**1,600**	**4 MS / 3 uPVC**	**1,067**	**533**	**10.7**

3.5 Coordinate harmonization record

All coordinates in this Section VII are harmonised to a single grid – **UTM Zone 36N, WGS 84** – with geographic equivalents. The source site list mixed Zones 36N and 37N and contained the errors shown below. The Contractor shall set its GNSS receivers to UTM Zone 36N (WGS 84) for setting out and

as-built records; where a site lies east of 36° E (Morulem) the Zone 36N values remain valid as an extended-zone projection. Harmonised values are binding for setting out, subject to the verification procedure in Section 2.1.

Table 3.5: Source and harmonised coordinates (sites with corrections only)

Site	Name / VES	Source value (zone, E, N)	Harmonised value (36N, E, N)	Lat. / Long. (WGS 84)	Basis of harmonisation
1.2	Kibish VES 1	36N, 811327, 584263 (drill point labelled "VES")	811327, 584263	5.2795 / 35.8085	No change to coordinates; drill point identified as VES 1 in accordance with the hydrogeological report (§5.3.1.3).
3.5	Morulem VES 1	37N, 821901, 229191 (duplicate of Lopii VES 3)	841772, 217376	1.9638 / 36.0717	Source values are copies of the Lopii coordinates. Site reference point georeferenced from the report map (Figure 1.4) using six sites with reliable coordinates (fit residual ≤ 1.3 km).
3.6	Morulem VES 2	37N, 816495, 229120 (duplicate of Lopii VES 1)	841772, 217376	1.9638 / 36.0717	As 3.5. The VES 2 station shall be located from the survey pegs (station 13, PQWT Profile 2) at setting out.

For Morulem (3.5 and 3.6) the harmonised value is a site reference point with an estimated accuracy of about ± 2 km. Before mobilisation to Morulem the Engineer shall obtain from the Employer's hydrogeologist, or re-survey jointly with the Contractor from the field pegs, the coordinates of each of the two VES stations (VES 1: station 7, Profile 1; VES 2: station 13, Profile 2), and shall record them on the site handover certificate. No claim will arise from this confirmation provided the stations lie within 5 km of the reference point.

4. Environmental, Social, Health and Safety (ESHS) Requirements

4.1 Framework

The Works are financed by IDA and are subject to the World Bank Environmental and Social Framework (ESF). The Contractor shall comply with the ESHS obligations in the Conditions of Contract and this Section, with the World Bank Group General EHS Guidelines, with the Environmental and Social Standards (ESS) applicable to the project – in particular ESS1 (assessment and management), ESS2 (labour and working conditions), ESS3 (resource efficiency and pollution prevention), ESS4 (community health and safety), ESS5 (land use), ESS6 (biodiversity), ESS7 (Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities), ESS8 (cultural heritage) and ESS10 (stakeholder engagement) – and with the project instruments made available by the Employer: the Environmental and Social Management Framework (ESMF), Labour Management Procedures (LMP), Stakeholder Engagement Plan (SEP) and grievance mechanism, Vulnerable and Marginalised Groups Framework/Plan, SEA/SH Prevention and Response Action Plan, the site-specific ESIA/ESMP(s) for the Turkana Batch 2 sites and the NEMA licence conditions. Where requirements differ, the more stringent shall apply.

4.2 Applicable Kenyan legislation

Topic	Principal instruments (as amended)
Environment and pollution	Constitution of Kenya, 2010 (Art. 42, 69, 70); Environmental Management and Co-ordination Act (Cap. 387); EMCA (Waste Management) Regulations, 2006; (Water Quality) Regulations, 2006; (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009; (Air Quality) Regulations, 2014; Sustainable Waste Management Act, 2022; Climate Change Act, 2016
Water resources	Water Act, 2016; Water Resources Regulations, 2021
Labour	Employment Act, 2007; Labour Relations Act, 2007; Employment (General) Rules, 2014 (hazardous work for children); Children Act, 2022; Work Injury Benefits Act, 2007; National Social Security Fund Act, 2013; Social Health Insurance Act, 2023
Occupational safety and health	Occupational Safety and Health Act, 2007 and subsidiary rules (including the Factories and Other Places of Work (Building Operations and Works of Engineering Construction) Rules, 1984, First Aid Rules, Fire Risk Reduction Rules, and Noise Prevention and Control Rules)
Gender and SEA/SH	Sexual Offences Act, 2006; Protection Against Domestic Violence Act, 2015; Employment Act (s. 6 – sexual harassment)
Land, communities and heritage	Land Act, 2012; Community Land Act, 2016; National Museums and Heritage Act, 2006
Biodiversity	Wildlife Conservation and Management Act, 2013; Forest Conservation and Management Act, 2016
Public health and traffic	Public Health Act (Cap. 242); Traffic Act (Cap. 403) and National Transport and Safety Authority Act, 2012

4.3 Contractor's ESMP (C-ESMP) and management plans

The ESHS Management Strategies and Implementation Plans submitted with the Bid shall be developed into a Contractor's Environmental and Social Management Plan (C-ESMP), submitted within 28 days of contract signature and in any case not less than 14 days before mobilisation to the first site. The C-ESMP shall be approved by the Engineer and the Employer (with World Bank review where required) before any physical works begin. It shall be site-specific for each Lot and shall include at least:

- Occupational Health and Safety Plan (including drilling-specific job hazard analyses, heat-stress management, and an emergency response and medical evacuation plan covering the remote sites);
- Labour Management Plan and Workers' Grievance Mechanism;
- SEA/SH Prevention and Response Plan, including the Accountability and Response Framework and Codes of Conduct;
- Stakeholder Engagement and Community Liaison Plan, including the community grievance mechanism interface;
- Security Management Plan, based on a security risk assessment for each Lot;
- Traffic and Journey Management Plan;
- Water Use Plan (sources, agreements, volumes, recycling);
- Waste Management Plan (drilling fluids, cuttings, saline discharge water, hazardous and domestic waste) and Spill Prevention and Response Plan;
- Community Health and Safety Plan, including HIV/AIDS and communicable-disease awareness;

- Chance-Finds Procedure (with particular attention to the palaeontological and archaeological heritage of the Turkana Basin); Biodiversity and Human–Wildlife Conflict Procedure;
- Camp/Accommodation Management Plan (where camps are used); and
- Site Restoration Plan.

The C-ESMP shall be reviewed at least every six months and whenever site conditions, methods or incidents require. If the Contractor fails to implement the approved C-ESMP after written instruction within the stated time, the Employer may have the action carried out by others at the Contractor's cost, and may withhold payment in accordance with the Conditions of Contract.

4.4 Labour and working conditions (ESS2)

- **Minimum age:** given the hazardous nature of drilling work, **no person under 18 years of age shall be employed or engaged** on the project, by the Contractor, subcontractors or primary suppliers. Age shall be verified before engagement from a national identity card, passport or birth certificate, and copies kept on file.
- **No forced labour**; written contracts in a language the worker understands; wages not below the statutory minimum, paid in full and on time by bank or mobile transfer; hours and overtime per the Employment Act; statutory deductions (NSSF, Social Health Insurance) remitted; WIBA insurance for all workers.
- **Local recruitment:** unskilled and semi-skilled labour shall be recruited from the host communities through a transparent, non-discriminatory process agreed with local leaders, with fair representation of women, youth and persons with disabilities, and with equitable opportunity across neighbouring communities and, near Kakuma and Kalobeyei, between host and refugee-hosting communities in accordance with applicable law. No worker shall pay a fee for employment.
- **Workers' grievance mechanism**, separate from the community mechanism, accessible and confidential, with no retaliation.
- **Accommodation:** where workers are housed, camps shall meet IFC/EBRD Workers' Accommodation guidance (space, ventilation, potable water, sanitation, separate facilities for women, lighting, security, fire safety) and shall not be located within 500 m of a settlement without the community's agreement.

4.5 Occupational health and safety

The Contractor shall manage all sites so that workers are protected against OHS risks, including at least: identification of hazards and job hazard analyses for each drilling operation; an OHS plan with roles and responsibilities; a full-time OHS officer per Lot and a trained site safety supervisor per active rig; induction and daily toolbox talks; training records; performance monitoring; incident investigation; emergency preparedness; and audit and review. Specific controls shall address:

- rotating equipment, pinch points and hoisting (guards, exclusion zones, certified slings and wire ropes, daily rig inspection checklists);
- high-pressure air and hoses (whip-checks on all connections, pressure relief, isolation before breaking connections);
- manual handling of casing and drill pipe (mechanical handling, team lifts);

- noise (hearing protection above 85 dB(A)), dust and respirable crystalline silica from quartz-rich gravel and gneiss (dust suppression, P2/FFP2 respirators);
- extreme heat (work–rest cycles adjusted to the heat index, shaded rest areas, at least 5 L of drinking water per worker per shift, electrolyte supplements, heat-illness recognition training, and avoidance of heavy manual work in the hottest hours);
- chemicals (SDS on site, PPE, eye-wash);
- gas and hydrocarbon shows (Section 2.31);
- snakes, scorpions and wildlife (anti-venom arrangements with the nearest health facility, snake-bite first-aid training);
- night work, lighting and fatigue (maximum 12-hour shifts, rest days);
- electrical safety of generators and welding sets;
- driving and journey management (Section 4.17).

Personal protective equipment (safety helmets, safety boots, high-visibility clothing, gloves, eye, hearing and respiratory protection, sun protection) shall be provided free of charge, maintained and its use enforced. Every rig shall have a trained first-aider per shift, a first-aid kit, a stretcher and a vehicle on standby for evacuation. The medical evacuation plan shall identify, and confirm before mobilisation, the nearest health facilities for each site group (e.g., Lodwar County Referral Hospital and the sub-county hospitals and mission hospitals at Lokichoggio, Kakuma, Lokichar, Katilu and Lokori) with travel times, and shall include arrangements for air evacuation from the most remote sites (Kibish, Liwan and Turkana East). Every worker has the right and duty to stop work that is unsafe.

Incident reporting

The Contractor shall notify the Engineer and the Employer of any serious or severe incident (fatality, lost-time injury, serious injury to a community member, SEA/SH allegation, violent protest or security incident, significant spill or environmental damage, child or forced labour, disease outbreak) **immediately and in any case within 24 hours**, so that the Employer can notify the World Bank within 48 hours in accordance with the ESIRT. A full investigation report with root-cause analysis and corrective actions shall follow within 10 days. Minor incidents and near misses shall be recorded and summarised in the monthly report.

4.6 Community health and safety (ESS4)

- Drill sites, mud pits and open boreholes shall be fenced, signed and supervised; boreholes shall be capped whenever unattended.
- Community members, especially children and livestock, shall be kept out of the work area; no spectators within the rig exclusion zone (radius ≥ mast height + 5 m).
- HIV/AIDS, STI and communicable-disease awareness and prevention (including access to condoms and voluntary counselling and testing referral) shall be provided to workers and adjacent communities by an approved service provider at least quarterly (provisional sum, item 2.20).
- Noise from operations shall not exceed 55 dB(A) by day and 45 dB(A) by night at the nearest residence (WBG EHS) or the limits of the Noise Regulations, whichever is stricter; night drilling near schools, health facilities or homesteads requires the Engineer's approval and community agreement.
- Dust shall be suppressed on access tracks near settlements by watering or speed control.

4.7 Sexual exploitation and abuse and sexual harassment (SEA/SH)

The Contractor shall apply a zero-tolerance policy on SEA/SH and shall:

- ensure that every worker (including subcontractors and drivers) reviews, understands and signs the Code of Conduct in Section IV before starting work, and display the key provisions on site in English, Kiswahili and Ng'aturkana (and other local languages where relevant);
- provide SEA/SH induction and refresher training at least every three months, and community sensitisation in coordination with the Employer's SEA/SH specialist (provisional sum, item 2.20, for the approved service provider);
- implement the SEA/SH Accountability and Response Framework, with a designated focal point, survivor-centred and confidential referral to the mapped GBV service providers in each sub-county, and sanctions up to dismissal and referral to the police;
- ensure SEA/SH-sensitive channels in the grievance mechanism (including female focal persons);
- provide separate, lockable and well-lit sanitary facilities and changing areas for women, and SEA/SH-free zone signage;
- prohibit any sexual activity with persons under 18, any exchange of money, employment, goods or services for sex, and fraternisation in a manner that abuses the power of project workers;
- minimise labour influx through local hiring and control workers' movements and conduct off site.

Failure to comply with SEA/SH obligations may lead to the consequences provided in the Conditions of Contract, including withholding of payment, removal of personnel and termination, and disqualification in accordance with World Bank policy.

4.8 Stakeholder engagement and grievance mechanism (ESS10)

Before setting up on each site the Contractor, together with the Employer, shall hold a community entry meeting with the area chief, ward administrator, council of elders, Water User Committee/Water Resource Users Association, women and youth representatives and, for institutional sites, the school or institution management. The meeting shall explain the works, duration, safety measures, water use, employment opportunities, the Codes of Conduct and the grievance mechanism, in Ng'aturkana or the local language. Minutes with attendance lists (disaggregated by gender) shall be kept. The Contractor shall participate in the project grievance mechanism, maintain a grievance log, acknowledge grievances within 3 days and resolve or escalate them within 14 days, and report all grievances monthly.

4.9 Pastoralist and historically underserved communities (ESS7)

The project area is inhabited predominantly by Turkana pastoralist and agro-pastoralist communities and, in border and boundary areas, by Nyangatom, Dassanech, Toposa and Pokot communities, who meet the criteria of ESS7. The Contractor shall respect customary institutions and decision-making, grazing and watering arrangements, livestock migration routes and dry-season grazing reserves, and sacred or culturally important sites, shall avoid blocking access to water and pasture, and shall support the Employer in implementing the Vulnerable and Marginalised Groups Plan, including culturally appropriate consultation and benefit-sharing (e.g., local employment). Engagement shall be sensitive to the risk that new water points may affect resource-sharing arrangements between neighbouring communities.

4.10 Land and access (ESS5)

Sites are located on community or institutional land made available by the Employer with documented consent under the Community Land Act or the relevant institution. The Contractor shall not acquire land and shall confine its operations to the agreed drill pad and access. Any temporary use of additional land (e.g., for camps or storage) requires a written agreement with the land holders, reviewed by the Engineer. Damage to property, crops, trees, water points or livestock shall be repaired or compensated by the Contractor, and a release certificate obtained from the owner; claims shall be handled through the grievance mechanism in line with ESS5 and the project Resettlement Policy Framework.

4.11 Water for construction

- Drilling water shall be obtained only from licensed water service providers or WRA-authorised sources, under a written agreement reviewed by the Engineer. Abstraction from community boreholes, shallow wells, scoop holes in river beds, pans or springs requires prior consultation with all identified users and the documented consent of the Water User Committee, and shall not reduce supplies to people or livestock, particularly in the dry season.
- Water use shall be minimised by recirculation through settling tanks; volumes used shall be recorded daily.
- Direct abstraction from the Turkwel and Kerio rivers, Lake Turkana or springs used by communities is prohibited unless authorised by WRA and agreed with the users.

4.12 Pollution prevention and waste management (ESS3)

- Spent drilling muds, foam residues and cuttings shall be contained in lined pits or tanks, dewatered and, after the Engineer's inspection, either buried in the lined pit under at least 1 m of clean soil (inert bentonite muds only) or removed to an approved disposal site. Muds containing hydrocarbons or non-approved chemicals are hazardous waste.
- Development and test-pumping discharge shall be managed as in Section 2.16; saline or highly mineralised water shall not be discharged onto grazing land, cropland (including the Katilu and Morulem irrigation areas), into laggas used by livestock or into rivers.
- Hazardous wastes (used oil, filters, batteries, chemical containers, contaminated soil) shall be segregated, stored in bunded and covered areas, and collected by NEMA-licensed handlers with waste-tracking documentation. Burning of waste is prohibited.
- Domestic waste shall be collected daily and disposed of at county-approved sites; no open defecation.
- Air emissions shall be minimised by maintained engines and no unnecessary idling; dust controlled as in Section 4.6.
- Records of all waste generation, transport and disposal shall be maintained and reported monthly.

4.13 Biodiversity (ESS6)

Some sites on the Turkwel–Kerio plains (Katilu, Korinyang, Kainuk, Kakong'u and Lokapel, in Lots 1, 2 and 4) lie near the South Turkana National Reserve and the riverine forests of the Turkwel and Kerio rivers, which are important habitats and dry-season resources. The Contractor shall coordinate with the Kenya Wildlife Service and Kenya Forest Service, shall not enter protected areas without authorisation, shall restrict vegetation clearing to the drill pad, shall not fell riverine or mature trees, and shall prohibit

hunting, trapping, purchase or transport of bushmeat, collection of firewood and charcoal, and feeding or harassment of wildlife. Human–wildlife conflict procedures shall be included in the C-ESMP.

4.14 Cultural heritage (ESS8)

The Turkana Basin contains internationally important palaeontological and archaeological sites, including fossil-bearing deposits along the Kerio valley and west of Lake Turkana. The Contractor shall avoid graves, shrines, sacred trees, ceremonial grounds and other culturally important sites identified by the community. Upon discovery of any archaeological, palaeontological or historical material, or human remains, work shall stop within 50 m, the area shall be protected and the Engineer notified within 24 hours so that the National Museums of Kenya can be contacted, in accordance with the Chance-Finds Procedure. Fossil material in drill cuttings shall be retained and reported.

4.15 Security

The Contractor shall carry out a security risk assessment for each Lot before mobilisation and prepare a Security Management Plan in line with ESS4 and the World Bank Good Practice Note on the use of security personnel. The plan shall cover liaison with the County Commissioner, County Security and Intelligence Committee and the National Police Service; journey management and convoy movement in daylight only; communication (satellite phones/radios) and check-in procedures; evacuation; protection of fuel and materials stores at the project base; and the conduct of any security personnel. Private security staff shall be vetted, trained in human rights and the use of force, and unarmed unless otherwise approved by the Employer. Use of public security forces (including any escorts) shall be coordinated through the Employer. Operations near the international borders (Kibish, Liwan and Lokichoggio), along the Turkana–Pokot boundary (Kainuk) and in Turkana East (Morulem) shall follow the advice of the security authorities, and work shall be suspended if the authorities so advise.

4.16 Climate and natural hazards

The Contractor shall monitor weather forecasts and Kenya Meteorological Department advisories, avoid locating camps, plant and pits in lagga and river beds or flood paths, secure equipment against high winds and dust storms, and include flash-flood and heat-wave responses in the emergency plan.

4.17 Traffic and road safety

- All drivers shall hold valid licences for the vehicle class, be trained in defensive and off-road driving and be subject to alcohol and drug testing.
- Maximum speeds (unless lower legal limits apply): 30 km/h within settlements and near schools, markets and water points; 60 km/h on unpaved roads; 80 km/h on paved highways; 15 km/h on site.
- No transport of unauthorised passengers, firearms, bushmeat, khat/miraa or alcohol in project vehicles; seat belts at all times; no use of phones while driving; no driving between sites after dark.
- Vehicles shall be inspected daily and fitted with GPS tracking; heavy loads shall be escorted and secured; livestock on roads shall be given right of way.

4.18 Site restoration

As Section 2.29. Topsoil removed for the pad shall be stockpiled in low mounds (≤ 1.5 m) and respread; compacted areas ripped; temporary access tracks closed and rehabilitated unless the community requests otherwise in writing.

4.19 ESHS monitoring and reporting

The Contractor shall submit monthly ESHS reports to the Engineer containing: ESHS management actions and approvals obtained; workforce data (numbers, local hires, gender, age verification); training delivered; OHS statistics (man-hours, LTI, recordable injuries, near misses); incidents and corrective actions; grievances (community and worker, including SEA/SH-related referrals, anonymised); water used and waste generated/disposed; inspection findings and non-conformities; stakeholder meetings; security incidents and movements suspended; and changes to methods or conditions with ESHS implications. Records of health, safety and welfare, and copies of incident reports, shall be appended.

4.20 Training of Contractor's personnel

All personnel shall receive induction on the C-ESMP, OHS (including heat stress), the Codes of Conduct, SEA/SH, HIV/AIDS, the grievance mechanisms, cultural sensitivity, security and emergency procedures before starting work, with refreshers at least quarterly. Training shall be recorded and records made available to the Engineer.

4.21 Payment for ESHS requirements

The cost of implementing the ESHS requirements, including the C-ESMP and its plans, ESHS personnel, PPE, training, security and site restoration, is deemed to be included in the Contractor's rates and prices, except for the services covered by the ESHS provisional sum (item 2.20) or any other specific BoQ item. Non-compliance may result in withholding of an amount from payment in accordance with the Conditions of Contract until the non-compliance is remedied.

5. Key Personnel – Duties on Site

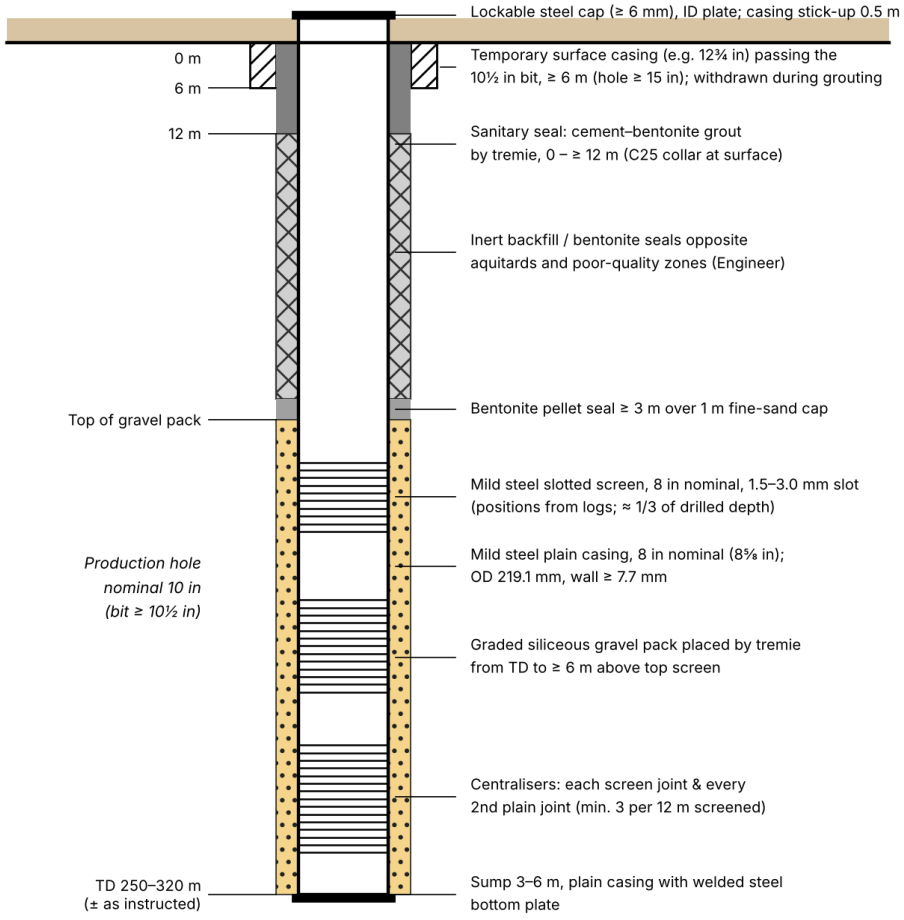
The Key Personnel listed in Section III (Table A.1 of Part A) shall be deployed as stated in the Bid. Their replacement requires the Engineer's prior approval of a person of equal or better qualifications and experience. In addition to their general duties:

- the **Project Manager** shall be resident in the project area for the duration of drilling operations and shall be the Contractor's representative for all instructions;
- a **Site Geologist/Hydrogeologist** shall be present at each active rig at all times during drilling, logging, casing installation and gravel packing, shall maintain the lithological log and EC/fluoride records, and shall present the data at each depth hold point (H2);
- the **Lead Hydrogeologist** shall attend all borehole-design (H3) and test-pumping (H6) hold points, and shall sign the logging interpretations, design proposals, pumping-test analyses, camera review reports and completion reports;
- the **Borehole Geophysical Logging Engineer** shall carry out or directly supervise all logging runs and shall sign the field prints, LAS files and log interpretation;
- the **ESHS Manager, OHS Officer, SEA/SH Specialist and Community Liaison Officer** shall be mobilised before physical works start and shall remain until site restoration is complete; the OHS Officer shall inspect every active site at least weekly.

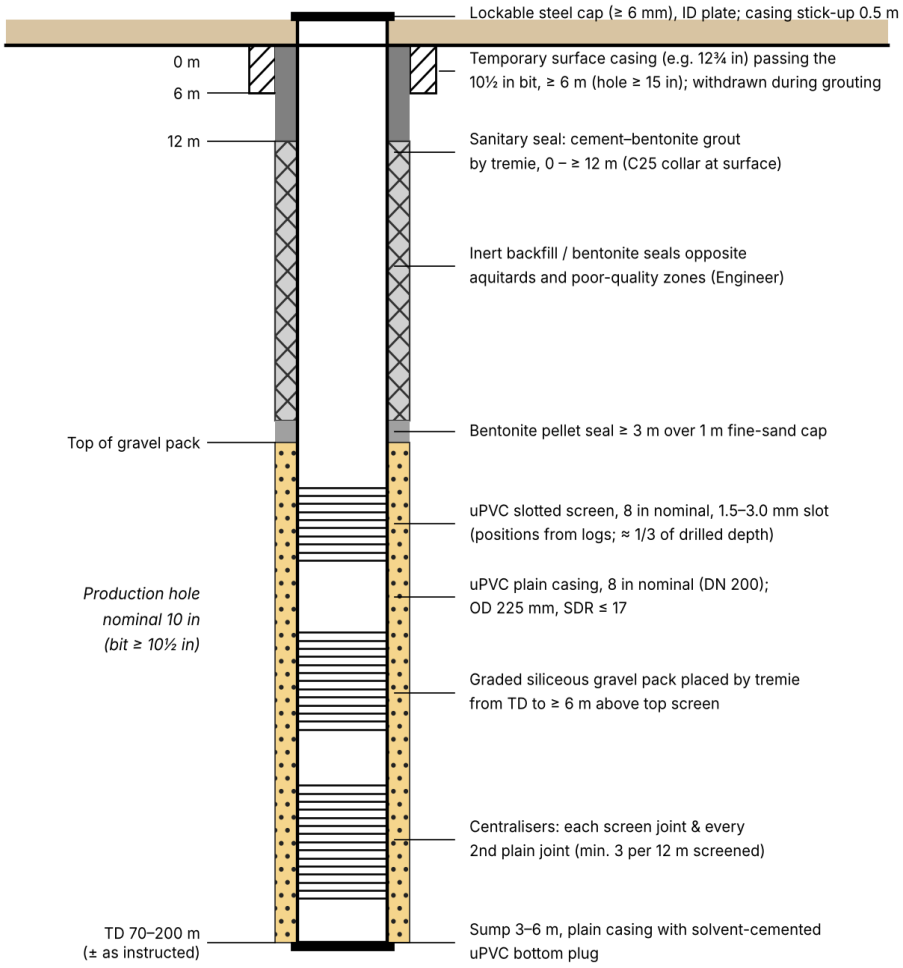
The Engineer may require the removal of any person who persists in misconduct, is incompetent or negligent, fails to comply with ESHS requirements or engages in SEA/SH.

6. Drawings

Drawings 1 and 2 show the typical borehole designs for mild-steel (drill depth ≥ 250 m) and uPVC (drill depth < 250 m) completions, drilled at 10 in nominal diameter with 8 in nominal casings and screens (screens about one-third of the drilled depth). They are indicative only: the final design of each borehole, including depth, screen and seal positions and gravel-pack interval, will be approved by the Engineer from the lithological and geophysical logs (Section 2.10). Where thick clays overlie the aquifer, the bentonite seals and sanitary grout shall be extended as required by Section 2.14. Site locations are given in Section 3 and in Figure 1.1; location sketches, PQWT sections, VES curves and survey photographs for each site are in the hydrogeological report and will be provided at site handover.



Drawing 1: Type A – mild-steel completion (drill depth ≥ 250 m) – NOT TO SCALE (upper 20 m exaggerated) (indicative; final design by the Engineer from logs)



Drawing 2: Type B – uPVC completion (drill depth < 250 m) – NOT TO SCALE (upper 20 m exaggerated) (indicative; final design by the Engineer from logs)

7. Drilling Activity Forms

The following forms are the minimum content of the field records. The Contractor may submit its own formats containing at least this information for the Engineer's approval. All forms shall be signed by the Contractor's site representative and countersigned by the Engineer's representative.

Form 1: Daily Drilling and Construction Report

Project	HoA-GW4RP – Turkana County Batch 2 Borehole Drilling
Contract No. / Lot No.	
Site No. / name / Ward / Sub-County	
UTM Zone 36N (WGS 84) E / N; elevation	
Employer / Engineer / Contractor	
Date / shift / weather	
Rig / compressor / crew on shift	

A. Drilling

From (m)	To (m)	Bit dia. / type	Method / fluid	Penetration (min/m)	Lithology (summary)	Water strike / air-lift yield (m^3/h)	EC / F^- / pH / T

B. Mud properties, water levels and materials

Mud density / viscosity / sand % / pH / filtrate	
Circulation losses (depth, volume)	
Rest water level start / end of shift (m bgl)	
Samples collected (from–to, number)	
Casing/screen installed (type, dia., m)	
Gravel / backfill / bentonite / grout placed (m^3)	
Development (method, hours, sand mg/L, NTU)	
Logging / CCTV / deviation survey carried out	

Gas detector readings / hydrocarbon shows	
Additives and chemicals used (product, quantity)	

C. ESHS, standby and remarks

Toolbox talk topic / attendance	
Incidents / near misses / grievances	
Security status / movements	
Standby time instructed (hours, reason, instruction No.)	
Problems / remarks	
Contractor's representative (name, signature, date)	
Engineer's representative (name, signature, date)	

Form 2: Casing and Screen Tally and Installation Record

Joint No.	Type (plain / screen / sump)	Material	OD × wall (mm)	Slot (mm)	Length (m)	Top (m bgl)	Bottom (m bgl)	Centraliser (Y/N)	Heat / serial No.

Form 3: Gravel Pack, Seal and Grout Placement Record

Material (grading / product)	Interval from–to (m)	Theoretical volume (m^3)	Placed volume (m^3)	Difference (%)	Method (tremie / pour)	Sounded level (m)	Remarks

Material (grading / product)	Interval from–to (m)	Theoretical volume (m^3)	Placed volume (m^3)	Difference (%)	Method (tremie / pour)	Sounded level (m)	Remarks

Form 4: Well Development Record

Date / time	Method (flush / chemical / surge / air-lift / jet / pump)	Interval (m)	Q (m^3/h)	DWL (m)	Sand (mg/L)	Turbidity (NTU)	EC (µS/cm)	Remarks

Form 5: Pumping Test Field Sheet

Project	HoA-GW4RP – Turkana County Batch 2 Borehole Drilling
Contract No. / Lot No.	
Site No. / name / Ward / Sub-County	
UTM Zone 36N (WGS 84) E / N; elevation	
Employer / Engineer / Contractor	
Test phase (step No. / constant rate / recovery)	
Pump type / setting depth (m) / generator (kVA)	
SWL before test (m bgl) / measuring point height (m agl)	
Start date and time / target Q (m^3/h)	
Observation borehole(s): site No. / distance (m) / SWL	

Clock time	Elapsed time t (min)	Water level (m below MP)	Drawdown / residual drawdown (m)	Q meter (m^3/h)	Q volumetric check (m^3/h)	EC (µS/cm)	T (°C)	pH	Remarks

Contractor's representative: _____ Engineer's representative: _____

Appendix A – Supporting Technical Data, Lot 1: Kibish and Turkana South

A.1 Hydrogeological setting

Lot 1 combines two contrasting settings. Kibish and Liwan, in the remote Ilemi area near the South Sudan and Ethiopia borders, are dominated by Quaternary to Tertiary alluvial, colluvial and lacustrine sediments over Cenozoic lava flows. The VES models show a very low-resistivity sandy clay or clayey sand cover (7–20 Ωm) over highly to very highly weathered basalt, which forms the principal aquifer, and PQWT profiles show a consistent high-resistivity horizon at about 400–470 m, interpreted as fresh bedrock. Katilu and Korinyang, on the Turkwel plains of Turkana South, lie on Precambrian gneisses and granitoids with alluvium along the river: the aquifer is highly weathered gneiss (9–52 m at Katilu and 21–184 m at Korinyang, where weathered basalt follows), and at Katilu fresh gneiss of 2,300–3,000 Ωm lies below about 50 m.

A.2 Site-specific interpretation and drilling guidance

The table summarises, for each borehole, the interpreted geo-electrical sequence at the selected VES point (depths in m bgl, true resistivity in Ωm), the target aquifer(s) and specific guidance for drilling and completion. Interpreted depths are approximate; the final design will be based on the drilling, EC monitoring and logging results. The general EC stop criterion of Section 2.6 applies at every site.

Table A.1: Lot 1 site data

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
1.1	Kibish VES 2 200 m (uPVC)	Dry sandy topsoil 0–0.4 m (247); sandy clay 0.4–19 m (19); highly weathered basalt 19–47 m (172, interpreted non-aquiferous at this point); clayey sand > 47 m (8)	Slightly aquiferous clayey sands below 47 m; PQWT moderate-resistivity zone ~150–400 m	Marginal target at the selected point – Engineer to review at each H2 hold point. Fully penetrate the basalt; EC every 2 m. Remote border site: security clearance and air-evacuation arrangements required.
1.2	Kibish VES 1 200 m (uPVC)	Moist topsoil and dry sand to 2.5 m; sandy clay 2.5–14.8 m (11.4); highly weathered basalt 14.8–41 m (101); clayey sand > 41 m (7.7)	Weathered basalt 15–41 m (primary); clayey sands below 41 m (slight)	Case and seal the sandy clay; screen the weathered basalt and any productive deeper horizon. 364 m from 1.1 – monitor during test pumping.
1.3	Liwan VES 2 250 m (Mild steel)	Dry sandy topsoil 0–2.4 m (184); sandy clay 2.4–50 m (10.3, slightly aquiferous); very highly weathered basalt > 50 m (24)	Very highly weathered basalt below 50 m	Low basalt resistivity may reflect clay alteration or mineralised water – monitor EC and fluoride closely; seal the sandy clay.
1.4	Katilu VES 3 100 m (uPVC)	Topsoil and dry sandy soil to 8.7 m; highly weathered gneiss 8.7–50 m (122); fresh gneiss > 50 m (2,970)	Weathered gneiss 8.7–50 m	Very hard, abrasive fresh gneiss below ~50 m – DTH with button bits. The Engineer may stop drilling where no fractures are met after ≥ 20 m of fresh rock. 240 m from 1.5.
1.5	Katilu VES 1 100 m (uPVC)	Topsoil and sandy soil to 11 m; very highly weathered gneiss 11–52 m (98); fresh gneiss > 52 m (2,324)	Weathered gneiss 11–52 m	As 1.4. Drill one Katilu borehole first and observe in the other during test pumping.
1.6	Korinyang VES 3 250 m (Mild steel)	Topsoil and dry sand to 7.5 m; clayey sand 7.5–21 m (5.3); highly weathered gneiss 21–184 m (163); very highly weathered basalt > 184 m (34)	Weathered gneiss 21–184 m and basalt below	Thick productive section; possible circulation loss at the gneiss–basalt contact (~184 m). Seal the clayey sand.

Source: *Hydrogeological/Geophysical Survey Report for Turkana County Batch 2 Sites*, CAS Consultants Ltd, July 2026 (Chapters 2 and 5), which includes the PQWT/ADMT sections, VES curves, interpreted layer models and site descriptions. The report is available for inspection by Bidders at the Employer's offices and will be provided to the Contractor.

Appendix B – Supporting Technical Data, Lot 2: Turkana West and Turkana South

B.1 Hydrogeological setting

Nge'u, Lokichoggio and Lopuski, in Turkana West, lie on Quaternary to Tertiary sediments with Precambrian basement inliers (gneisses and schists) around Lokichoggio and Lopuski; NW–SE and N–S faults transect both basement and sediments. At these sites the VES models show a thick, very low-resistivity clay or sandy clay cover (2–20 Ωm) over highly to very highly weathered basalt, the principal aquifer, whose depth varies from about 16 m (Lopuski VES 3) and 78 m (Nge'u) to more than 265 m (Lokichoggio VES 1, Lopuski VES 2). Kainuk, on the Turkana–West Pokot boundary in Turkana South, lies in a basement-dominated terrain with volcanic rocks or basement inliers; the report gives only a qualitative interpretation for Kainuk.

B.2 Site-specific interpretation and drilling guidance

The table summarises, for each borehole, the interpreted geo-electrical sequence at the selected VES point (depths in m bgl, true resistivity in Ωm), the target aquifer(s) and specific guidance for drilling and completion. Interpreted depths are approximate; the final design will be based on the drilling, EC monitoring and logging results. The general EC stop criterion of Section 2.6 applies at every site.

Table B.1: Lot 2 site data

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
2.1	Nge'u VES 1 320 m (Mild steel)	Sandy topsoil and soil to 9.5 m; clay 9.5–77.8 m (3); highly weathered basalt > 77.8 m (136)	Highly weathered basalt below 78 m	Deepest borehole in the Contract (320 m). The report requires the clay to be cased and sealed with cement–bentonite grout. Drill the clay with inhibitive PHPA mud; temporary casing if hole closure occurs.
2.2	Lokichoggio VES 1 250 m (Mild steel)	Sandy topsoil/soil to 15.3 m; thick sandy clay 15.3–265 m (13.6, slightly aquiferous); very highly weathered basalt > 265 m (22)	Very highly weathered basalt below 265 m (primary); sandy clay (slight)	**Primary aquifer interpreted below the 250 m design depth.** Engineer to decide at the 250 m hold point; deepening to about 300–320 m is expected, subject to EC.
2.3	Lopuski VES 2 250 m (Mild steel)	Sandy topsoil/dry sand to 32 m (42); sandy clay 32–268 m (15, slightly aquiferous); very highly weathered basalt > 268 m (20)	Very highly weathered basalt below 268 m	**Primary aquifer below the 250 m design depth** – as for 2.2. Long clay section: maintain mud properties and hole stability.
2.4	Lopuski VES 3 200 m (uPVC)	Moist topsoil 0–0.4 m; loose dry sand 0.4–2 m (625); clay 2–16 m (4.5); very highly weathered basalt > 16 m (25)	Very highly weathered basalt from 16 m – shallowest aquifer in Lot 2	Stabilise the loose top hole; case and seal the clay, with the sanitary seal extending to ≥ 19 m. Final depth may be less than 200 m if the basalt is fully penetrated.
2.5	Kainuk VES 2 250 m (Mild steel)	No layered model in the report. VES curve rises from ~25 Ωm to a peak of ~95–100 Ωm at AB/2 60–80 m, then declines slightly	Not defined quantitatively	**Weakly supported site** – the Engineer shall obtain the layered interpretation from the consultant before mobilisation. Kainuk is on the Turkana–West Pokot boundary – security clearance required.
2.6	Kainuk VES 3 200 m (uPVC)	No layered model in the report. VES curve shows a shallow conductive zone (~8–9 Ωm at AB/2 6–8 m), then increasingly resistive material	Possible shallow conductive horizon	As 2.5. Deeper zones interpreted as increasingly unfavourable – Engineer to review final depth at H2.

Source: *Hydrogeological/Geophysical Survey Report for Turkana County Batch 2 Sites*, CAS Consultants Ltd, July 2026 (Chapters 2 and 5), which includes the PQWT/ADMT sections, VES curves, interpreted layer models and site descriptions. The report is available for inspection by Bidders at the Employer's offices and will be provided to the Contractor.

Appendix C – Supporting Technical Data, Lot 3: Loima and Turkana East

C.1 Hydrogeological setting

Kalokutanyang and Lolupe, in Loima, lie in a heterogeneous setting of sedimentary cover with intrusive or altered volcanic bodies. The aquifers interpreted at the drilling points are weathered phonolite below thick clayey sand at Kalokutanyang (at or below the 250 m design depth at VES 3) and weathered sandstone below a heavy clay aquitard at Lolupe (below 104 m and 65 m, i.e. at or below the 80 m design depth). Morulem, in Turkana East, lies in a highly heterogeneous zone of volcanic rocks, lateritic and weathered deposits and possibly altered zones at the margin of the rift; very conductive units and the 0.9 Ωm "aquifer" at Morulem VES 1 indicate a significant salinity risk. Morulem coordinates are given as a map-derived site reference point (Table 3.5).

C.2 Site-specific interpretation and drilling guidance

The table summarises, for each borehole, the interpreted geo-electrical sequence at the selected VES point (depths in m bgl, true resistivity in Ωm), the target aquifer(s) and specific guidance for drilling and completion. Interpreted depths are approximate; the final design will be based on the drilling, EC monitoring and logging results. The general EC stop criterion of Section 2.6 applies at every site.

Table C.1: Lot 3 site data

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
3.1	Kalokutanyang VES 3 250 m (Mild steel)	Thin topsoil, sandy soil and clay to 3.8 m (1.9–18); sandy clay 3.8–250 m (19, slightly aquiferous); very highly weathered phonolite > 250 m (90)	Weathered phonolite at/below 250 m	**Main aquifer at or below the design depth** – Engineer to review at the 200 m and 250 m hold points; deepening to about 300 m likely if EC acceptable. Screen the sandy clay only where yields justify.
3.2	Kalokutanyang VES 2 250 m (Mild steel)	Topsoil 0–1.1 m (1.5); clayey sand 1.1–80 m (8.4, non-aquiferous); highly weathered phonolite > 80 m (146)	Highly weathered phonolite below 80 m	Case and seal the clayey sand to at least 83 m; phonolite may be hard – DTH.
3.3	Lolupe VES 1 80 m (uPVC)	Topsoil and moist sandy soil to 30 m (38–80); clay 30–104 m (3.8); weathered sandstone > 104 m (295)	Weathered sandstone below 104 m	**The 80 m design depth ends within the clay aquitard.** Engineer to instruct deepening (about 150 m) or confirm otherwise before mobilisation. Design gravel pack from sieve analysis.
3.4	Lolupe VES 2 80 m (uPVC)	Topsoil and sandy soil to 33 m (30–76); heavy clay 33–65 m (0.5); highly weathered sandstone > 65 m (128)	Highly weathered sandstone below 65 m	The 80 m design depth gives only ~15 m of aquifer – deepening to ≥ 120 m recommended. The 0.5 Ωm clay may contain saline water – seal fully; EC at every strike. 322 m from 3.3.
3.5	Morulem VES 1 250 m (Mild steel)	Topsoil and resistive dry soil to 6 m (1,158); unclassified unit 6–150 m (20); "highly weathered basalt" > 150 m (0.9)	Weathered basalt below 150 m (uncertain)	**High salinity risk** – 0.9 Ωm is characteristic of saline water or clay; apply the EC stop criterion strictly. Map-derived site reference point; VES 1 station (Profile 1, station 7) to be located from the pegs (Table 3.5).

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
3.6	Morulem VES 2 70 m (uPVC)	Thin topsoil and soil; resistive layer 0.9–7 m (1,050); conductive unit 7–55 m (4.5); highly weathered basalt > 55 m (9.3)	Weathered basalt below 55 m	The 70 m design depth gives only ~15 m of aquifer – deepening to ≥ 100 m recommended. Low resistivities – salinity risk. VES 2 station (Profile 2, station 13) to be located from the pegs.

Source: *Hydrogeological/Geophysical Survey Report for Turkana County Batch 2 Sites*, CAS Consultants Ltd, July 2026 (Chapters 2 and 5), which includes the PQWT/ADMT sections, VES curves, interpreted layer models and site descriptions. The report is available for inspection by Bidders at the Employer's offices and will be provided to the Contractor.

Appendix D – Supporting Technical Data, Lot 4: Loima and Turkana South

D.1 Hydrogeological setting

Lochor-Ekuyen and Nachechea-Lorengippi, in Loima, lie where sedimentary basin fill interfingers with basement inliers and volcaniclastics: the aquifers are weathered basalt beneath a sandy cover at Lochor-Ekuyen and weathered gneiss at Nachechea-Lorengippi, the latter bounded below by less fractured gneiss at VES 3. Kakong'u and Lokapel, on the Turkwel–Kerio plains of Turkana South, are in a basement-dominated terrain of Precambrian gneisses and granitoids with basalt at Kakong'u VES 2; aquifers are highly weathered gneiss (26 m to TD at Lokapel; 15–60 m at Kakong'u VES 3) and weathered basalt below 143 m (Kakong'u VES 2). Very conductive clays at Kakong'u indicate a salinity risk.

D.2 Site-specific interpretation and drilling guidance

The table summarises, for each borehole, the interpreted geo-electrical sequence at the selected VES point (depths in m bgl, true resistivity in Ωm), the target aquifer(s) and specific guidance for drilling and completion. Interpreted depths are approximate; the final design will be based on the drilling, EC monitoring and logging results. The general EC stop criterion of Section 2.6 applies at every site.

Table D.1: Lot 4 site data

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
4.1	Lochor-Ekuyen VES 2 250 m (Mild steel)	Topsoil (2.5) and dry sandy soil to 52 m (49.5); unclassified unit 52–86 m (34); "highly weathered basalt" > 86 m (2.5)	Weathered basalt below 86 m (uncertain)	A resistivity of 2.5 Ωm is abnormally low for basalt and may indicate clay or saline water; the report itself questions the data. High water-quality risk. **146 m from 4.2** – Engineer may drill 4.2 first and decide on 4.1.
4.2	Lochor-Ekuyen VES 1 250 m (Mild steel)	Topsoil and dry sandy soil to 38.5 m (175/7.7); resistive unit 38.5–67 m (240, possibly lava); highly weathered basalt > 67 m (28)	Highly weathered basalt below 67 m	DTH through the resistive unit; seal the upper sandy soil.
4.3	Nachechea-Lorengippi VES 2 250 m (Mild steel)	Topsoil and moist sandy soil to 26 m (124/17); highly weathered gneiss 26–53 m (180) and > 53 m (128)	Highly weathered gneiss below 26 m (continuous)	Basement – DTH below the weathered zone; good vertical continuity. 233 m from 4.4.

Site	Name / VES / depth	Interpreted sequence at drilling point	Target aquifer(s)	Drilling and completion guidance
4.4	Nachechea-Lorengippi VES 3 250 m (Mild steel)	Topsoil and sandy soil to 9.5 m; very highly weathered gneiss 9.5–106 m (100); marginally fractured gneiss > 106 m (602, non-aquiferous)	Very highly weathered gneiss 9.5–106 m	Engineer to review the benefit of drilling beyond about 130 m at H2; lesser final depth likely (material per Section 2.6).
4.5	Kakong'u VES 2 200 m (uPVC)	Topsoil and dry sand to 10.6 m; sandy clay 10.6–143 m (12.2, slightly aquiferous); highly weathered basalt > 143 m (19.5)	Weathered basalt below 143 m	Deep target beneath thick sandy clay – inhibitive mud; seal the sandy clay. About 940 m from 4.6.
4.6	Kakong'u VES 3 200 m (uPVC)	Topsoil and dry sand to 4.9 m; clay 4.9–15 m (1.6); very highly weathered gneiss 15–60 m (53.5); clay > 60 m (4.9, non-aquiferous)	Weathered gneiss 15–60 m (bounded)	Seal the very conductive upper clay (possible saline pore water). Drilling far into the lower clay is unlikely to add yield – lesser final depth likely.
4.7	Lokapel VES 3 200 m (uPVC)	Topsoil and dry sandy soil to 9 m; clayey sand 9–26 m (7.7); highly weathered gneiss 26–151 m (135); very highly weathered gneiss > 151 m (42)	Weathered gneiss from 26 m to TD (thick, continuous)	Most favourable sounding at Lokapel. Seal the clayey sand.

Source: *Hydrogeological/Geophysical Survey Report for Turkana County Batch 2 Sites*, CAS Consultants Ltd, July 2026 (Chapters 2 and 5), which includes the PQWT/ADMT sections, VES curves, interpreted layer models and site descriptions. The report is available for inspection by Bidders at the Employer's offices and will be provided to the Contractor.

PART 3 – Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

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General Conditions of Contract

A. General

1. Definitions Boldface type is used to identify defined terms.

(a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

(b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump-sum contract. It includes a lump-sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.

(c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.

(d) **Bank** means the financing institution **named in the PCC**.

(e) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

(f) **Compensation Events** are those defined in GCC Clause 42 hereunder.

(g) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 57.1.

(h) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.

(i) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.

(j) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.

(k) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.

(l) **Days** are calendar days; months are calendar months.

(m) **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

(n) A **Defect** is any part of the Works not completed in accordance with the Contract.

(o) The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.

(p) The **Defects Liability Period** is the period **named in the PCC** pursuant to GCC Sub-Clause 38.1 and calculated from the Completion Date.

(q) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

(r) The **Employer** is the party who employs the Contractor to carry out the Works, **as specified in the PCC**.

(s) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

(t) "**In writing"** or "**written"** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

(u) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

(v) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The **Intended Completion Date** is specified in the PCC. The **Intended Completion Date** may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

(w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.

(x) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

(y) The **Project Manager** is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible

for supervising the execution of the Works and administering the Contract.

(z) **PCC** means Particular Conditions of Contract.

(aa) The **Site** is the area defined as such in the PCC.

(bb) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.

(cc) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.

(dd) The **Start Date** is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

(ee) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

(ff) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

(gg) A **Variation** is an instruction given by the Project Manager which varies the Works.

(hh) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the PCC.

(ii) "**Contractor's Personnel**" refers to all personnel whom the Contractor utilizes on the Site or other places where the Works are carried out, including the staff, labor and other employees of each Subcontractor.

(jj) **"Key Personnel"** means the positions (if any) of the Contractor's personnel that are stated in the Specification.

(kk) **"ES"** means Environmental and Social (including Occupational/Community Health and Safety, Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));

(ll) **"Sexual Exploitation and Abuse" "(SEA)"** means the following:

Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed operations/projects, sexual exploitation occurs when access to or benefit from a Bank financed Goods, Works, Non-consulting Services or Consulting Services is used to extract sexual gain;

Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;

(mm) **"Sexual Harassment" "(SH)"** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel; and

(nn) **"Employer's Personnel"** refers to the Project Manager and all other staff, labor and other employees (if any) of the Project Manager and of the Employer engaged in fulfilling the Employer's obligations under the Contract; and any other personnel identified as Employer's Personnel, by a notice from the Employer or the Project Manager to the Contractor.

2. Interpretation

2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

(a) Agreement,

(b) Letter of Acceptance,

(c) Contractor's Bid,

(d) Particular Conditions of Contract,

(e) General Conditions of Contract, including Appendices,

(f) Specification,

(g) Drawings,

(h) Bill of Quantities, and

(i) any other document **listed in the PCC** as forming part of the Contract.

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.

3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when

(a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or

(b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

4. Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 Unless otherwise **specified in the PCC,** the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 28.1.

7.2 Submision by the Contractor for approval of the Project Manager, addition of any Subcontractor not named in the Contract, shall also include the Subcontractor's declaration in accordance with Appendix C- Sexual exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC.** The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

8.2 The Contractor shall also, as stated in the Specification or as instructed by the Project Manager, cooperate with and allow appropriate opportunities for the Employer's or any other personnel, notified to the Contractor by the Employer or Project Manager, to conduct any environmental and social assessment.

9. Personnel and Equipment

9.1 The Contractor shall employ the Key Personnel and use the Equipment identified in its Bid, to carry out the Works or other personnel and Equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and Equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Key Personnel (if any), who:

(a) persists in any misconduct or lack of care;

(b) carries out duties incompetently or negligently;

(c) fails to comply with any provision of the Contract;

(d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;

(e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works;

(f) has been recruited from the Employer's Personnel;

(g) undertakes behavior which breaches the Code of Conduct for Contractor's Personnel (ES).

If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience.

Notwithstanding any requirement from the Project Manager to remove or cause to remove any person, the Contractor shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from the Site or other places where the Works are being carried out, any Contractor's Personnel who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above.

9.3 The Contractor shall take all necessary safety measures to avoid the occurrence of incidents and injuries to any third party, associated with the use of, if any, Equipment on public roads or other public infrastructure. The Contractor shall monitor road safety incidents and accidents to identify negative safety issues, and establish and implement necessary measures to resolve them.

9.4 Labor

9.4.1 *Engagement of Staff and Labor*. The Contractor shall provide and employ on the Site for the execution of the Works such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.

Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and welfare facilities in accordance with GCC Sub-Clause 9.4.6, of the Contractor's Personnel, and for all payments in connection therewith.

The Contractor shall provide the Contractor's Personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under relevant labor laws applicable to the Contractor's Personnel (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the Specification. The Contractor's Personnel shall be informed when any material changes to their terms or conditions of employment occur.

9.4.2 *Conditions of Labor*. The Contractor shall inform the Contractor's Personnel about:

(a) any deduction to their payment and the conditions of such deductions in accordance with the applicable laws or as stated in the Specification; and

(b) their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the laws of the Country for the time being in force.

The Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws.

Where required by applicable laws or as stated in the Specification, the Contractor shall provide the Contractor's Personnel written notice of termination of employment and details of severance payments in a timely manner. The Contractor shall have paid the Contractor's Personnel (either directly or where appropriate for their benefit) all due wages and entitlements including, as applicable, social security benefits and pension contributions, on or before the end of their engagement/ employment.

9.4.3 The Contractor may bring into the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.

9.4.4 The Contractor shall at its own expense provide the means of repatriation to and the Contractor's Personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.

9.4.5 *Disorderly conduct.* The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst the Contractor's Personnel.

9.4.6 *Facilities for Staff and Labor*. Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. If stated in the Specification, the Contractor shall give access to or provide services that accommodate the physical, social and cultural needs of the Contractor's Personnel. The Contractor shall also provide similar facilities for the Employer's Personnel if stated in the Specification.

9.4.7 The Contractor shall, in all dealings with the Contractor's Personnel, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor. The Contractor shall provide the Contractor's Personnel annual holiday and sick, maternity and family leave, as required by applicable laws or as stated in the Specification.

9.4.8 *Supply of Foodstuff*s. The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

9.4.9 *Supply of Water*. The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

9.4.10 *Measures against Insect and Pest Nuisance.* The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

9.4.11 *Alcoholic Liquor or Drugs*. The Contractor shall not, otherwise than in accordance with the laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.

9.4.12 *Arms and Ammunition*. The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

9.4.13 *Funeral Arrangements.* The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.

9.4.14 *Forced Labor.* The Contractor, including its Subcontractors, shall not employ or engage forced labor. Forced labor consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.

9.4.15 *Child Labor*. The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 18 for any work.4*Employment Records of Workers.* The Contractor shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers. These records

shall be summarized on a monthly basis and submitted to the project Manager.

9.4.16 *Workers' Organizations*. In countries where the relevant labor laws recognize workers' rights to form and to join workers' organizations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labor laws substantially restrict workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and collective bargaining or alternative mechanisms. Workers' organizations are expected to fairly represent the workers in the workforce.

9.4.17 *Non-Discrimination and Equal Opportunity.* The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.

Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Sub-Clause 9.4.15).

9.4.18 *Contractor's Personnel Grievance Mechanism.* The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in GCC Sub-Clause 9.4.17, to raise workplace concerns. The

grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner.

The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for its use. Measures will be put in place to make the grievance mechanism easily accessible to all Contractor's Personnel.

The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available, or substitute for grievance mechanisms provided through collective agreements.

The grievance mechanism may utilize existing grievance mechanisms, providing that they are properly designed and implemented, address concerns promptly, and are readily accessible to Contractor's Personnel. Existing grievance mechanisms may be supplemented as needed with Contract-specific arrangements.

9.4.19 *Training of Contractor's Personnel.* The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA and SH, and health and safety training referred to in GCC Sub-Clause 18.2.

As stated in the Specification or as instructed by the Project Manager, the Contractor shall also allow appropriate opportunities for the relevant Contractor's Personnel to be trained on ES aspects of the Contract by the Employer's Personnel.

The Contractor shall provide training on SEA and SH, including its prevention, to any of its personnel who has a role to supervise other Contractor's Personnel.

10. Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

(ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

(a) a Defect which existed on the Completion Date,

(b) an event occurring before the Completion Date, which was not itself an Employer's risk, or

(c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor's risks:

(a) loss of or damage to the Works, Plant, and Materials;

(b) loss of or damage to Equipment;

(c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and

(d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specification and Drawings.

15.2 If the Contract specifies that the Contractor shall design any part of the permanent Works, the Contractor shall take into the Employer's requirements which may include, if stated in the Specification:

(a) designing structural elements of the Works taking into account climate change considerations;

(b) applying the concept of universal access (the concept of universal access means unimpeded access for people of all ages and abilities in different situations and under various circumstances; and

(c) considering the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events.

16. The Works to Be Completed by the Intended Completion Date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

16.2 The Contractor shall not carry out mobilization to the Site unless the Project Manager gives approval, an approval that shall not be

unreasonably delayed, to the measures the Contractor proposes to address environmental and social risks and impacts, which at a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.

The Contractor shall submit, to the Project Manager for its approval any additional MSIPs as are necessary to manage the ES risks and impacts of ongoing Works. These MSIPs collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The Contractor shall review the C-ESMP, periodically (but not less than every six (6) months), and update it as required to ensure that it contains measures appropriate to the Works. The updated C-ESMP shall be submitted to the Project Manager for its approval.

17. Approval by the Project Manager

17.1 The Contractor shall submit Specification and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.

17.2 The Contractor shall be responsible for design of Temporary Works.

17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Health, Safety and Protection of the Environment

18.1 The Contractor shall be responsible for the safety of all activities on the Site.

18.2 The Contractor shall:

(a) comply with all applicable health and safety regulations and Laws;

(b) comply with all applicable health and safety obligations specified in the Contract;

(c) take care for the health and safety of all persons entitled to be on the Site and other places, if any, where the Works are being executed;

(d) keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;

(e) provide fencing, lighting, safe access, guarding and watching of the Works until the issue of the Contract Certificate of Completion;

(f) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land;

(g) provide health and safety training of Contractor's Personnel as appropriate and maintain training records;

(h) actively engage the Contractor's Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor's Personnel, training on occupational safety and health, and provision of personal protective equipment without expense to the Contractor's Personnel;

(i) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health;

(j) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal;

(k) where the Employer's Personnel, any other contractors employed by the Employer, and/or personnel of any legally constituted public authorities and private utility companies are employed in carrying out, on or near the site, of any work not included in the Contract, collaborate in applying the health and safety requirements, without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and

(l) establish and implement a system for regular (not less than six-monthly) review of health and safety performance and the working environment.

Subject to GCC Sub-Clause 16.2, the Contractor shall submit to the Project Manager for its approval a health and safety manual which has been specifically prepared for the Works, the Site and

other places (if any) where the Contractor intends to execute the Works.

The health and safety manual shall be in addition to any other similar document required under applicable health and safety regulations and laws.

The health and safety manual shall set out all the health and safety requirements under the Contract,

(a) which shall include at a minimum:

(i) the procedures to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents;

(ii) details of the training to be provided, records to be kept;

(iii) the procedures for prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);

(iv) remedies for adverse impacts such as occupational injuries, deaths, disability and disease;

(v) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,

(vi) the measures to be implemented to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases

that may be associated with the influx of temporary or permanent Contract-related labor;

(vii) the policies and procedures on the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with GCC Sub-Clause 9.4.6; and

(b) any other requirements stated in the Specification.

18.3 Protection of the environment

(a) The Contractor shall take all necessary measures to: protect the environment (both on and off the Site); and

(b) limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.

The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Specification, nor those prescribed by applicable laws.

In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Project Manager the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Project Manager.

19. Archaeological and Geological Findings

19.1 All fossils, coins, articles of value or antiquity, structures, groups of structures, and other remains or items of geological, archaeological, paleontological, historical, architectural or religious interest found on the Site shall be placed under the care and custody of the Employer. The Contractor shall:

(a) take all reasonable precautions, including fencing-off the area or site of the finding, to avoid further disturbance and prevent Contractor's Personnel or other persons from removing or damaging any of these findings;

(b) train relevant Contractor's Personnel on appropriate actions to be taken in the event of such findings; and

(c) implement any other action consistent with the requirements of the Specification and relevant laws.

The Contractor shall, as soon as practicable after discovery of any such finding, notify the Project Manager of such discoveries

and carry out the Project Manager's instructions for dealing with them.

20. Possession of the Site

20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the PCC,** the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager (including the Bank staff or consultants acting on the Bank's behalf, stakeholders and third parties, such as independent experts, local communities, or non-governmental organizations), including to carry out environmental and social audit, as appropriate, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

22.3 Inspections & Audit by the Bank

Pursuant to paragraph 2.2 e. of Appendix A to the GCC- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to GCC Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

23. Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.

24. Procedure for Disputes

24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the **rate specified in the PCC,** together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC.**

25. Fraud and Corruption

25.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Appendix A to the GCC.

25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process

or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

26. Stakeholder Engagement

26.1 The Contractor shall provide relevant contract-related information, as the Employer and/or Project Manager may reasonably request to conduct Stakeholder engagements. "Stakeholder" refers to individuals or groups who:

(i) are affected or likely to be affected by the Contract; and

(ii) may have an interest in the Contract.

The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Project Manager may reasonably request.

27. Suppliers (other than Subcontractors)

27.1 Forced Labor: The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labor including trafficked persons as described in GCC Sub-Clause 9.4.14. If forced labor/trafficking cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.2 *Child Labor:* The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labor as described in GCC Sub-Clause 9.4.15. If child labor cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.3 *Serious Safety Issues:* The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in GCC Sub-Clause 18.2. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.4 *Obtaining natural resource materials in relation to supplier:* The Contractor shall obtain natural resource *materials* from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.

If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats.

28. Code of Conduct

28.1 The Contractor shall have a Code of Conduct for the Contractor's Personnel.

The Contractor shall take all necessary measures to ensure that each Contractor's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.

These measures include providing instructions and documentation that can be understood by the Contractor's Personnel and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.

The Contractor shall also ensure that the Code of Conduct is visibly displayed in multiple locations on the Site and any other place where the Works will be carried out, as well as in areas outside the Site accessible to the local community and project affected people. The posted Code of Conduct shall be provided in languages comprehensible to Contractor's Personnel, Employer's Personnel and the local community.

The Contractor's Management Strategy and Implementation Plans shall include appropriate processes for the Contractor to verify compliance with these obligations.

29. Security of the Site

29.1 The Contractor shall be responsible for the security of the Site, and:

(a) for keeping unauthorized persons off the Site;

(b) authorized persons shall be limited to the Contractor's Personnel, the Employer's Personnel, and to any other personnel identified as authorized personnel (including

the Employer's other contractors on the Site), by a notice from the Employer or the Project Manager to the Contractor.

Subject to GCC Sub-Clause 16.2, the Contractor shall submit for the Project Manager's No-objection a security management plan that sets out the security arrangements for the Site.

The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor's Personnel, Employer's Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Specification.

The Contractor shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.

In making security arrangements, the Contractor shall also comply with any additional requirements stated in the Specifications

B. Time Control

30. Program and Progress Reports

30.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump-sum contract, the activities in the Program shall be consistent with those in the Activity Schedule. The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

30.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

30.3 The Contractor shall monitor progress of the Works and submit to the Project manager progress report and any updated Program showing the actual progress achieved and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities, at

intervals no longer than the periods **stated in the PCC.** If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in the PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of lump-sum Contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

30.4 Unless otherwise stated in the Specification, each progress report shall include the Environmental and Social (ES) metrics set out in Appendix B.

30.5 In addition to the progress reports, the Contractor shall inform the Project Manager immediately of any allegation, incident or accident in the Site, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel or Contractor's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.

The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Project Manager of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, or Contractor's, its Subcontractors' and suppliers' personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Project Manager.

The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Subclause.

31. Extension of the Intended Completion Date

31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps

to accelerate the remaining work, which would cause the Contractor to incur additional cost.

31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

32. Acceleration

32.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

32.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

33. Delays Ordered by the Project Manager

33.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

34. Management Meetings

34.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

34.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

35. Early Warning

35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

36. Identifying Defects

36.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

37. Tests

37.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

38. Correction of Defects

38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC.** The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

38.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

39. Uncorrected Defects

39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

40. Contract Price

40.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

41. Changes in the Contract Price

41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow

for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

41.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

42. Variations

42.1 All Variations shall be included in updated Programs produced by the Contractor.

42.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide information of any ES risks and impacts of the Variation. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

42.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

42.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

42.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

42.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC Sub-Clause 41.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

42.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

(a) the proposed change(s), and a description of the difference to the existing contract requirements;

(b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle cost) the Employer may incur in implementing the value engineering proposal;

(c) a description of any effect(s) of the change on performance/functionality; and

(d) a description of the proposed work to be performed, a program for its execution and sufficient ES information to enable an evaluation of ES risks and impacts.

The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:

(a) accelerates the contract completion period; or

(b) reduces the Contract Price or the life cycle costs to the Employer; or

(c) improves the quality, efficiency, safety or sustainability of the Facilities; or

(d) yields any other benefits to the Employer,

without compromising the functionality of the Works.

If the value engineering proposal is approved by the Employer and results in:

(a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the PCC** of the reduction in the Contract Price; or

(b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

43. Cash Flow Forecasts

43.1 When the Program, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

44. Payment Certificates

44.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

44.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

44.3 The value of work executed shall be determined by the Project Manager.

44.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed.

44.5 The value of work executed shall include the valuation of Variations and Compensation Events.

44.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

44.7 If the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Project Manager, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Project Manager, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:

(a) failure to comply with any ES obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;

(b) failure to regularly review C-ESHSMP and/or update it in a timely manner to address emerging ES issues, or anticipated risks or impacts;

(c) failure to implement the C-ESHSMP e.g. failure to provide adequate Personal Protective Equipment (PPE), required training or sensitization, etc.;

(d) failing to have appropriate consents/permits prior to undertaking Works or related activities;

(e) failure to submit ES report/s (as described in Appendix B), or failure to submit such reports in a timely manner;

(f) failure to implement remediation as instructed by the Project Manager within the specified timeframe (e.g. remediation addressing non-compliance/s).

45. Payments

45.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

45.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

45.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

45.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

46. Compensation Events

46.1 The following shall be Compensation Events:

(a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.

(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

(c) The Project Manager orders a delay or does not issue Drawings, Specification, or instructions required for execution of the Works on time.

(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.

(e) The Project Manager unreasonably does not approve a subcontract to be let.

(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from

information available publicly and from a visual inspection of the Site.

(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.

(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

(i) The advance payment is delayed.

(j) The effects on the Contractor of any of the Employer's Risks.

(k) The Project Manager unreasonably delays issuing a Certificate of Completion.

46.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

46.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

46.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

47. Tax

47.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 49.

48. Currencies

48.1 Payment will be made in US$.

49. Price Adjustment

49.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the PCC.** If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies to each Contract currency:

$$\mathbf{P_c = A_c + B_c\ Imc/Ioc}$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients[1] **specified in the PCC,** representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."

49.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

50. Retention

50.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.

50.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC Sub-Clause 57.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" Bank guarantee.

[1] The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

51. Liquidated Damages

51.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC.** The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

51.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 45.1.

52. Bonus

52.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

53. Advance Payment

53.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC** by the date **stated in the PCC,** against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

53.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

53.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

54. Securities

54.1 The Performance Security, and if so **specified in the PCC** an environmental and social (ES) performance security, shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC,** by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Certificate of Completion in the case of a Performance Bond.

55. Dayworks

55.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

55.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

55.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

56. Cost of Repairs

56.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

57. Completion

57.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

58. Taking Over

58.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a Certificate of Completion.

59. Final Account

59.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the

Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

60. Operating and Maintenance Manuals

60.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC.**

60.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 60.1**,** or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

61. Termination

61.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

61.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

(a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;

(b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;

(c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;

(e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;

(f) the Contractor does not maintain a Security, which is required;

(g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount

of liquidated damages can be paid, as **defined in the PCC**; or

(h) if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

61.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

61.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

61.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 61.2 above, the Project Manager shall decide whether the breach is fundamental or not.

62. Payment upon Termination

62.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **specified in the PCC.** Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

62.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

63. Property

63.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

64. Release from Performance

64.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

65. Suspension of Bank Loan or Credit

65.1 In the event that the Bank suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:

(a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank's suspension notice.

(b) If the Contractor has not received sums due to it within the 28 days for payment provided for in GCC Sub-Clause 45.1, the Contractor may immediately issue a 14-day termination notice.

APPENDIX A
TO GENERAL CONDITIONS

Fraud and Corruption

(Text in this Appendix shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers),consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

(a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

(b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;1 (ii) to be a nominated2 sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;

e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders(applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect[3] all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

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1 For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

2 A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

3 Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

APPENDIX B

Environmental and Social (ES)

Metrics for Progress Reports

Metrics for regular reporting:

a. environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies;

b. health and safety incidents, accidents, injuries that require treatment and all fatalities;

c. interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);

d. status of all permits and agreements:

i. work permits: number required, number received, actions taken for those not received;

ii. status of permits and consents:

- list areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);
- list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);
- identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);
- for quarries: status of relocation and compensation (completed, or details of activities and current status in the reporting period).

e. Environmental, Social, health and safety supervision:

i. Number days worked, number of full ESHS inspections & partial inspections, areas inspected, highlights of activities/findings (including violations of

environmental and/or social best practices, actions taken), reports to construction/project management;

ii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);

iii. Number of people met during stakeholder engagement/consultations and issues raised

f. worker accommodations:

i. number of expats housed in accommodations, number of locals;

ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;

iii. actions taken to recommend/require improved conditions, or to improve conditions.

g. Health services: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);

h. gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);

i. training:

i. number of new workers, number receiving induction training, dates of induction training;

ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;

iii. number and dates of communicable diseases (including STDs) sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.

iv. number and date of SEA and SH prevention sensitization and/or training events, including number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past), etc.

i. .

j. Grievances: list new grievances (e.g. number of allegations of SEA and SH) received in the reporting period and number of unresolved past grievances by date received,

complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):

i. Worker grievances;

ii. Community grievances

k. Traffic, road safety and vehicles/equipment:

i. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;

ii. traffic and road safety incidents and accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;

iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).

l. Environmental mitigations and issues (what has been done):

i. dust: number of working bowsers, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/ spoil lorries with covers, actions taken for uncovered vehicles;

ii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;

iii. quarries, borrow areas, spoil areas, : identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation;

iv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);

v. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination;

vi. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;

vii. details of tree plantings and other mitigations required undertaken in the reporting period;

viii. details of water and swamp protection mitigations required undertaken in the reporting period.

m. compliance:

i. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;

ii. compliance status of C-ESHSMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

iii. compliance status of SEA and SH prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

iv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

v. other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.

APPENDIX C
Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration for Subcontractors

[The following table shall be filled in by each subcontractor proposed by the Contractor, that was not named in the Contract]

Subcontractor's Name: *[insert full name]*
Date: *[insert day, month, year]*

Contract reference *[insert contract reference]*
Page *[insert page number]* of *[insert total number]* pages

SEA and/or SH Declaration
We: ☐ (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. ☐ (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. ☐ (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor. ☐ (d) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have subsequently demonstrated that we have adequate capacity and commitment to comply with SEA /SH obligations. ☐ (e) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have attached specific evidence demonstrating that we have adequate capacity and commitment to comply with SEA and SH obligations.
[*If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]*
[If (d) or (e) above are applicable, provide the following information:]
Period of disqualification: From: _____ To: _____
If previously provided on another Bank financed works contract, details of evidence that demonstrated adequate capacity and commitment to comply with SEA/SH obligations (**as per (d) above)** Name of Employer: _____ Name of Project: _____ Contract description: _____ Brief summary of evidence provided: _____

_____ Contact Information: (Tel, email, name of contact person): _____ _____
As an alternative to the evidence under (d), other evidence demonstrating adequate capacity and commitment to comply with SEA/SH obligations (**as per (e) above))** *[attach details as appropriate]*. _____ _____

Name of the Subcontractor_____

Name of the person duly authorized to sign on behalf of the Subcontractor_____

Title of the person signing on behalf of the Subcontractor_____

Signature of the person named above_____

Date signed _____ day of _____, _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Section IX - Particular Conditions of Contract

Part 1 - Contract Data

A. General	
GCC 1.1 (d)	The financing institution is: **The World Bank, International Development Association (IDA).**
GCC 1.1 (r)	The Employer is The **County Government of Turkana - Turkana County Urban Water and Sewerage Company (TUWASCO).**
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be **180 days**
GCC 1.1 (y)	The Project Manager is *CAS Consultant Ltd.*
GCC 1.1 (aa)	The Site is located at ***Turkana County and as defined in the Specifications***
GCC 1.1 (dd)	The Start Date shall be ***21 days after contract signing.***
GCC 1.1 (hh)	The Works consist of***: Drilling, Development and Test Pumping of Production Boreholes - Batch 2 Sites in Turkana County***
GCC 2.2	Sectional Completions are: ***Applicable if one site is fully completed.***
GCC 2.3(i)	The following documents also form part of the Contract: - **the Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks, and** - **Code of Conduct for Contractor's Personnel (ES)**
GCC 3.1	The language of the contract is ***English***. The law that applies to the Contract is the **law of Kenya.**
GCC 5.1	The Project Manager ***may*** delegate any of his duties and responsibilities.
GCC 8.1	Schedule of other contractors: ***Not applicable.***
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for loss or damage to the Works, Plant and Materials: **100%.** (b) For loss or damage to Equipment: **100%.** (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract ***100%.***

	(d) for personal injury or death: (i) of the Contractor's employees: **100%.** (ii) of other people: **100%.**
GCC 14.1	Site Data are: ***As per the site location of well indicated in Section VII - Works' Requirements (technical specification).***
GCC 20.1	The Site Possession Date(s) shall be: **14** ***days from the date of contract signature.***
GCC 23.1 & GCC 23.2	Appointing Authority for the Adjudicator: **The Chartered Institute of Arbitrators of Kenya**.
GCC 24.3	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: **KES 25,000.00**.
GCC 24.4	All disputes arising out of or in connection with the present Contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said Rules in Nairobi Kenya
GCC26.1	The Contractor's activities should align with the project's SEP objectives and procedures including the grievance mechanism and outline the Contractor's role in supporting its implementation and operation. The Stakeholder Engagement should include specific details on engaging with Historically Underserved Communities in a culturally appropriate manner. It should outline the process for obtaining **Free, Prior, and Informed Consent (FPIC)**, protecting cultural heritage, sharing benefits, and supporting the grievance mechanism. These aspects shall ensure compliance with ESS7 and a more effective approach to community engagement.
B. Time Control	
GCC 30.1	The Contractor shall submit for approval a Program for the Works within ***14 days from the date of the Letter of Acceptance.***
GCC 30.3	The period between Program updates is ***30 days.*** The amount to be withheld for late submission of an updated Program is ***KES 100,000.00***. The period for submission of progress reports is ***14 days.***

C. Quality Control	
GCC 37.1	The tests on completion are specified in ***Section VII – Works' Requirements, and include tests for well verticality, casing alignment, suspended solids, water quality, and well-head loss***
GCC 38.1	The Defects Liability Period is: ***150 days.***
GCC 39.1	The cost of correcting any Defect shall be determined on the basis of the unit prices and quantities of the commissioned infrastructure concerned. Where the commissioned infrastructure fails to meet one or more completion tests, the contract price shall be reduced as follows: a reduction of three percent (3%) for each failed test relating to well verticality, casing alignment, suspended solids, or water quality; and a reduction of five percent (5%) for a failed test relating to well-head loss, which shall be increased to eight percent (8%) where the well-head loss exceeds twice the target value. In all cases, the total reduction shall not exceed twelve percent (12%) of the contract price of the commissioned infrastructure.
D. Cost Control	
GCC 42.7	If the value engineering proposal is approved by the Employer, the amount to be paid to the Contractor shall be: ***Not applicable***
GCC 44.4	No amount shall be certified or paid in respect of any goods supplied or works executed by the Contractor in relation to non-commissioned water wells or boreholes where the total retention money, as provided under Clause GCC 50, is less than the aggregate value of the goods or works already paid for that correspond to water wells or boreholes which have not been commissioned.
GCC 48.1	The currency of the Employer's Country is: ***KES***.
GCC 49.1	The Contract *is* ***not*** subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients *does not* apply.
GCC 50.1	The proportion of payments retained is 10%
GCC 51.1	The liquidated damages for the whole of the Works are ***0.05 percent of the contract price per day.*** The maximum amount of liquidated damages for the whole of the Works is 5***%*** of the final Contract Price
GCC 52.1	The Bonus for the whole of the Works : **Not Applicable**

GCC 53.1	The Advance Payments shall be: ***Not Applicable.*** No advance payment shall be made to the Contractor.
GCC 54.1	The Performance Security will be in the form of ***a demand guarantee*** in the amount(s) of ***10 percent*** of the Accepted Contract Amount and in the same currency (ies) of the Accepted Contract Amount from Tier 1 Bank. The Performance Security shall cover ***150 days defect liability period.***
E. Finishing the Contract	
GCC 60.1	The date by which operating and maintenance manuals are required is ***30 days*.** The date by which "as built" drawings are required is ***30 days.***
GCC 60.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC Sub-Clause 60.1 is **KES 100,000.00.**
GCC 61.2 (g)	The maximum number of days is: ***100 days.***
GCC 62.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is ***10 percent***.

Section X - Contract Forms

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Notification of Intention to Award

[*This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid.*]

[*Send this Notification to the Bidder's Authorized Representative named in the Bidder Information Form*]
For the attention of Bidder's Authorized Representative
Name: *[insert Authorized Representative's name]*
Address: *[insert Authorized Representative's Address]*
Telephone/Fax numbers: *[insert Authorized Representative's telephone/fax numbers]*
Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]
DATE OF TRANSMISSION: This Notification is sent by: [*email/fax*] on [*date*] (local time)

Notification of Intention to Award

Employer: *[insert the name of the Employer]*
Project: *[insert name of project]*
Contract title: *[insert the name of the contract]*
Country: *[insert country where RFB is issued]*
Loan No. /Credit No. / Grant No.: *[insert reference number for loan/credit/grant]*
RFB No: *[insert RFB reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

a) request a debriefing in relation to the evaluation of your Bid, and/or

b) submit a Procurement-related Complaint in relation to the decision to award the contract.

1. The successful Bidder

Name:	[*insert name of successful Bidder*]
Address:	[*insert address of the successful Bidder*]
Contract price:	[*insert contract price of the successful Bid*]

2. Other Bidders ***[INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid's price was evaluated include the evaluated price as well as the Bid price as read out.]***

Name of Bidder	Bid price	Evaluated Bid price (if applicable)
[*insert name*]	[*insert Bid price*]	[*insert evaluated price*]
[*insert name*]	[*insert Bid price*]	[*insert evaluated price*]
[*insert name*]	[*insert Bid price*]	[*insert evaluated price*]
[*insert name*]	[*insert Bid price*]	[*insert evaluated price*]
[*insert name*]	[*insert Bid price*]	[*insert evaluated price*]

3. Reason/s why your Bid was unsuccessful

[INSTRUCTIONS: State the reason/s why <u>this</u> Bidder's Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder's Bid or (b) information that is marked confidential by the Bidder in its Bid.]

4. How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on [*insert date*] (local time).

You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:

Attention: [*insert full name of person, if applicable*]

Title/position: [*insert title/position*]

Agency: [*insert name of Employer*]

Email address: [*insert email address*]

Fax number: [*insert fax number*] ***delete if not used***

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice.

5. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [*insert date*] (local time).

Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:

Attention: [*insert full name of person, if applicable*]

Title/position: [*insert title/position*]

Agency: [*insert name of Employer*]

Email address: [*insert email address*]

Fax number: [*insert fax number*] ***delete if not used***

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

Further information:

For more information see the Procurement Regulations for IPF Borrowers (Procurement Regulations)[https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005] (Annex III). You should read these provisions before preparing and submitting your complaint. In addition, the World Bank's Guidance "How to make a Procurement-related Complaint" [http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework#framework] provides a useful explanation of the process, as well as a sample letter of complaint.

In summary, there are four essential requirements:

1. You must be an 'interested party'. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.

4. You must include, in your complaint, all of the information required by the Procurement Regulations (as described in Annex III).

6. Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [*insert date*] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification, please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

Beneficial Ownership Disclosure Form

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful Bidder. In case of joint venture, the Bidder must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions:

- *directly or indirectly holding 25% or more of the shares*
- *directly or indirectly holding 25% or more of the voting rights*
- *directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder*

RFB No.: [*insert number of RFB process*]
Request for Bid No.: [*insert identification*]

To: **[*insert complete name of Employer*]**

In response to your request in the Letter of Acceptance *dated [insert date of letter of Acceptance]* to furnish additional information on beneficial ownership: *[select one option as applicable and delete the options that are not applicable]*

(i) we hereby provide the following beneficial ownership information.

Details of beneficial ownership

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder (Yes / No)
[include full name (last, middle, first),			

nationality, country of residence]			

OR

(ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions:*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

OR

(iii) We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Bidder shall provide explanation on why it is unable to identify any Beneficial Owner]

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder]"

Name of the Bidder: *[*insert complete name of the Bidder*]_____

Name of the person duly authorized to sign the Bid on behalf of the Bidder: **[*insert complete name of person duly authorized to sign the Bid*]_____

Title of the person signing the Bid: [*insert complete title of the person signing the Bid*]_____

Signature of the person named above: [*insert signature of person whose name and capacity are shown above*]_____

Date signed [*insert date of signing*] **day of** [*insert month*], [*insert year*]_____

[*] In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to "Bidder" in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

[**] Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

Letter of Acceptance

[on letterhead paper of the Employer***]***

. . . . . ***[date]***. . . . . .

To: . . . . . ***[name and address of the Contractor]*** . . . . . .

Subject: . . . . . ***[Notification of Award Contract No]***. . . . . .

This is to notify you that your Bid dated . . . . ***[insert date]*** . . . . for execution of the . . . . . ***. . . .[insert name of the contract and identification number, as given in the PCC]*** . . . . . for the Accepted Contract Amount of . . . . . ***.[insert amount in numbers and words and name of currency],*** as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish (i) the Performance Security and an Environmental and Social (ES) Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form and the ES Performance Security Form, and (ii) the additional information on beneficial ownership in accordance with BDS ITB 47.1, within eight (8) Business days using the Beneficial Ownership Disclosure Form, included in Section X - Contract Forms, of the bidding document.

[Choose one of the following statements:]

We accept that _____***[insert the name of Adjudicator proposed by the Bidder]*** be appointed as the Adjudicator.

[or]

We do not accept that _____***[insert the name of the Adjudicator proposed by the Bidder]*** be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____***[insert name of the Appointing Authority],*** the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with ITB 48.1 and GCC Sub-Clause 23.1.

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Agency: .....

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the . . . . . .day of . . . . . ., ..., between . . . . . ***[name of the*** Employer***]***. . . . . (hereinafter "the Employer"), of the one part, and . . . . . ***[name of the Contractor]***. . . . .(hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as . . . . . ***[name of the Contract]***. . . . .should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

(a) the Letter of Acceptance

(b) the Letter of Bid

(c) the addenda Nos _____(if any)

(d) the Particular Conditions

(e) the General Conditions of Contract, including appendix;

(f) the Specification

(g) the Drawings

(h) Bill of Quantities; [1] and

(i) any other document listed in the PCC as forming part of the Contract, but not limited to;

i. the ES Management Strategies and Implementation Plans**;** and

ii. Code of Conduct for Contractor's Personnel (ES).

3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

[1] In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of . . . . . ***[name of the borrowing country]***. . . . .on the day, month and year specified above.

Signed by:	Signed by: .....
for and on behalf of the Employer	for and on behalf the Contractor
in the presence of:	in the presence of: .....
Witness, Name, Signature, Address, Date	Witness, Name, Signature, Address, Date

Performance Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of* Employer*]*

Date: *[Insert date of issue]*

PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of _ *[insert name of contract and brief description of* Works*]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*,[1] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. Day of ……, 2… [2], and any demand for payment under it must be received by us at this office indicated above on or before that date.

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[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date twenty-eight days after the expected completion date as described in GCC Sub-Clause 57.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed*

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

_____

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

[six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Environmental and Social (ES) Performance Security

ES Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of* Employer*]*

Date: *[Insert date of issue]*

ES PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____),[1] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its Environmental and/or Social (ES) obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. Day of ……, 2… [2], and any demand for payment under it must be received by us at this office indicated above on or before that date.

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[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency (cies) of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date twenty-eight days after the expected completion date as described in GCC Sub- Clause 57.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

_____

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Advance Payment Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Insert name and Address of* Employer*]*

Date: *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of* Works*]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*[1] upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

(a) has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or

(b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above

[1] *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.*

has been credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the *[insert day]* day of *[insert month]*, 2 *[insert year]*,[2] whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

_____

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

[2] *Insert the expected completion date as described in GCC Sub- Clause 57.1. The Employer should note that in the event of an extension of the expected completion date of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*