



KenGen

KENYA ELECTRICITY GENERATING COMPANY PLC

RFx: 5000015634

KGN-GDD~074~2024

**TENDER FOR SUPPLY, INSTALLATION AND COMMISSIONING OF
NEW 2000 HP VFD ELECTRIC WALKING LAND DRILLING RIG WITH
TOP DRIVE AND ASSOCIATED EQUIPMENT.**

(OPEN INTERNATIONAL)

Kenya Electricity Generating Company PLC,
Stima Plaza Phase III, Kolobot Road, Parklands,
P.O. BOX 47936-00100,
NAIROBI.

Website: www.kengen.co.ke

June, 2024

INVITATION TO TENDER

PROCURING ENTITY: KENYA ELECTRICITY GENERATING COMPANY PLC

CONTRACT NAME AND DESCRIPTION: TENDER FOR SUPPLY, INSTALLATION AND COMMISSIONING OF NEW 2000 HP VFD ELECTRIC WALKING LAND DRILLING RIG WITH TOP DRIVE AND ASSOCIATED EQUIPMENT.

KenGen PLC invites sealed tenders from eligible candidates for the **Tender for Supply, Installation and Commissioning of New 2000 HP VFD Electric Land Drilling Rig with Top Drive and Associated Equipment (Drilling String Tubulars, Fishing Tools, Directional Drilling Equipment, Cementing Equipment, Air Drilling Equipment, Rig Barracks, Base Camp, Mechanical Handling Equipment and Vehicles, Well Simulation and Control Equipment)**, whose specifications are detailed in the Tender Document.

Tendering will be conducted under an open competitive method (**Open International**) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.

The tender is specific to **Rig Manufacturers Only (Open International)**.

Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours between 8am and 5pm starting at the date of advert at the office of:

General Manager, Supply Chain

Tel: (254) (020) 3666000

Email: tenders@kengen.co.ke; cc POnyango1@kengen.co.ke; Erico@kengen.co.ke

The document can be viewed and downloaded for free from the website www.kengen.co.ke and/or on E-procurement <https://eprocurement.kengen.co.ke:50001/irj/portal>. Tenderers who download the tender document must forward their particulars immediately to (tenders@kengen.co.ke, 0711036000 and P.O.BOX 47936-00100 postal address) to facilitate any further clarification or addendum

Bidders who are unable to download the tender documents from the website may collect them from any KenGen Supply Chain Office upon payment of a non-refundable fee of **KShs.1,000.00** paid via Mpesa, pay bill no. **400200 and account no. 01120069076000**, then share the MPesa message to KenGen Finance office staff for receipt and issuance of official receipt or through a banker's cheque and payable to the address given below.

All Tenders must be accompanied by a "Tender security as part of the bid document. All tender securities submitted shall be subject to authentication by KenGen.

The Original Tender Security of USD 500,000.00 or equivalent in a freely convertible currency valid for 30 days beyond the tender validity period, in form of:

- Tender Security from a reputable bank registered by the Central Bank of Kenya
- Guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya.
- A guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Public Procurement Regulatory Authority.

International bidders, should have tender security through **local corresponding banks** registered by the Central Bank of Kenya. The **Original Tender Security/ E- Tender securities MUST** be submitted in a plain sealed envelope and clearly marked "**KGN-GDD-074-2024- TENDER FOR SUPPLY, INSTALLATION AND COMMISSIONING OF NEW 2000 HP VFD ELECTRIC LAND DRILLING RIG WITH TOP DRIVE AND ASSOCIATED EQUIPMENT**" and addressed to:

General Manager, Supply Chain,
Kenya Electricity Generating Company PLC,
9th Floor, KenGen Pension Plaza II,
Kolobot Road, Parklands,
P.O. Box 47936, 00100
NAIROBI.

Note; The hard copy of the Original Tender Security/ E- Tender securities clearly labeled with tender name and tender description should be dropped at the tender box located on Ground Floor at KenGen, KenGen, RBS building on or before the tender closing date and Time.

E- Tender securities are acceptable subject to:

- i. Attachment of a scanned copy to the bid document.
- ii. Submission of the e-security to the address indicated below:
 - Such E-Security can be verified by use of a Quick Response (QR) code
 - Such E-Security can be verified via the issuing institution's online portal

Electronic tender securities are acceptable and shall be authenticated using the QR scanner.

All tender securities submitted shall be subject to authentication by KenGen.

The Tenderer shall chronologically serialize all pages of the tender documents submitted.
Completed tenders must be submitted **online** on or before **18th July, 2024 at 10.00 a.m.**

Electronic Tenders *will be permitted through our e-procurement platform found at www.kengen.co.ke (<https://eprocurement.kengen.co.ke:50001/irj/portal> on or before; 18th July, 2024 at 10.00 a.m.*
Internet Explorer and Firefox Mozilla are the preferred web browsers.

Tenders will be opened immediately after the deadline date and time specified above or any dead line date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.

Late tenders will be rejected.

1. The addresses referred to above are:

a. Address for obtaining further information and for purchasing tender documents

Physical address for hand Courier Delivery to an office or Tender Box (City, Street Name, Building, Floor Number and Room)

Kenya Electricity Generating Company PLC
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. BOX 47936-00100
tenders@kengen.co.ke ;

b. Address for Opening of Tenders.

General Manager, Supply Chain
Kenya Electricity Generating Company PLC
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. BOX 47936-00100
6th Floor

***KenGen adheres to high standards of integrity in its business operations.
Report any unethical behavior immediately to any of the provided anonymous hotline service.***

- 1) Call Toll Free: 0800722626;
- 2) Free-Fax: 00800 007788;
- 3) Email: kengen@tip-offs.com
- 4) Website: www.tip-offs.com

GENERAL MANAGER, SUPPLY CHAIN

PART 1 ~ TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A General Provisions

1. Scope of Tender

- 1.1 The Procuring Entity as defined in the **TDS** invites tenders for supply of goods and, if applicable, any Related Services incidental thereto, as specified in Section V, Supply Requirements. The name, identification, and number of lots (contracts) of this Tender Document are specified in the **TDS**.
- 1.2 Throughout this tendering document:
- the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the **TDS**, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;
 - if the context so requires, “singular” means “plural” and vice versa;
 - “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2. Fraud and Corruption

- 2.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 2.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.
- 2.3 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

3. Eligible Tenderers

- 3.1 A Tenderer may be a firm that is a private entity, an individual, a state-owned enterprise or institution subject to ITT3.7, or any combination of such entities 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. Public employees and their close relatives (*spouses, children, brothers, sisters and uncles and aunts*) are not eligible to participate in the tender.

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 Tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the **TDS**.

- 3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be

awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.

- 33 A Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Tendering process, if the Tenderer:
- a) directly or indirectly controls, is controlled by or is under common control with another Tenderer; or
 - b) receives or has received any direct or indirect subsidy from another Tenderer; or
 - c) has the same - representative or ownership as another Tenderer; or
 - d) has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Tender of another Tenderer, or influence the decisions of the Procuring Entity regarding this Tendering process; or
 - e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods that are the subject of the Tender; or
 - f) or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity or Procuring Entity for the Contract implementation; or
 - 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 TDS ITT 1.1 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; or has a close business or family relationship with a professional staff of the Procuring Entity (or of the project implementing agency, who: (i) are directly or indirectly involved in the preparation of the tendering document or specifications of the Contract, and/or the Tender 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 Procuring Entity throughout the Tendering process and execution of the Contract.
- 34 A tenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified.
- 35 A firm that is a Tenderer (either individually or as a JV member) shall not submit more than one Tender, except for permitted alternative Tenders. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a Tenderer or a JV member, may participate as a subcontractor in more than one Tender. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender.
- 36 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer 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 sub consultants for any part of the Contract including related Services.
- 37 A Tenderer that has been debarred by the PPRA from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the PPRA's website www.ppra.go.ke
- 38 Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are (i) a legal public entity of the state Government and/or public administration, (ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and (iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis. Public employees and their close relatives are not eligible to participate in the tender.
- 39 Tenderers may be ineligible if their countries of origin (a) as a matter of law or official

regulations, Kenya 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, Kenya prohibits any import of goods or contracting for supply of goods or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

- 3.10 Tenderers shall provide the qualification information statement that the tenderer (including all members of a joint venture and subcontractors) is not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods under this Invitation for tenders.
- 3.11 Where the law requires tenderers to be registered with certain authorities in Kenya, such registration requirements shall be defined in the **TDS**
- 3.12 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke.
- 3.13 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4 Eligible Goods and Related Services

- 4.1 All the Goods and Related Services to be supplied under the Contract shall have their origin in any country that is eligible in accordance with ITT 3.9.
- 4.2 For purposes of this ITT, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” include services such as insurance, installation, training, and initial maintenance.
- 4.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.
- 4.4 A procuring entity shall ensure that the items listed below shall be sourced from Kenya and there shall be no substitutions from foreign sources. The affected items are:
- a) motor vehicles, plant and equipment which are assembled in Kenya;
 - b) furniture, textile, foodstuffs, oil and gas, information communication technology, steel, cement, leather, agro-processed products, sanitary products, and other goods made in Kenya; or
 - c) goods manufactured, mined, extracted or grown in Kenya.
- 4.5 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

5 Sections of Tendering Document

- 5.1 The tendering document consist of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITT8.

PART 1: Tendering Procedures

- i) Section I - Instructions to Tenderers (ITT)
- ii) Section II - Tendering Data Sheet (TDS)
- iii) Section III - Evaluation and Qualification Criteria
- iv) Section IV - Tendering Forms

PART 2: Supply Requirements

- v) Section V - Schedule of Requirements

PART 3: Contract

- vi) Section VI - General Conditions of Contract (GCC)
 - vii) Section VII - Special Conditions of Contract (SCC)
 - viii) Section VIII- Contract Forms
- 52 The notice of Invitation to Tender or the notice to the prequalified Tenderers issued by the Procuring Entity is not part of the tendering document.
- 53 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the document, responses to requests for clarification, the minutes of the pre-tender meeting (if any), or addenda to the tendering document in accordance with ITT7.
- 54 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the tendering document and to furnish with its Tender all information or documentation as is required by the tendering document.

6. Clarification of Tendering Document

- 61 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 6.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 5.3, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 7.
- 62 The Procuring Entity shall specify in the **TDS** if a pre-tender conference will be held, when and where. The Tenderer's designated representative is invited to attend a pre-Tender meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 63 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 64 Minutes of the pre-Tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.
- 65 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-Tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-Tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 7 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

7. Amendment of Tendering Document

71 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the tendering document by issuing addenda.

72 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tender document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 7.1.

73 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT 21.2.

C. Preparation of Tenders

8 Cost of Tendering

81 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

9 Language of Tender

91 The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Procuring Entity, shall be written in English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

10 Documents Comprising the Tender

101 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT11;
- b) Price Schedules: completed in accordance with ITT 11 and ITT 13;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 18.1;
- d) Alternative Tender: if permissible, in accordance with ITT12;
- e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT19.3;
- f) Qualifications: documentary evidence in accordance with ITT 16.2 establishing the Tenderer qualifications to perform the Contract if its Tender is accepted;
- g) Tenderer Eligibility: documentary evidence in accordance with ITT16.1 establishing the Tenderer eligibility to tender;
- h) Eligibility of Goods and Related Services: documentary evidence in accordance with ITT 15, establishing the eligibility of the Goods and Related Services to be supplied by the Tenderer;
- i) Conformity: documentary evidence in accordance with ITT15.2 that the Goods and Related Services conform to the tender document; and
- j) any other document required in the **TDS**.

102 In addition to the requirements under ITT 10.1, Tenders 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 Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement.

103 The Tenderer shall furnish in the Form of Tender information on commissions gratuities, and fees, if any, paid or to be paid to agents or any other party relating to this Tender.

11. Form of Tender and Price Schedules

11.1 The Form of Tender and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialize pages of all tender documents submitted.

12. Alternative Tenders

12.1 Unless otherwise specified **in the TDS**, alternative Tenders shall not be considered.

13. Tender Prices and discounts

13.1 The prices quoted by the Tenderer in the Form of Tender and in the Price, Schedules shall conform to the requirements specified below.

13.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.

13.3 The price to be quoted in the Form of Tender in accordance with ITT10.1 shall be the total price of the Tender, including any discounts offered.

13.4 The Tenderer shall quote any discounts and indicate the methodology for their application in the form of tender. Conditional discounts will be rejected.

13.5 Prices quoted by the Tenderer shall be fixed during the performance of the Contract and not subject to variation on any account, unless otherwise specified **in the TDS**. A Tender submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected, pursuant to ITT 28. However, if in accordance with **the TDS**, prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract, a Tender submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

13.6 If specified in ITT 1.1, Tenders are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified **in the TDS**, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 13.4 provided the Tenders for all lots (contracts) are opened at the same time.

13.7 The terms EXW, CIP, CIF, DDP and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce.

13.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Tendering Forms. The disaggregation of price components is required solely for the purpose of facilitating the comparison of Tenders by the Procuring Entity. This shall not in any way limit the Procuring Entity's right to contract on any of the terms offered. In quoting prices, the Tenderer shall be free to use transportation through carriers registered in any eligible country. Similarly, the Tenderer may obtain insurance services from any eligible country in accordance with ITT 3.6, Eligible Tenders. Prices shall be entered in the following manner:

a) For Goods manufactured in Kenya:

- i) the price of the Goods quoted EXW (ex-works, ex-factory, ex warehouse, ex showroom, or off-the-shelf, as applicable) final destination point indicated in the **TDS**, including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
- ii) any sales tax and other taxes which will be payable in Kenya on the Goods if the Contract

is awarded to the Tenderer; and

- iii) the price for inland transportation, insurance, and other local services required to convey the Goods to their final destination specified **in the TDS**.
- b) For Goods manufactured outside Kenya, to be imported:
 - i) the price of the Goods, quoted CIP named place of destination, in Kenya, as specified **in the TDS**;
 - ii) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination specified **in the TDS**;
- c) For Goods manufactured outside Kenya, already imported:
 - i) the price of the Goods, including the original import value of the Goods; plus, any mark-up (or rebate); plus, any other related local cost, and custom duties and other import taxes already paid or to be paid on the Goods already imported;
 - ii) the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
 - iii) any sales and other taxes levied in Kenya which will be payable on the Goods if the Contract is awarded to the Tenderer; and
 - iv) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified **in the TDS**.
- d) for Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements, the price of each item comprising the Related Services (inclusive of any applicable taxes).

14 Currencies of Tender and Payment

- 141 The currency (ies) of the Tender, the currency (ies) of award and the currency (ies) of contract payments shall be the same.
- 142 The Tenderer shall quote in Kenya shillings. If allowed in the **TDS**, the Tenderer may express the Tender price in any currency, provided it shall use no more than two foreign currencies in addition to the Kenya Shilling.
- 143 The rates of exchange to be used by the Tenderer shall be based on the exchange rates provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening.

15 Documents Establishing the Eligibility and Conformity of the Goods and Related Services

- 151 To establish the eligibility of the Goods and Related Services in accordance with ITT 15, Tenderers shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Tendering Forms.
- 152 To establish the conformity of the Goods and Related Services to the tendering document, the Tenderer shall furnish as part of its Tender the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.
- 153 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.
- 154 The Tenderer shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period **specified in the TDS** following commencement of the use of the goods by the Procuring Entity.
- 155 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Procuring Entity in the Schedule of Requirements,

are intended to be descriptive only and not restrictive. The Tenderer may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Procuring Entity's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

16. Documents Establishing the Eligibility and Qualifications of the Tenderer

161 To establish Tenderer eligibility in accordance with ITT 4, Tenderers shall complete the Form of Tender, included in Section IV, Tendering Forms.

162 The documentary evidence of the Tenderer qualifications to perform the Contract if its Tender is accepted shall establish to the Procuring Entity's satisfaction:

- a) that, if required **in the TDS**, a Tenderer that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Tendering Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in Kenya;
- b) that, if required **in the TDS**, in case of a Tenderer not doing business within the Kenya, the Tenderer is or will be (if awarded the Contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- c) that the Tenderer meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.

17. Period of Validity of Tenders

171 Tenders shall remain valid for the Tender Validity period specified **in the TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 21.1). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

172 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 18, it shall also be extended for a corresponding period. A Tenderer may refuse the request without forfeiting its Tender Security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 17.3.

173 If the award is delayed by a period exceeding the number of days to be specified in the **TDS** days beyond the expiry of the initial tender validity period, the Contract price shall be determined as follows:

- a) in the case of **fixed price** contracts, the Contract price shall be the tender price adjusted by the factor specified **in the TDS**;
- b) in the case of **adjustable price** contracts, no adjustment shall be made; or in any case, tender evaluation shall be based on the tender price without taking into consideration the applicable correction from those indicated above.

18. Tender Security

181 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security, as specified **in the TDS**, in original form and, in the case of a Tender Security, in the amount and currency specified **in the TDS**.

182 A Tender Securing Declaration shall use the form included in Section IV, Tendering Forms.

183 If a Tender Security is specified pursuant to ITT 18.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer option:

- i) cash;
- ii) a bank guarantee;
- iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory

- Authority listed by the Authority; or
- iv) a letter of credit; or
 - v) guarantee by a deposit taking micro-finance institution, Sacco society, the Youth Enterprise Development Fund or the Women Enterprise Fund.
- 184 If an unconditional guarantee is issued by a non-Bank financial institution located outside Kenya, the issuing non-Bank financial institution shall have a correspondent financial institution located in Kenya to make it enforceable unless the Procuring Entity has agreed in writing, prior to Tender submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Tender Security shall be submitted either using the Tender Security Form included in Section IV, Tendering Forms, or in another substantially similar format approved by the Procuring Entity prior to Tender submission. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 17.2.
- 185 If a Tender Security is specified pursuant to ITT 18.1, any Tender not accompanied by a substantially responsive Tender Security shall be rejected by the Procuring Entity as non-responsive.
- 186 If a Tender Security is specified pursuant to ITT 18.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer signing the Contract and furnishing the Performance Security pursuant to ITT 46. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.
- 187 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security.
- 188 The Tender Security may be forfeited or the Tender Securing Declaration executed:
- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer in the Form of Tender, or any extension thereto provided by the Tenderer; or
 - b) if the successful Tenderer fails to:
 - i) sign the Contract in accordance with ITT 45; or
 - ii) furnish a Performance Security in accordance with ITT 46.
- 189 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debars the Tenderer from participating in public procurement as provided in the law.
- 1810 The Tender Security or Tender- Securing Declaration of a JV must be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of Tendering, the Tender Security or Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT3.1 and ITT 10.2.
- 1811 A tenderer shall not issue a tender security to guarantee itself.

19. Format and Signing of Tender

- 191 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 12, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number **specified in the TDS** and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 192 Tenderers shall mark as "CONFIDENTIAL" information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
- 193 The original and all copies of the Tender shall be typed or written in indelible ink and shall

be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation **as specified in the TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

194 In case the Tenderer is a JV, the Tender 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 each members' legally authorized representatives.

195 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission and Opening of Tenders

20 Sealing and Marking of Tenders

201 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

- a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
- b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and
- c) if alternative Tenders are permitted in accordance with ITT 12, and if relevant:
 - i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and
 - ii) in the envelope or package or container marked "COPIES- ALTERNATIVE TENDER", all required copies of the alternative Tender.

202 The inner envelopes or packages or containers shall:

- a) bear the name and address of the Procuring Entity.
- b) bear the name and address of the Tenderer; and
- c) bear the name and Reference number of the Tender.

203 Where a tender package or container cannot fit in the tender box, the procuring entity shall:

- a) Specify in the **TDS where** such documents should be received.
- b) maintain a record of tenders received and issue acknowledgement receipt note to each tenderer specifying time and date of receipt.
- c) Ensure all tenders received are handed over to the tender opening committee for opening at the specified opening place and time.

204 If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

21. Deadline for Submission of Tenders

21.1 Tenders must be received by the Procuring Entity at the address and no later than the date and time specified **in the TDS**. When so specified **in the TDS**, Tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures **specified in the TDS**.

21.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the tendering document in accordance with ITT7, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

22 Late Tenders

22.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of Tenders. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

23 Withdrawal, Substitution, and Modification of Tenders

23.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITT19.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

- a) prepared and submitted in accordance with ITT 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and
- b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

23.3 Tenders requested to be withdrawn in accordance with ITT 23.1 shall be returned unopened to the Tenderers.

23.4 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

24 Tender Opening

24.1 Except as in the cases specified in ITT 23, the Procuring Entity shall, at the Tender opening, publicly open and read out all Tenders received by the deadline at the date, time and place specified **in the TDS** in the presence of Tenderers' designated representatives who choose to attend, including to attend any specific electronic tender opening procedures if electronic tendering is permitted in accordance with ITT 21.1, shall be as specified **in the TDS**.

24.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Tenderer, the corresponding Tender will be opened. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

24.3 Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

24.4 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

24.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Prices, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security, if required; and any other details as the Procuring Entity may consider appropriate.

24.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the **TDS**.

- 247 The Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 22.1).
- 248 The Procuring Entity shall prepare a record of the Tender opening that shall include, as a minimum:
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security or Tender-Securing Declaration, if one was required;
 - e) number of pages of each tender document submitted.
- 249 The Tenderers' representatives who are present shall be requested to sign the record. The omission of a Tenderer signature on the record shall not invalidate the contents and effect of the record. A copy of the tender opening register shall be issued to a Tenderer upon request.

E. Evaluation and Comparison of Tenders

25. Confidentiality

- 25.1 Information relating to the evaluation of Tenders and recommendation of contract award, shall not be disclosed to Tenderers or any other persons not officially concerned with the tendering process until the information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 41.
- 25.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation or contract award decisions may result in the rejection of its Tender.
- 25.3 Notwithstanding ITT 25.2, from the time of Tender opening to the time of Contract Award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it should do so in writing.

26. Clarification of Tenders

- 26.1 To assist in the examination, evaluation, comparison of the Tenders, and qualification of the Tenderers, the Procuring Entity may, at its discretion, ask any Tenderer for a clarification of its Tender. Any clarification submitted by a Tenderer in respect to its Tender and that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity'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 Tender shall be sought, offered, or permitted except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the Evaluation of the Tenders, in accordance with ITT 30.

If a Tenderer does not provide clarifications of its Tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

27. Deviations, Reservations, and Omissions

- 27.1 During the evaluation of Tenders, the following definitions apply:
- a) "Deviation" is a departure from the requirements specified in the Tendering document;
 - b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tendering document; and
 - c) "Omission" is the failure to submit part or all of the information or documentation required in the tendering document.

28. Determination of Responsiveness

- 28.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents

of the Tender itself, as defined in ITT28.2.

28 A substantially responsive Tender is one that meets the requirements of the tendering 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 Goods and Related Services specified in the Contract; or
 - ii) limit in any substantial way, inconsistent with the tendering document, the Procuring Entity's rights or the Tenderer obligations under the Contract; or
- b) if rectified, would unfairly affect the competitive position of other Tenderers presenting substantially responsive Tenders.

282 The Procuring Entity shall examine the technical aspects of the Tender submitted in accordance with ITT 15 and ITT 16, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.

283 If a Tender is not substantially responsive to the requirements of tendering document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

29. Non-conformities, Errors and Omissions

29.1 Provided that a Tender is substantially responsive, the Procuring Entity may waive any non-conformities in the Tender.

29.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial non- conformities or omissions in the Tender related to documentation requirements. Such omission shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.

29.3 Provided that a Tender is substantially responsive, the Procuring Entity shall rectify quantifiable nonmaterial non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS**. The adjustment shall be based on the **average** price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.

30. Arithmetical Errors

30.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

30.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis:

- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive .
- b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail.

30.3 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

31. Conversion to Single Currency

31.1 For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in a single currency as specified **in the TDS**.

32. Margin of Preference and Reservations

32.1 A margin of preference may be allowed on locally manufactured goods only when the contract is open to international tendering, where the tender is likely to attract foreign goods and where the contract exceeds the threshold specified in the Regulations.

32.2 For purposes of granting a margin of preference on locally manufactured goods under international competitive tendering, a procuring entity shall not subject the items listed below to international tender and hence no margin of preference shall be allowed. The affected items are:

- a) motor vehicles, plant and equipment which are assembled in Kenya;
- b) furniture, textile, foodstuffs, oil and gas, information communication technology, steel, cement, leather agro-processing, sanitary products, and other goods made in Kenya; or
- c) goods manufactured, mined, extracted or grown in Kenya.

32.3 A margin of preference shall not be allowed unless it is specified so in the **TDS**.

32.4 Contracts procured on basis of international competitive tendering shall not be subject to reservations to specific groups as provided in ITT 32.5.

32.5 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender as specified in the **TDS**. No tender shall be reserved to more than one group. If not so stated in the Tender documents, the invitation to tender will be open to all interested tenderers.

33. Evaluation of Tenders

33.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies, the Procuring Entity shall determine the Lowest Evaluated Tender. This is the Tender of the Tenderer that meets the qualification criteria and whose Tender has been determined to be:

- a) substantially responsive to the tender documents; and
- b) the lowest evaluated price.

33.2 Price evaluation will be done for Items or Lots (contracts), as specified **in the TDS**; and the Tender Price as quoted in accordance with ITT 14. To evaluate a Tender, the Procuring Entity shall consider the following:

- a) price adjustment due to unconditional discounts offered in accordance with ITT 13.4;
- b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 31;
- c) price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 29.3; and
- d) any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.

33.3 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 considered in Tender evaluation.

- 334 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 33.2. The methodology to determine the lowest evaluated tenderer or tenderers based one lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.
- 335 The Procuring Entity's evaluation of a Tender will include and consider:
- a) in the case of Goods manufactured in Kenya, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Tenderer;
 - b) in the case of Goods manufactured outside Kenya, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Tenderer;
- 336 The Procuring Entity's evaluation of a Tender may require the consideration of other factors, in addition to the Tender Price quoted in accordance with ITT 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Tenders, unless otherwise specified in the TDS from amongst those set out in Section III, Evaluation and Qualification Criteria. The additional criteria and methodologies to be used shall be as specified in ITT 33.2(d).

34 Comparison of Tenders

- 34.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 33.2 to determine the Tender that has the lowest evaluated cost. The comparison shall be on the basis of total cost (place of final destination) prices for all goods and all prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured within the Kenya, together with prices for any required installation, training, commissioning and other services.

35 Abnormally Low Tenders

- 35.1 An Abnormally Low Tender is one where the Tender price, in combination with other constituent elements of the Tender, appears unreasonably low to the extent that the Tender price raises material concerns with the Procuring Entity as to the capability of the Tenderer to perform the Contract for the offered Tender price.
- 35.2 In the event of identification of a potentially Abnormally Low Tender by the evaluation committee, the Procuring Entity shall seek written clarification from the Tenderer, including a detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, delivery schedule, allocation of risks and responsibilities and any other requirements of the tendering document.
- 35.3 After evaluation of the price analysis, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the contract for the offered Tender price, the Procuring Entity shall reject the Tender.

36 Abnormally High Tenders

- 36.4 An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.
- 36.5 In case of an abnormally high tender price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

36.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause relevant Government Agencies to institute an investigation on the cause of the compromise, before retendering.

37. Post-Qualification of the Tenderer

37.1 The Procuring Entity shall determine, to its satisfaction, whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

37.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer qualifications submitted by the Tenderer, pursuant to ITT 15 and 16. The determination shall not take into consideration the qualifications of other firms such as the Tenderer subsidiaries, parent entities, affiliates, subcontractors (other than specialized subcontractors if permitted in the tendering document), or any other firm(s) different from the Tenderer.

37.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated cost to make a similar determination of that Tenderer qualifications to perform satisfactorily.

38. Lowest Evaluated Tender

38.1 Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

- a) most responsive to the Tender document; and
- b) the lowest evaluated price.

39. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.

39.1 The Procuring Entity reserves the right to accept or reject any Tender, and to annul the Tendering process and reject all Tenders at any time prior to notification Award, without thereby incurring any liability to Tenderers. In case of annulment, all Tenderers shall be notified with reasons and all Tenders submitted and specifically, tender securities, shall be promptly returned to the Tenderers.

F. Award of Contract

40. Award Criteria

40.1 The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender in accordance with procedures in Section 3: Evaluation and Qualification Criteria.

41. Procuring Entity's Right to Vary Quantities at Time of Award

41.1 The Procuring Entity reserves the right at the time of Contract award to increase or decrease, by the

percentage (s) for items as indicated in the TDS.

42. Notice of Intention to enter into a Contract

Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract / Notification of award to all tenderers which shall contain, at a minimum, the following information:

- a) the name and address of the Tenderer submitting the successful tender;
- b) the Contract price of the successful tender;
- c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
- d) the expiry date of the Standstill Period; and
- e) instructions on how to request a debriefing and/or submit a complaint during the standstill period;

43. Standstill Period

43.1 The Contract shall not be awarded earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied candidate to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

43.2 Where standstill period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract to the successful Tenderer.

44. Debriefing by the Procuring Entity

44.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 41, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

44.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

45. Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42, upon addressing a complaint that has been filed within the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21days of the date of the letter.

46. Signing of Contract

46.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

46.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

46.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

47. Performance Security

- 47.1 Within twenty-one (21) days of the receipt of Letter of Acceptance from the Procuring Entity, the successful Tenderer, if required, shall furnish the Performance Security in accordance with the GCC 18, using for that purpose the Performance Security Form included in Section X, Contract Forms. If the Performance Security furnished by the successful Tenderer is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Tenderer to be acceptable to the Procuring Entity. A foreign institution providing a bond shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent financial institution is not required.
- 47.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next lowest Evaluated Tender.
- 47.3 Performance security shall not be required for a contract, if so specified in the **TDS**.

48. Publication of Procurement Contract

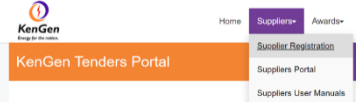


- 48.1 Within fourteen days after signing the contract, the Procuring Entity shall publish and publicize the awarded contract at its notice boards, entity website; and on the Website of the Authority in manner and format prescribed by the Authority. At the minimum, the notice shall contain the following information:
- a) name and address of the Procuring Entity;
 - b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
 - c) the name of the successful Tenderer, the final total contract price, the contract duration.
 - d) dates of signature, commencement and completion of contract;
 - e) names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening;

49. Procurement Related Complaints and Administrative Review

- 49.1 The procedures for making a Procurement-related Complaint are as specified in the **TDS**.
- 49.2 A request for administrative review shall be made in the form provided under contract forms.

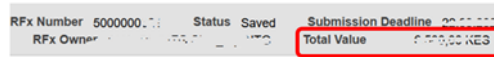
SECTION II – TENDER DATA SHEET (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

ITT Reference	Particulars Of Appendix To Instructions To Tenders
A. General	
ITT 1.1	<p>The reference number of the Invitation for Tenders is: KGN-GDD-074-2024</p> <p>The Procuring Entity is: Kenya Electricity Generating Company PLC</p> <p>The name of the Contract is: TENDER FOR SUPPLY OF NEW 2000 HP VFD WALKING DRILLING RIG WITH TOP DRIVE AND ASSOCIATED EQUIPMENT.</p>
ITT 1.2(a)	<p><i>Electronic –Procurement System</i></p> <p><i>The Procuring Entity shall use the following electronic-procurement system to manage this Tendering process via</i> /www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal)</p> <p>Internet Explorer and Firefox Mozilla are the Preferred web browsers.</p> <p>1. For suppliers registering for the first time using the link https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjFTMwMCZkFW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP ensure the “Public Tender” checkbox is ticked so that the login details are sent to suppliers automatically.</p>  <p>2. It is a mandatory requirement all Documents MUST be uploaded to the SRM System through the link https://eprocurement.kengen.co.ke:50001/irj/portal found on www.kengen.co.ke.</p>   <p>After clicking on the Event Number, then click on Register (for Open tenders), then click on ‘Create Response’, bidders to click on ‘Technical RFX Response’ tab to access the cfolder page to upload your document.</p> <p><u>Instructions to Bidders: Caution on Uploading Bid Documents</u></p> <p>a. Preferred Submission Method: Bidders are advised to use the C-Folder for submitting their tenders. This platform is specifically designed to handle bulky technical bid documents of up to 99MB per file.</p> <p>b. Exceeding File Size Limit: In the event that the bid response exceeds the 99MB limit: -</p> <p>i. Bidders should try to compress the pdf file first to file size less than 99MB and if compressing doesn’t reduce the file size consider option (ii) below.</p> <p>ii. Split the documents into two or more separate files before submission. This ensures the integrity of the tendering process and accurate evaluation of all necessary information.</p> <p>c. Bids uploaded on “Notes and Attachments Tab” may have a transmission failure and the bid may not be successfully received through the system and KenGen will not be held accountable for failure to transmit on eProcurement portal.</p>

d. Assistance and Inquiries: For any questions or further assistance, bidders are encouraged to reach out to the team at least 24 hours before submission deadline through eprocurement@kengen.co.ke ; or tenders@kengen.co.ke ; or visit our offices through the Karibu Centre.

- Prices **MUST** be entered under item tab of the RFx and **MUST** be similar to the prices in the price/BoQ Schedule.

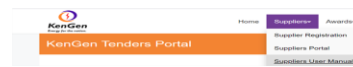


- Bidders should confirm on the supplier portal that the status of their RFx response shows “Submitted” and not “Saved” to ensure their RFx response is submitted.

Event Number	Event Description	Event Type	Event Status	Start Date	End Date	Response Number	Response Status
5000000000	Test Bid Invite to Suppliers to Bidders	Open Tendering	Published		22.09.2023	6000000000	Saved
5000000000	Test 4 Bid Invite in sus portal	Open Tendering	Published		15.02.2023	6000000000	Submitted

- Bidders who have submitted their bids should not click on **WITHDRAW** but click on **EDIT** to amend their bid response with appropriate changes if they desire to do so.

- Manuals to guide on the bidding process are accessible via the KenGen Tenders Portal.



Bidders to note that **system challenges/support** related to bid submission issues shall be **addressed to eprocurement@kengen.co.ke** 24hrs before tender closing date and time.

Eligibility

This tender is open to **Open International**

Eligibility and qualifications

Proof of eligibility, qualification documents of evidence (see evaluation criteria).

ITT 3.1

Maximum number of members in the Joint Venture (JV) shall be maximum 5.

No firm can participate in more than one JV for purposes of this tender.

ITT 3.7

A list of debarred firms and individuals is available on the PPRA’s website:

www.ppra.go.ke

ITT 3.11

Tenderers shall be required to be registered with [https://supplierregistration.kengen.co.ke:4302/slc_selfreg\(bD11biZjPTMwMCZkPW1pbg==\)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP](https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjPTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP) and ensure the “Public Tender” checkbox is ticked so that the login details are sent to suppliers automatically.

This is for suppliers registering for the first time to enable bidding via e-procurement portal

B. Contents of Tendering Document

ITT 6.1

For Clarification of Tender purposes only, the Procuring Entity’s address is:

Attention:

**General Manager, Supply Chain,
Kenya Electricity Generating Company PLC,
9th Floor, KenGen Pension Plaza II,
Kolobot Road, Parklands,
P.O. Box 47936, 00100
NAIROBI.**

tenders@kengen.co.ke; cc Ponyango1@kengen.co.ke; Erico@kengen.co.ke

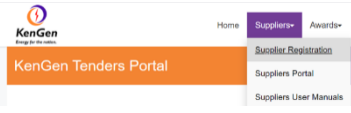

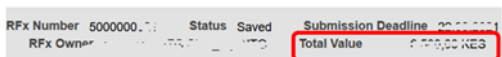
Requests for clarification should be received by the Procuring Entity no later than:
7 days before tender closing date.

Web page: [\[www.kengen.co.ke\]](http://www.kengen.co.ke).

ITT 6.3

The questions to reach the Procuring Entity not later than **7 Days before the tender closing date**

ITT 9.1	The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Procuring Entity, shall be written in English Language. Supporting documents and printed literature that are part of the Tender SHALL also be in English Language.
	C. Preparation of Tenders
ITT 10 (j)	The Tenderer shall submit the following additional documents in its Tender: <i>as per Executive order no 2 of 2020 and other specified in the evaluation criteria</i>
ITT 12.1	Alternative Tenders <i>shall not be</i> considered.
ITT 13.5	The prices quoted by the Tenderer shall not be subject to adjustment during the performance of the Contract.
ITT 13.6	Tender Prices Prices indicated in the tender form shall be inclusive of all applicable taxes and insurance.
ITT 14.2	Foreign currency requirements allowed .
ITT 15.4	Period of time the Goods are expected to be functioning (for the purpose of spare parts):
ITT 16.2 (a)	Manufacturer's authorization is: required
ITT 17.1	The Tender validity period shall be 126 days.
ITT 17.3	(a) The Number of days beyond the expiry of the initial tender validity period will be 30 days .
ITT 18.1	<p><i>Tender Security shall be</i> required.</p> <p>The Original Tender Security of USD 500,000.00 or equivalent in a freely convertible currency valid for 30 days beyond the tender validity period, in form of:</p> <ul style="list-style-type: none"> ➤ Tender Security from a reputable bank registered by the Central Bank of Kenya ➤ Guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya. ➤ A guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Public Procurement Regulatory Authority. <p>International bidders, should have tender security through local corresponding banks registered by the Central Bank of Kenya. The Original Tender Security/ E- Tender securities MUST be submitted in a plain sealed envelope and clearly marked "KGN-GDD-074-2024- TENDER FOR SUPPLY OF NEW 2000 HP VFD WALKING DRILLING RIG WITH TOP DRIVE AND ASSOCIATED EQUIPMENT" And addressed to:</p> <p style="text-align: center;">General Manager, Supply Chain, Kenya Electricity Generating Company PLC, 9th Floor, KenGen Pension Plaza II, Kolobot Road, Parklands, P.O. Box 47936, 00100 NAIROBI.</p> <p>Note; The hard copy of the Original Tender Security /E-Security clearly labeled with tender name and tender description should be dropped at the tender box located on Ground Floor at KenGen, KenGen, RBS building on or before the tender closing date and Time;</p> <p>Electronic tender securities are acceptable and shall be authenticated using the QR scanner.</p> <p>Electronic Tender Securities are acceptable subject to:</p> <ol style="list-style-type: none"> i. Attachment of a scanned copy to the bid document. ii. Submission of the e-security to the address indicated below in plain sealed envelope clearly labelled. iii. Such E-Security can be verified by use of a Quick Response (QR) code

	Such E-Security can be verified via the issuing institution’s online portal.
ITT 19.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of a Tender Specific Power of Attorney . Bidders shall use the Template provided in this tender .
	D. Submission and Opening of Tenders
ITT 21.1	<p>For Tender submission purposes only, the Procuring Entity’s address is: The tender MUST be submitted through our e-procurement platform found at www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal)</p> <p>SUBMISSION OF TENDERS:</p> <p>1. For suppliers registering for the first time using the link https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjPTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP ensure the “Public Tender” checkbox is ticked so that the login details are sent to suppliers automatically.</p>  <p>2. It is a mandatory requirement all Documents MUST be uploaded to the SRM System through the link https://eprocurement.kengen.co.ke:50001/irj/portal found on www.kengen.co.ke.</p>  <p>After clicking on the Event Number, then click on Register (for Open tenders), then click on ‘Create Response’, bidders to click on ‘Technical RFX Response’ tab to access the cfolder page to upload your document.</p> <p>Instructions to Bidders: Caution on Uploading Bid Documents</p> <p>a. Preferred Submission Method: Bidders are advised to use the C-Folder for submitting their tenders. This platform is specifically designed to handle bulky technical bid documents of up to 99MB per file.</p> <p>b. Exceeding File Size Limit: In the event that the bid response exceeds the 99MB limit:</p> <p>i. Bidders should try to compress the pdf file first to file size less than 99MB and if compressing doesn’t reduce the file size consider option (ii) below.</p> <p>ii. Split the documents into two or more separate files before submission. This ensures the integrity of the tendering process and accurate evaluation of all necessary information.</p> <p>c. Bids uploaded on “Notes and Attachments Tab” may have a transmission failure and the bid may not be successfully received through the system and KenGen will not be held accountable for failure to transmit on eProcurement portal.</p> <p>d. Assistance and Inquiries: For any questions or further assistance, bidders are encouraged to reach out to the team at least 24 hours before submission deadline through eprocurement@kengen.co.ke ; or tenders@kengen.co.ke ; or visit our offices through the Karibu Centre.</p> <ul style="list-style-type: none"> Prices MUST be entered under item tab of the RFX and MUST be similar to the prices in the price/BoQ Schedule.  <ul style="list-style-type: none"> Bidders should confirm on the supplier portal that the status of their RFX response shows “Submitted” and not “Saved” to ensure their RFX response is submitted.

Event Number	Event Description	Event Type	Event Status	Start Date	End Date	Response Number	Response Status
5000000000	Test Bid Invite Notification to Bidders	Open Tendering	Published		22.09.2024	6000000000	Saved
5000000000	Test 4 (to be added) in sus portal	Open Tendering	Published		15.02.2024	6000000000	Submitted

- Bidders who have submitted their bids should not click on **WITHDRAW** but click on **EDIT** to amend their bid response with appropriate changes if they desire to do so.
- Manuals to guide on the bidding process are accessible via the KenGen Tenders Portal.



Bidders to note that **system challenges/support** related to bid submission issues shall be addressed to eprocurement@kengen.co.ke tender closing date and time.

The deadline for Tender submission is:

Date and Time: **18th July 2024 at 10.00 a.m.**

ITT 24.1

The Tender opening shall take place at:

Kenya Electricity Generating Company PLC,
6th Floor, KenGen Pension Plaza II,
Kolobot Road, Parklands,
P.O. Box 47936, 00100
NAIROBI.

Date and time: **18th July 2024 at 10.30 a.m.**

Bidders can request for the tender opening minutes of the tender opening session through the following email address tenders@kengen.co.ke

ITT 24.6

The number of representatives of the Procuring Entity to sign is 3.

E. Evaluation and Comparison of Tenders

ITT 31.1

Where other currencies are used, the procuring entity shall convert these Currencies to Kenya Shillings using the selling exchange rate on the date of tender closing provided by the Central Bank of Kenya before comparing all the responsive tenders.

ITT 32.3

A margin of preference and/or reservation **shall apply** for goods.

ITT 33.2

Price evaluation will be done for Total lowest evaluated compliant bidder.

F. Award of Contract

Preliminary Examination

Tender sum as submitted and read out during tender opening as per the form of tender is absolute and final and shall not be subject to correction, adjustment, or amendment.

Due Diligence

KenGen may at its own discretion conduct due diligence on the eligible bidders to establish their ability to perform the contract before award of the contract.

ITT 47.3

Performance security shall be at **10% of the Contract Price where the contract value is above Kenya Shillings Five Million (5M).**

The performance security shall remain valid for 30 days beyond the validity of the contract.

The Performance Security shall be in the form of: an on-Demand Bank Guarantee from a bank registered by Central Bank of Kenya”

The Performance security shall be denominated in the currency of the contract or a freely convertible currency acceptable to the Procuring Entity.

For foreign firms, the guarantee shall be issued by a local bank or authorised financial institution issued by a corresponding bank in Kenya recognized by the Central Bank of Kenya.

ITT 49.1	<p>The procedures for making a Procurement-related Complaint are detailed in the “Notice of Intention to Award the Contract” herein and are also available from the PPRA Website www.ppra.go.ke.</p> <p>If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by email or fax), to:</p> <p>For the attention: General Manager – Supply Chain Title/position: General Manager Procuring Entity: KenGen Email address: tenders@kengen.co.ke</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. the terms of the Tendering Documents; and <p>the Procuring Entity’s decision to award the contract.</p>
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SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

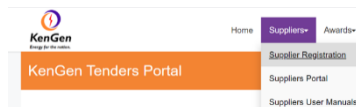
1.1 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

- a) For business 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 is to be converted) was originally established.
- b) Value of single contract - Exchange rate prevailing on the date of the contract signature.
- c) Exchange rates shall be taken from the publicly available source identified in **the ITT 14.3**. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

1.2 This section contains the criteria that the Procuring Entity shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than those specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity should use the Standard Tender Evaluation Report for Goods and Works for evaluating Tenders.

REGISTRATION AND BIDDING PROCESS

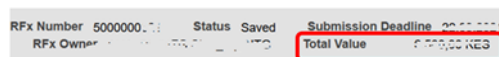
1. For suppliers registering for the first time using the link [https://supplierregistration.kengen.co.ke:4302/slc_selfreg\(bD11biZjFTMwMCZkPW1pbg==\)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP](https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjFTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP) ensure the “Public Tender” checkbox is **ticked** so that the login details are sent to suppliers automatically.



2. It is a mandatory requirement all Documents **MUST** be uploaded to the SRM System through the link <https://eprocurement.kengen.co.ke:50001/irj/> portal found on www.kengen.co.ke.



- Prices **MUST** be entered under item tab of the RFx and **MUST** be similar to the prices in the price/BoQ Schedule.



After clicking on the Event Number, then click on Register (for Open tenders), then click on ‘Create Response’, bidders to click on ‘Technical RFx Response’ tab to access the cfolder page to upload your document.

Instructions to Bidders: Caution on Uploading Bid Documents

a. **Preferred Submission Method:** Bidders are advised to use the C-Folder for submitting their tenders. This platform is specifically designed to handle bulky technical bid documents of up to **99MB per file**.

b. **Exceeding File Size Limit:** In the event that the bid response exceeds the **99MB limit**: -

- i. Bidders should try to compress the **pdf file first to file size less than 99MB** and if compressing doesn't reduce the file size consider option (ii) below.

ii. **Split the documents into two or more** separate files before submission. This ensures the integrity of the tendering process and accurate evaluation of all necessary information.

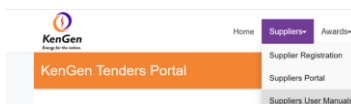
c. Bids uploaded on “**Notes and Attachments Tab**” may have a transmission failure and the bid may not be successfully received through the system and KenGen will not be held accountable for failure to transmit on eProcurement portal.

d. **Assistance and Inquiries:** For any questions or further assistance, bidders are encouraged to reach out to the team at least 24 hours before submission deadline through eprocurement@kengen.co.ke ; or tenders@kengen.co.ke ; or visit our offices through the Karibu Centre.

- Bidders should confirm on the supplier portal that the status of their RFX response shows “Submitted” and not “Saved” to ensure their RFX response is submitted.

Event Number	Event Description	Event Type	Event Status	Start Date	End Date	Response Number	Response Status
5000000000	Test Bid Invite Submission to Bidders	Open Tendering	Published		22.09.2024	6000000000	Saved
5000000000	Test 4 Bid Invite in sus portal	Open Tendering	Published		15.02.2024	6000000000	Submitted

- Bidders who have submitted their bids should not click on **WITHDRAW** but click on **EDIT** to amend their bid response with appropriate changes if they desire to do so.
- Manuals to guide on the bidding process are accessible via the KenGen Tenders Portal.



- Bidders to note that **system challenges/support** related to bid submission issues shall be **addressed to eprocurement@kengen.co.ke** 24hrs before tender closing date and time.

2 Evaluation of Tenders (ITT 33)

2.1 Successful Tender or Tenders

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate Tenders. By applying these criteria and methodologies, the Procuring Entity shall determine the successful Tender or Tenders which has/have been determined to:

- be substantially responsive to the tender documents;
- offer the lowest evaluated cost to the Procuring Entity for all items of Goods to be procured based on either a single Contract or all multiple Contracts combined, as the case may be, in accordance with the ITT 13.6 inviting Tender prices and discounts, and provisions made of the Tender Document for evaluation of tenders and award of contract (s); and
- be offered by Tenderer or Tenderers that substantially meet the qualification criteria applicable for Contract or combined Contracts for which they are selected.

2.2 Evaluation of Tenders

Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non-responsive and will not be considered further.

STAGE 1: MANDATORY REQUIREMENTS

The following mandatory requirements must be met notwithstanding other requirements in the tender document:

No	Preliminary Mandatory Evaluation Requirements
MR 1	Valid copy of Registration Certificate /Certificate of Incorporation in the domicile Country.
MR 2	Valid copy of the business permit for local firms (Foreign firms to provide where applicable) .
MR 3	Valid Tax Compliance Certificate for local firms. (Foreign firms to provide equivalent or a Declaration that they are Tax Compliant.
MR 4	Valid and current API certificates (4F, 5D, 6A, 6D, 7K, 8A, 8C, Q1, QR, 16A, 16C, 16D, API Spec Q1 9th edition) . The API Spec Q1 9 th edition shall be specific to design, manufacture and service of drilling rig and associated components
MR 5	Valid reference letter from IADC signed and stamped
MR 6	Valid copy of a CR12 form issued within 6 months of tender closure (Applicable to all Citizen & National contractors) . A valid Certified documentation listing the directors of the bidding firm (Applicable to international contractors, and issued within 6 months of tender closure) Certification will be done by an order republic.
MR 7	Submit the Original Tender Security of <i>USD. 500,000.00</i> or equivalent in a freely convertible currency valid for 30 days beyond the tender validity period and in the form (s) indicated in the TDS. The Original Tender Security or e-Tender Security- enclosed in a plain sealed envelope clearly marked with the tender reference number & title- should be dropped at the tender box located on Ground Floor at KenGen Headquarter, RBS building, Parklands, Nairobi. For any submitted ‘e- Tender Securities’, the same shall be authenticated by a QR scanner on the Date & Time of tender opening. International bidders should have tender security through local corresponding banks registered by the Central Bank of Kenya.
MR 8	Duly filled, signed and stamped Tender’s Eligibility Confidential Business Questionnaire form
MR 9	Duly filled and signed and stamped Tender Form.
MR 10	Duly filled and signed and stamped price schedules.
MR 11	Duly filled, signed and stamped Addendum(s) and Clarification(s) issued must be attached (Where Applicable)
MR 12	The Tender MUST be submitted be in the required format and serialized on each page of the bid submitted, Sec.74.1.i. of the PPADA, 2015.
MR 13	The tender has been dully signed by the person lawfully authorized to do so through the Tender Specific Power of Attorney. (Bidders shall use the template provided in this tender)
MR 14	Tender bids and documents must be submitted through our e-procurement platform found at www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal)
MR 15	All items in each schedule must be quoted to be considered responsive.
MR 16	All schedules MUST be quoted for the bid to be considered responsive.
MR 17	Duly filled signed and stamped Self Declaration form that the tenderer is not debarred in the matter of PPADA 2015.
MR 18	Duly filled signed and stamped Self Declaration form that the tenderer will not engage in any corrupt or Fraudulent Practice.
MR 19	Duly signed and stamped Manufacturer’s Authorization Letter from the Original Equipment Manufacturer. The said Authorization Letter must be issued by the Original Equipment Manufacturer , and not by 3 rd parties.

	The letter must include the OEM's contact current details (email, physical address, country of operation & telephone)	
MR 20	Proof of similar projects executed - at least ten (10) signed contracts in English to be provided dated from year 2015	
MR 21	Duly filled, signed and stamped Certificate of Independent Tender Declaration.	
MR 22	Provide a commitment letter for Third party inspection by either Aberdeen Drilling Consultant, UK or Oil Field Audit & Service Inc., USA.	
MR 23	Duly filled, signed and stamped Declaration and Commitment to the Code of Ethics.	
MR 24	Duly filled signed and stamped Tenderer Information Form	
MR 25	Duly filled, signed and stamped Joint Venture (JV) agreement and Tenderer's JV Members Information Form (for JV Members Only) , a Joint Venture Agreement Must be submitted to govern the partnership for the whole <i>engagement</i> period. N/B in the case of JV, all parties in the JV must meet these Mandatory Requirements, as provided in this table - MR1, MR2, MR3, MR6, MR8, MR17, MR18, MR21, MR23, MR24.	
MR 26	In cases of a Joint Venture, the Bidder Must attach a duly signed Power of Attorney between the Joint Venture Partners, and witnessed by a Commissioner of Oaths or Notary Public, as the case may apply.	
MR 27	Annual Accounts The audited financial statements by a registered audit firm for the last 3 years shall be submitted and must demonstrate the current soundness of the Bidder's financial position and its prospective long-term profitability	
MR28	Financial ratios	Current Ratio: 1:1 Positive net worth in their audited balance sheet Debt to Equity Ratio – Less than 2.33x times At least one year out of the recent three years of positive Profit before Tax.

Note

All documents/ manuals/ certificates/ permits provided shall be in English or a certified copy of the translation to English shall be provided. Failure to provide all required documents in English shall lead to disqualification.

221 Evaluation of Technical aspects of the Tender

The Procuring Entity shall evaluate the Technical aspects of the Tender to determine compliance with the Procuring Entity's requirements under Section V 'Schedule of Requirement' and whether the Tenders are substantially responsive to the Technical Specifications and other Requirements.

STAGE 2-TECHNICAL EVALUATION ON CAPACITY TO DELIVER THE CONTRACT

Technical evaluation shall be carried out only if the tender is determined to be responsive to the preliminary examination.

Bidder must demonstrate conformance to the all the technical specifications and requirements as per the tender document, and as tabulated below.

No.	CRITERIA PARAMETERS	RESPONSE (YES or NO). Reference page shall be provided
1.	Conformity of each item to the required technical specifications as per Section V schedule of requirements.	
2.	Provide product technical details in form of manufacturer Brochures or	

	Catalogues for the items they intend to supply which must be stamped as a sign of ownership.	
3.	Manufacturers' valid API certificates and Signed and Stamped Manufacturer's Authorization from other equipment supplier that the manufacturer does not manufacture.	
4.	Provide a list of manufacturer's recommended consumable spare parts for at least two years with part numbers. Failure to provide complete descriptions and Part numbers will lead to disqualification.	
5.	Provide a commitment letter that the equipment manufacture date to be not earlier than January 2024. Manufacture dates before 2024 will not be accepted.	
6.	Provide a commitment that all main equipment manufactured as per API standards shall have API monograms.	
7.	Detailed work plan and list of key project personnel with their CVs shall be provided.	
8.	Provide a commitment that the third-party inspection shall be conducted by either Aberdeen Drilling Consultant, UK or Oil Field Audit & Service Inc., USA.	
9.	Bidder to provide a detailed training program outlining the course content for KenGen personnel that shall be conducted at their training facility. The training program shall include operations, maintenance and safety of the drilling rig. Bidder to attach to their Curriculum Vitae, Academic Certificates and related testimonials of trainers.	
10.	Layout drawing of the rig equipment and camp facilities shall be provided.	
11.	Project planning Gant chart on rig manufacture, third party inspections, shipment, transportation, rig up, commissioning and project closure. Details of defect repairs and replacement parts.	
12.	Warranty period of at least 12 months after commissioning and hand over of the rig must be provided. The warranty must be issued by the OEM, and not 3 rd parties.	

Note

All documents/ manuals/ certificates/ permits provided shall be in English or a certified copy of the translation to English shall be provided. Failure to provide all required documents in English shall lead to disqualification.

PRICE EVALUATION

Consistent with and in addition to the criteria listed in ITT 33.3 and ITT 29.3; and ITT 34 and its subparagraphs the following criteria shall apply:

STAGE 3. FINANCIAL EVALUATION

Financial evaluation shall involve checking completeness of financial bids.

- i. Award shall be based on the **total lowest evaluated compliant bidder.**
- ii. **All schedules must be quoted for since all schedules will be awarded as a Lot.**
- iii. **All prices quoted in all schedules shall be DAP Oikaria.**
- iv. Consideration of the prevailing market price and value for money
- v. Tender sum as submitted and read out during tender opening as per the form of tender is absolute and final and shall not be subject to correction, adjustment or amendment.

Preferential treatment for Local and Citizen contractors.

In accordance to evaluation criteria, preferential treatment for local and citizen contractors shall apply in accordance to Section 164 (c), (d) and (e) of The Public Procurement and Asset Disposal Regulations, 2020.

Shareholding of Kenyan Citizen	Percentage Margin of Preference (on evaluated price)
Less than 20% but above 5%	6%
Less than 50% but above 20%	8%
Over 50%	10%
Joint Venture with Citizen contractors	10%

- i. The Margin of Preference shall apply for price comparison only. **Thereafter the award will be based on the lowest evaluated compliant bidder. (Price as read out)**
- ii. Tenderers who qualify for this scheme shall attach CR12 forms to support their bid. Such CR12's shall have been issued within six (6) months of Tender closing date.
- iii. **Citizen contractor** means a person, or a firm **wholly owned** and controlled by persons who are citizens of Kenya.

STAGE 4. DUE DILLIGENCE

KenGen shall conduct due diligence on the recommended bidder to ascertain the information provided in their bid document. **Third party inspection will be mandatory for all the equipment offered.**

KenGen will also conduct **Factory Acceptance Test (FAT)** at the Manufacturers' premises before shipment.

SECTION IV

TENDERING FORMS

Form of Tender

Tenderer Information Form

Tenderer JV Members Information Form

Price Schedule: Goods

Price and Completion Schedule – Related Services

Form of Tender Security – Demand Guarantee

Form of Tender Security (Tender Bond)

Form of Tender-Securing Declaration

Manufacturer's Authorization Form

FORM OF TENDER

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS

- i) *All italicized text is to help the Tenderer in preparing this form.*
- ii) *The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.*
- iii) *Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (s) below.*

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]*

Tender Name and Identification:.....*[insert identification]*

Alternative No.:.....*[insert identification No if this is a Tender for an alternative]*

To: *[Insert complete name of Procuring Entity]*

- a) **No reservations:** We have examined and have no reservations to the Tendering document, including Addenda issued in accordance with Instructions to tenderers (ITT 7);
- b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3;
- c) **Tender/Proposal-Securing Declaration:** We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing Declaration. Or Proposal-Securing Declaration in Kenya in accordance with ITT 3.6;
- d) **Conformity:** We offer to supply in conformity with the Tendering document and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*;
- e) **Tender Price:** The total price of our Tender, excluding any discounts offered in item (f) below is:

Option 1, in case of one lot: Total price is: *[insert the total price of the Tender 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]*;

f) **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 are shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
- g) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 17.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 21.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- h) **Performance Security:** If our Tender is accepted, we commit to obtain a performance security in accordance with the Tendering document;
- i) **One Tender per tenderer:** We are not submitting any other Tender(s) as an individual tenderer, and we are not participating in any other Tender(s) as a Joint Venture member, or as a subcontractor, and meet the requirements of ITT 3.9, other than alternative Tenders submitted in accordance with ITT 12;
- j) **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 Procuring Entity. Further, we are not ineligible under the Kenya laws or official regulations or pursuant to a decision of the United Nations Security Council;
- k) **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 ITT 3.7];*
- l) **Commissions, gratuities, fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering 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.”)

- m) **Binding Contract:** We understand that this Tender, 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;
- n) **Procuring Entity Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Best Evaluated Tender or any other Tender that you may receive; and

- o) **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.
- p) **Code of Ethical Conduct:** We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from _____ (*specify website*) during the procurement process and the execution of any resulting contract.
- q) **Collusive practices:** We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the “Certificate of Independent tender Determination” attached below.
- r) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.
- s) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:
 - a) Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest;
 - b) Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers;
 - c) Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of fraud and corruption; and
 - d) Declaration and Commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in “**Appendix 1- Fraud and Corruption**” attached to the Form of Tender.

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

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

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

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 Tender submitted by a Joint Venture specify the name of the Joint Venture as tenderer.

******: Person signing the Tender shall have the power of attorney given by the tenderer. The power of attorney shall be attached with the Tender Schedules.

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the _____

[Name of Procuring Entity] for: _____

[Name and number of tender] in response to the request for tenders made by: _____

[Name of Tenderer] do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____

[Name of Tenderer] that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;
4. For the purposes of this Certificate and the Tender, I understand that the word “competitor” shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) has been requested to submit a Tender in response to this request for tenders;
 - b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
 - a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
 - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) methods, factors or formulas used to calculate prices;
 - c) the intention or decision to submit, or not to submit, a tender; or
 - d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5)(b) above;
7. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;

8. the terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name

Title

Date

[Name, title and signature of authorized agent of Tenderer and Date]

SELF-DECLARATION FORMS

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.

I of Post Office Box.....being a resident of in the Republic of.....do hereby make a statement as follows:-

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Director of (*insert name of the Company*) who is a Bidder in respect of **Tender No.** for..... (*insert tender title/description*) for.....(*insert name of the Procuring entity*) and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.
3. THAT what is deponed to herein above is true to the best of my knowledge, information and belief.

.....
(Title)	(Signature)	(Date)
Bidder Official Stamp		

FORM SD2

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE

I, of P.O. Box.....being a resident of..... in the Republic of do hereby make a statement as follows:-

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of..... *(insert name of the Company)* who is a Bidder in respect of **Tender No.** for..... *(Insert tender title/description)* for..... *(insert name of the Procuring entity)* and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of*(insert name of the Procuring entity)* which is the procuring entity.
3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of*(name of the procuring entity)*.
4. THAT the aforesaid Bidder will not engage/has not engaged in any corrosive practice with other bidders participating in the subject tender.
5. THAT what is deponed to herein above is true to the best of my knowledge information and belief.

..... (Title) (Signature) (Date)
Bidder Official Stamp		

FORMAT OF POWER OF ATTORNEY

We..... (name and address of the registered office) do hereby constitute, appoint and authorize Mr. / Mrs. / Ms (name and residential address) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for the project/goods/works/services“.....”, including signing and submission of all documents and providing information / responses to the Kenya Electricity Generating Company PLC, ("KenGen"), representing us in all matters before KenGen, and generally dealing with KenGen in all matters in connection with our Proposal for the said project/goods/works/services.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us

..... (Signature)(Name, Title and Address) Donor

..... (Signature)(Name, Title and Address) Accepted

..... (Signature)(Name, Title and Address of the Attorney)

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I..... (Person) on behalf of
(Name of the Business/ Company/Firm).....declare that I
have read and fully understood the contents of the Public Procurement & Asset Disposal
Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement
and Asset Disposal and my responsibilities under the Code.

I do hereby commit to abide by the provisions of the Code of Ethics for persons participating
in Public Procurement and Asset Disposal.

Name of Authorized signatory.....

Sign.....

Position.....

.

Office address..... Telephone.....

E-mail.....

Name of the Firm /Company.....

Date.....

(Company Seal/Rubber Stamp where applicable)

Witness

Name

Sign.....

Date.....

APPENDIX 1- FRAUD AND CORRUPTION

1. Purpose

- 1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

2. Requirements

- 2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (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, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

- 2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:

- 1) a person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;
- 2) A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;
- 3) Without limiting the generality of the subsection (1) and (2), the person shall be—
- a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
- b) if a contract has already been entered into with the person, the contract shall be voidable;
- 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
- 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement:-
- a) shall not take part in the procurement proceedings;
- b) shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and
- c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
- 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;
- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.

- 2.3 In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

- a) Defines broadly, for the purposes of the above provisions, 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:
 - deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya 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
 - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
- c) Rejects a proposal for award¹ of a contract if PPRA 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;
- d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or debar or recommend to appropriate authority (ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² 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 PPRA or any other appropriate authority appointed by Government of Kenya; and
- f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

TENDERER INFORMATION FORM

[The tenderer shall fill in this Form in accordance with the instructions indicated below.

No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Tender submission]*

Tender Name and Identification: *[Insert identification]*

Alternative No.: *[insert identification No if this is a Tender for an alternative]*

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1. Tenderer's Name <i>[insert Tenderer's legal name]</i>
2. In case of JV, legal name of each member: <i>[insert legal name of each member in JV]</i>
3. Tenderer's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Tenderer's year of registration: <i>[insert Tenderer's year of registration]</i>
5. Tenderer's Address in country of registration: <i>[insert Tenderer's legal address in country of registration]</i>
6. Tenderer's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> For Kenyan Tenderers a current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority in accordance with ITT 3.14. <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.4. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 4.6 documents establishing: (i) Legal and financial autonomy (ii) Operation under commercial law (iii) Establishing that the tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

TENDERER’S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE FORM

a) Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

A. Tenderer’s details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Name of the Tenderer	
3	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
4	Reference Number of the Tender	
5	Date and Time of Tender Opening	
6	Current Trade License No and Expiring date	
7	Maximum value of business which the Tenderer handles.	
8		

General and Specific Details

b) Sole Proprietor, provide the following details.

Name in full _____

Age _____

Nationality _____

Country of Origin _____

Citizenship _____

c) Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned

(d) Registered Company, provide the following details.

i) Private or public Company _____

ii) State the nominal and issued capital of the Company-

Nominal Kenya Shillings (Equivalent)

Issued Kenya Shillings (Equivalent)

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

(e) DISCLOSURE OF INTEREST- Interest of the Firm in the Procuring Entity.

(i) Are there any person/persons in (*Name of Procuring Entity*) who has an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

(ii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract?		

(f) Certification

On behalf of the Tenderer, I certify that the information given above is correct.

Full Name _____

Title or Designation _____

(Signature)

(Date)

TENDERER’S JV MEMBERS INFORMATION FORM

[The tenderer shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the tenderer and for each member of a Joint Venture]].

Date:.....*[insert date (as day, month and year) of Tender submission].*

Tender Name and Identification:.....*[insert identification* Alternative No.:.....*[insert identification No if this is a Tender for an alternative].*

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1.Tenderer’s Name: <i>[insert Tenderer’s legal name]</i>
2.Tenderer’s JV Member’s name: <i>[insert JV’s Member legal name]</i>
3. Tenderer’s JV Member’s country of registration: <i>[insert JV’s Member country of registration]</i>
4.Tenderer’s JV Member’s year of registration: <i>[insert JV’s Member year of registration]</i>
5.Tenderer’s JV Member’s legal address in country of registration: <i>[insert JV’s Member legal address in country of registration]</i>
6.Tenderer’s JV Member’s authorized representative information Name: <i>[insert name of JV’s Member authorized representative]</i> Address: <i>[insert address of JV’s Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV’s Member authorized representative]</i> Email Address: <i>[insert email address of JV’s Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 4.6.
8.Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

PRICE SCHEDULE FORMS

[The tenderer shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the Price Schedules shall coincide with the List of Goods and Related Services specified by the Procuring Entity in the Schedule of Requirements.

PRICE SCHEDULE FOR GOODS

SECTION 1: DRAWWORKS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	2000HP, 500MT Drawworks	Set	1		
2	Other accessories and OEM recommended spare parts for 2 years operation, under Section 1	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
	Local Logistics Costs (Road Transport etc) from Mombasa Port to Kengen Olkaria Station				
	Any Other Charges (Bidder to specify)				
	Total Delivered Cost (DAP Olkaria Incoterm basis)				
	Currency of Tender				
	Name of Manufacturer				
	Delivery Period (Months after signing Contract)				

(Totals to be transferred to the Summary of Sections/ Schedules)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

SECTION 2: MAST, SUBSTRUCTURE, TRAVELLING BLOCK AND IRON ROUGH NECK

	Item Description	UoM	Qty	Unit Price	Total Price
1	Mast	Set	1		
2	Substructure	Set	1		
3	Other accessories Drilling line spooler Drilling lines Fall arrester. Racking board Air winch Man rider air winch Drilling air winch Deadline anchor Hydraulic cathead Rotary table Mud guard BOP platform Any other equipment deemed necessary	Lot	1		
4	Travelling Block	Pc	1		
5	Iron Roughneck	Set	1		
6	Pipe Handler	Set	1		
7	Catwalk, Pipe Racks and V Door	Lot	1		
8	Other accessories and OEM recommended spare parts for 2 years operation, under Section 2	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
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SECTION 3: TOP DRIVE SYSTEM

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Top Drive	Set	1		
2	Driller's console	Set	1		
3	VFD	Pc	1		
4	Hydraulic power unit (HPU)	Set	1		
5	550T Elevator & Links	Pair	2		
6	350T Elevator & Links	Pair	2		
7	Casing Running Elevator & Links	Pair	2		
8	Other accessories Lubrication kit Tool kit Guide beam kit TDS service loop kit Wear guide Quill Sub (10pcs) All necessary Tools (Operations & Maintenance) Any other accessory for ease of rigging up, operation, transport and storage	Lot	1		
9	Other accessories and OEM recommended spare parts for 2 years operation, under Section 3	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
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SECTION 4: MUD PUMPS AND HIGH-PRESSURE MUD LINES

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Mud pump	Set	3		
2	Charge pumps	Set	3		
3	Mud pump discharge lines, standpipe, and cementing manifold	Lot	1		
4	Other accessories and OEM recommended spare parts for 2 years operation, under Section 4	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
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SECTION 5: MUD & WATER SYSTEM

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Active and reservoir mud tanks	Lot	1		
2	Mud pill chamber	Set	1		
3	Mud operators' cabin	Set	1		
4	Mud mixing equipment	Lot	1		
5	Trip tank	Set	1		
6	Water tanks	Lot	1		
7	Chemical mixing tank	Set	1		
8	Pump system for solid control	Lot	1		
9	Mud loading system	Lot	1		
10	Pre-flush tank	Set	1		
11	Solid control equipment	Lot	1		
12	Vacuum Degasser	Set	1		
13	Mud gas separator	Set	1		
14	Centrifuge	Set	1		
15	Mud cooler	Set	1		
16	Cellar pumps	Set	2		
17	Mud lab	Set	1		
18	High Pressure wash gun	Set	3		
19	Other accessories and OEM recommended spare parts for 2 years operation, under Section 5	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)				
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SECTION 6: BLOWOUT PREVENTION SYSTEM

No	Item Description	UoM	Qty	Unit Price	Total Price
1	21 ¼" BOP complete with BOP test stump and accessories	Set	1		
2	13 5/8 " BOP complete with BOP test stump and accessories	Set	1		
3	Portable High-Pressure BOP testing unit complete with accessories, display unit and printer.	Set	1		
4	Rotating head – 21 ¼ " & 13 5/8 " complete with accessories	Set	1		
5	Drilling diverter complete with accessories.	Set	1		
6	Choke manifold and choke lines complete with remote control systems for driller, tool pusher and drilling supervisor.	Lot	1		
7	Kill manifold and kill lines complete with remote control systems for driller, tool pusher and drilling supervisor	Lot	1		
8	Bell nipple and riser complete with all accessories.	Lot	1		
9	Gas flare system complete with all accessories.	Set	1		
10	BOP control unit as specified in the technical specifications.	Set	1		
11	Other tools, accessories and OEM recommended spare parts for 2 years operation, under Section 6	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
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SECTION 7: RIG INSTRUMENTATION AND CONTROL SYSTEM

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Driller instrument panel	Lot	1		
2	Electronic drilling recorder	Lot	1		
3	Automatic driller system	Lot	1		
4	Driller workstation	Lot	1		
5	Drillers control cabin	Lot	1		
6	Rig sense system	Lot	1		
7	Mud logging unit	Lot	1		
8	Top drive instrumentation	Lot	1		
9	Rig air system	Lot	1		
10	Instrumentation Storage Container	pc	1		
11	Directional Drilling and well planning software	Lot	1		
12	Well cementing, design and simulation software	Lot	1		
13	Other accessories and OEM recommended spare parts for 2 years operation, under Section 7	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)				
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SECTION 8: POWER SYSTEM, RIG ELECTRICALS, RIG FUEL SYSTEM, INTERCOM AND CCTV SYSTEM

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Main Generator	Set	4		
2	Auxiliary Generator	Set	1		
3	Power control room	Set	1		
4	Transformer	Set	1		
5	Lightning protection system	Lot	1		
6	Firefighting system	Lot	1		
7	Rig fuel system	Lot	1		
8	Rig communication system	Lot	1		
9	CCTV system	Lot	1		
10	Top drive instrumentation	Lot	1		
11	Rig air system	Lot	1		
12	Other accessories and OEM recommended spare parts for 2 years operation, under Section 8	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
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SECTION 9: WIRELINE UNIT

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Wireline unit	Set	1		
2	Lubricator	Set	1		
3	Other accessories and OEM recommended spare parts for 2 years operation, under Section 9	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
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SECTION 10: CASING HANDLING TOOLS AND ACCESSORIES

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Casing power tongs and accessories– all sizes	Set	1		
2	Casing spider and accessories	Set	1		
3	Casing running tool and accessories	Set	1		
4	Casing elevators and slips	Lot	1		
5	Safety Clamps (dog clamps)	Set	2		
6	Other accessories and OEM recommended spare parts for 2 years operation, under Section 10	Lot	1		
		Sub-Total FOB			
		Discounts (If Any)			
		Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)			
		Sea Freight to Mombasa Port			
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SECTION 11: AERATED DRILLING EQUIPMENT AND TOOLS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Primary compressors	Set	5		
2	Compressed air dryer	Set	1		
3	Booster compressor	Set	2		
4	Detergent injection/dosing system	Lot	1		
6	Elevated Fuel tank	Set	1		
7	Other accessories and OEM recommended spare parts for 2 years operation, under Section 11	Lot	1		
Sub-Total FOB					
Discounts (If Any)					
Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)					
Sea Freight to Mombasa Port					
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SECTION 12: WELL CONTROL EQUIPMENT

No	Item Description	UoM	Qty	Unit Price	Total Price
1	High pressure pumping and Displacement tank	Set	1		
2	Other accessories and OEM recommended spare parts for 2 years operation, under Section 12	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)				
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SECTION 13: CEMENTING EQUIPMENT AND TOOLS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Trailer mounted cementing unit	Set	1		
2	Trailer mounted bulk cement carrier	Set	2		
3	Trailer mounted batch mixer	Set	1		
4	Cement blending unit and storage silos	set	1		
5	Cementing hoses	Lot	1		
6	Water tank skid	Set	1		
7	Cementing lab	Lot	1		
8	Containerized office	Pc	1		
9	Cementing heads and circulating swages	Lot	1		
10	Cementing high pressure treating iron assembly	Lot	1		
11	Inner string cementing accessories	Lot	1		
12	Other tools, accessories and OEM recommended spare parts for 2 years operation, under Section 13	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
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SECTION 14: MECHANICAL HANDLING EQUIPMENT, TRAILERS, AND VEHICLES

No	Item Description	UoM	Qty	Unit Price	Total Price
1	All terrain 100-Ton truck crane	Ea	1		
2	All terrain 80-Ton truck crane	Ea	1		
3	15 Ton Telescopic Forklift	Ea	2		
4	Prime mover (tractor unit) 470-480HP	Ea	5		
5	Flat (High) bed trailer	Ea	4		
6	Low bed trailers	Ea	3		
7	Other accessories and OEM recommended spare parts for 2 years operation, under Section 14	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
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SECTION 15: RIG SITE BARRACKS AND OFFICES

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Drilling supervisor office	Set	1		
2	Rig manager office	Set	1		
3	Drilling engineer office	Set	1		
4	Tool pusher and shift supervisor office	Set	1		
5	Mud engineer and cementing engineer office	Set	1		
6	Mechanical engineer and mechanical superintendent office	Set	1		
7	Electrical engineer and electrical superintendent office	Set	1		
8	Directional engineer and tool store	Set	1		
9	Geologists' office	Set	1		
10	Safety office	Set	1		
11	Reservoir engineer office	Set	1		
12	Rig mechanic and electrician workshop	Set	1		
13	Technicians' common office	Set	1		
14	Welder's workshop	Set	1		
15	Changing room complete with lockers and benches	Set	1		
16	Dining unit	Set	1		
17	Store unit	Set	2		
18	Guard house unit	Set	1		
19	Ablution block complete with portable biodigester	Set	1		
20	Mobile septic unit	Set	1		
21	Other accessories and OEM recommended spare parts for 2 years operation, under Section 15	Lot	1		
				Sub-Total FOB	
				Discounts (If Any)	
				Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)	
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SECTION 16: RIG BASE CAMP ACCOMMODATION UNITS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	2-man executive unit	Set	10		
2	4-man accommodation unit	Set	10		
3	8-man accommodation unit	Set	6		
4	Gents' ablution block	Set	1		
5	Ladies' ablution	Set	1		
6	Laundry unit	Set	1		
7	Recreation room	Set	1		
8	Office unit	Set	2		
9	Cementing store unit	Set	1		
10	Kitchen unit	Set	1		
11	Dining unit	Set	1		
12	Freezer and chiller unit	Set	1		
13	Mobile clinic	Set	1		
14	Super silent Camp site generator c/w with automatic change over to connect to main power supply, Elevated 20m ³ fuel tank equipped with flowmeter transfer pumps for loading and offloading	Set	1		
15	Water tank and water treatment plant	Set	2		
16	Firefighting unit	Lot	1		
17	Guard house unit	Set	2		
18	Other accessories and OEM recommended spare parts for 2 years operation, under Section 16	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
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SECTION 17: DRILLING STRING TUBULARS AND TOOLS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	5" Drill Pipes (30ft)	m	6000		
2	5" pup joints (20ft)	Pcs	6		
3	5" pup joints (10ft)	Pc	6		
4	5" Heavy weight drill pipes	pc	48		
5	5" Pup joint HWDP –(20ft)	pc	6		
6	5" Pup joint HWDP –(10ft)	pc	6		
7	Near Bit Stabilizer 26"	pc	3		
8	String Stabilizer 26"	pc	3		
9	17½" String Stabilizer	pc	8		
10	17½" Near Bit Stabilizer	pc	8		
11	17½" 3-point Reamer	pc	3		
12	12¼" String Stabilizer	pc	12		
13	12¼" Near Bit Stabilizer	pc	12		
14	12¼" 3-point Reamer	pc	3		
15	8½" String Stabilizer	Pc	15		
16	8½" Near Bit Stabilizer	Pc	15		
17	6½" Drill collar (30ft)	pc	36		
18	6½" Drill collar (24ft)	pc	6		
19	6½" NMDC (30ft)	pc	3		
20	8" Drill collars (30ft)	Pc	15		
21	8" Drill collars (24ft)	pc	4		
22	9 ½" Drill collars (30ft)	Pc	9		
23	9 ½" Drill collars (10ft)	pc	2		
24	8" NMDC (30ft)	pc	3		
25	8"- 6 ½" Crossover sub	Pc	6		
26	9½"- 8 ¼" Crossover sub	pc	3		
27	9½"- 6 ¾" Crossover sub	pc	3		
28	8"- 6 ¾" Crossover sub	Pc	3		
29	Crossover sub-NC50-NC38	pc	3		
30	Bit subs 9½" OD	pc	3		

31	Bit subs 8" OD	pc	3		
32	Bit subs 6½"OD	pc	3		
33	Side entry sub	pc	3		
34	Pump in sub	Pc	3		
35	Jet subs for 5" drill pipe	Pc	3		
36	Jet subs for 3½ "drill pipe	Pc	3		
37	Drill collar lifting pony 7 5/8" REG	Pc	3		
38	Drill collar lifting pony 6 5/8" REG	Pc	3		
39	Drill collar lifting pony NC50	Pc	5		
40	Drill collar lifting cap 6 5/8" REG	pc	5		
41	Drill collar lifting cap NC50	pc	5		
42	Top drive saver sub	Pc	12		
43	Hexagonal Kelly	pc	2		
44	Shock subs 9½"	pc	4		
45	Shock subs 8"	pc	6		
46	Shock subs 6½"	pc	8		
47	Drilling jars 8"	pc	6		
48	Drilling jars 6½"	pc	6		
49	Assorted specialized tools as per specifications	Lot	1		
50	Other accessories under Section 17	Lot	1		
				Sub-Total FOB	
				Discounts (If Any)	
				Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)	
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SECTION 18: FISHING TOOLS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	5" Left Hand Drill pipes (LHDP) complete with 3 sets of back off tools and left hand Kelly drive saver subs	m	3000		
2	8 ¼ overshot	Set	2		
3	Spiral grapples for 8 ¼ overshot	lot	1		
4	Basket grapples for 8 ¼ overshot	lot	1		
5	Accessories for 8 ¼ overshot	lot	1		
6	11 ¾ overshot	set	2		
7	Basket grapple for 11 ¾ overshot	lot	1		
8	Accessories for 11 ¾ overshot	lot	1		
9	10 5/8 overshot	set	3		
10	Basket grapple for 10 5/8 overshot	lot	1		
11	Accessories for 10 5/8 overshot	Lot	1		
12	6 1/8 rotary taper tap to catch 2 13/16 – 3 11/16	pc	4		
13	6 1/8 rotary taper tap to catch 3 ¼ to 4 ¾	pc	4		
14	7" fishing magnet	pc	2		
15	10 ½" fishing magnet	pc	2		
16	11 ¾ impression block	pc	2		
17	7 ½ impression block	pc	2		
18	7 5/8 bladed junk mill	pc	2		
19	11 ¾ bladed junk mill	pc	2		
20	7 7/8" reverse circulation junk basket	pc	2		
21	11" reverse circulation junk basket	pc	2		
22	7 ¾ fishing jar	pc	3		
23	6 ¼ fishing jar	pc	2		
24	6 ½ backoff sub	pc	3		
25	8" back off sub	pc	3		
26	8 washover pipes	pc	10		
27	9 5/8 washover pipes	pc	10		
28	11 ¾ washover pipes	pc	10		

29	Drive sub for 8" OD washover	pc	3		
30	Drive sub for 9 5/8" OD washover	pc	3		
31	Drive sub for 11 3/4" OD washover	pc	3		
32	7" casing spear	pc	1		
33	9 5/8" casing spear	pc	1		
34	13 3/8" casing spear	pc	1		
35	Assorted specialized tools as per specifications	Lot	1		
36	Other accessories under Section 18	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-shipment Inspection/ PVoC Charges, etc)				
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SECTION 19: DIRECTIONAL EQUIPMENT AND TOOLS

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Complete dual telemetry MWD complete with tools and accessories.	Set	1		
2	Rugged Laptops each with field case, acquisition software installed	Pc	2		
3	9.50" UBHO	Pc	2		
4	8" UBHO	Pc	2		
5	8" UBHO	Pc	2		
6	6-3/4" UBHO	Pc	2		
7	9.5" NMDC (with bore ideal for the probe)	Pc	2		
8	8" NMDC (with bore ideal for the probe)	Pc	2		
9	6-3/4" NMDC (with bore ideal for the probe)	Pc	2		
10	MWD Batteries	Set	4		
11	Workshop Equipment	Lot	1		
12	Mud motors- 9-5/8"	Pc	3		
13	Mud motors- 8" OD	Pc	3		
14	Mud motors- 6¾" OD	Pc	3		
15	Orient sub-8"	Pc	2		
16	Orient sub-6½"	Pc	2		
17	Keyseat wiper 8½"	Pc	3		
18	Keyseat wiper for 12-1/4"	Pc	3		
19	Electronic multi -shot	Set	3		
20	Inclinometer -anderdrift MD Totco	Pc	2		
21	Gyroscope complete with accessories and running gear	Pc	2		
22	Trailer mounted Wireline Logging Winch unit	Lot	1		
23	Assorted specialized tools as per specifications	Lot	1		
24	Other accessories under Section 19	Lot	1		
				Sub-Total FOB	
				Discounts (If Any)	
				Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)	

	Sea Freight to Mombasa Port	
	Local Logistics Costs (Road Transport etc) from Mombasa Port to Kengen Olkaria Station	
	Any Other Charges (Bidder to specify)	
	Total Delivered Cost (DAP Olkaria Incoterm basis)	
	Currency of Tender	
	Name of Manufacturer	
	Delivery Period (Months after signing Contract)	

(Totals to be transferred to the Summary of Sections/ Schedules)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

SECTION 20: MISCELLANEOUS ITEMS / EQUIPMENT

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Cellar Pump	Set	2		
2	Rig washer	Set	2		
3	Submersible pump	Set	2		
4	Rat Hole Assembly	Lot	1		
5	Casing Line cutter	Set	2		
6	Sound Level meter & Calibrator	Pc	10		
7	H ₂ S/CO ₂ Meter & Calibrator	Pc	10		
8	Source Water Pump	Set	3		
9	Tools & Wrenches set	Set	4		
10	Rig Matting Boards & Skid	Lot	1		
11	Lincoln or Miller Welding sets	Lot	2		
12	Stab-in Safety Valve with NC50 connections c/w wrench	Set	2		
13	Gray Valve with NC50 connections	Set	2		
14	Other accessories under Section 20	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
	Local Logistics Costs (Road Transport etc) from Mombasa Port to Kengen Olkaria Station				
	Any Other Charges (Bidder to specify)				
	Total Delivered Cost (DAP Olkaria Incoterm basis)				
	Currency of Tender				
	Name of Manufacturer				
	Delivery Period (Months after signing Contract)				

(Totals to be transferred to the Summary of Sections/ Schedules)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

SECTION 21: RIG SAFETY EQUIPMENT

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Fall Arrest Harness	set	30		
2	Fall Arrest Device	set	30		
3	Dyna lock Derrick escape device	set	10		
4	Sureclimb ladder Fall Arrest	set	6		
5	Portable 10kg Dry Powder Fire extinguisher	pc	30		
6	Wheel-mounted 50kg Dry Powder Fire extinguisher	pc	8		
7	Portable 8kg CO ₂ Fire extinguisher	pc	20		
8	First Aid kits (Large)	set	12		
9	Burn Kits	set	15		
10	Fold-type stretcher	set	6		
11	30-minute SCBA rescue packs	pc	12		
12	10-minute SCBA rescue packs	pc	12		
13	Portable Clip-on H ₂ S Monitors	set	20		
14	Altair 5X hand-held gas detectors	set	8		
15	Stationary H ₂ S monitors	pc	12		
16	Sirens and Strobe lights	set	5		
17	LXM05 Windsocks	set	20		
18	Life pack 20e Defibrillator	set	5		
19	Explosion proof electric-driven bug blowers	set	5		
20	Other accessories under Section 21	Lot	1		
	Sub-Total FOB				
	Discounts (If Any)				
	Inspection Charges (such as Pre-Shipment Inspection/ PVoC Charges, etc)				
	Sea Freight to Mombasa Port				
	Local Logistics Costs (Road Transport etc) from Mombasa Port to Kengen Olkaria Station				
	Any Other Charges (Bidder to specify)				
	Total Delivered Cost (DAP Olkaria Incoterm basis)				
	Currency of Tender				

	Name of Manufacturer	
	Delivery Period (Months after signing Contract)	

(Totals to be transferred to the Summary of Sections/ Schedules)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

SECTION 22: TRAINING AND COMMISSIONING

No	Item Description	UoM	Qty	Unit Price	Total Price
1	Training at Manufacturer's Plant	Lot	1		
2	Factory Acceptance Test (FAT)	Lot	1		
3	Assembly, Commissioning & Training in Kenya	Lot	1		
Sub-Total for Section 22					
Other Charges (Bidder to specify)					
Total for Section 22					
Currency of Tender					
Delivery Period (Months after Signing Contract)					

(Totals to be transferred to the Summary of Sections/ Schedules)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

SUMMARY OF SECTIONS/ SCHEDULES

No	Item Description	Total Price
1	Drawworks	
2	Mast, Substructure, Travelling Block and Iron Rough Neck	
3	Top Drive System	
4	Mud Pumps and High-Pressure Mud Lines	
5	Mud & Water System	
6	Blowout Prevention System	
7	Rig Instrumentation and Control System	
8	Power System, Rig Electricals, Rig Fuel System, Intercom and CCTV System	
9	Wireline Unit	
10	Casing Handling Tools and Accessories	
11	Aerated Drilling Equipment and Tools	
12	Well Control Equipment	
13	Cementing Equipment and Tools	
14	Mechanical Handling Equipment, Trailers, And Vehicles	
15	Rig Site Barracks and Offices	
16	Rig Base Camp Accommodation Units	
17	Drilling String Tubulars and Tools	
18	Fishing Tools	
19	Directional Equipment and Tools	
20	Miscellaneous Items / Equipment	
21	Rig Safety Equipment	
22	Training And Commissioning	
	Total Delivered Cost (DAP Olkaria Incoterm basis)	
	Currency of Tender	

(Totals to be transferred to the Form of Tender)

TENDERER'S NAME: _____

TENDERER'S SIGNATURE AND STAMP _____

DATE _____

INCOTERM 2020:

Incoterm 2020 DAP Olkaria Basis; In this Tender;

- i. Sea Shipment & Local Road Transportation to Olkaria:**
Under DAP, the bidder will be responsible for the physical logistics and shipment from source upto Kengen's power station premises in Olkaria, Naivasha.
- ii. Customs Duties, Taxes and Customs Clearance**
KenGen Plc will be responsible for payment of customs duties, taxes and levies, including customs clearance.
- iii. Unloading at Olkaria Site**
Upon arrival of the cargo at Olkaria, the bidder will be required to handle physical unloading to designated places; bidder is therefore expected to include any and all costs associated with unloading at site in their Price Schedule.

FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]

Beneficiary: _____

Request for Tenders No:

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

1. We have been informed that _____ (here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of _____ under Request for Tenders No. ("the ITT").
2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
3. 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 _____ (____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
 - (a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
 - b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[signature(s)]

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of _____ under Request for Tenders No. _____ (“the ITT”).
2. KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this ____ day of _____ 20 ____.

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
 - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
 - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[Date]

[Witness]

[Signature of the Guarantor]

[Seal]

FORM OF TENDER-SECURING DECLARATION

[The Bidder shall complete this Form in accordance with the instructions indicated]

Date:.....*[insert date (as day, month and year) of Tender Submission]*

Tender No.: *[Insert number of tendering process]*

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
2. I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of*[Two years]* starting on*[Closing date]*, if we are in breach of our obligation(s) under the bid conditions, because we – (a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.
3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
 - a) our receipt of a copy of your notification of the name of the successful Tenderer; or
 - b) thirty days after the expiration of our Tender.
4. I/We understand that if I am/we are/in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:.....

Capacity / title (director or partner or sole proprietor, etc.)

.....

Name:

Duly authorized to sign the bid for and on behalf of:*[insert complete name of Tenderer]*.

Dated on day of..... *[Insert date of signing]*.

Seal or stamp.

MANUFACTURER’S AUTHORIZATION FORM

[The tenderer shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The tenderer shall include it in its Tender, if so indicated in the TDS.]

Date:.....*[insert date (as day, month and year) of Tender submission]*

ITT No.:.....*[insert number of ITT process]*

Alternative No.:.....*[insert identification No if this is a Tender for an alternative]*

To: *[Insert complete name of Procuring Entity]*

WHEREAS

We..... *[insert complete name of Manufacturer]*, who are official manufacturers of.....*[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of tenderer]* to submit a Tender the purpose of which is to provide the following Goods, manufactured by us..... *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed:..... *[Insert signature(s) of authorized representative(s) of the Manufacturer]*

Name:.....*[Insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title:..... *[Insert title]*

Dated on ____ day of _____, _____ *[insert date of signing]*

PART 2: SUPPLY REQUIREMENTS

SECTION V - SCHEDULE OF REQUIREMENTS

Notes for Preparing the Schedule of Requirements

The Schedule of Requirements shall be included in the Tendering document by the Procuring Entity, and shall cover, at a minimum, a description of the goods and services to be supplied and the delivery schedule.

The objective of the Schedule of Requirements is to provide sufficient information to enable tenderers to prepare their Tenders efficiently and accurately, in particular, the Price Schedule, for which a form is provided in Section IV. In addition, the Schedule of Requirements, together with the Price Schedule, should serve as a basis in the event of quantity variation at the time of award of contract pursuant to ITT 42.1.

The date or period for delivery should be carefully specified, taking into account (a) the implications of delivery terms stipulated in the Instructions to tenderers pursuant to the Incoterms rules that “delivery” takes place when goods are delivered to the final place of delivery, and (b) the date prescribed herein from which the Procuring Entity's delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit).

1. Technical Specifications

- 1.1 The purpose of the Technical Specifications (TS), is to define the technical characteristics of the Goods and Related Services required by the Procuring Entity. The Procuring Entity shall prepare the detailed TS consider that:
- i) The TS constitute the benchmarks against which the Procuring Entity will verify the technical responsiveness of Tenders and subsequently evaluate the Tenders. Therefore, well-defined TS will facilitate preparation of responsive Tenders by tenderers, as well as examination, evaluation, and comparison of the Tenders by the Procuring Entity.
 - ii) The TS shall require that all goods and materials to be incorporated in the goods be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided for otherwise in the contract.
 - iii) The TS shall make use of best practices. Samples of specifications from successful similar procurements in the same country or sector may provide a sound basis for drafting the TS.
 - iv) The PPRA encourages the use of metric units.
 - v) Standardizing technical specifications may be advantageous, depending on the complexity of the goods and the repetitiveness of the type of procurement. Technical Specifications should be broad enough to avoid restrictions on workmanship, materials, and equipment commonly used in manufacturing similar kinds of goods.
 - vi) Standards for equipment, materials, and workmanship specified in the Tendering document shall not be restrictive. Recognized international standards should be specified as much as possible. Reference to brand names, catalogue numbers, or other details that limit any materials or items to a specific manufacturer should be avoided as far as possible. Where unavoidable, such item description should always be followed by the words “or substantially equivalent.” When other particular standards or codes of practice are referred to in the TS, whether from the Procuring Entity's or from other eligible countries, a statement should follow other authoritative standards that ensure at least a substantially equal quality, then the standards mentioned in the TS will also be acceptable.
 - vii) Reference to brand names and catalogue numbers should be avoided as far as possible; where unavoidable the words “or at least equivalent” shall always follow such references.
 - viii) Technical Specifications shall be fully descriptive of the requirements in respect of, but not limited to, the following:
 - a) Standards of materials and workmanship required for the production and manufacturing of the Goods.
 - b) Any sustainable procurement technical requirements shall be clearly specified.
- 1.2 To encourage tenderers' innovation in addressing sustainable procurement requirements, as long as the Tender evaluation criteria specify the mechanism for monetary adjustments for the purpose of Tender comparisons, tenderers may be invited to offer Goods that exceeds the specified minimum sustainable procurement requirements.
- i) Detailed tests required (type and number).
 - ii) Other additional work and/or Related Services required to achieve full delivery/completion.
 - iii) Detailed activities to be performed by the Supplier, and participation of the Procuring Entity thereon.
 - iv) List of detailed functional guarantees covered by the Warranty and the specification of the liquidated damages to be applied in the event that such guarantees are not met.
- 1.3 The TS shall specify all essential technical and performance characteristics and requirements, including guaranteed or acceptable maximum or minimum values, as appropriate. Whenever necessary, the Procuring Entity shall include an additional ad-hoc Tendering form (to be an Attachment to the Letter of Tender), where the tenderer shall provide

detailed information on such technical performance characteristics in respect to the corresponding acceptable or guaranteed values

1.4 When the Procuring Entity requests that the tenderer provides in its Tender a part or all of the Technical Specifications, technical schedules, or other technical information, the Procuring Entity shall specify in detail the nature and extent of the required information and the manner in which it has to be presented by the tenderer in its Tender.

1.5 If a summary of the Technical Specifications(TS) has to be provided, the Procuring Entity shall insert information in the table below. The tenderer shall prepare a similar table to justify compliance with the requirements.

Summary of Technical Specifications: The Goods and Related Services shall comply with following Technical Specifications and Standards:

TECHNICAL SPECIFICATIONS

SPECIFICATIONS OF 2000 HP VFD WALKING DRILLING LAND RIG WITH TOP DRIVE AND ASSOCIATED EQUIPMENT

- The rig is required to drill deep geothermal and oilwells and shall be capable of meeting minimum well depths and casing program. A thorough description of Rig and all equipment and capabilities of the equipment offered shall be provided.
- The rig shall be designed for cluster drilling operation and must be demonstrated that it will be capable of drilling 1+3 cluster wells from the same well pad without moving the power control rooms (PCRs). The rig shall be capable of walking in at least 20 directions within the 360° quadrants without moving the power systems. The wells will be at least 5 meters apart.
- All rig main equipment SHALL have clear and easily accessible name plates; indicating the specifications, date of manufacture and the applicable API standard monogram.
- Factory Acceptance Test shall be carried out for all main rig components at the manufacturer's factory. If found that any part has been refurbished, the entire contract will be terminated at the contractor's cost.
- The VFD rig and associated equipment and accessories shall be brand new, unused, of recent technology, free from any manufacturing defects. All bidders must confirm this requirement in their submitted bid document.
- Land rig shall be manufactured in accordance with API standards and all equipment will be certified for use in hazardous areas classifications in accordance with API – RP 500 specifications. API monograms for the equipment shall be provided. Suitable for -20°C +50°C temperature range.
- High quality materials, heavy-duty construction, the latest state-of-the-art design technology, and reliable performance **must** be proven by the bidders.
- The design and layout of the land rig shall allow for fast moves between well-sites or on same well-pad. The rig shall be capable of walking and all the tools and accessories for walking the rig shall be provided. Documentary proof on rig walking shall be provided.
- Rig layout, camp layout and equipment drawings and OEM manuals in English shall be provided.
- The bidders MUST be rig manufacturers.
- Bidders shall indicate the spare part numbers against each item along with original equipment manufacturer (OEM) part number. Failure to provide as required will lead to disqualification of the bid.
- The rig shall be designed to improve efficiency and reduce transit time by minimizing load sizes and numbers while operating Nominal depth 5x19.5lb/ft, grade G105, range II drill pipe to 7000m.

SECTION 1: DRAW-WORKS

- Single drum, electric draw works, driven by two (2) AC GE or Siemens or equivalent electric motors complete with auto driller and all necessary lubrication, cooling system, instrumentation, and controls. The assembly consists of chain transmission and mounts on two skid units (draw works skid, electric motor skid).
- Input power 2000 HP (1491 kW) rated AC variable frequency drive (VFD) drawworks with dual speed gear box mounted directly onto the drum shaft. Approximately 500 metric tonnes (1,100,000lbs) capacity

- The motor shaft to be connected to the gear box input shaft using a gear tooth coupling to reduce the overall size & weight and time for motor replacement.
- Shifting between high/low speeds under no load/no speed conditions using air powered shifting mechanism for dual speed gear boxes. This feature to be integrated into the driller's Amphion controls for the draw works.
- Primary/dynamic braking to be performed with AC motors by generating power into braking resistors. The motor and frequency drive shall be capable of stopping and holding the maximum hook load at zero speed indefinitely. Load and speed are limited within motor capacity by the control system.
- A pneumatically operated multi-plate disc brake system shall be provided for parking and emergency situations, consisting of multi-plate air / water cooled discs with spring applied brake, static braking by springs expanding & forcing all the brake discs together (fail safe). This multi-plate disc brake system shall be operated remotely via the draw-works Amphion control system The brake assembly is to be mounted to the end of the drum shaft and is secured to the drum support uprights. Emergency brake controls on the draw-works should allow the load to be manually lowered using the multi-plate disc brake system and should be capable of holding maximum hook load.

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Drawworks Input Rating	2000HP (1491kW)		
Number of motors	<p>Two (2) heavy duty splash-proof fully guarded (IP-65), blower ventilated and continuous drive with constant torque AC cage VFD induction motors. Minimum 1150 HP continuous and 1400 HP intermittent, 3pH, 600V-690V.</p> <ul style="list-style-type: none"> • Class H insulation • Resistance temperature detectors (RTD), 100-ohm platinum, two (2) per phase embedded in stator slots. • Bearing RTDs • Blower assembly- at least 3000scfm • Pressure sensor • Insulated non drive end. • Single shaft with hub- certified (provide details) • Terminal box-Stainless steel, IP56 with bus bar connections for main cable terminations. Terminal points for RTD & pressure sensor connections • Mounted encoders- Avtron • Valid ATEX and CSA certification to be provided. • Space heater: 100watt EEx termination box. • Motor is "CE" marked for use on "CE" marked AC drives. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Hoisting capacity	500MT (1,100,000 lbs)		
Nominal depth rating	7000m (23000ft) with 5" G105 drill pipes Range II		
Drum grooving	Lebus type for 38mm (1½") drill line		
Primary brake	Regenerative type braking system		
Auxiliary brake	Multi disc type brake system with locking mechanism		
Disc brake cooling	Air or water- Bidder to specify		
Auto driller	Incorporated in the drawworks		
Instrumentation and controls	All necessary instrumentation and controls to be incorporated in the drawworks. Bidder to specify		
Lubrication	Include. Give details		
Safety	Dynamic floor and crown block saver system to be provided. To include pneumatic and electronic crown block saver system		
Applicable API Standard	Valid API SPEC 7K license to be provided for all applicable components requested. API monogram.		

SECTION 2: MAST, SUBSTRUCTURE, TRAVELLING BLOCK AND IRON ROUGH NECK

MAST

- Swing lift K type cantilever Beam Leg Mast. Floor mounted cantilever open face mast designed in accordance with latest API spec. 4F (PSL 1, SSL E2/U2) with API marks. Mast shall be designed to accommodate 550 Tonnes (1,200,000 lbs.) portable Tesco/Canrig top drive system.
- A-frame assembly consisting of one pair of front and rear A-frame legs with raising sheaves, mast drive pins, bolts & deadline anchor support mounted either on the mast leg or sub-structure basement or at any appropriate position on driller's side. Hydraulic snubbing system to be installed in 'A' frames allowing driller to have full control of "break-over" during the raising and lowering operation. The snubbing system should be complete with FLP electric motor driven hydraulic pumping unit & controls. The manufacturer may provide an alternative and suitable mast and floor hydraulic hoisting and lowering system complete with its accessories. An interchangeable use of the two systems is preferred. Such system shall meet the applicable API standards.
- Full height straight ladder complete with carrier rail, clamps, safety cage & two safety belts with at least three rest platforms between drill floor & crown. The ladder lengths should be equal to Mast Sections for ease of transportation.
- Mast sections shall have lifting eyes with lift loads indicated. The lifting eyes shall be tested & certified by a third party.
- The mast shall be installed with aviation/strobe lights.
- The mast section shall be designed to meet the transportation dimensions heavy duty oilfield truck tractor / trailer.
- Operation condition H₂S environment, humid weather environment with relative humidity to 100% and temperature range of 4° C to 55° C.

SPECIFICATION

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Mast type	<ul style="list-style-type: none"> • Swing lift cantilever beam leg mast. • Type K • API spec. 4F (PSL 1, SSL E2/U2) 		
Mast clear height	<ul style="list-style-type: none"> • At least 48m with raising sheaves and shafts, catline sheave brackets, and tugger sheave bracket. 		
Mast base	<ul style="list-style-type: none"> • At least 10.6m (35ft) 		
Hook load	<ul style="list-style-type: none"> • 550 Tons (1,200,000 lbs) with 12 lines 		
Raising system	<ul style="list-style-type: none"> • Hydraulic and drawworks. <i>Bidder to specify.</i> • The rig to be equipped with a Remote-Controlled Raising System (RCRS) that allows the operator to raise and lower the mast and sub from a safe distance while monitoring the parameters of the raising system. 		
Crown block	<ul style="list-style-type: none"> • 590 Tons (1,300,000 lbs) with Seven Sheaves conforming to API SPEC 4F. 		
Bumper blocks	<ul style="list-style-type: none"> • Under the crown block • The bumper block shall be manufactured according to API SPEC 8C 		
Racking board capacity	<ul style="list-style-type: none"> a) Heavy duty racking board capable of racking up stands (27-29m) <ul style="list-style-type: none"> • 240 stands of 5½" drill pipes (29m) 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • 2 stands of 9½" or 10" drill collars. • 8 stands of 8¼" drill collars. • 6 stands of 6½" drill collars. • 6 stands of 4¾" drill collars. • To incorporate a mechanical locking system in addition to the PRS system. <p>b) Adjustable and foldable centre diving board with hinged extension.</p> <p>c) Adjustable from 25m to 26.5 m above drill floor level & complete with safety chains on all fingers and expanded metal 0.6m wide walkways on three sides</p> <p>d) access platform with at least 1m high Handrails & toe plate on three sides.</p> <p>e) Geronimo escape line system (EED) with easy and safe access.</p> <p>f) One (1) Sure-Lock retractable lifeline complete with ground brackets & to be mounted above diving board.</p> <p>g) Mounting bracket to accommodate pullback winch.</p> <p>h) Ingersoll rand air winch</p> <p>i) Pipe racking system (PRS)/Iron Derrickman/stand transfer vehicles to be included. This should be able to be parked and revert to manual handling of stands. Once parked system shall not interfere with standard racking board.</p>		
Pipe Racking System (PRS)	<p>a) Attached to the derrick racking board.</p> <p>b) Shall be able to guide tubulars into and out of the fingers/setback position.</p> <p>c) Shall be of robust and optimal design for stability.</p> <p>d) Shall be fitted with cameras for visual feedback.</p> <p>e) Tubular handling capacity: 3½" drill pipes to 9½" drill collar stands.</p> <p>f) Shall be designed to reach the entire racking board.</p> <p>g) Shall be hydraulically powered.</p> <p>h) Shall be able to be operated both locally at the derrick racking board and from inside the driller's console.</p> <p>i) Shall have camera display unit inside the driller's console.</p> <p>j) Operation temperature: 0°C to 55°C.</p>		
TDS guide rail	<ul style="list-style-type: none"> • Appropriate built-in single guide rail to accommodate 550-ton Tesco/Canrig 550T-ESI-1350 top drive system 		
Mast ladder	<ul style="list-style-type: none"> • Full height straight ladder equal to Mast Sections. 		
Mast section lifting eyes	<ul style="list-style-type: none"> • Equipped with tested and certified lifting eyes for each section. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Maximum wind loading capacity	<ul style="list-style-type: none"> • 50m/s with no setback • 45m/s with rated setback • Wind loading specified to meet API 4F specifications and design criteria 		
Pad eye for survey sheave unit	<ul style="list-style-type: none"> • 12" (305mm) survey sheave unit, grooved with tapered bearing mounted beneath crown frame at suitable place. 		
Pad eye for cat line sheave unit	<ul style="list-style-type: none"> • Two (2) 14" (355.6 mm) grooved 5/8" wire line and swivel mounted, with tapered roller bearings, swivel mounted beneath crown frame. 		
Pad eye for hanging traveling block & top drive during slip and cut	<ul style="list-style-type: none"> • One at least 60 metric tons rated pad eye. One (1) block hanging line 32mm (1¼") and 40m long to hold traveling block when slipping drill line. • All pad eyes shall be supplied complete with suitable set of d-shackle and sling <ul style="list-style-type: none"> • All pad eyes to be tested to one & half the S.W.L & certified according to API. All pad eyes to be painted safety yellow & marked with the SWL limit. 		
Standpipe clamps	<ul style="list-style-type: none"> • Dual Standpipe Clamps for 127 mm (5") diameter standpipe to be four (4) sets provided on off-Driller's side of Mast complete with clamp cups & bolts. 		
Mast stands.	<ul style="list-style-type: none"> • One (1) set of adjustable mast stands equipped with lifting pad eyes for supporting the mast during assembly and assembly of racking board complete with wooden headrest. 		
Access platforms	<ul style="list-style-type: none"> • Access platforms with safety belt rope connecting loop to be provided at: Standpipe gooseneck connection, Casing stabbing board, Sheave unit lubrication position and the platforms less handrails. 		
Casing board	<ul style="list-style-type: none"> • One casing support frame mounted at around 14m elevation above drill floor complete with walkway, and 1m high handrails with toe plates and access to mast ladder 		
Tong counterweights	<ul style="list-style-type: none"> • Two (2) sets of tong counterweight buckets mounted on mast leg & complete with guides, snatch blocks and wire lines. • One (1) spin-up wrench counterweight bucket, guide, and sheave unit, located at convenient place towards the off-driller's side. 		
Mast lighting	<ul style="list-style-type: none"> • Complete explosion proof (at least IP 65) and sufficient mast lighting system to entirely illuminate the rig and its surrounding 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Mast name plate	<ul style="list-style-type: none"> To be provided and in accordance API SPEC 4F. Installed original identification / load-rating plate attached to mast leg at floor level on the drillers side. 		
API	Mast must be manufactured to API 4F and API 8C and any other industry applicable standard.		

SUBSTRUCTURE

Light weight substructure designed to split for transport and should be so designed to meet the transportation using heavy duty oilfield truck tractor / trailer.

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Type	Swing type self-elevating		
Height from ground level	Minimum 10.7m (35ft)		
Clear height under rotary beams	Minimum 9m (30ft)		
Dimensions	Length 12m (39ft) Width 14m (46ft) Dimensions excluding doghuts and other supports		
Capacity	<ul style="list-style-type: none"> Setback minimum 300 tons Rotary 500 tons Designed to accommodate 2000Hp drawworks 		
Supports	<ul style="list-style-type: none"> Substructure should be complete with all bracing and support material while in an erect position and has been constructed in accordance with API SPEC 4F 		
Drill floor	<ul style="list-style-type: none"> A set of drill floor panels with 6mm (¼") thick checkered plate for the substructure and 10mm(⅜") thick checkered plate around the rotary area. Complete handrails at least 1m (3.3ft) high with toe plates for the perimeter of the drill floor. Most of the drill floor panels, handrails and floor mounting equipment are to be set into position at ground level and raised with the draw-works and setback support. A minimum of four (4) lifting rings / slots for each section of 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	the drill floor panel to be provided.		
Rotary beams and rotary floor support	<ul style="list-style-type: none"> Rotary beams and rotary floor support units designed to accommodate a 953 mm (37½") independent drive rotary table. The rotary floor should be flush with the drill floor working floor. 		
Anti-slip Matting	<ul style="list-style-type: none"> Anti-slip polyurethane, high wear resistant rubber matting with steel nails and minimum thickness of 30mm for whole rig floor working area. The matting should be fixed over the checkered plate flooring, except the wooden pipe racking floor area. 		
Rotary / Setback spreader	<ul style="list-style-type: none"> Rotary/setback spreader complete with framed mouse hole opening, and recess to accommodate 152mm (6") thick hardwood timber. 		
Cable elevator (grasshopper)	<ul style="list-style-type: none"> Grasshopper type cable elevator with box for collecting cables for rig movement should be provided 		
Stairs and Handrails	<ul style="list-style-type: none"> Minimum (3) sets of stairs with 1m removable handrails and serrated bar grating. All the stairs shall originate from the rig floor to the to the ground at the following locations: Bidder to specify locations. <ul style="list-style-type: none"> i. Bid Stairways to rig floor meet Chevron Safety in design, including rest platform. Staircase shall be fitted with suitable anti-slip material 		
V-Door ramp and Stairs	<ul style="list-style-type: none"> One around 10.6m (35 ft) high ramp 1.8m (6 ft) wide with 12.7 mm (½") thick plate down to the 1000mm high catwalk elevation with framing. Pipecat laydown system incorporated 		
Escape slide	<ul style="list-style-type: none"> Escape slide constructed in steel designed to suit the floor height and to move personnel from the rig floor in an emergency to be provided on driller's side. 		
Tong Back-Up	<ul style="list-style-type: none"> Set of two (2) tong back up support bolted to rig floor. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Air Winch mounting	<ul style="list-style-type: none"> • Three (3) mounting base for air winches located on drill floor for man rider, and drilling purpose. 		
Rathole and Mousehole	<ul style="list-style-type: none"> • To provide 273mm (10³/₄") openings for rat hole and mouse hole assemblies. 		
Iron Roughneck base	<ul style="list-style-type: none"> • Suitable base for installation of iron roughneck receptacle should be provided on rig floor at appropriate position. 		
Doghouse and tool room supports	<ul style="list-style-type: none"> • Folding floor modules supports to accommodate doghouse on driller's side and tool room on off-driller's side. 		
Driller's console (cabin)	<ul style="list-style-type: none"> • Allocation for installation of ergonomic, adjustable, climate-controlled workstation (drillers cabin). • Stainless steel ergonomically designed drillers cabin. The wall thickness to be 50mm plate. 		
BOP trolley Beams & BOP handling system	<ul style="list-style-type: none"> • BOP trolley beams designed to pin under the substructure floor allowing for front entry of BOP stack c/w HPU and 13⁵/₈" Annular Cradle and equalizer Plate. • Capacity 100 tons. • The beam capable of carrying hydraulically operated BOP hoisting system complete with necessary trolleys and hoist. • BOP hydraulic/pneumatic control hoses to be on rails and retractable. • Remote control station for BOP gantry operation. 		
Rig walking system	<ul style="list-style-type: none"> • Substructure manufactured to accommodate rig walking system from one cellar to another without rig down. • Rig walking system for moving mast and substructure in any direction with full setback and fluids. • Lift and slide shall be hydraulically operated. • Safety level sensors (inclinometers) to ensure rig stays level when lifting and walking. • At least 5 levels of controls for redundancy to ensure system functionality and reliability (2 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	wireless, 1 hard wired cable, full colour HMI and manual handles on each directional valve). <ul style="list-style-type: none"> • Walking speed up to 14m/hr • Walking directions ≥ 20 within 360°. • Lifting capacity >1200 Ton • Lifting Height up to 150mm • Travelling path up to 500mm • Working Pressure >170 Bar • Maximum surface load per unit 700kN/m². • Rotation 360°/20 directions • Stand Area per unit of at least 4.4m² (6820in²) • Integrateable with Rig HPU • Climate range -45°C to 55°C. • Compact design and simplified moving system. • CE and ATEX conformity. 		
Lighting	<ul style="list-style-type: none"> • Complete explosion proof LED lighting for floor and substructure 		
Other accessories			
Drilling Line Spooler	<ul style="list-style-type: none"> • Heavy duty skid mounted electric or hydraulic powered drilling line spooler with at least 2000m capacity of 1½"(38mm) diameter wire rope, designed to spool, unspool, and store drilling line. The skid shall have lifting lugs on the frames. 		
Drilling lines	<ul style="list-style-type: none"> • Two (2) reels of 1½"(38mm) drilling line, 6x19, Right Regular Lay, IWRC, IPS. Length 2000m conforming to API Spec. 9A latest edition & with API monogram embossed. The dimensions of spool should meet the dimensions of the drilling line spooler. • The spool shall be fitted with a drive motor to operate the snake line and the drilling line for reeving purposes. 		
Fall Arrester with full body harness	<ul style="list-style-type: none"> • Two (2) Self retracting lifeline with 30m (100ft) of 5mm (3/16") galvanized cable and a full arrest body harness. 		
Racking board air winch	<ul style="list-style-type: none"> • Enclosed air winch for racking board with a capacity of 1 ton. Preferred Ingersoll-Rand 		
Man rider air winch	<ul style="list-style-type: none"> • One 1-ton riding certified Ingersoll-Rand air winch. • Winch mounted control with 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> automatic spring return “lift & shift” double action throttle lever to prevent accidental starts. • Drum Guard • Dual drum brakes, one automatic and one manual • Up and down limit switches • Wire rope 12.7mm (½") of 150m length nonrotating wire rope spooled on drum (IWRC, EIPS, 6 x 36, RRL,) • Mud Saver Box 		
Drilling air winch	<ul style="list-style-type: none"> • Two (2) force five third generation Ingersoll-Rand air winch. • Capacity 5 tons • Wire line 15.8mm (⅝") and 200m length • Mufflers, filter, strainer and lubricator • Drum guard 		
Deadline anchor	<ul style="list-style-type: none"> • Suitable for use with 1½" drilling. • Certified and tested load cell • Shall be NOV type. • API Specification 8C latest edition, PSL-1 (Copy to be provided) • Installed in an easily accessible place 		
Hydraulic catheads	<ul style="list-style-type: none"> • Two (2) Piston-type, floor mounted hydraulic catheads • Capacity at least 15 to 20 tons • Rated torque 100K ft-lbs • Wire rope diameter ⅞" to 1" • Manufactured as per API 9A. • Complete with electric driven HPU • Driller's remote-control panel for selection and operation. • All required accessories and certified and calibrated torque gauges 		
Rotary table	<ul style="list-style-type: none"> • Conforming to API specification 7K latest edition. • Opening 953mm (37½") • Static load rating 650 tons (5850KN). • Operating torque – up to 27k ft.lbs • Maximum rotating speed- 300rpm • Bowl inserts for casing bowls to 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>run 30", 22", 20", 18" 13³/₈", 9⁵/₈", 7" and 4¹/₂" casings.</p> <ul style="list-style-type: none"> • Master bushing split body pin drive complete with API bowls (3), lifting sling and bit breaker plate. • Suitable independent variable speed AC motor drive with inertia disc brake and full guard. • Motor rating 840kW (1150Hp), 600V-690V 		
Mud guard	<ul style="list-style-type: none"> • Complete with lifting eyes • The mud receiver and 3" hose to collect all spilled fluids and return to cellar. • Fitted with pollution pan and drainage system to collect all spilled fluids and return to cellar 		
Platform	<ul style="list-style-type: none"> • Substructure with work platform to assemble BOP, bell nipple and necessary accessory included in the substructure. • Fitted with inertia reel fall protection, from at least three points in the substructure, located to accommodate work on BOP, wellhead, bell nipple, and other equipment. 		

TRAVELLING BLOCK

SPECIFICATION

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Travelling block	<ul style="list-style-type: none">• Manufactured as per API specification 8C latest edition. API monogram to be engraved.• Load capacity- 550 tons• Number of sheeves- 6• Lifting eye capacity-60 tons (certified and tested)• Painted three coats of standard yellow epoxy paint.• Wire line size 1½• Elevator links- 2 sets 350 tons and 2 sets of 550tons, casing elevators, top drive elevators.		

IRON ROUGHNECK

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Iron roughneck Torque Matic-Automatic Floor wrenches	<ul style="list-style-type: none">• Installed on a single floor socket.• Integrated spin and torque functions.• Equipped with slewing and rotating capabilities to utilize mouseholes.• Capability of the Iron Roughneck to be remotely operated from the driller's console as well as locally from the equipment panel.• Advanced controls maximize safety and efficiency.• Scissor-arm design for ease of maintenance and extended tool life.• Compact and light weight, preferred NOV ST100 or equivalent.• At least 100,000ft-lbs make up and 120,000ft-lbs break out torque.• Capability to handle tubular sizes of 2⅞"- 10" without change of the jaws.• Soft clamp to preserve tool joint damage.• Quick disconnect service loop couplings.• Independent electrically driven		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	skid mounted HPU with required control panel and accessories.		

CATWALK, PIPE HANDLER, PIPE RACKS AND V DOOR

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Pipe handler	<ul style="list-style-type: none"> • Fully hydraulic and self-contained pipe handler capable of handling drilling tubulars OD up to 20" of Range III. • Incorporates use of high-density polyethylene plastic design for protecting expensive tubulars. • Height range- up to 46-ft • Tubular weight range- up to 7200lbs. 		
Catwalk	<ul style="list-style-type: none"> • Catwalk size: two (2) sections with total length:18m height:1070mm, width:1500mm • Access stairs to be provided from ground level. Complete with anchor post and lift eyes for each section. • Hardwood-lined end bumper stopper at one end. • Catwalk shall have slots for post stoppers to prevent pipes from rolling off. 		
V-door	<ul style="list-style-type: none"> • V-door with safety bumper at various heights. • Framing and stairs on the driller's side continuing to ground level c/w acceptable height handrails. • All open areas above must be provided with a latching safety gate system 		
Pipe racks	<ul style="list-style-type: none"> • Pipe racks capable of handling at least 1300 m Range III, 13-3/8" casing. • Height of pipe racks to be compatible with catwalk for easy rolling of pipe. • Pipe rack to have post stoppers to prevent pipes from rolling off. 		

SECTION 3: TOP DRIVE SYSTEM

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Top drive system	<ul style="list-style-type: none"> • AC VFD controlled portable top drive. Preferred Tesco/Canrig top drive. • Certified capacity (API 8C) at least 550tons. The top drive to have API monogram. Brochures and certifications to be provided. • Approximate dimension 2000mm(L)x1450mm(W)x6450mm (H-from inside block adapter to top of tool joint with 3350mm (11ft) links). • Rated output power (continuous)- 860kW (1150HP) • Maximum speed- 230rpm • Continuous drilling torque- 8,860daN-m (63,500ft-lb). • Maximum 12,880daN-m (95,000ft-lb). • Weight- between 14000kg to 15000kg. • The top drive unit to be supplied complete with travelling equipment anticollision (TAC) system. The TAC to be capable of sounding alarm and stopping motion if contact between TD and rig components is about to occur to improve on safety and prevent damages. • Available with Soft speed to mitigate stick-slip. Real time stick slip mitigation system. • Floating quill for soft stabbing and passive thread compensation to shorten connection time, improve thread life and for easier quill replacement. • Integrated swivel and counterbalance system to reduce installation time. • Hydraulic torque boost for additional make up or break out torque. • The top drive shall have the capability to extend and retract. • Polymer slide guides for sound and shock absorption during drilling operations. • Advanced diagnostics system for monitoring the top drive operations. • The TD to have an equipment condition monitor (ECM) to monitor the equipment conditions for condition-based maintenance. • Forced air cooled AC drilling motor. • Hydraulic disc brakes 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Powered rotating head. • Pipe handler system and all robotics. • Electronics Directional Steering Control. • Oscillation Control • Counterbalance with stand jump. • Roller style carriage • Wash pipe assembly at least 51MPa (7500psi) • Transport and storage skid. Land configuration skid with TDS support unit, grasshopper, cable trays and additional spare part storage. • The top drive shall be provided c/w with the top drive saver sub. 15pcs of spare top drive saver subs shall be provided. 		
Driller's console	<ul style="list-style-type: none"> • Made from stainless steel of appropriate thickness. • To features operating switches, knobs, gauges, throttles indicator lights etc. • Suitable interactive touch screen displaying operation parameters such RPM, Torque (KN-m and Ft-lb), Indicator Lights, Throttle, etc. and • Dual Camera video monitoring for top man area • Placed at appropriate place for better control of operations by driller in the drillers cabin. 		
VFD	<ul style="list-style-type: none"> • Independent VFD house with all top drive controls. 		
Hydraulic power unit (HPU)	<ul style="list-style-type: none"> • Electric driven hydraulic power unit for TDS operation complete with accessories. • Skid mounted with oil retention pan with oil trap and drain 		
Lubrication kit	<ul style="list-style-type: none"> • Electrically driven pump for gear box lubricant top-up. • Back up hand pump complete with accessories. 		
Tool kit	<ul style="list-style-type: none"> • IBOP wrenches, valve seat wrenches, valve seat puller. • Saver subs, spacer subs and cross over sub for use during well control procedures 		
Guide beam kit	<ul style="list-style-type: none"> • To provide guided travelling of the TDS and torque reaction • Tie back connection to rig mast (lower, intermediate, and top and hang off link tie back). • Segments for easy rig up and rig down. The segments shall be configured for the offered mast. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> Folding torque guides for fast and safe rig up. 		
TDS service loop kit	<ul style="list-style-type: none"> Through mast with mast termination points provided. Provide communication cables between the TDS drillers console and the TDS control House with suitable connectors on each end. Mast termination to include brackets allowing for quick connection and disconnection. 		
Elevator plus links	<ul style="list-style-type: none"> Two pairs of 550-ton elevator links made as per API spec 8C. Two pairs of 350-ton weldless links API spec 8C. Two pairs of Casing running elevators links 		
Wear guide	<ul style="list-style-type: none"> Assembly to be provided with accessories, master bushing, adapter ring and wear guide. 		
Quill Subs	<ul style="list-style-type: none"> Manufacturer recommended quill/saver subs 		
Accessories	<ul style="list-style-type: none"> All manufactured recommended accessories for ease of rigging up, operation, transport, and storage to be provided. 		
Spare parts	<ul style="list-style-type: none"> Two-year recommended OEM spare part. List to be provided compete with part numbers. 		
Tools	<ul style="list-style-type: none"> All the required tools for service, maintenance, and repair of the TDS to be provided including pneumatic wrenches with socket tools, pneumatic nut runners, hydraulic torque wrenches, hammer wrenches, meters, spanners and screwdrivers. 		

SECTION 4: MUD PUMPS AND HIGH-PRESSURE MUD LINES

Type FB-1600 Triplex Electric AC dual motor belt driven Mud Pumps with Hydrill pulsation dampener. Full score will be given to the three models only.

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Mud pump	<ul style="list-style-type: none"> • Quantity: three (3) sets with charge pumps. • Type FB-1600 on skid suitable for sour service and geothermal conditions. • Rugged construction and field proven • High pressure range -up to 51MPa (7500Psi). • Original OTECO manufactured, certified, and tested high temperature adjustable, re-settable, pressure relief valves rated to 41MPa (6,000psi), complete with secured discharge to safe area in active mud tank system. Connection to be hammer union FIG1502 (metal to metal) with safety chains. • Certified and tested digital and analogue pressure gauges on the discharge manifolds. • Rated input power 1193kW (1600Hp) at 120 spm • Dual AC motors. • Two (2) heavy duty splash-proof fully guarded (IP-65), blower ventilated and continuous drive with constant torque AC cage VFD induction motors. Minimum 1150 HP continuous and 1400 HP intermittent, 3pH, 600V-690V. • Class H insulation • Resistance temperature detectors (RTD), 100-ohm platinum, two (2) per phase embedded in stator slots. • Terminal box-Stainless steel, IP56 with bus bar connections for main cable terminations. Terminal points for RTD & pressure sensor connections • Maximum strokes- 120SPM • Stroke length-305mm (12") • Stroke counters with capability to simultaneously read at choke manifold and drillers console. • Maximum delivery 3127 l/min (826GPM). • Maximum discharge pressure 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>35MPa (5000Psi).</p> <ul style="list-style-type: none"> • Quick-change system for liners and pistons. • Isolation system both electrical and valves for each pump from others to enable individual repairs and maintenance. • Bleed off bypass system for each pump to enable isolation from manifold, lock out and bled for repairs without affecting the other pumps system. • High pressure return line to the mud tanks. • Each pump will have a quick-change strainer between the active pit and charge pump. • Suitable for liner sizes from 127mm (5") to 190mm (7.5"). • Pumps to be supplied fitted with 165mm (6½") Liners. • Pumps to be complete with all the components of fluid end and power end. • Provision of manual rotation of the crankshaft externally for maintenance purpose. • Each mud pump to have pressure gauge (Make – OTECO), 0 – 45MPa (6000psi) range with 2" (50 mm) line pipe female connection and a 2" (50 mm) flex seal valve (Make – OTECO) for isolation of the gauge. 		
Pulsation dampener	<ul style="list-style-type: none"> • Suction and discharge manifold with dampeners. Preferred hydrilla 20k • Manufacturer certified nitrogen filled pulsation dampener complete with gauge. • Three (3) sets of nitrogen charging kits and hose to be provided. 		
Charge pumps	<ul style="list-style-type: none"> • Independent electric AC centrifugal charging pump for each mud pump- 3sets complete with charging pump skid. • Common manifold design with isolating valves to enable charging of any mud pump from any charge pump. • Separate suction lines with quick open, full flow, perforated strainer system c/w bleed-off isolation valve upstream of strainers. • Charging pumps (1/pump) Mission Magnum 6X8 X10" 1250 Rpm. Discharge at least 250m³/h 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Lubrication	<ul style="list-style-type: none"> Oil bath and positive flow lubrication system External circulating lube oil pump and filter with AC motor, oil gauge and piping. 		
Piston cooling system	<ul style="list-style-type: none"> Flame proof and hazardous area Electric AC spray pump system for piston cooling to be provided. Recirculating catch pan system designed to provide zero discharge to the environment. 		
Accessories	<ul style="list-style-type: none"> Each pump package to have a jib crane installed on the pump to handle fluid end parts complete with 2-ton hand chain hoist lift. Three (3) sets of complete valve seat puller assembly. Three (3) set of special hand tools for fluid end maintenance 		
Spares	<ul style="list-style-type: none"> Liner 127mm (5.0") -15pcs Liner 152mm (6.0") -50pcs Liner 165mm (6.5")- 60pcs Liner 177mm (7.0") -60pcs Liner 190mm (7.5") -30pcs Piston assembly 165mm- 60pcs Piston assembly 170mm- 60pcs Complete piston rod-9pcs Valve seats-60pcs Valve assembly with polyurethane insert-120pcs Valve polyurethane inserts- 240pcs Valve springs-200pcs Valve cover gasket-240pcs Liner gasket 165mm- 120pcs Liner gasket 170mm-120pcs Wear plate gasket-36pcs Wear plate 18pcs Suction module – 9pcs Discharge module-9 pcs Belts -12pcs Dampener diaphragm- 6pcs 		

HIGH PRESSURE MUD/ DRILLING FLUID LINES

High pressure drilling fluid delivery system for three mud pumps

SPECIFICATION

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Mud pumps discharge lines	<ul style="list-style-type: none"> Nominal OD 5" and ID 4" Working pressure 35Mpa (5000psi), test pressure 51MPa (7500psi). 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Connection- hammer union complete with safety chains/ devices. • Each pump discharge line to have 127mm (5") x35MPa (5000psi) working pressure BW gate valve and FIG 1002 or FIG1003 union. • Vibrator hose graded, 5000psi working pressure and 10000psi test pressure with FIG 1002/1003 hammer union installed at each pump discharge. Manufactured as per API spec 7K. • Mud pump ground manifold connecting the three mud pumps with 127mm (5") x 35MPa (5000psi) working pressure BW gate valve and FIG 1002 or FIG1003 union and two standpipes, kill line kit and fill line hose. • Dual standpipe manifold and high-pressure piping to be anchored on at the mast complete with protection sheathes. • Two high pressure substructure lines with integral unions at break points and heavy-duty clamps for mounting connecting ground manifold to standpipe manifold. • Goose neck with 4" FIG 1002/1003. • Two vibrator hoses for connecting substructure lines to standpipe manifold. • Sufficient pipes/hoses to facilitate extension of the delivery lines in cluster well location. • All joint to be fitted with safety clamps as per API standard. 		
Standpipe manifold	<ul style="list-style-type: none"> • Standpipe manifold on the drilling rig floor with inlet from mud pump, cement pump and high-pressure air compressor and two 5" standpipe outlets securely attached to the mast to an elevation suitable for TDS. • Mud gate valves 5"x5000psi Oteco model 7. • Manifold to have a solid block instrumentation header with at least four take off points for instrumentation and sensors. • Dual pressure gauge provision for digital and analogue dial gauge rated 0-51MPa (0-7500psi) complete with calibrated and 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>certified pressure gauges.</p> <ul style="list-style-type: none"> • Kill line of suitable length with swivel joints and FIG 1502 hammer unions. • Low pressure fill line with 2" FIG1002/1003 integral union • Rotary hose 4", length 75ft or suitable length for TDS operation. Include spare one rotary hose. Made as per API spec 7K. 		
Cementing manifold	<ul style="list-style-type: none"> • Cementing standpipe manifold with one (1) size: 3" 10000psi WP inlet from cementing unit to rig floor. The manifold will provide capability to pump cement down casing, or fluids down kill line, and be isolated from 5000psi high pressure mud standpipe manifold. • One (1) single 2" cement standpipe for suitable elevation including gooseneck and 2" Fig1502 integral union at gooseneck. 		

SECTION 5: MUD & WATER SYSTEM

SPECIFICATIONS

The mud and water tank system shall consist of

1. Active and reservoir mud tanks made up of the following.
 - a. One shale shaker tank- 60m³
 - b. Intermediate tank- 50m³
 - c. Suction tank- 65m³ c/w mixing pumps and agitators.
 - d. Three reservoir tanks- 65m³ each c/w mixing pumps and agitators.
 - e. Mud lab (cabin) on one tank Mud cleaning – ability to recirculate within the solid control system.
2. Water and chemical tanks- three (3) tanks
3. Pill's tank- 60m³
4. Trip tank c/w pumps- 15m³ (~94 bbl).
5. Auxiliary equipment and accessories for the mud tank system
6. Solid control- shale shakers, desanders, desilter
7. Gas separator (poor boy degasser) complete with inlet and outlet pipes.
8. Vacuum degasser
9. Mud cooler
10. Complete mud lab with mud testing equipment (mud balance, marsh funnel, cup fann viscometer, HPHT filter press, pH meter, retort, methylene blue test kit), office space, cabinets, working area, seats, laptop computers and colored printer.

Note

- All mud tanks shall be covered with a roof that will keep out rain and have enough head clearance for people to easily work under.
- Flowmeter of 0-40 l/s shall be installed on de-sander discharge for use in pumping down well annulus.
- Monitoring equipment shall be installed at the Driller's console for the flow line returns and pit volume.
- All solid control equipment shall be either MI Swaco, NOV (Brant) or Derrick make.
- All tanks shall be skid-mounted, flexible in layout, equipped with walkways, handrails access ladders and plumbing for easy connection and disconnection.
- Shale shaker and desander tanks shall each have the ability to recirculate within the tanks.
- All dump gates must seal tightly to ensure no leakage of fluids can occur.
- All compartment volumes and gauges must be calculated based on actual net volume after allowance for internal piping and equipment placed in the tank compartment.
- All electrical motors required to run the mud and water system are to be rated at 380V - 460Volts, three phase, 50 Hz and must be approved for outdoor use, explosion proof and insulation class H. certification for the motors **shall** be provided.
- High pressure mud guns connected to rig pumps.
- Low pressure mud guns
- The active pit system shall have centrifugal pump for mixing, operating the de-sander, operating the de-silter /mud cleaner, mud stirring guns and a dedicated centrifugal for pumping fluid down annulus (de-sander pump).

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Active and reservoir mud tanks	<ul style="list-style-type: none"> • Each tank shall be on oilfield type skids. • Each tank has at least two stainless steel 304 Aerofoiled 3 blade design mud agitators positioned in such a way to achieve proper mud churning. Frame-proof AC motors and starters to be provided. • Shale shaker tank and intermediate tanks shall have provisions for mounting solid control equipment. Three (3) Swaco shale shakers on 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>shale shaker tank, Swaco desander unit, Swaco desilter unit, Swaco centrifuge unit, mud cooler and Swaco vacuum degasser unit.</p> <ul style="list-style-type: none"> • The skid with feed pumps to this equipment shall be placed in front of the shale shaker/intermediate tanks close to the interconnection. Suction manifolds and delivery of the pumps shall be provided with isolation valves to use either one or two pumps. • Tank wall thickness at least 8mm. • Tanks to have two cleaning doors with the tank bottom sloping towards the door for cleaning purposes. • The clean out gates shall be provided to all tank compartments with 254mm (10") gate valves having firm support to withstand transport and handling. The gate valve shall have provision of Victaulic groove or quick connections to the pit. • Mud channels and gates with diversion gates shall be provided in all tanks per mud system requirement. • All tanks' compartments and tank sets of the active system will have equalizing lines and can be isolated and bypassed. • The top surface of all tanks shall be covered with heavy duty steel grating in all possible areas. • All tanks, stairs and associated walkways shall have secured removable handrails at least 1m high. The walkway arrangement shall be folding type flush with the tank. • Emergency showers and eye wash stations shall be provided within quick and accessible to all mixing areas and the shale shaker tank system. • Tank bottoms edges shall be of curved design towards the centre to minimize un-used fluid. • Suction placement for all pumps, both high and low pressure shall be placed at the lowest possible point to minimize un-used fluid volumes. • Dresser type pipe coupling, butterfly valves, gate valves and dumb valves with flanged ends shall be provided. All the dumb gates must seal tightly to ensure no leakage of fluids takes place. • Mechanical (float type) volume gauges shall be placed in each tank compartment and graduated in 1m³ increments. The scale shall be permanently attached and made of corrosion resistant material. • Electronic volume gauges and MD Totco rig sense volume sensors shall be placed in each tank compartment and appropriately graduated. The electronic display and rig sense shall be capable of totalizing the complete 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>active mud system and display individual tank volumes.</p> <ul style="list-style-type: none"> • The tanks shall be painted with inorganic zinc primer and two coats of repack high build polyurethane. Color code will be provided. • All control devices (valves, gates and switches) must be clearly marked and labelled. • A color-coded schematic diagram of all active mud tank systems must be posted in a fully visible location on the active tank system. • Suitable electrical earthing system to be provided for each tank compartment. 		
Mud pill chamber	<ul style="list-style-type: none"> • A chamber of approx. 15m³ (100 Barrels) capacity with isolating valves shall be provided inside the suction tank for preparation of special mud pills. • A suitable sized agitator of stainless steel 304 Aerofoiled 3 blade design of approx. diameter 1m coupled with flameproof electric drive motor shall be provided in this pill tank. • Connection to the mud pumps suction line and an independent line from the mud loading system with isolating valves shall be provided. 		
Mud operators' cabin	<ul style="list-style-type: none"> • One adequately sized cabin with proper heat insulation, lighting, safety glass window, sliding door, two chairs, ventilation and air conditioning shall be provided near the intermediate tank. • The cabin shall have enough room to accommodate two people and keep mud testing equipment and toolbox. • Two (2) baroid oilfield mud balance, two Fann viscometer, two (2) marsh funnel, Two (2) pH meters 		
Mud mixing	<ul style="list-style-type: none"> • The entire mud mixing equipment shall be mounted on a common skid comprising of the following: <ul style="list-style-type: none"> a. Two (2) Oteco Ventura type mixing hoppers. b. Two (2) high performance jet shearing hopper suitable for loading polymer chemicals. With capability of mixing more than 150kg/min. c. Two (2) centrifugal mission pumps for the active system. Capacity at least 250m³/hr. d. One (1) centrifugal pump-system for pre-hydration • Mud mixing capacity 2.2 SG (16ppg). • Mixing pumps can suck and discharge into all tanks in the mud mixing system. • Containment catch pans shall be fitted under all centrifugal mixing pumps. • Isolation valves on both the inlet and discharge side of the hopper and quick release hammer union for quick installation. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Mud mixing and hopper area to be covered. 		
Trip tank	<ul style="list-style-type: none"> • Capacity 15m³c/w two (2) centrifugal pumps, head 30m and mounted on oilfield type skid. • Each pump shall be complete with all valves, piping, and fittings. • Casing filling line • Access ladder • Level monitoring system • Flowmeters 		
Water tanks	<ul style="list-style-type: none"> • Three (3) water tanks- capacity 50m³. • Two (2) mission centrifugal pumps with minimum flowrate of 80m³/hr and 65m head with explosion proof motors. • Suction and discharge lines to be provided for operation of either or both pumps. 		
Chemical mixing tank	<ul style="list-style-type: none"> • Chemical mixing tank for easy and safe mixing of caustic soda and other aggressive powder/granular-based drilling fluid additives. Caustic mixing unit for dust-free cutting and dosing of caustic soda: - Feed rate ~ 0.1-1.5m³/hour. • - Installation type - Fixed skid • - System operation - Local • - System control - Pneumatic • - System power - Air Valves - Three-way, ball Valve capacity • - Connections - ANSI-type flanges • - Tank capacity - 500 L • - Piping - AS01 316L • - Air pressure - 0.1-6.8 barg • The Caustic Mixing Unit should be equipped with a diaphragm pump and a 3-way valve. The dosing rate should be manually adjusted by a control valve. Tank level should be indicated via a sight glass. • Two (2) covered mud check area c/w water supply and eye wash station. 		
Pump system for solid control system	<ul style="list-style-type: none"> • Feed pumps for desander, desilter, centrifuge and degasser to be mission size 6"x8"x14" coupled to weather and frame proof 3-phase motors. 		
Mud loading system (barite ramps)	<ul style="list-style-type: none"> • A suitable mud loading ramp shall be provided complete with shade and appropriate hoisting mechanism. 		
Pre-flush tank	<ul style="list-style-type: none"> • One pre-flush tank for cementing job • Two (2) centrifugal pumps of at least 180m³/h with independent skid and 6" line 		
Shale shakers	<ul style="list-style-type: none"> • Quantity- three (3) on rugged oilfield skid. • Type- linear motion MI Swaco shale shakers with suitable flow divider mounted side by side on the shaker tank. • Rated 2m³/min (500gpm) 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> Capable of running up to 250 plus mesh screens without overflowing. 		
Desander	<ul style="list-style-type: none"> MI Swaco desander with two (2) 12" desander cyclone cones with capacity of at least 260m³/h (1200gpm). Working pressure: 0.2-0.4MPa 		
Mud cleaner (Desilter)	<ul style="list-style-type: none"> Linear motion MI Swaco mud cleaner with sixteen (16) 4" desilter cones with capacity of at least 260m³/h (1200gpm). Working pressure: 0.2-0.4MPa Set of vibrating screens 		
Vacuum degasser	<ul style="list-style-type: none"> Vertical Vacuum Degasser, mounted on oilfield skid, with 5 hp, 230 /415 Volt AC, 3-phase, 50 Hz explosion-proof motor, starter, complete with suction and discharge piping and jet nozzles. Degassing Capacity: 260m³/h (1200 gpm) 		
Mud gas separator (Poor boy degasser)	<ul style="list-style-type: none"> Mud gas separator on oilfield skid with inlet flow line and choke manifold, outlet, drain, suitable vent at least 8" and walkway. Diameter approx. 1220mm (48"). Inlet size & connection Four (4) inch 602 4" hammer union Outlet size & connection Eight (8) inch series 150 flange Shall be of adjustable height to match the system. 		
Centrifuge	<ul style="list-style-type: none"> MI Swaco or Brant High G-force capacity centrifuge with long clarification area to process approx. 100m³/h (170gpm) of mud with feed density of 1.1SG (9.3 ppg) mud. Solid sedimentation, separation and draining to be combined in the centrifuge. The unit should be complete with charging pump, main drive motor (FLP Type), hydraulic drive and torque control assembly. 		
Mud cooler	<ul style="list-style-type: none"> Appropriately sized forced air mud cooler Suitable for aerated mud drilling 		
Aerated Mud and fluid system	<ul style="list-style-type: none"> Suitable aerated mud drilling and aerated foam system to be provided. The system should allow recirculation of mud/aerated fluids during drilling. 		
Cellar pumps	<ul style="list-style-type: none"> Two (2) air operated cellar pumps Supplied with 6 m (~20') suction and 20 m (~60') LP discharge hoses to reach cement holding tank. 		
	<ul style="list-style-type: none"> Two (2) Flyght electric submersible pumps Discharge capability: 150m³/h Power rated :15KW. Explosive-proof grad: Ex Suit temperature: up to 60°C Supplied c/w 6", 10 m (30') discharge hoses 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	to onsite disposal line, with proper rig wiring for each, c/w plugs (for rapid change-out).		
High pressure wash gun	<ul style="list-style-type: none"> • Three (3) high-pressure GRACO 206515 wash-gun for use in mud pit area or on rig floor. • Pump package drum mount. • Max. working pressure 12.5MPa. • Max. air input pressure 1.2MPa. • Fluid flow at 60cpm (11.4lpm). • Volume per cycle 189cc. • Air inlet size 1/2" (fnpt); • Fluid inlet size 1/2" • Fluid outlet size 3/4" 		
Shaker Screens and Mud Cleaner Cones	<ul style="list-style-type: none"> • "Screen 833×1150mm • 80mesh -60pcs • 100mesh-80pcs • 120mesh – 80pcs • 140mesh-40pcs • 160mesh-40pcs • 200mesh -40pcs • 250 mesh- 40pcs • Desander cones complete 16pcs. • Desilter cones complete 32pcs. • Victaulic clamps with seals for desander cones- 16pcs • Victaulic clamps with seals for desilter cones- 32 pcs • Pressure gauges- 4pcs • Isolation valves-4pcs for each size 		
Mud lab	<ul style="list-style-type: none"> • Containerized mud lab c/w office space, equipment, and tools. <ul style="list-style-type: none"> • Two (2), Fann 35A Viscometers • Two (2), 35A Cases • Two (2), 50ML Retort Kits • Two (2), HTHP (Filter Press) • Two (2), Bench Mount Filter Press' • Two (2), Magnetic Stirrers • Two (2), Sand Content Kits • Two (2), MBT Kits • One Hundred (100), / 4-1/2" Corrosion Rings • Four (4), 500 ml Aging Cells • Three (3), Digital Balances (corrosion coupon analysis) • Six (6), Mud Balances • Six (6), Marsh Funnels • Three (3), Viscosity Cups • Twelve (12), 32oz. 0.282N Silver Nitrate • Twelve (12), 32oz. 0.0282N Silver Nitrate • Twelve (12), 32oz. 0.01 (1 ml=20 epm) Versenate Hardness Titration • Twelve (12), 32oz Sulfuric Acid N50 • Forty (40), 2 oz. Potassium Chromate 		

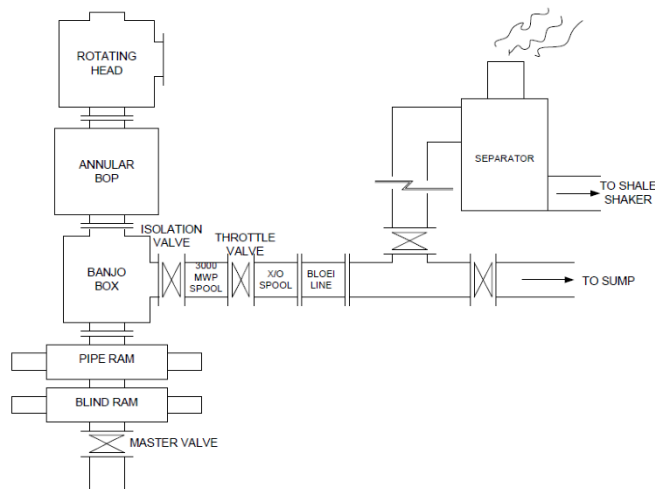
Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Forty (40), 2 oz. Versenate Hardness Indicator • Forty (40), 2 oz. Versenate Hardness Buffer • Forty (40), 2 oz. Methyl Orange • Forty (40), 2 oz. Phenol • Eight (8), 32oz Methylene Blue • Eight (8), 32oz Sulfuric Acid 5N • Eight (8), 32oz Hydrogen Peroxide • Sixteen (16), 1ml Pipettes • Sixteen (16), 2ml Pipettes • Sixteen (16), 5ml Pipettes • Sixteen (16), 10 ml Pipettes • Eight (8), 25 ml Red Base Graduated Cylinders • Eight (8), 50 ml Red Base Graduated Cylinders • Eight (8), 10 ml Red Base Graduated Cylinders • Eight (8), 500 ml Wash Bottles • Sixteen (16), Poly Titration Dishes • Twelve (12), 6-9 pH Rolls • Twelve (12), 8-12 pH Rolls • Twelve (12), 7.5-14 pH Strips • Four (4), Case CO2 Midget Cartridges (10 per box) • Eight (8), 3-1/2" Filter Papers • One hundred (100), Filter Press Gaskets • Twenty-four (24), Filter Press Screens • Eight (8), 2-1/2" Filter Papers • Eight (8), 125 ml Erlenmeyer Flasks • Twelve (12), Digital Stopwatches • Twelve (12), Digital Thermometers (0-200°C) • Eight (8) Analog (non-mercury) Thermometers (0-100°C) • Four (4), 5cc Glass Syringes • Four (4), Pipette Pumps • Twenty-four (24), MTE CO2 O-Rings • Twenty-four (24), OFI CO2 O-Rings • One hundred (100), HTHP Valve Stem O-Rings • Forty-eight (48), HTHP Cell O-Rings 		
Tools and spares	<ul style="list-style-type: none"> • Six sets of vibrator motors and starters for shale shakers • Four sets of vibrator motors and starters for mud cleaner • Handling and special tools for screen replacement, vibrator motors replacement, cone replacement. • Required operation, repair, and maintenance tools. • Torque wrenches- 4pcs • Digital vibration meter- 2pcs • Two (2) set of pneumatic wrenches (size8mm 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	to 42mm)		

SECTION 6: BLOWOUT PREVENTION SYSTEM

The rig shall have the following BOP stack, c/w all ring gaskets, studs and nuts and crossover spool and adapters to the wellhead. The BOP provided shall either be Shaffer (NOV), Hydril or Cameron. The BOPs shall be fully fitted with respective rams stated below.

1. Provision for aerated fluids; Banjo Box, Blooie line, Air-water separator, Isolation, and throttle valves complete blooie lines to sump and shale shakers.
 2. Hydraulic drilling diverter unit
 3. BOP control unit with three remote control stations (driller, tool pusher, supervisor)
 4. Two (2) portable high pressure (20000psi) BOP testing units with chart recorder and printouts, test stumps.
 5. One (1) class 4 annular and double ram (pipe and blind) 21-1/4" x 2000psi BOP set as per API 16A, API RP53 and NACE MR 0175/ISO 15156.
 6. One (1) NOV Compact Type - 79 Shaffer Rotating Blowout Preventer (RBOP) for 21-1/4" x 2000psi BOP set as per API 16A, API RP53 and NACE MR 0175/ISO 15156.
 7. One (1) class 5 Annular and triple ram BOP (pipe, blind and shear) 13-5/8" x 5000psi BOP sets as per API 16A, API RP53 and NACE MR 0175/ISO 15156. One (1) NOV Compact Type - 79 Shaffer Rotating Blowout Preventer (RBOP) for 13-5/8" x 5000psi BOP sets as per API 16A, API RP53 and NACE MR 0175/ISO 15156
 8. Drilling Spool 21-1/4" x 2000psi with two API flange 3-1/8" side outlets.
 9. Drilling Spool 13-5/8" x 5000 psi with two API flange 3-1/8" side outlets.
 10. Gate valves- flanged 3-1/8" working pressure: 5000psi, PR1, PSL3, EE-0.5
 11. Hydraulic Gate Valve, bore size: 3-1/8", working pressure: 5000psi, PR1, PSL3, EE-0.5, PU
 12. Check valve, bore size: 3-1/8", working pressure: 5000psi, PR1, PSL3, EE-0.5, PU
 13. Ring joints gaskets as per API 6A
 14. Double studded adapter 11"
 15. Sets of OEM pipe rams (5", 4 1/2" & 3 1/2"), blind ram & shear rams sub-assemblies (blocks, seals, etc.)
 16. Casing rams to be provided for the following sizes (13 3/8", 9 5/8" & 7").
 17. Choke manifold and chokes
 18. Two (2) remote choke control panels
 19. Kill manifold.
 20. Full Opening Safety Valves and Inside BOP Valves
- Expected 13 5/8 BOP set shown in figure.



SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
BOP control unit	<ul style="list-style-type: none"> • Conforming to API 53 and API 16D. Manufactured and monogrammed to API 16D. • Accumulator unit with total capacity of accumulator:80×12; available fluid volume: 600L, 7 control points. • Bladder type accumulator bottles. • Hydraulic fluid will be compatible with BOP components and 0° to +55° ambient temperature. • Hydraulic accumulator to have one and half times (1.5) the volume required to close each stack, and accumulator pressure to remain 200 psi above the pre-charge pressure at end of theoretical cycle without assistance from the charging system. • Safety cover on BRS to prevent accidental closing. • API 16D rated alarm systems. Alarm for low pressure and low fluid and loss of power. • The driller's electric-operated remote-control panel on rig floor. • Tool pusher's and supervisor's electric-operated remote-control panel. • BOP control lines, integrated,1" hard pipe with 1"FIG 602 union, working pressure: 5000psi, 6m length, 2*8 pipes. • Armor steel wrapped flexible BOP control hose, 1"*5000psi*1"FIG602, or quick couplers 10meter length, 		
Portable high pressure BOP testing unit	<ul style="list-style-type: none"> • Pneumatic pump capable of 90ml/stroke, complete with manifold to isolate pump during testing, relief valve, low pressure suction hose, and 150MPa (1500bar) hose to connect to BOP. • 43:1 ratio volume pneumatic pump • 300:1 ratio pneumatic pressure pump • Fluid suction manifold and strainer • High pressure testing manifold c/w 0-20000psi digital and analogue gauges, high pressure fitting and required valves. • Air supply manifold with lubricator • Adjustable air regulator • Heavy duty skid • Chart recorder to maximum pressure 150MPa with 24-hour time clock. Digital display with printout complete with suitable laptop for data transfer.. • Pressure gauge 0-500 psi with valves and bleed-offs. • Pressure gauge 0-6,000 psi with valves and bleed-offs. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • 21-1/4" x 2000psi BOP test stump with NC50 box sub and protective cover when not in use. • 13-5/8" 5K BOP test stump with NC50 box sub and protective cover when not in use. • 5" drill pipe test joint connect: NC 50, NC46 and NC38 each one pc. • O-ring seal type portable test stump for NC50valves and inside Grey Preventer for offline testing compatible w/ chart recorder above. 		
21-1/4" BOP set	<ul style="list-style-type: none"> • One (1) 21 1/4" x2000psi (14MPa) Class 4 consisting of one annular preventer, one pipe ram and one blind ram complete with test stump. • Annular (casting type) with nitrile rubber element. Bore size 21 1/4", rated working pressure 2000psi. Flanged top and bottom connection 21-1/4" x 2000psi 6B RX73. • Double ram, bore 21-1/4", pressure rating 2000psi. Flanged top and bottom connection 21-1/4" x 2000psi 6B R73. Side outlets 3-1/8" x 3000psi. Complete with 5" pipe ram and one set blind rams • Casing rams 13-5/8" to be provided. • BOP cooling lines for geothermal drilling shall be provided 		
Drilling Spool 21 1/4 x 2000psi	<ul style="list-style-type: none"> • Bore size:21-1/4". • Work pressure: 2000psi • With two 3-1/8" x 2000psi flanged side outlet c/w 3-1/8" x 5000psi hydraulic and manual valves. • Top and bottom connect type: flanged: 21-1/4" x2000psi 6B RX73. • Height :650mm 		
Rotating head	<ul style="list-style-type: none"> • NOV Compact Type ~ 79 Shaffer Rotating Blowout Preventer (RBOP) Rotating head for 21-1/4" x 2000psi BOP set as per API 16A, API RP53 and NACE MR 0175/ISO 15156. • Complete with bell nipple and riser • Well fill up line: 2" 		
Drilling diverter	<ul style="list-style-type: none"> • API 16A hydraulic BOP diverter system stack • Maximum diameter of bit through 26" 		
13-5/8" BOP set	<ul style="list-style-type: none"> • One class 5 BOP consisting of Annular and Triple ram BOP (pipe, blind and pipe 13-5/8" x 5000psi BOP sets as per API 16A, API RP53 and NACE MR 0175/ISO 15156) complete with test stump. • Annular preventer (casting type) with nitrile rubber element: bore 13-5/8", pressure:5000Psi, studded top, flanged bottom, pressure rating 5000psi. ring gasket BX160. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Tripple ram, bore 13-5/8", pressure rating 5000psi. Flanged top and bottom connection 13-5/8" x5000psi. • Side outlets 3-1/8" x 5000psi c/w manual and hydraulic valves. • Complete with 5", pipe ram and one set blind rams • Spare pipe rams for 4½ & 3 ½" • Casing rams for 7", 9½" and 13¾" shall be provided. • BOP cooling lines to be provided. • The 13-5/8" BOP must include provision and components for aerated fluids that include Banjo Box, throttle and isolation valves, blooie line, Banjo box, blind flange, Air-water separator, line to shale shakers, line to sump etc. 		
Drilling Spool 13-5/8"	<ul style="list-style-type: none"> • Drilling spool with two side outlets. • Bore 13 5/8", 5000 psi WP, API flange with two side outlets, 3 1/8" x5000psi c/w 3-1/8" x 5000psi manual and hydraulic valves. 		
Rotating head 13-5/8" x5000psi	<ul style="list-style-type: none"> • NOV Compact Type - 79 Shaffer Rotating Blowout Preventer (RBOP) Rotating head for 13-5/8", 5000 psi WP BOP set as per API 16A, API RP53 and NACE MR 0175/ISO 15156. • Complete with bell nipple and riser. • Complete with automatic lubrication system. • Well fill up line 		
Manual gate valves	<ul style="list-style-type: none"> • Bore size- 3-1/8". • Cameron type F gate valves • Working pressure: 5000psi • Spec PR1, PSL3, EE-0.5, PU 		
Hydraulic Gate Valves (HCR)	<ul style="list-style-type: none"> • Bore size- 3-1/8". • Working pressure: 5000psi • Spec PR1, PSL3, EE-0.5, PU 		
Check valves	<ul style="list-style-type: none"> • Bore size- 3-1/8". • Working pressure: 5000psi • Spec PR1, PSL3, EE-0.5, PU • Four sets of spare part kit 		
Adapter flange	<ul style="list-style-type: none"> • Double studed adapter flange-200mm • Top connection:13-5/8" 5000psi flanged. • Bottom connection:11" 5000psi flanged. • Ring grooves: 316 stainless steel inlaid ring grooves • Accord with API 16A and NACE MR-01-75 H2S service • Metallic material temperature class: T-20 		
Choke manifold	<ul style="list-style-type: none"> • Bore size: 3-1/8". • Working pressure: 5000psi • One remote adjustable choke: 3-1/8" 5000psi • Eleven 3-1/8" 5000psi manual gate valve 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • One 2-1/16" 5000psi manual gate valve and pressure gauge, pressure transducer and c/w control panel • Three (3) Swaco Super choke remote control panel (driller, supervisor and tool pusher) showing standpipe pressure, casing pressure, pump stroke, choke position, choke selection switch and control lever. Automatic Choke Control • Emergency Hydraulic Hand Pump • Power supply Hydraulic Pump • Digital pressure gauges, chart recorder and data acquisition systems shall be provided 		
Choke line	<ul style="list-style-type: none"> • choke line • Bore size: 3-1/8". • Working pressure: 5000psi. • Flanged end connection 3-1/8" 5000psi, API 16C • Union flange: 3-1/8" 5M x 2" FIG 1502, PR1, PSL3, EE-0.5, PU 		
Kill manifold.	<ul style="list-style-type: none"> • Bore size: 3-1/8". • Working pressure: 5000psi • Two (2) 3-1/8"x5000psi full bore manual valves • Two (2) 3-1/8"x5000psi check valves. • One 2-1/16"x 5000psi manual gate valve and pressure gauge and pressure transducer • Kill line connecting to mud pump manifold and remote pumping unit. • Kill manifold to be connected and controlled from the three (3) Swaco Super choke remote control panel 		
Kill line	<ul style="list-style-type: none"> • Flexible kill line • Bore size: 3-1/8". • Working pressure: 10,000psi • API 16C 		
Full open safety valves and inside BOP valves	<ul style="list-style-type: none"> • Full open drill pipe safety valves: working pressure 5000psi, c/w mechanism to enable easy handling. • Two (2) NC50 pin x NC50 box c/w activation wrench. • Two (2) NC38 pin x NC38 box, c/w activation wrench. • Two (2) 6/8reg pin x NC38 box, c/w activation wrench • Two (2) 7/8reg pin x NC38 box, c/w activation wrench. • Inside BOP valve (float sub): NC38 pin x NC38 box for 3-1/2" drill pipe, OD:121mm, ID:50.8mm, L:640mm, Work pressure: 10000psi. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Inside BOP Valve (float sub): NC50 pin x NC50 box for 5" drill pipe, OD:165mm ID:88.9mm L:640mm. Work pressure: 10000psi. 		
Tools and spares	<ul style="list-style-type: none"> • Four (4) sets of OEM ram sub-assemblies (blocks, primary and secondary seals, ram packers.) • Two (2) 21-1/4" nitrile annular elements • Two (2) 13-5/8" nitrile annular elements • BOP platform c/w handrails and ladder. • Six Sets of ring gaskets (RX-73, BX160, 3 1/8 flange gaskets. • Air impact wrench with socket diameters available for all wellhead nut components and BOP equipment. • Hammer wrench (set of ring and open wrenches) for all wellhead nut components and BOP equipment. • Two (2) sets of stud bolts complete with nuts for all flanges. • Two (2) Atlas Copco pneumatic high torque nut runners for all the bolt and nut sizes used in the BOP systems. • Two (2) Atlas Copco electric high torque nut runners. • Two (2) sets Atlas Copco hydraulic CTST range of manual return Tentec topside bolt tensioning tools designed to fit ANSI B16.5, ANSI B16.47 Series 1, MSSSP44, API-6A and API-17D flanges. • Air impact wrench with socket diameters available for all wellhead nut components and BOP equipment. 		
Bell nipple and riser	<ul style="list-style-type: none"> • One (1) set of 30" riser/pitcher nipple complete with 29-1/2" 500 psi flange, 10" dresser sleeve, 10" flow line, and kill line outlet flanged 3-1/8" API 5000 psi. • One (1) of 20" riser / pitcher nipple c/w 21-1/4" 2M flange to match rotating head and 10" dresser sleeve. • One set of 13-5/8" riser / pitcher nipple c/w 13-5/8" 5M flange to match rotating head and 10" dresser sleeve 		
Gas Flaring system	<ul style="list-style-type: none"> • One (1) set of gas flaring systems complete with all the necessary connections and accessories. • Designed to fit API Standard 521 & 537 and ISO 23251 & ISO 25457. 		

SECTION 7: RIG INSTRUMENTATION AND CONTROL SYSTEM

- Integrated data acquisition system, drilling instrumentation and rig control system shall provide control and consistency for any operation.
- MD-totco, NOV Amphion, Novos and rigsense systems preferred.
- The unit for measure of instrumentation equipment will be meter (m), inch(in), metric ton(t), newton meter(N-m), pound-foot (lbs-ft), pound per square inch(psi), gallons per minute (gpm), liter/minute (lpm) and liters per second (lps) cubic meter(m³), litre (l) and gallon (g).
- Include mud logging system.

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Driller's instrument panel	<ul style="list-style-type: none"> • NOV Amphion/ Novos and MD Totco drill watch system in the drillers station. • Shall be able to manage, control and monitor rig floor equipment in independent and activity-based operations. • Integrated control system for managing, controlling, and monitoring rig floor equipment for safe and efficient operations. • The system shall be interactive/configurable using color-graphic data and control screens viewed on touch screens integrated into the operator workstations. • The touch screens should allow the driller to supervise and control all drilling-related functions. • The integrated system shall have control cabinet, network devices, operator workstations and control modules to drive the rig equipment. All modules should have communication hardware and user software interface functionality. • The control system shall be designed to avoid single point failures through a robust network with redundant touch screens. • The control network shall be designed using touch screens and/or workstation hardware (such as joysticks) to provide monitoring and control of each tool, plus local and remote access to integrated diagnostics, maintenance, and documentation. • Ergonomic, adjustable, climate-controlled workstation. 		
Electronic drilling recorder	<ul style="list-style-type: none"> • MD Totco electronic drilling recorder. • Electronic data recording (EDR) is included. <ul style="list-style-type: none"> • Driller color touch screen displaying all the parameters. • Three workstations and printer (drill site manager, tool pusher and supervisor) • Electronic tour sheet (IADC) • Standard sensors which include, ROP, depth, weight on bit, differential pressure, pump pressure, torque, RPM, hook load, block height, standpipe pressure, bit position at all times. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Real time data transmission of drilling parameter • Access to historical well data • Pipe tally • Messaging and memo system • Easy to read and customizable operation screens, such as drilling, circulating, tripping, pressure testing, individual driller preferences. • Pit volume totalizers PVT comprising of flow monitor with alarm, Mud level probes for all the tanks, Trip tank monitor providing individual and cumulative hole fill volumes and historical record found on data hub. • Temperature sensors for mud inflow and outflow • Casing/ wellhead pressure sensors 		
Automatic driller system	<ul style="list-style-type: none"> • NOV Amphion or MD Totco • GE/ABB/siemens motor with reduction gear • Operate through all ROP ranges. • Capable of control drilling (time drilling) to improve directional drilling control and accuracy. • Maintain a consistent and stable WOB, and drilling fluid pressure, drilling torque and differential pressure. • The software module should have drawworks control systems to provide unique automatic drilling functionality. • Shares existing sensors installed with the EDR. • High resolution rotary drawworks encoders. • Allow users to adjust and monitor Electronic AutoDriller or unit's operations from HMI in driller control room or IPC in power room 		
Driller's workstation	<ul style="list-style-type: none"> • Operators chair- adjustable wrap around. • Touch screen displays. • Climate controlled room • Discrete controls for drilling equipment. • Rugged industrial LCD displays suitable for bright sunlight to low night light conditions. • Tool controllers <ul style="list-style-type: none"> • Draw-works Control Module- drilling operations, tripping, status VFD status, diagnostics, and alarm. • Top Drive Control Module- primary control, diagnostics, and alarm • Auxiliary Tool Control Module- catheads, rotary tables, HPU • Mud Pumps Control Module- primary control, diagnostics, and alarm. • Power System Interface Module- generator status, rectifier status, drive status, ground fault, feeder status. • Driller's Chair Control Module 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • V-DAQ Drilling Information Module- to provide interface between control network, touch screen and rig sense system. <ul style="list-style-type: none"> a) Electronic gauges for primary drilling instrumentation. b) Pit volume totalizer (PVT) c) Electronic driller recorder (EDR) for strip charts d) Interface to support ten (10) connections. e) Software license for ten (10) seats. • Multi tool control (MTC) cabinet with diagnostic touchscreen and Power Control MTC Cabinet with touchscreen • Other components <ul style="list-style-type: none"> • Mud Pump Remote on/off • E-Stop Controller- consists of failsafe system. • MCC Interface • UPS-online configured for emergency backup of the control and power system control for eight (8) hours. Shall include bypass switches for direct feed in case of ups failure. • Mud Logger Output Module-analog output option to provide minimum of eight (8) predefined analog signals to be exported from the system to mud logger system. • Rotary Table Interface Kit • Standpipe Pressure Transducers two (2) for use with Auto Drill software. • Compression Type Triple Redundant Electronic Load Cell for use in deadline anchor 		
Driller's console (cabin)	<ul style="list-style-type: none"> • To provide the driller with a safe and comfortable workstation for long working shifts without stress or strain. • The equipment/ control panels in the cabin should be placed in the most visual and convenient position. Sample layout to be provided. • Stainless steel with interior and exterior wallboard of at least two (2) mm. heat insulation layer. • The windows shall have safety nets and security bars. The safety net on the top of window is made of stainless steel 2mm in thickness. The security bar in front of the window is made of square stainless tube 25 X 25mm. • Explosion proof independent HVAC LG dual purpose air conditioning • Laminated glass with wiper and washer system 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • External and internal lighting • Noise and vibration insulation • Talk back system consisting of pre-amplifier, PSU, audio speaker (outside cabin), microphone (inside cabin), foot switch (inside cabin). • Driller shall have an unobstructed view of the drill floor, V-door and monkey board. 		
Rig Sense System	<ul style="list-style-type: none"> • Drilling management system of latest design (not later than 2022) shall be provided (NOV rig sense). • Ability to gather data from multiple sensors and input sources. • Typical users of the system will include rig manager, drilling engineer, mud engineer, directional drilling engineer, geologist, toolpushers, drillers, assistant drillers, owner supervisors/ representatives/ consultants and maintenance engineer and safety office. • Provision of transmitting drilling data and status to mobile phones and internet devices- computers and tablets • The provided system shall be upgradable to the latest version. • Ability for users to customize their screens to their own channel preferences. • Historical data viewing and printing. • Capable of providing accurate time and event-based ton-mile measurements. • Storage and retrieval of historical information and notifications. • Display to be in English language. • The system shall provide a minimum of five different types of printed reports including pipe tally, ROP, standpipe pressure, pump strokes etc. • Generate IADC reports for billing and payments purposes with electronic transmission capability. • The system shall have audio visual alarm for active pit level, total mud level, mud return flowrate high/low. • The minimum drilling parameters displayed at the drillers console include: <ol style="list-style-type: none"> 1) Hook Load 2) Block position 3) Weight on Bit 4) Hole Depth 5) Bit Position 6) ROP 7) RPM, Rotary Table 8) Rotary Torque 9) RPM, Top Drive 10) Top Drive Torque 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	11) SPM Mud Pump 1 12) SPM Mud Pump 2 13) SPM mud pump 3 14) Total SPM 15) Standpipe Pressure 16) Casing Pipe Pressure 17) Choke Manifold Pressure. 18) Ton Mile 19) Kill Line Pressure 20) Tong Line Pull 21) Mud Loss/Gain Volume 22) Active Mud Tank Volume 23) Total Mud Tank Volume 24) Trip Tank Volume 25) Mud Return Flow 26) Mud Density In 27) Mud Density Out 28) Mud Temperature In 29) Mud Temperature Out 30) Flammable Gas at Shale Shaker, wellhead, bell nipple, choke manifold 31) H ₂ S and CO ₂ gas at shale shaker, drillers console, wellhead, dog hut, mud cabin, bell nipple, rig base area, choke manifold. 32) Mud Conductivity In/Out		
Mud logging unit	<ul style="list-style-type: none"> • A mud logger system including all the required latest software and hardware shall be provided in a container at the drilling site. • The system shall be capable of preparing computer generated mud log and daily reports to support the drilling operation. • Sample mud logger report shall be provided. • The software shall be of online and site data access interface. • Drilling parameters displayed by the mud logger include: <ul style="list-style-type: none"> a) Hook load b) Block position c) ROP d) Hole depth e) Bit position f) Weight on Bit g) Standpipe Pressure h) Rotating Torque i) RPM j) Pumps SPM k) Total SPM l) Pit Volumes m) Total Gain/Loss n) Mud Temperatures In/Out o) Flow Out volume/ percentage p) Wellhead/Casing Pressure q) MSE (Mechanical Specific Energy), r) Gas Sensors for H₂S, CO₂ and flammable gas at driller's console, 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>dog huts, wellhead, shale shakers, mud cabin</p> <ul style="list-style-type: none"> • The unit should also include equipment needed to provide internet access, carbide for checking circulation time, and an ethylene blue test kit. • Real-time data to be displayed on color monitors at least at: <ul style="list-style-type: none"> i. Owner's/consultant representative office. ii. Rig manager office iii. Tool pusher's office iv. Geologist office v. Directional drillers office vi. Maintenance engineer office vii. Driller's console. viii. Safety office • Displayed parameters to be user-selectable requiring a suitable interface at each monitor. • Communication system complete with the handsets unique dialing numbers/extensions for the following stations located in the following areas: <ul style="list-style-type: none"> i. Driller's console ii. Drilling Supervisors office iii. Rig Managers Office iv. Geology Office v. Mud Engineers Office vi. Tool pushers' office vii. Aerated drillers office viii. Mechanical Engineers office ix. Electrical Engineers Office x. Directional Drillers office 		
Top drive instrumentation	<ul style="list-style-type: none"> • Contained in a stainless-steel enclosure containing operational switches, touch screen for displaying and setting drilling parameter such as rpm and torque, indicator lights, and throttle 		
Rig air system	<ul style="list-style-type: none"> • Two (2) set Sullair, Ingersoll rand or Atlas Copco screw Air Compressor. Electric drive using 37kW motor. Pressure discharge with dryer 9.8bar and discharge with dryer 10bars. Minimum capacity 95l/s. • PLC/Microprocessor based control system for air compressors. • Two (2) sets of refrigerated air dryers with online dew point meter. • Two (2) 5m³ vertical air receivers complete with safety relief valve, pressure gauge (digital and analogue) and auto drain. • Air system including all air receivers to meet API, ASME and ANSI standards. Test certificates to be provided. • The air supply system shall include steel airlines to all users. Air outlets shall have 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>valves, leak-proof fittings. All connections shall be fitted with whip checks. Claw fittings must all have lock down pins.</p> <ul style="list-style-type: none"> • One set cold start CAT two stage reciprocating air compressor mounted on rigid steel base. 		
Control cables	<ul style="list-style-type: none"> • Length of all the instrumentation control cables shall be sufficient to facilitate extension up to 75m (250 ft) from the first initial rig up. • The length moving of only mast and substructure. • All the rig cables have suitable protective sleeves. • Bidder's confirmation required on cable length and suitability for rig skidding. 		
Cable trays	<ul style="list-style-type: none"> • All Cable trays shall be elevated and of galvanized steel capable of supporting all power supply and instrumentation control cables. • No cable will be allowed to be laid on the ground or outside of a cable tray. Length of cable tray should be sufficient to facilitate extension up to 75m (250 ft) from the first initial rig up to meet spacing between the wells in one well pad. • Where cables have to be laid on the ground, suitable steel covers to accommodate moving fleet shall be used. • Bidder confirmation shall be provided. On suitability for rig skidding. 		
Drawings, part catalogue and instruction manual.	<ul style="list-style-type: none"> • Supplier shall provide three hardcopy sets of drawings, operation and maintenance manuals, parts catalogue, and instrument spares in English for all instrumentation and control systems. • A copy to be supplied in soft version. 		
Software	<ul style="list-style-type: none"> • Supplier shall provide three sets of diagnostic tools (laptop with the latest software configuration) with licenses for configuring and calibration of the rig control and instrumentation system. • Troubleshooting and support service for rig control and instrumentation (software and hardware) after commissioning rates shall be provided for onsite maintenance for a period of three years. 		
Directional drilling and well planning software	<ul style="list-style-type: none"> • Supplier to provide suitable software capable of directional drilling and well planning. 		
Well cementing design and simulation software	<ul style="list-style-type: none"> • Supplier to provide suitable software capable of well cementing design and simulation. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Spare parts	<ul style="list-style-type: none"> OEM spare parts for two years operation for instrumentation and control equipment. The list shall include OEM part numbers. 		
Certification	<ul style="list-style-type: none"> All the electronic instruments required shall be certified for use in hazardous area by an API approved certification body. The certificates to be provided 		
Instrumentation Storage container	<ul style="list-style-type: none"> Supplier shall provide appropriate storage and transportation 20ft container for control equipment and instrumentation including sensors and cables during rig down, rig move and rig up. 		

SECTION 8: POWER SYSTEM, RIG ELECTRICALS, RIG FUEL SYSTEM, INTERCOM AND CCTV SYSTEM

The supplier shall provide a suitable power system (Engines and generator) capable of delivering total power required to run the rig, auxiliary system, and site camps. The main rig power package shall be suitable for generating alternating voltage at 600V, 50Hz. The system shall be.

- Efficient AC power system that reduces fuel consumption with low CO₂ emissions.
- Latest publication of the following standards is applicable.
 - ISO3046 -RIC engines –performance (=BS 5514)
 - ISO8528, BS4999, BS5000PT99, AS1359
 - ISO 9001 -Quality Assurance Regulations
 - IEC 60034 -Rotating Electrical Machines (=BS/EN60034)
 - IEC 60255 -Electrical relays (BS5992)
 - IEC 60439 -Low voltage switch gear & control gear
 - BS 5000-3 -Generator to be driven by RIC engine.
 - BS5625(STD 12.5) –Rotator balance
- Rugged, robust construction
- Enhanced safety, installation, and serviceability
- Isolated main bus and motor cable terminations sections
- Advanced diagnostic monitoring
- Plug in Inverter Modules
- Change over system for use of national grid power that includes power metering system.
- Four (4) generators set and One (1) auxiliary generator.
- All generators shall meet noise control standards and shall be supplied complete with noise control rooms.
- The system shall have an interconnection system/module for grid power supply.

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Generator engines	<ul style="list-style-type: none"> • Caterpillar 3512B series Electronic Control Oilfield turbocharged Diesel engine 1365kW, of latest design coupled to SR500 Generator. • Auxiliary generator (500kW, 400V) unit with Caterpillar engine • Emission control: minimum TIER III or latest emission control. Proof shall be provided. • Bidders shall provide engine specifications- number of cylinders, cylinder arrangement (V or in line), bore, stroke, rated rpm, compression ratio, combustion, specific fuel consumption etc. • Engine horsepower- minimum 1365kW (1830hp). Engine rating to be based on ISO3046/1 and the engine shall be dynamometer tested and power rating set. The details shall be marked on the name plate. • Three (3) sets of Engine fault diagnostic tools (both software and hardware) shall be provided. • Air inlet- after cooler, corrosion resistant air cleaner, heavy duty with soot filter and service indicators. • Control system- advanced diesel engine management (ADEM)-AIII, Electronic control module (ECM). Siemens PLC controlled along with battery and charging system. • Cooling system- two cooling circuit with vertical radiator to cool to an ambient of 40°C at 2000masl for use with treated water and caterpillar approved coolant. Outlet controlled thermostat and housing, jacket water pump and aftercooler water pump. The radiator shall have coolant visual level indicators and coolant drain valve. Appropriate radiator guards to be provided. • Lubrication system- engine mounted with lube oil pan, suction bell, lube oil pump with relief valve, single type oil filter, oil cooler, oil drain valve 2" NPT female connection piped to front of radiator, oil top up and dip stick, top mounted crankcase breather and fumes disposal to carry crankcase fumes to front radiator air stream. • Fuel system- primary and secondary fuel filters (single type), fuel pump, flexible fuel lines, fuel priming pump and electronically controlled unit pump injector per cylinder. • Exhaust system- dry type exhaust manifolds. Dry type turbochargers with water-cooled bearings, exhaust elbow for gases outlet, stainless steel exhaust flex, ANSI style outlet 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>flange, gasket, bolts and mating weldable flanges. Exhaust silencer spark arresting muffler, companion flanges, clean out box and spark box. Industrial type noise reduction grade.</p> <ul style="list-style-type: none"> • The altitude of the working area site is approx. is 2000m above sea level. • Instrument panel- electronic instrument panel complete with analogue gauges with digital display data for: <ul style="list-style-type: none"> i) Engine oil pressure gauge ii) Engine jacket cooling water temperature iii) Fuel pressure gauge iv) System DC voltage gauge v) Air inlet restriction gauge vi) Exhaust temperature gauge before turbo charge vii) Fuel filter differential pressure gauge viii) Oil filter differential pressure ix) Service meter- digital x) Tachometer- digital xi) Instantaneous fuel consumption- digital xii) Total fuel consumption- digital xiii) Engine start- stop. xiv) Emergency stop button on the engine and at the driller console. xv) Safety shutdown protection with LED fault indicating lights. • Protection system- ADEM A3 ECM or more advanced system with engine alarm and shutdown strategies to protect against adverse operating conditions. • Starting- air start motor with air silencer • Coupling system- viscous damped flexible type coupling. Include flywheel guard. 		
Generator	<ul style="list-style-type: none"> • Power type caterpillar generator SR4B 826 of heavy-duty design and construction and matched to the engines. • Form wound, 6 leads and one drip proof main cable access box, IP23 ingress protection with bottom cable entry. Terminal box minimum IP44. • The generators shall be manufactured to meet or exceed ANSI, IEC, IEEE requirements. The bidders shall confirm the standard used in design and construction. • Rated three phase voltage- 600VAC. • Capacity- 1900kVA at sea level and 1800kVA at 2000masl. • Power factor-0.7 lagging • Frequency- 50Hz • Duty continuous running-55°C. • Special Test/Reports for generator should be delivered with the following test reports. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ol style="list-style-type: none"> 1. Standard generator TVA report 2. Standard engine test charge 3. Generator test report 4. PGS Test report @ 1.0 power factor 5. Generator fuel consumption test 6. PGS Test report @ 0.8 power factor <ul style="list-style-type: none"> • Auxiliary (emergency) generator specifications <ul style="list-style-type: none"> ▪ Output – 600kW-750kVA ▪ Voltage 400V ▪ Frequency 50Hz ▪ Power factor- 0.8 ▪ Rpm-1500 • Technical datasheet for the offered generator must be submitted. 		
Generator housing (enclosure)	<ul style="list-style-type: none"> • Each diesel generator shall be mounted on an oilfield skid and in an acoustic enclosure designed to meet ambient noise standards as per occupational health regulations. Generator Housing shall be DNV certified. • The sound proofing will be designed in such a way as to ensure noise levels outside the generator housing will not exceed 70dB when generators are running. Additional internal sound proofing will be provided to ensure people working inside the engine rooms aren't exposed to excessive sound pressure levels that could lead to hearing damage with exposure less than 16 hours. Noise control room for five sets and one auxiliary generator to be provided. • The containers should feature a convenient heavy duty false floor design with access hatches to facilitate and ease access to compressed air lines and fuel lines. The false floor system should have thorough consideration to ease and hasten rig up, rig down, rig move, and maintenance work. The working area of the containers should feature a durable anti-slip solution capable of preventing slipping even when exposed to lubricants and other friction compromising substances. The designers are implored to design flooring in such a way as to mitigate trip hazards. The areas under the engines should have drip pans, or an equivalent containment solution to capture any engine fluids that may leak from the engine. These engine fluid containment solutions are meant to meet or exceed ISO 14001 environmental management standards. • Each generator housing should feature appropriate LED lighting system capable of delivering and an average light intensity not less than 400 lux (lumens per square metre), 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>with a color temperature within 5000k to 6500k. Each container should have not less than for four single phase power outlets distributed evenly within the container. All lighting fixtures should be field serviceable.</p> <ul style="list-style-type: none"> • All electrical equipment lighting, power outlets, alarms etc should feature IEC ATEX certification with appropriate zoning. There should be at least four single phase and at least four three phase industrial power outlets evenly distributed within each generator container. Additionally, all electrical equipment should have ingress protection to IP56. The bidder will be expected to provide ATEX certificates for all electrical equipment in the generator housing area. • The generator containers should feature an air supply system to provide starting air to the primary generators pneumatic starters. Additionally, each generator's container should have at least two free pneumatic quick coupler connection points evenly distributed within the container for use with pneumatic tools. The air supply system should feature adequately sized receiver tanks, air dryer, lubricator, valves, and no less the two equally sized compressors (1 compressor on duty, and 1 spare for redundancy). Each compressor should be capable of individually running the entire system (including drawworks clutches, drillers console instrumentation, and any other equipment if applicable) without the need for the spare air package. The outlet for the compressors will be commonly coupled with manual valves for selecting or paralleling the compressors. The compressed air system supplied should meet or exceed standards from ISO 8573 (Compressed air quality), 12500(Filters for compressed air), 7183 (Compressed-air dryers), 11011 (Compressed air Energy Efficiency), and any other applicable ISO, ASME, KEBS standards. The air supply system should preferably be from Sullair, Atlas Copco & Ingersoll rand. • The distance between generator set skids shall be covered with walkway and roof. • An Auxiliary (emergency) generator shall be mounted on oilfield skid complete with acoustic enclosure. • All generators shall incorporate spill control and containment with oil traps and water drainage port. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Power control room (PCR)	<ul style="list-style-type: none"> • The power control room(s) must comply with IEC 61439 (Standards for low-voltage switchgear and control gear assemblies), IEC 61800 (Standards for adjustable speed electrical power drive systems), IEC 61892 (General requirements for electrical installations). Capable of controlling AC generators, electrical drives of the rig including top drive, rig lighting and auxiliary systems. • DNV certified container compliant that is weatherproof, transportable (featuring top and bottom lifting points), steel housing with self-supporting skid and suitable for oil field application. • The walls of the power control room are to be insulated with an appropriate non-toxic, flame retarding insulation material to minimize the heating and cooling cost of the power control room. The power control room should be an air-cooled type. The combination of the air conditioning and insulation system used should be able to maintain a temperature differential greater than 35°C between the interior and exterior of the power control. A rubber neoprene mat should be provided over the full floor area of the house for ground insulation protection for crew members working in the control room. (“Features furnished above are indicative only. Bidder may quote for other type of insulation and surface finish which may offer equivalent/ higher insulation efficiency to maintain the power control room(s) internal temperature as per requirements in the air conditioning specifications”). • The Air conditioning units should be a minimum of two, with same rating with one capable of cooling and maintaining power room temperature between 17°C and 23°C • All panels should feature internal LED cabinet lights to improve visibility of internal components and facilitate maintenance works. • The plug panel should be provided on the side most convenient to the proposed rig system the bidder proposes. The plug should have adequate feature to prevent water ingress when opened or closed. All termination to the plug panel should be via waterproof plugs and sockets with an ingress protection rating no less than IP55. All plugs and sockets to the plug panel should be IEC ATEX certified. Exposed lug connection terminals will lead to disqualification of bid 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>and rejection on delivery. There should be adequate lighting with not less than 300 lux at the plug panel. Lighting fixtures should have an ingress protection rating not less IP56.</p> <ul style="list-style-type: none"> • The power control room(s) should feature LED lighting system capable of delivering and an average light intensity not less than 650 lux, with at a color temperature of 6500K. The interior lighting system should run on a 220–240-volt supply. • Two (2) doors with anti-panic hardware will be furnished - one at each end and on opposite sides of the house. Both doors shall be designed to open to the outside by pushing on the crash bar. Doors should have a rubber sealing lining. • Bidder shall submit a copy of the single line diagram of their proposed power control room and other rig electricals as part of their bids. • A programmable logic controller (preferably Siemens S7-1500) shall be utilized to facilitate appropriate coordination of the generator controls, and the collection of the parameters detailed above for forwarding to the integrated drilling control system via a profibus connection. The generator controls shall feature a minimum of the following protection features. <ul style="list-style-type: none"> • Overcurrent – Set to trip at 110% of max. rated current. • Overvoltage – Set to trip at 116% of alternator terminal voltage (600 V), with 10 mSec. delay • Over frequency – Set to trip at 110% (i.e., 55 Hz) of rated frequency (50 Hz) • Underfrequency – Set to trip at 42 Hz (16% below rated) • Reverse Power – Set to trip at 8-10% of rated kW. • Each generator control panel should be independent and complete in all aspects with switching and control devices. Loss of one panel should not affect the others. However, they will communicate with one another for load sharing. • The system shall be designed to control five CAT 3512B, 1900kVA, 600V, 50Hz diesel electric generator sets in parallel, auxiliary generator 500kW, 400V, electric motors, lighting, and auxiliary loads. • The power control room should feature a cabinet or cabinets for control and monitoring of the rig generators. The 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>generator cabinet shall contain all the necessary electricals and electronic to perform the following tasks.</p> <ul style="list-style-type: none"> • Start and stop the generators remotely (and choose manual or automatic starting) • Jog/Warm up the generator before loading. • Synchronise the generator to the rig bus bar automatically via an appropriately sized synchronisation breaker. • Coordinate sharing of load between the active generators • Control the speed of the generator for automatic synchronization and frequency regulation. • Protect the generator and control electronics from adverse operating conditions. • Ensure proper voltage and frequency regulation from each generator. • Provide an emergency power solution for starting and exciting the main generators in the case the auxiliary generator is not available. • The generator cabinet shall feature a minimum of the following gauges, indicators, and meters for monitoring of the following parameters for each individual generator operation. <ul style="list-style-type: none"> • Generator Voltage (L-L, L-N) • Bus Voltage (L-L, L-N) • Generator Current (L-L, L-N) • Generator Power (kVa, kVAR, kW) • Synchronization lamps • Synchroscope • Generator Frequency • Bus Frequency • Generator RTD temperature reading • Generator status: idle/jog/warmup, running, emergency stop, loaded, engine fault, generator fault, overload. • Generator operation hours • Generator-Bus Breaker Closed • Malfunction indicator • Engine Fault code readout • Rated current of the main breaker in every generator control cabinet is 2000A. • Main PCR shall include. <ul style="list-style-type: none"> ▪ Rig control system (programmable) ▪ Touch screen/ soft button display screen. ▪ Generator control panels ▪ Rectifier and VFD panels 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> ▪ Auxiliary motors control panels ▪ Auxiliary brake control ▪ Plug socket compartments for interconnection. ▪ Air conditioner ▪ Any other electrical system • Auxiliary control PCR shall have <ul style="list-style-type: none"> ▪ MCC for all auxiliary motor starts/feeders. ▪ One Main transformer, two lighting transformers and one isolation transformer. ▪ Aviation warning light controller ▪ Plug socket compartments for interconnection. ▪ Any other electrical system • Automatic changeover and connection for National grid power shall be provided. This will enable the rig to be powered by grid power and reduce fuel cost and emission control. • One set module for connecting rig power input to local grid (Grid power 15KV, 50Hz). The high voltage power system equipped in one room including one high-voltage cabinet, one 0.6KV feeder cabinet, one 4000KVA transformer (15KV/0.6KV) and air conditioners. Both incoming and outgoing are connected by copper bus bar and bolts. • Drives and equipment will be powered from the PCR by electrical/ electronic/ digital signal, power, and control cables. • The electrical system package shall include all electrical motors of the solid control system, rig lighting system, utility system, (compressed air, water etc.), aerated system, cable system including cable trays, boxes & grasshopper/ elevators, earthing system, maintenance and testing facility for rig control system, complete set of spares and tools. • The PCR to be on oilfield skid and weatherproof outdoor housing with lighting, insulation, and air conditioning. • The dimensions weight to be within road transport limits. • Technical drawing and layout to be provided. • Fire suppression system and firefighting equipment to be provided. 		
Rectifiers	<ul style="list-style-type: none"> • The power control room shall feature at least two (2) regenerative rectifier units that shall be capable of 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ol style="list-style-type: none"> 1. Rectifying power from the power control room's 600VAC bus to the main DC bus to be used by the variable frequency drives when they are motoring. 2. Sinking power from the power control room's main DC bus bar to the 600VAC bus when performing regenerative braking <ul style="list-style-type: none"> • The rectifier units should be fully redundant i.e. failure of any one unit should not prevent or limit the rig from proceeding with normal operation, and not lead to damage of the remaining rectifiers. The rectifier unit should have the following features. <ol style="list-style-type: none"> 1. Appropriately sized drawer type air circuit breaker for both the AC and DC end of the rectifier. It should feature manually chargeable, electric closing, with solid state trip unit, UV release and necessary auxiliary contacts. 2. 6-pulse air-cooled bridge rectifier and inverter with appropriate line filtering. The rectifier and inverter unit should be able to achieve a true power factor (displacement and distortion power factor combined) greater the 0.92. 3. High Speed semiconductor fuses with indicator switches. 4. Heat sink-mounted temperature RTDs with temperature readouts. 5. Communication module capable of communicating with the integrated drilling control system. 6. AC & DC voltmeters and ammeters. 7. Digital Multifunction Panel Meter. 8. Emergency Stop Circuit. 9. Surge suppressor 10. The drive should have a fast swappable design allowing for quick swapping of the drive in the case of failure or when maintenance is required similar to ABB's multidrive system. 		
Variable Speed Drive	<ul style="list-style-type: none"> • The variable speed drive will be an air-cooled type with sufficient power output to drive: <ol style="list-style-type: none"> 1. Two 1000Hp (or one 2000hp) inverter duty squirrel cage induction motor or an equivalent brushless motor capable of regenerative braking for the draw works. 2. One 1000Hp inverter duty squirrel cage induction motor for the rotary table. 3. Two 1000Hp (or one 2000hp) inverter duty squirrel cage induction motor for each mud pump (three mud pumps in total). 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>4. One 1000Hp inverter duty squirrel cage induction motor for the top drive or an equivalent brushless motor capable of regenerative braking (if the top drive systems are integrated with the power control room).</p> <p>5. One spare panel fully functional panel rated for the highest-powered drive, and assignable via assignment cabinet.</p> <ul style="list-style-type: none"> • All necessary protection like over temperature, over current etc. should also be incorporated in the respective panels. • The speed drive should be a bi-directional drive i.e. converts dc to variable speed alternating current, converts alternating current from the motor to direct current to be returned to the dc bus. • Each variable speed drive panel should have a minimum of the following features: <ol style="list-style-type: none"> 1. Appropriately sized drawer type air circuit breaker with adjustable trip current, manually charged, electrically closed, and electrically tripped. 2. True RMS digital voltmeter and ammeter for input and output 3. Power Consumption/Returned 4. Variable Speed Drive RUNNING, STANDBY, OFF, FAULT indicator lamps. 5. Minimum 2000 HP inverter. 6. Local/Remote (driller controlled) Speed and Torque controller with LCD display on variable speed drive panel for emergency control in the case of failure of the integrated drilling control system. 7. DC bus bar power status indicator lamp. 8. Semi-conductor fuses. 9. Common mode DC link filters. 10. Communication module to forward critical parameters like torque, speed, drive status, breaker status, input volts, input current, output volts, and output current to the integrated drilling control system and rectifier respectively. 11. Emergency stop function. 12. Rectifier for regenerative braking. 13. Blower for variable speed drive and rectifier unit. 14. Variable speed drive status i.e., motoring, braking. 15. The drive should have a fast swappable design allowing for quick swapping of the drive in the case of failure or when 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Variable Speed Drive Assignment	<p style="text-align: center;">maintenance is required similar to ABB's multidrive system.</p> <ul style="list-style-type: none"> • The variable speed drive assignment cabinet will consist of several 3 phase contactors to assign different variable speed drive units to prime movers on the rig namely, draw works motors, mud pump motors, top drive motor (if integrated with power control room), and rotary table motor. Each drive should be assignable to at least two prime movers on the rig. The assignment panel will have the following feature: <ol style="list-style-type: none"> 1. Indication of the current assignment and current contactors in use on the panel 2. Appropriate shielding to ensure bus bars are not exposed and contactors can be replaced without shutting down drilling operations. 3. Communication between the assignment contactors and integrated drilling control system to notify the system on the status of each contactor. 4. Each motors contactor should feature over current protection, paralleling of motors (if necessary) should be done in the assignment cabinet. 5. Local/Remote (Driller controlled) assignment controller with a LCD display for emergency engagement of contractors as per the assignment profiles, for emergency control in the case of failure of the integrated drilling control system. 6. AC (alternating current) coils for actuation of each contactor. • The drive should have a fast swappable design allowing for quick swapping of the drive in the case of failure or when maintenance is required similar to ABB's multidrive system 		
Brake Chopper	<ul style="list-style-type: none"> • One or more brake choppers shall be housed in the power control room for control of the eddy current brake's dynamic braking force. The brake chopper shall feature: <ol style="list-style-type: none"> 1. Appropriately sized drawer type air circuit breaker with adjustable trip current, manually charged, electrically closed, and electrically tripped. 2. Oversized DC Brake Chopper with suitably rated continuous current output to match the full dynamic braking of the draw-works with sufficient overload capacity. 3. Semiconductor fuses with indicators 4. Water flowrate good indicator. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ol style="list-style-type: none"> 5. True RMS digital voltmeter and ammeter for input and output. 6. Fault indicator for over temperature and over-current conditions in the eddy current brake. 7. DC Bus ok indicator lamp. <ul style="list-style-type: none"> • The drive should have a fast swappable design allowing for quick swapping of the drive in the case of failure or when maintenance is required similar to ABB's multidrive system 		
Brake Resistor Banks	<ul style="list-style-type: none"> • A brake resistor bank shall be provided for regulation of the dc bus bar. This shall be done in the case that the draw works or rotary table variable speed drive has insufficient load on the rig for regenerative braking system to sink the brake current. The resistor bank shall feature: <ol style="list-style-type: none"> 1. An appropriately sized, air-cooled resistor breaker 2. Cooling fans 3. Thermal limit switch 4. Thermal limit indicator (illuminates when thermal limiting temperature has been exceeded) 5. DC Input voltage and current 6. True RMS output voltage and current 7. Digital power dissipation gauge • Communication between the brake resistor bank and integrated drilling control system notify the system about the power being dissipated in the brake resistors, thermal limit, cooling fans engaged etc. 		
Motor Control Centre and Auxiliary Power Cabinet	<p>The motor control centre and auxiliary power cabinet shall have the following features.</p> <ol style="list-style-type: none"> 1. All motors shall be started from motor control centre located inside the power control. IEC ATEX approved start/stop buttons will be located near the motors and will only function when remote operation has been selected on the respective MCC starter in the power control room. 2. The motor control cabinet and auxiliary power cabinet should function on a bus voltage of 415V. 3. The bus bar material should be tinned copper of an adequate size to accommodate the power requirements of all starters at fully load. 4. All starters above 45 kW shall feature a soft start system. 5. The motor control centre should use a drawer style system with each starter encapsulated in its own drawer. The drawer will enclose all the control, 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>measurement, and protection system needed to operate the motors. Each drawer should be fully with drawable from the bus bar, and swappable with equivalently sized drawers. Each drawer should have a minimum of the following features.</p> <ol style="list-style-type: none"> a) Thermal over current protection b) Phase failure c) Over voltage protection d) Under voltage protection e) Residual current device and trip function with indicator on such fault f) Digital voltmeter g) Digital ammeter h) Local/remote selector i) Contactor j) Handle for ON/OFF/RACK-OUT/RACK-IN function k) Lock-out/Tag out compliant system l) Communication module to forward operation parameter and status to the integrated drilling control system. m) Interlocks with other rig equipment were applicable. n) Labels for the equipment it operates. o) ON/OFF lamps or indicators <p>6. The auxiliary power cabinet should use a drawer style system with each drawer housing a moulded case circuit breaker in its own drawer. The system should feature:</p> <ol style="list-style-type: none"> a) Handle for ON/OFF/RACK-OUT/RACK-IN function b) Digital voltmeter c) Digital ammeter d) Moulded circuit breaker e) Label for the equipment it supports ie cementing power, rig office power etc f) Residual current device and trip function with indicator on such fault g) ON/OFF lamps or indicators h) Lock-out/Tag out compliant system <p>7. Charge pumps should have remote controls in the drillers console.</p> <p>8. A drawer containing a complete spare starter and breaker (rack out-rack in swappable) for each equipment size class shall be availed.</p> <p>9. All breakers/ MCCBs used in the MCC shall be suitable for IT system as per IEC 947</p>		

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	<p>10. All the power cable terminations are to be done with proper colour coded terminal blocks phase 1- Red, phase-2: yellow, phase -3: Blue.</p> <p>All components fitted in the starter panels should be preferably of a single make.</p>		
<p>Integrated Drilling Control System</p>	<p>An integrated drilling control system to coordinate systems in the power control room in accordance with the requests made by the driller through the equipment in the driller's console.</p> <p>Features of the integrated rig control system shall include but are not limited to:</p> <ol style="list-style-type: none"> 1. The system via profibus or similar communication system, shall forward and control the rig equipment as per the inputs provided by the driller ie torque, speed, desired vfd assignment, generator selection 2. The system via profibus or similar communication system, shall provide information and feedback to the driller about the status of all equipment controlled by the power control room ie vfd status, vfd parameters, rectifier status, rectifier parameters, brake chopper status, brake chopper parameter, motor power consumption, generator power consumption, motor torque, pump speed etc. 3. The system via profibus or similar communication system, shall collect data from the various systems in the power control room about the status of the rig electricals. These systems shall include but are not limited to generator controls, rectifiers, variable speed drives, variable speed drive assignment system, motor control cabinet, transformers, ground fault detection system, lightening protection system, drillers console inputs, power limit etc 4. The system shall log and store all the data forwarded by all the sensors and control cabinets it's communicating with every thirty seconds for up to two years. The system should include digital graphing of all stored parameters up to two years. The data should be human readable and not arbitrary (process and converted to appropriate scientific units not raw data) 5. The system should have an uninterruptable power supply system to ensure logging even during power 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>failure, with appropriate sensing and indication in the logs for power failures.</p> <p>6. The system shall use only solid-state memory solutions including those for long term memory.</p> <p>7. The system shall coordinate assignment of VFD modules in the power control room to the various equipment on the rig based on the driller's preferred assignment profile.</p> <p>8. The control system shall feature a convenient, user friendly, human-machine-interface (HMI) display (not less than a17 inch touch sensitive display), to relay information about all the cabinets in the power control room and on-going drilling operation as specified by the rig instrumentation system. The HMI display at a minimum shall display the following details preferably via a categorized multiscreen user interface.</p> <p>a) Rig single line diagram displaying the status of all equipment i.e. whether the equipment is ON or OFF</p> <p>b) General system indicators</p> <p>System Communication Status System frequency, AC Bus Voltage Generator Status (For each Generator) Ground Fault Status (600 VAC/ 415 VAC/ DC/ VFD) Power Limit Driller Console Assignment Generator voltage, current, running hours. Rectifier/ converter panel status i.e., rectifying, regenerating Rectifier parameters i.e., phase currents, dc current, power factor, true power factor.</p> <p>c) Rectifier (To be repeated for each Rectifier)</p> <p>Rectifier status (OFF, Rectifying, Regenerating/Inverting, Emergency Stop) Rectifier Breaker Status Rectifier current and voltage on the AC side Rectifier current and voltage on the DC side Rectifier Temperature Rectifier True Power Factor Rectifier Faults</p> <p>d) VFD Indicators (To be repeated for each VFD panel)</p> <p>VFD status ie inverting, regenerative braking, dynamic braking DC bus volts Inverter output current Inverter temperature Motor voltage</p>		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>Motor current Motor speed Motor torque Motor power Motor RTD temperature e) Mud Pump Indicators (To be repeated for each Pump) Mud pump equipment status i.e. blowers, liner washers, lube motor, charge pump etc. Mud pump current for each motor f) Draw Works and Rotary Table Indicators (Repeated for Each Motor) DWA/DWB/Rotary Table status Drawworks / Rotary Table Lube Pump Status DWA/DWB/Rotary Table current</p> <p>9. In case of failure of rig control system/ communications, the system should have a standby/backup control option for sustaining emergency drilling operation.</p> <p>10. The rig control system shall include two emergency stop controllers for facilitating emergency stopping of major equipment, one for stopping the main drives (VFD units) and the other for stopping the generators (for total rig power shutdown).</p> <p>11. The control system should be complete with all necessary software, hardware and remote communication capability. User license for all software, including hardware keys (if needed) shall be provided to KenGen PLC (Drilling and Logistics Department particularly). Such Licenses should not have expiration dates.</p> <p>12. The rig control system shall be field proven, running successfully for a minimum of 3 (three) years on other land drilling rigs. The bidder shall submit details of previous deployments of similar rig control systems, and completion certificates awarded by respective clients. The rig control system shall encompass the drives for main drilling motors, generators, Driller's cabin, and display/ indication of various parameters, faults, status, fault storage and history/data trends of these equipment.</p> <p>13. A power limit controller is to be provided to monitor the kVA, kW, kVAR, and current of each of the generator units. In the case the parameter exceeds</p>		

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	<p>the limit of each generator, the system should notify the driller and electrical team for the need of an additional generator to be added to the system. The power management limit should manage power by limiting addition of extra equipment to the system that may overload the system and providing power limits to the drives to limit max speed and applicable torque. The power limiting system should not stop operation of the drive and associated equipment.</p> <p>Additionally, the bidder should consider the integration of an automatic generator starting feature for the power limit controller to facilitate automatic starting of generators to alleviate the power limit issue. The automatic generator starting feature should be properly integrated to the emergency stop controller, and feature adequate safety features to prevent injury to staff and machinery ie human sensing around the proximity of the generator, pre-start checks on the engines.</p>		
Transformers	<p>The power room should be fitted with a main step-down transformer 600/415v with rating capable of supplying all 415V loads at the rig. The Transformer should be:</p> <ul style="list-style-type: none"> • Dry Type • Rugged and capable of working in harsh environment. • Forced Air cooled. • Class H insulation 		
Ground Fault Detection and Protection	<p>The power control room shall feature a ground fault detection system consisting of the following items:</p> <ol style="list-style-type: none"> 1. 600 VAC bus bar ground fault detection consisting of ground fault detection circuit, three ground fault lamps (for each phase), AC ground fault meter. 2. DC ground fault detection (for rectifier+ DC bus/ link system) DC ground fault detection system with DC ground fault meter (+/0/-), and test function 3. Variable AC voltage ground detection circuit for AC drilling motors with ground fault lamps and meters 4. 415 VAC (AC auxiliary bus) ground fault detection consisting of ground fault detection circuit, three ground fault lamps (for each phase), and neutral ground resistor (NGR) to limit leakage current. 5. Ground fault alarms 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin																										
	<p>The 415V bus should be an IT earthing system with maximum ground fault current limited to 750 mA using suitable NGR. All breakers, MCCB shall be suitable for IT system as per IEC 947-2. Core balance current transformer type earth leakage relays are to be used in the output of the main supply transformer. Individual earth leakage devices shall be provided in each starter/feeder panel.</p>																												
Lighting	<p>The entire ground area of the rig defined by the rig's site plan should be exposed to a lighting level no less than 350 lux at ground level at night. Areas that require higher than this are detailed below.</p> <table border="1"> <thead> <tr> <th>Area</th> <th>Minimum Light Intensity</th> </tr> </thead> <tbody> <tr> <td>Rig Floor</td> <td>3000 Lux</td> </tr> <tr> <td>Rig Floor Emergency Lights</td> <td>1000 Lux</td> </tr> <tr> <td>Mud Tank Area</td> <td>2000 Lux</td> </tr> <tr> <td>Generator Housing</td> <td>2000 Lux</td> </tr> <tr> <td>Power Control Room</td> <td>1000 Lux</td> </tr> <tr> <td>Aerated Drilling Package</td> <td>500 Lux</td> </tr> <tr> <td>Driller's console</td> <td>1000 Lux</td> </tr> <tr> <td>Dog huts</td> <td>750 Lux</td> </tr> <tr> <td>Rig offices interiors</td> <td>500 Lux</td> </tr> <tr> <td>BOP area</td> <td>2000 Lux</td> </tr> <tr> <td>Monkey board area</td> <td>3000 Lux</td> </tr> <tr> <td>Rig Labs</td> <td>2000 Lux</td> </tr> </tbody> </table> <p>The quantity and power of lighting fixtures will be provided to exceed the levels detailed above. Additional lighting should be provided for all equipment working under the mud tank work platform to ensure light level meet specification detailed above ie hoopers, sand pump, fresh water pumps etc</p> <p>Heavy duty flameproof and weatherproof LED light fittings (in hazardous areas) and normal weatherproof light fittings shall be used for illumination. All hazardous area light will be IEC ATEX certified with appropriate zoning and protection. All weatherproof light fixture should have and ingress protection rating no less than IP56.</p> <p>All lighting circuits shall have RCBO/ RCD for current leakage sensitivity of 300 mA. Vertical discriminating type RCDs shall be used wherever required.</p> <p>The lighting system will have an automatic and manual operation mode. The automatic operation mode will utilize a photocell and fog/visibility sensor to determine the appropriate times to turn on the rig lighting. The manual operation mode will offload</p>	Area	Minimum Light Intensity	Rig Floor	3000 Lux	Rig Floor Emergency Lights	1000 Lux	Mud Tank Area	2000 Lux	Generator Housing	2000 Lux	Power Control Room	1000 Lux	Aerated Drilling Package	500 Lux	Driller's console	1000 Lux	Dog huts	750 Lux	Rig offices interiors	500 Lux	BOP area	2000 Lux	Monkey board area	3000 Lux	Rig Labs	2000 Lux		
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	<p>lighting control to location specific lighting control panels spread across the rig's work area.</p> <p>Each lighting fixture shall have the following features:</p> <ol style="list-style-type: none"> 1. Weatherproof plug and receptacle disconnect to allow safe and easy removal of fitting for service or movement to another location day or night without interruption of any power or illumination. Disconnects are to be provided at appropriate mast breaks, sub-separation etc. for easy rig up/ rig down of lighting system. 2. All hazardous areas lighting fixture should be appropriately classified plug socket disconnects. 3. Shall have safety cables/ chains to secure in mast and substructure. 4. Complete with thermal and shock resistant glass lens, lamps, ballasts, ignitors, power factor improvement capacitor, guards, safety chains/ cables etc 5. All lighting fixtures should have appropriate mounting points using mechanical fasteners. 6. All the light fixtures shall include the necessary control gears needed for proper operation of the system. 7. Aviation obstruction daytime white flasher unit (one no.) shall be fixed atop the mast (near crown block). This unit shall be complete with controller, suitable cable, mounting hardware, photoelectric cell etc. <p>Day time: 20,000 Cd, flasher type with 40 flashes per minute (White) Nighttime: 2,000 Cd, fixed (white) with automatic change over from day to night</p> <ol style="list-style-type: none"> 8. Red aviation LED warning lamps: LED lamps, continuous glow, to be fixed near the white flasher unit. 		
Cables	<p>All cable used on the power control room should conform to the following constructions requirement.</p> <ol style="list-style-type: none"> 1) All cables should be compliant to IEC or BS standards. 2) All cables should be insulated with EPR (Ethylene Propylene rubber) or an equivalent UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard. 3) All cables utilising sheaths should utilities CSP (Chlorosulphonated 		

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	<p>polyethylene) or an UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard</p> <ol style="list-style-type: none"> 4) Cables to be used in variable speed drive applications should be shielded appropriately to prevent emission of electromagnet interference. All variable speed drive cables should be emc and emi compliant to IEC/EN standards, and feature construction as detailed above. 5) Control cables should be shielded appropriately to prevent introduction of noise that could compromise communication between equipment. 6) All cables be wired with a consistent colouring scheme. 7) All cables should be featuring appropriate voltage rating for their size class 8) Multicore cable should have separator to ease maintenance and repair of the cables. 9) All cables should be UV resistant, Ozone resistant, Oil Resistant, Flame Retardant to IEC/EN standard. <p>All cables should be appropriately labelled with strict coherence to the manufacturer's manual and schematics.</p>		
Rig Cable Management	<ul style="list-style-type: none"> • A cable management system shall be provided to deliver cables from the power control room plug board to their respective equipment on the mud tanks, rig offices, BOP accumulator, rig floor, aerated drilling package etc. No cable will be allowed to be laid on the ground or outside of a cable tray / cable racks. The cable trays shall be elevated to a reasonable height to allow movement beneath. The cable management system should allow all cables to be mobilized with the cable management system as one package after commissioning the rig. Removal and separation of cable should only be necessary in the case of maintenance or repair of the cables. The cable management system features an appropriate drain for rain and water, and adequate ingress protection to limit penetration of water into the cable trays. All cable trays should have means to access the cables at any time during rig operation for the entire length of the tray 		
Rig Earthing System	<ul style="list-style-type: none"> • A complete rig earthing system shall be supplied, consisting of tinned solid copper earth electrodes, clamps and suitable size tinned copper straps, or copper earthing cables to connect all generators, motors, 		

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	<p>junction boxes, light fittings, mud tanks, mud pumps, sub structure, water/ fuel tanks, houses, lighting poles and the power control room to earth. Earth electrodes shall be of two sizes, 1200 mm and 2000 mm length, each of 50 mm outer diameter.</p> <ul style="list-style-type: none"> • Frames of all electrical equipment including motors, alternators, junction boxes, light fittings, push button stations, light fitting mounting poles etc. shall be connected to earth using two separate and distinct suitably sized earth conductors, which in turn shall be connected to the main earth grid. The earthing system shall be compliant with IEC 60364. • The earthing scheme along with the electrode layout should be submitted along with the bid 		
Documentation	<ul style="list-style-type: none"> • All documentation should be in English (UK or US) • All cables, motors, circuit breakers, connector, terminal block plugs, fuses, relays, contactor, overload, transformers, power supplies controllers, cabinets, displays, drives, rectifiers, bus bars, and equipment involved in the functions of the power control room should be labelled. Labeling should be weatherproof, oil proof, abrasion resistant, and have a service life of over 15 years. Cables particularly should be labelled in a fashion that allows for tracing of the equipment the cable terminates to at both end of multiple ends, and a glossary of the cable labelling system should be provided. • Documentation to be provided with the power control room should include. <ol style="list-style-type: none"> 1. Single line diagram detailing all the power control room equipment and how they are connected. 2. Wiring glossary detailing how the cable labelling system functions and traces all cables, and label and functions of the cables. 3. Detailed schematics of all rigs electrical systems appropriately labelled and referenced. 4. Installation and Operation manual 5. Maintenance manual 6. Parts Manual 7. Preventive maintenance schedules 8. IEC ATEX Certificates of all hazardous environment rated equipment plug, connector, start/stop button, lighting fixtures, switches, junction boxes etc 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	9. Certificate of conformity (EU and Kenya) 10. Technical data sheet for all equipment used to fabricate the power control room. 11. List of all parts and assemblies 12. Bill of quantities referencing all labels and detailing the make, manufacturer, and model of the equipment used. • Soft and hard copies of all the documents detailed above in triplicate		
Lightening, Protection System (LPS)	1. The rig shall be fitted with an LPS to meet at least class II protection for all the rig environments. 2. The Main Power system shall be protected using combined SPD class I+II on all main power buses and subbranches. 3. All critical electronic components on the power system such as PLC, Displays, HMIs, communication cables etc. shall be protected by SPD class III. 4. The LPS system earthing shall be separate from the main power system earthing. 5. The LPS earthing of the whole rig shall be bonded. 6. The flammable diesel tanks area shall free standing air termination points on either side to protect against lightning. The separation distance between the air termination point and the diesel tanks must meet class I protection. 7. Mobility and allowance for frequent dismantling, transportation and assembly shall be incorporated in the design of the LPS.		
Fire Fighting System	1. Water Firefighting system a) One tank dedicated for firefighting water fed from a gated T-off the main WS line. Tank should have level sensor that alarms when water level goes below 80%. Tank to be filtered on in and output to pump to prevent debris on the pump. b) Containerized 3-in-1 PEDJ pump with the following minimum specs;(415V, 50Hz) i) Head 150m ii) Pressure 10 bar iii) Banded 1000-liter fuel tank and connected to main fuel tanks. iv) Automatic changeover operation of electric and diesel pumps as per NFPA 20 c) Distributed Hydrant system complete with Hose reels and fire cabinets.		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> i) Universal quick couple 2.5-inch double ended brass hydrant. ii) Distributed points: fuel tanks, gensets, rig floor, compressor area, barracks iii) Every hydrant point to have hose reel cabinet with two 50m hoses and reels. iv) Each hose reel to have quick couplers compatible with the hydrant valves. v) The fire line shall be on surface and self-standing and supported to enable operation at the required pressures and still allow for mobile movement of the rig from site to site. vi) The fire line shall be SS304 material and painted red and appropriately labelled for firefighting. <p>d) Firefighting cylinders</p> <ul style="list-style-type: none"> i) CO₂ and ABC powder fire extinguishers in well installed mounting racks positioned in every barrack, genset room, rig floor, VFD room, driller console, compressor area, hydraulic, mud Engineer house, Power room. ii) 9 Kg cylinder capacity with complete labelling <p>2. Electrical and control cabinets</p> <ul style="list-style-type: none"> i) Every electrical cabinet shall have a thermally self-activated fire suppression system installed such as Stat-X™ the system shall be designed and rated to fit with the heat system of every cabinet. ii) In addition, all the generator rooms shall be fitted with the above fire suppression system and sized to cover the whole generator room area. This may require severally placed devices. iii) The actuation of any device shall sound an audiovisual alarm that must be relayed to the main fire control system showing location of the fire located at the driller console and rig supervisor office. <p>3. Alarming</p> <ul style="list-style-type: none"> i) All fire systems to activate a central rig Alarm system for the whole rig whose sound should be above all running equipment at the rig to warn of occurrence of fire. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>ii) All smoke detectors and activated firefighting systems to be displayed at the driller console and rig supervisor office where every alarm is zoned.</p> <p>4. Smoke and fire detectors to be installed in all areas as enumerated below:</p> <p>i) every barrack, genset room, rig floor, VFD room, driller console, compressor area, hydraulic, mud Engineer house, Power room</p> <p>ii) All detectors to be integrated to the centralized alarming system as enumerated in 3 above.</p>		
Rig fuel system	<ul style="list-style-type: none"> • Three (3) cylindrical fuel tanks with total storage capacity of 210m³ each mounted on oilfield skid complete with transfer pumps, filter system, fuel dispensing and metering system. • Each tank shall be fitted with bulk fuel filtration system. The filter package will be three stage filter type with pre-filter to remove dirt, an electric element to form dissolved water into droplets and separator element to make the water droplets drop out of the fuel. Pressure gauges to be provided. • One tank to have a support frame for 10m³ day tank elevated to serve the aerated drilling equipment. • Each tank shall have analogue (graduated scale) and digital level indicators, electrical safety device, exterior and interior ladder, man way ladder runs, vent line, fill and drain lines with fuel flowmeter. • Each of fuel tank shall be mounted on an oilfield skid with fuel spillage containment system all round. • Diesel hoses shall be fitted with leak-proof fittings and drip pans. • All necessary piping and valves shall be provided. • An automatic shut-off system shall be installed to prevent overflow. • Fuel dispensing system similar to fuel (gas) station shall be provided having a filter system, retractable hose with handle, auto shut-off, flowmeter (digital and analogue) and cumulative total per day. The unit will be used to fill vehicles and equipment. • Tank calibration chart in centimeter scale shall be provided. • Firefighting and fire suppression system to be provided. • Spare parts and tools 		

RIG INTERCOM AND CCTV SYSTEM

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Rig communication system	<ul style="list-style-type: none">• The system shall consist of a minimum of 15-station, intrinsically safe, intercom system with handsets located in company and third-Party contractor offices, rig floor doghouse, driller's console, choke control panel, BOP closing unit, PCR's, shaker area, mud mixing area, rig pump area, mud logging unit, mud engineer lab, and hands-free units at monkey board and at cementing unit. The cementing unit will be fitted with sound-proofing headset.• The system should consist of handsets with a 'push-to-talk' PA address after which communication is limited to those picking up handsets. The PA system should be audible all over the rig, including pipe rack area.• Weatherproof metallic enclosure at Driller's position, shakers, and choke manifold.		
CCTV System	<ul style="list-style-type: none">• CCTV monitoring system including cameras, display and control system installed in the driller's cabin. Location racking board, drawworks, mud pumps, shale shaker, mud tanks, aerated equipment, rig barracks and any other location suitable for monitoring the extent of the rig layout.• Security CCTV to be installed in the rig manager's office to monitor the whole of the drill site including cameras, display and control system.• Capability to store data for a period of at least one (1) month.		

SECTION 9: WIRELINE UNIT

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Wireline unit	<ul style="list-style-type: none"> • NOV ASEP Trailer mounted containerized wireline unit with hydraulic operated drums. The hydraulic unit should be powered by CAT, diesel engine. • Two axles trailer with 2" king pin. Tyres 315/80R22.5 • Fully self-contained unit with an integral power pack and generator for cased and open hole logging. • The operator's cabin shall have data acquisition equipment, an engineer's desk, slickline workbench area for tool redress and cable working bench. • Power packs for heavy duty operations and to maximize logging efficiency. • Capable of running caliper tools, cement bond log tools, camera, casing collar locator tool and on-board display of real time data. • Dual-drum configuration and high strength heat resistant cable to run the electronic tools. • The unit shall be supplied complete with line tension display, line speed display and depth display. Touch screen 12" panels. • Data acquisition system to be provided. • USB enable for data transfer. • Laptop installed with windows 11 and office 2019/2021 compatible with the data acquisition system.. • Air-conditioned spacious cabin. • Safety shutdown function on tension. • Imperial and metric display selection • Wire line size- 2.7mm (0.108"). Six (6) spare rolls to be supplied together. • Spare part, tools and wrenches for maintenance and servicing to be provided. 		
Lubricator	<ul style="list-style-type: none"> • Lubricator unit 3" x 18 feet 3000 psi, H2S resistant for geothermal applications composed by: <ul style="list-style-type: none"> • wellhead adapters flanged 3-1/8" API 3M with top quick union connection- 2pcs. • Three (3") 3M wire line manual BOP with quick union connection • 3" x 6 ft joints (3" ID: 4 3/4"- 4x2 quick unions). • Bleed-off sub with 1/2" NPT port. • hydraulic slick line stuffing box (w/ pack-off element and grease head) and sheave for 0.108" slick line, complete with manual hydraulic pump. • Bottom sheaves. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Gin pole for the safe lifting of the lubricator, to be anchored at the final or production wellhead, complete of all needed accessories. • Removable platform with the floor at approx. the level of the top flange of 3-1/8" – 11" adapter, to be used by the logging crew for slick line services. Complete with ladder, railings, and all needed accessories. • Handling tools for rig-up and rig-down, accessories and spare parts for 2-year operation. • Specifications must conform to geothermal HT service in the presence of H2S. • Drill pipe pup joint 5" NC-50, G-105, 19.5lbf pin connection on one end and flanged 3-1/8" API 3M at the other end. Total length of approx. 0.8 m 		
Tools	<ul style="list-style-type: none"> • Gyro tool- 2sets with carrying case tools and accessories. • Electronic multishot deviation survey tool complete with software- 2 sets. • Calipers complete with software for cement calculation and interpretation- 2 sets • Casing collar locator- 2 sets • Kuster K10 PTS tool with flowmeter with laptop and software- 2 set • Stuck point locator-2 set • Cement bond log tool- 2 set 		

SECTION 10: CASING HANDLING TOOLS AND ACCESSORIES

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Casing Running Tool (CRT)	<ul style="list-style-type: none"> • Quantity: One (1) set • Casing running tool, National Oilwell Varco, Baker Hughes or Tesco make, for lowering casing of sizes 20" to 4½" by connecting to the Top Drive System. • The casing running tool (CRT) should be able to hoist, lower, spin out, fill up and make up the casing connection. It should have the ability to fill up and rotate the casing string while circulating and cementing. • Suited with a mud saver valve to stop fluid flow during casing running operations. • The equipment should have a CRT Monitor, hoisting tools, torque tools, hydraulic controls, and hydraulic power unit. • CRT shall be manufactured to meet the requirements of API Spec 8C. • Shall be suited with a low indentation, contamination free, nonslip gripping option for casing running tools that conforms to API 5CRA. • Suited with a mechanical activation via the top drive control unit, allowing the CRT to be operated by the driller. • Designed with a fall arrest/protection system to secure the casing running tool to the top drive, in case of accidental back-off. • Set of tools and spares 		
Casing power tongs	<ul style="list-style-type: none"> • Two (2) set of casing power tong for running casings from 30" to 4" complete with accessories. • Torque gauge to be both in metric and US scale. • Digital torque and analogue gauge with data retrieval • Tong dies and jaws of different sizes shall be provided. 		
Casing elevators and slips	<ul style="list-style-type: none"> • Single joint casing elevators complete with safety pin for 30", 20", 13-3/8", 9-5/8", and 7" BTC rated at least 6 tons. • Side door elevators with safety latch for the casing sizes: 20"- 200 t, 13-3/8"- 350 t, 9-5/8" - 350 t, and 7" - 200 t. • Clamp on protectors for 20", 13-3/8", 9-5/8", and 7". • Quick-connect thread protectors for 20", 13-3/8", 9-5/8" and 7" casing. • Casing collar clamps for 20", 13-3/8", 9-5/8" and 7". 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Manual slips suitable for the rotary table: 30", 20" 13-3/8" 9-5/8" and 7" casing. • Casing spiders and insert bowl for 20" and 30" casing. • Casing spiders and insert bowl for 13-3/8", 9-5/8" and 7". • BTC stabbing guides for casing size: 20", 13-3/8", 9-5/8", and 7" 		
Casing spider and accessories	<ul style="list-style-type: none"> • Casing spider for 20", 13-3/8", 9-5/8" and 7". • Air connections and accessories • Rotary table adaptors and anchoring. 		

SECTION 11: AERATED DRILLING EQUIPMENT AND TOOLS

The following MINIMUM Technical Specifications of the unit apply; Provide Technical datasheet and/or brochures that clearly demonstrates technical requirement highlighted. Data Sheets provided should not conflict with equipment being offered for consideration. The aerated drilling system to include.

- Engine driven primary air compressors with maximum rated working pressure of 35bar (500psi).
- Engine driven booster compressor rated to about 175 bars.
- Air dryer
- Digital Air flowmeters on equipment, common air flow line and main airflow line to standpipe.
- Delivery pipe Hammer union FIG1502
- Variable electrical drive drilling foam injection pumps with storage tank.
- Back up pneumatic drilling foam injection pumps
- Variable drive High pressure Triplex fluid pump with 3 ½ pistons
- Pressure control and diversions skid with digital and analogue gauges.
- Flexible connection hammer union FIG 1502 to standpipes.
- Optional variable electric driven air compressors and booster compressors will be considered.
- All aerated equipment to be skid mounted with oil spill containment with oil traps and water drainage ports.

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Primary compressors	<ul style="list-style-type: none"> • Quantity: 5 primary compressor sets. • Diesel engine (Caterpillar) driven screw type. Preferred Sullair. • Air processing unit • Each compressor shall have a digital flowmeter. • PLC auto control. Preferably siemens PLC • Oilfield skid mounted. Top lifting provision to be availed. • Super silent with low noise levels • Rated output: 35m³/min minimum • Rated discharge pressure: 350-500 PSI • Cooling: pressurized compressor fluid • Shall have after cooler. • Electrical system: 24 Volts • Complete instrument panel: to monitor all pressures, temperatures, fault indicators and protection shutdown controls. • Engine power: 540 HP • Cylinders: 6 • Cycles: 4 • Displacement: 15 L • Engine speed: Idle 1500 rpm, rated 1800 rpm • Compressor and engine enclosure shall be soundproof. • Lubricants grades recommended by the manufacturer shall be locally available. • The compressor and engine shall have a local dealer. • Accessories: Discharge hoses with FIG 602 connection, suitably rated NRV, special tools, 2 years spare parts as recommended by manufacturer and a diagnostic kit. • Detailed maintenance manuals in English. Digital copies 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Compressed air manifold and diversion unit	<ul style="list-style-type: none"> • Detailed parts manuals in English. Digital copies • Discharge check valves: 4 MPa (600Psi), 2" complete with FIG 602 hammer unions. 1 x 5 check valve assemblies. • Tees: 4 MPa (600psi), 3"-2"-3" complete with FIG 602 hammer unions. 1 x 5 Tee assemblies. • Safety valves complete with tee and FIG602 hammer unions. • Reducing union: 4 MPa, 3" - 2", complete with hammer unions. • Ball valve: 4 MPa, 2" complete with fig 602 hammer unions • Tees: 4 MPa, 3"-3"-3" complete with fig 602 hammer unions. 1 x 4 Tee assemblies. • Ball valves: 4 MPa, 3" complete with fig 602 hammer unions. 1 x 4 ball valve assemblies. • Check valve: 4 MPa, 3" complete with fig 602 hammer unions. • High pressure ball valve check valve combination skid complete with fig 602 hammer unions: 21 MPa, 3". 1 x 2 assemblies. • Check valve: 21 MPa, 2". Complete with fig 602 hammer unions. 1 x 3 check valve assemblies. • Tee: 21 MPa, 3"-2"-3" complete with fig 602 hammer unions. 1 x 4 Tee assemblies. • Safety valves complete with tee and fig 602 hammer unions. • Regulating valve: 21 MPa (3000psi), 2" complete with fig 602 hammer unions. • Venting mufflers complete with fig 602 hammer union. • Meter skids complete with fig 602 hammer unions. Shall have include flow rate, pressure and temperature meters and accessories. • Air diversion unit: complete with pneumatically actuated ball valves, check valves, control panel, air receiver tank, connection pipes, fittings, gauges, reducer, and venting mufflers. • Connection pipes complete with fig 602 hammer unions to fit 2" and 3" fittings: various lengths. • High pressure hose pipe: 35 MPa (5000psi), 2" complete with fig 602 hammer unions: 20 m length • All connections shall have safety chains and clamps (whip checks). • API certification and monogram • Detailed maintenance manuals in English • Detailed parts manuals in English 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Compressed air dryer	<ul style="list-style-type: none"> • Adsorption type • Heatless regeneration • Fully automatic PLC program control • Inlet flow rate: 120 m³/min • Inlet pressure: 2.5 MPa • Design pressure: 3.0 MPa • Inlet temperature: ≤90 °C • Ambient temperature: ≤55 °C • Inlet oil load: ≤5 ppm • Cooling type: Ambient air fan cooling • Consumption of regenerated air: 4% • Pressure loss: ≤0.04 MPa • Outlet dew point: ≤-40°C • Outlet particles: ≤1 µm • Outlet oil content: ≤1 ppm • Accessories: Suction and discharge hoses, special tools, 2 years spare parts as recommended by manufacturer • Detailed maintenance manuals in English • Detailed parts manuals in English 		
Booster compressors	<ul style="list-style-type: none"> • Quantity: 2 booster compressor sets. • Diesel engine (Caterpillar) driven. Preferred Atlas Copco hurricane booster compressor. • Compact and light • Oil lubricated • Piston type • Compression stages: 2 • Maximum suction pressure: 350-500 PSI • Maximum discharge pressure: 2175 - 3000 PSI • Maximum compression ratio: 6.2:1 • Capacity at maximum suction pressure: 3200 cfm • Operating ambient temperature: 0 - 50 °C • Complete instrument panel: to monitor all pressures, temperatures, fault indicators and protection shutdown controls. • 24 volts starting and operating system. • Automatic load/unload system • Engine speed adjustment • Double acting concentric valves • Water cooled booster block. • Pre-cooler and aftercooler • Suction scrubber tank • Enclosed in a 20 ft container DNV certified. • Engine (Caterpillar) power: 563 kW • Number of cylinders: 6 • Engine speed idle: 1200 rpm • Engine speed rated: 1800 rpm. • Lubricants grades recommended by the manufacturer shall be locally available. • The compressor and engine shall have a local dealer. 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<ul style="list-style-type: none"> • Accessories: Discharge hoses, special tools, 2 years spare parts as recommended by manufacturer and a diagnostic kit. • Detailed maintenance manuals in English • Detailed parts manuals in English 		
Detergent injection/dosing pump	<ul style="list-style-type: none"> • Quantity: 2 set complete with connection to the compressed air delivery line. • Electric variable speed mist pump • Inlet pressure: 14.5psi • Outlet pressure: 10000psi • Flow rate: 0-270L/min • Plunger diameter: 44mm • Plunger stroke length: 80mm • Mixing tank • Tank capacity: 20m³ (partitioned into two equal compartments) • Outlet diameter: 3" NPT • Mixing speed: 0~380 rpm • Pneumatic operated back up pump 		
Single acting triplex variable speed electric pump	<ul style="list-style-type: none"> • Quantity: 2 set • Electric driven National J-80 triplex liquid injection pump for injecting foaming agent, corrosion agent, stuck pipe compound and other chemical solutions into the standpipe, downstream of the booster compressor. • Complete with suitable 380V electric charge pump. • Oilfield skid with lifting top • Single acting triplex liquid injection pump • Soft start with siemens or ABB variable speed drive. • Two x 1m³ (1000liters) Stainless steel tanks with digital and manual level indicators. Enclosed with manhole. • Isolation valve for each tank can be used independently or both can be used at the same time. • Hammer FIG 1502 connections 		
Fuel Tank	<ul style="list-style-type: none"> • 45m³ elevated diesel fuel tank to supply compressors by gravity. • The tank shall have a containment to prevent any spillages. • Shall be fitted with fuel gauge, flowmeter and graduated sight glass. • Shall be elevated by at least 2m height c/w ladder and platform. This should be easily detached/rig down for fast movement. • Shall be fitted with a lockable drain port • Shall be supplied with rightly sized fuel hoses to supply all the primary compressors, air dryers and boosters. • Automated compressors refilling system and control 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Tools and accessories	<ul style="list-style-type: none"> • Discharge 2" and 3" checksums • Cross overs-FIG 6002 to FIG 1502 • Tee-FIG 602 to FIG1502 • Complete 2 set toolboxes with pneumatic wrenches. • High pressure cleaner • Barton (or equivalent) flow chart recorder • Air flow meter c/w connection accessories • Air pressure gauge • The Air flow meter and pressure gauge shall compatible with the chart recorder 		

SECTION 12: WELL CONTROL

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Displacement tank	<ul style="list-style-type: none"> • Trailer mounted displacement fluid tank skid, • Effective volume: 30m³ • Two axles with 2" king pin. Tyres 315/80R22.5 or 12R22.5. • Approximate overall dimension (mm): 7000(L) × 2400 (W) × 3000(H). • Observation platform • Measuring tank, hydraulic motor • Two high power auger agitators. Electric or hydraulic driven • Two (2) Mission centrifugal pump that can independently operate for either suction or discharge. The pumps can be used simultaneously for both suction and discharge. • The suction pump and the discharge pump may be interchanged when required by turning on or turning off the relative butterfly valves. • Engine driven Single acting triplex pump with 3½" pump liners and piston. 		

SECTION 13: CEMENTING EQUIPMENT AND TOOLS

The equipment to include.

- Twin HT-400 pump trailer mounted cement mixing and pumping.
- Cement silos and blending unit.
- Trailer mounted batch mixer.
- Bulk plant for accurate blending, weighing, measuring, and proportioning of cement and additives.
- Blended material storage
- Tractor units

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Trailer Mounted Cementing Unit	<ul style="list-style-type: none"> • One (1) trailer mounted cementing unit with double pumps and automatic density controlled mixing system. The unit to have twin HT-400/HT600 triplex plunger pumps mixing and automatic density-controlled (ADC) cement mixing system that controls both mix water and bulk cement rate with integral precision slurry mixing system for accurate and consistent slurry density. • Equipped with two HT-400 horizontal triplex single acting plunger pumps each driven by CAT C15 Euro III diesel engine and two ALLISON hydraulic transmissions. The plunger sizes shall be 3½" and 4½". Diesel Engine; Rated horsepower: About 475kW (600Hp)/2100R/MIN. Auxiliary Power unit CAT Euro III C7. • Minimum pressure raring: 3½" plunger 75MPa (10,500 psi) and 4½" plunger 45MPa (6500psi). Maximum Pressure - Up to about 105 MPa with SPS non-leakage packing system. Plunger pump overpressure protection system with engine goes back to idle automatically, transmission shifts to neutral position. • High energy recirculating jet mixing system with Off-center dry cement valve avoids bulk cement from choking. Mixing capacity: 0.3-2.3m³/min • Density range: 1.0-2.6g/cm³ with auto control precision: ±0.02 g/cm³ • Emerson densitometer F500 Non-radioactive densitometer easy to wash, safe and reliable and Endress Houser Promass Densitometer. • Mixing mission Centrifugal pump - 4"×3" • Recirculating mission Centrifugal pump - Dedicated 6"×5" • Boost mission Centrifugal Pump - Dedicated 6"×5" • Mixing Tank & Averaging Tank - 2m³ capacity fitted with an agitator with Maximum slurry mixing capacity: 2.3m³/min. • All the centrifugal pumps to be designed and manufactured based oilfield operation applicable to be used with cementing equipment. The pumps to be compact with large displacement, high lift, high efficiency, and long service life. 		

	<ul style="list-style-type: none"> • Displacement Tank - Two- 2m³(10-bbl) stainless-steel displacement tank compartments fitted with agitators. • Maximum Flow - about 4.2 m³/min (w/ two 4 ½” Fluid ends). • The computer controls 12" HMI operation screen, convenient to monitor the working data. Screen can display instantaneous displacement, accumulating displacement, density, pressure, etc. To include wireless LAN for real time job monitoring. The servicing data can be stored and downloaded. The display has English/Metric system units’ transmission functions. Preferred siemens Plc system. • Ample work area on deck; Automatic overpressure shut-down safety systems; Near dust-free mixing environment. Emergency kill system of air inlet shutoff. • A canopy for operator protection. • Cementing modelling software for design and well simulations shall be provided. • Portable wireless/ wired data acquisition system (Halliburton ADC or FLEC including all controllers) that can display real time operation complete with laptop windows 11. The pumping data should be easily retrievable by means of a USB drive. • Working ambient temperature: -20°C - 50°C • Two axles trailer. About 11240(L) x 2500(W) x 4000 (H) in size with 2" kingpin. • Tubeless tyres 315/80R22.5 or 12R22.5 • Net weight: about 28000kg 		
Trailer-Mounted Bulk Cement Carrier	<ul style="list-style-type: none"> • Quantity – 2 units pneumatic bulk trailer complete with compressor. • The bulk cement tank trailer for transport and blending. • Colour: Pantone Cool Grey 3. • Tubeless tyres 315/80R22.5 or 12R22.5 <p>Technical Parameters of the Entire Trailer</p> <ul style="list-style-type: none"> • Boundary dimensions: (length × Width× Height): about 12000mm×2500mm×3800mm. • Three axles trailer with 2" king pin. • Equipped with digital weight indicator (electronic weighing system) • Number of tanks: 1 (including two compartments of the front and the rear. Shaped to minimize residual powder in the tanks) • Capacity of tank: 30-32m³. • Unloading rate: ≥1.5t/min • Residual powder ratio: ≤0.3 % (under special conditions) <p>Technical Parameters of the Inbuilt compressor</p> <ul style="list-style-type: none"> • Enclosed air compressor with diesel Euro III CAT engine-., • Exhaust pressure: 0.8MPa • Air displacement: 7.5m³/min 		

	<ul style="list-style-type: none"> • Rated rotating speed: about 900r/min. • Maximum power: ≥38KW • Successive working time: ≤120min <p>Connections</p> <ul style="list-style-type: none"> • 4” 602 union hammer connections for fill and Discharge. • Manual butterfly valves at the manifolds. • Two 20” Manholes at the top of each compartment with tight screwing type seal and with internal ladder. <p>Standard Accessories</p> <ul style="list-style-type: none"> • Spare wheels • Toolbox • Fire extinguisher • 4 discharge hoses 4” Hoses, 5 meter long with Fig 602 hammer unions fixed with heavy-duty double bolt clamps. • Mud guards, • Two Catwalks with rail and Ladder etc. • Side reflective markers 		
Trailer-Mounted Batch Mixer	<ul style="list-style-type: none"> • Quantity: 1 (one) Continuous 100 batch mixing trailer. Heavy duty trailer with extra jack at the end for weight requirement during mixing. • Color: Pantone Cool Grey 3 • Two 50bbl batch tanks each with four auger type agitators with speeds up to 135rpm. The mixing tanks to be eight feet (8ft. [2.44m]) in diameter, with a cone or sloping bottom and rounded top. • Euro III CAT C7 Diesel Engine mounted on the trailer goose neck: Rated 350 BHP @2100. • Provision for personnel to safely stand and work on top of the flat top 50bbl batch tanks. • Hydraulic Power Unit with four hydraulic pumps (Eaton or Rexroth hydraulic). • Four centrifugal 6x5x11 pumps for boosting and recirculation. Closed loop hydraulic operated recirculation and booster pump with fixed displacement Piston Hydraulic motors. Pumps mounted on the trailer, between the two batch tanks for mixing, circulating, and discharge purposes. These pumps can be run at various speeds and can run independently of each other. • Micro motion non-radioactive densometer F500 of latest design. • The unit to have discharge and suction manifolds with valves situated in such a way that either mixing tank can operate independently from the other. The discharge manifold should allow recirculation of fluids in either batch tank. Both primary and secondary manifolding to be provided for bulk cement delivery to each tank. • Control panel to be located on an elevated platform between the two mixing tanks. It should allow the operator a clear view into each tank and easy access to all valves, hydraulic controls, and the diesel engine controls. All remote controls to be grouped 		

	<p>into a stainless-steel control panel complete with cover. The functions in the control panel to have:</p> <ul style="list-style-type: none"> • Main power on/Off • Lighting On/Off • Emergency Stop • Power Unit Engine Start/Stop • Power Unit Engine Throttle • Power Unit RPM • Power Unit Engine Data Display • Centrifugal Pump 1 & 2 Control • Agitator Controls • Remote control valves • Centrifugal Pump 1& 2 Hydraulic System Pressure • Agitator 1 & 2 Hydraulic System Pressure • Centrifugal Pump 1 & 2 Discharge Pressure • Trailer Specifications: Load Rating (Transport) 22000kg. Two axles • Overall dimensions: Length 11.6m, Width 2.5m and Height 4.2m. Wheelbase: 9.7m centerline bogie to kingpin • Kingpin: 2" SAE Standard • Kingpin Setting: 15in (0.38m) • Landing Gear: 50,000lbs (22,680kg) Capacity • Tubeless tyres 315/80R22.5 or 12R22.5. 		
Cement Storage Silos	<ul style="list-style-type: none"> • Quantity – 4 silos • Bulk Cement Vertical Storage Silo. Approx dia 3000mm and height 6300mm. • ASME standard • Each fitted with a load cell and adigital weight indicator (electronic weighing system). Calibration kit to be provided. • Capacity: Approximately 42m³ • Drainage Rate : 0.5~2.5m³/min • Residual Rate : <1% • Operation Pressure: 0.2~0.45Mpa • Head: Top elliptical EHA, bottom Cone • Paint- Marine cool grey pantone cool grey 3. 		
Cementing Hoses	<p>2" diameter hydraulic cementing hose complete with FIG 1502 connection.</p> <ul style="list-style-type: none"> • Quantity- 8 • Each piece to be 10m in Length. • Operating Temperature -25° C to +100° C (-13° F to 212° F). • FIG 1502 union coupling • 10,000PSI Working Pressure • Bore type: full flow, smooth bore. <p>4" diameter Helical wire reinforced dry cement hose.</p> <ul style="list-style-type: none"> • Quantity - 10 • Each piece to be 6m in Length. • Operating Temperature -25° C to +100° C (-13° F to 212° F) • FIG 602 union coupling • 750PSI Working Pressure 		

	<ul style="list-style-type: none"> • Bore type: full flow, smooth bore. • 2" low pressure water hose • 50 m in length • Working pressure 6MPa • Bore type: full flow, smooth bore. 		
Water tank skid	<ul style="list-style-type: none"> • Trailer mounted steel drilling tank (FRAC tank). • Tank capacity: 30m³ • Multiple 4" valves fill/drain ports, including floor-level valves for low point discharge and draining out. • 2 Compartments each fitted with 2 agitators for effective chemical mixing. • Fitted electric motors to power the agitators. • Tanks should be fitted with AS 1657 compliant stairs both inside and outside for accessibility and 20in manholes on both compartments. • A graduated scale for fluid level monitoring on both compartments. • Skid mounted Centrifugal pump and hopper for fluids circulation: Operating speed of 1600rpm, Operating range: 500L/min-950L/min with a 5-10-micron on semi-solid mud. LxWxH= 2423.2mm X 1778mm X 866mm. • Control panel and power supply to enable independent operation of the Frac tank. • Charge pump/booster pump • Recirculation system fitted with a hopper to feed additives to the Frac tank. • Linings to handle all corrosive chemicals. • Designed for temperatures between -19°C to + 120°C • Full manifold on the rear to allow multiple units to be connected for larger projects. • Kingpin: 2" SAE Standard • Landing Gear: 50,000lbs (22,680kg) Capacity • Tubeless tyres 315/80R22.5 or 12R22.5 		
Cementing lab	<ul style="list-style-type: none"> • Standard 40ft container lab • Approximate dimensions 12000 x 29000x 2900 (mm) • Inbuilt electrical wiring with sufficient power outlets • Total power of electrical appliances is 45kw. • Lab container comes installed with cooling water supply and compressed air. • Container should be fitted with air condition. • Container should come installed with a wash closet/room. • Container supplied complete with Fann cement testing equipment. • Fann HPHT dual cell consistometer- quantity 2 • Fann HPHT ultrasonic cement analyzer (UCA)- qty 2 • Fann Variable speed mixer- qty 3. • Fann automatic viscometer- qty 2 • Fann filter press- qty 2. 		

	<ul style="list-style-type: none"> • Fann Pressurized mud balance- qty 4 • Electronic balance- 4pcs • Fann Atmospheric consistometer-2pcs • Compressive strength tester- 2pcs • Bench top curing chamber- 2pcs • Windows 11 laptop 16GB RAM, 1TB with installed software for the machines supplied- 2pcs. • Essential spares with part numbers for all the equipment • Installation, commissioning, and training 		
Containerized office	<ul style="list-style-type: none"> • Dimensions: 12000 x 29000x 2900 (mm) • Shall be partitioned into two with steel (never wood) • Shall have metal reinforced base, forklift & crane friendly with four lifting points. • Container should be fitted with air condition. • Partition 1, Office space, shall be 25ft long and suited with the following: <ul style="list-style-type: none"> • One access door with suitable soundproof cladding • At least two sliding glass windows with soundproof rubber seal (or better material) • Inbuilt shelves • Wi-Fi set up for internet connectivity mounted. • Adequate lighting • Doorstep assist • 6 wooden computer office desks with lockable drawers and 8 adjustable office chairs. • External container ladder to access container top • Electrical wiring and ports: 6 ports at Laptop desk • Partition 2, Equipment Store, shall be 15ft long and suited with: <ul style="list-style-type: none"> • Lockable full open original container access door • Steel partitioning and suitable hard wood floor 		
Cementing Heads and Circulating Swages	<ul style="list-style-type: none"> • 9-5/8" Casing cementing head for single plug cementing with working pressure of 35.5 MPa; 2in union manifold; ID of plug container 225mm and length of plug container 550mm. • 13-3/8" Casing cementing head for single plug cementing with working pressure of 35.0 MPa; 2" union manifold; ID of plug container 320mm and length of plug container 600mm. • 20" Casing cementing head for single plug cementing with working pressure of 35.0 MPa; 2" union manifold; ID of plug container 320mm and length of plug container 600mm. • 20" Casing circulating swage: Top box connection 2" Fig1502F and Bottom pin connection 20in casing thread, BTC. • 13-3/8" Casing circulating swage: Top box connection 2" Fig1502F and Bottom pin connection 13-3/8in casing thread, BTC. • 9-5/8" Casing circulating swage: Top box connection 2" Fig1502F and Bottom pin connection 9-5/8" casing thread, BTC 		
Cementing High Pressure	<ul style="list-style-type: none"> • 2in 1502 Hammer Union treating iron 2-meter Long (60 meters) 		

Treating Iron Assembly	<ul style="list-style-type: none"> • 2in 1502 Hammer Union treating iron 1-meter Long; Female-Female threads (20 meters) • 2in 1502 Hammer Union treating iron 1-meter Long; Male-male threads (20 meters) • 2X1 in Plug valves 1502 Hammer wing Union with working pressure of 15,000psi (4 Pcs) • 2x2 in Plug valves 1502 Hammer wing Union with working pressure of 15,000psi (6 Pcs) • High Pressure Figure 1502 Y Type Integral Union (4 Pcs) • 2in flow iron swivels; 1502 Hammer wing Union with working pressure of 15,000psi (10 Pcs) 		
Inner-String Cementing Accessories	<ul style="list-style-type: none"> • 3½" Stab-In Adapter with NC50 box connections (6 Pcs) • 4" Stab-In Adapter with NC50 box connections (6 Pcs) • 100T; Spider type, 5in drill pipe slips (4 Pcs) • O-Ring Kits for 3 ½" Stab-In Adapter (150 Pcs) • O-Ring Kits for 4" Stab-In Adapter (200 Pcs) • 5in drill pipe centralizers for use in 94 lb./ft., 20in casing ID (10 Pcs) • 20in single valve manual-fill tag-in float shoe w/latch-down plug receptacle (15 Pcs) • 13-3/8in Single-valve manual-fill tag-in float collar w/latch-down plug receptacle (15 Pcs) • 5in drill pipe centralizers for use in 68-54lb/ft, 13-3/8in casing ID (10 Pcs) • 9-5/8in Single-valve manual-fill tag-in float collar w/latch-down plug receptacle (15 Pcs) • 5in drill pipe centralizers for use in 47 lb./ft., 9-5/8in casing ID (10 Pcs) • Hinged stop collars for use w/drill pipe centralizers (60 Pcs) • C-plate for hanger and assembly; Drill pipe bowl (3 Pcs) 		

SECTION 14: MECHANICAL HANDLING EQUIPMENT, TRAILERS, AND VEHICLES

- Minimal emission require: Euro TIER III.
- The equipment shall be righthand driven, registered for use on Kenyan roads.
- All equipment offered shall have an approved dealers in Kenya.
- All the equipment shall be painted with KenGen colors.
 - All terrain truck cranes.
 - Forklifts
 - Truck mounted crane
 - Trailers
 - Accessories

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
All terrain 100-ton truck crane	<ul style="list-style-type: none"> • Quantity: 1 Pc • Right hand drive truck crane • 100t x 2.5 m –Max. Crane Capacity • Telescopic Boom HA60, max length 60m with Jib extension. Single cylinder telescopic system • Diesel Engine; 349KW@1700 Rpm; 462 HP and Engine Torque of 2200NM@ 1000Rpm. • Complies with EU stage V/ Tier 4F (<i>Attached brochure</i>) • Automated gearbox model G230-12 with 12 forward speed and 2 reverse (<i>Attached brochure</i>). • Max. Traveling speed: 80Km/h. • Fuel Tank: at least 450 liters. • Axles Configuration 8x4x8 • All Four steered, axle 1 and 4 driven and equipped with selectable transverse lock (<i>Attached brochure</i>). • Suspension: Hydro-pneumatic with axle load compensation, hydraulically lockable (<i>Attached brochure</i>). • Tires and rims: Size 385/ R22.5 (14.00R22.5)/ Steel Rim 9.5-25/1.7” • Cab 2550: Type 2.55m, Adjustable driver seat, armrest and pneumatic suspension; Electrically adjustable rear-view mirrors, radio, seat heating (engine-dependent), air conditioning. • Rear View Camera: Display in carrier cab; Cameras installed on rear of Vehicle. • Outriggers: H-4-Point design. Fully hydraulic vertical and horizontal Movement • Central Lubrication: Automatic Central Lubrication system for all lubricating point at the carrier • Other Features: Outrigger load indicator, Electronic Immobilizer system, Pneumatic tire filling plug • Tools: <ul style="list-style-type: none"> • 2pcs-Wheeled air operated grease pump with (High pressure grease control valve, Universal swivel and coupler, 7-ft. hose, Drum cover, flexible follower plate and a band dolly with caster wheels). 		

	<ul style="list-style-type: none"> • 1 pc- Tyre inflation device (with pressure 2No. gauge and 20m tyre inflation hose) • 1 SET: Tyre changing and tubeless tyre repair tools kit. • 1 pc-Lifting jacks with lead free paint finish - 50Ton Heavy Duty Long Floor Jack • 1 unit- Lifting jacks with lead free paint finish – 50 Ton Air Hydraulic Bottle Jack • 2 units- Electric 12V portable fuel transfer pump system (with MIN 12ft LONG 1(one) inch DIA delivery and suction hose and storage case) • 1 set- Complete set of mechanical toolbox with the following items; Set of combination spanner, ½ & ¾ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, Allen keys, set of pliers, Screw driver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment. • Accessories: Four leg G-22 lifting chain, four leg lifting slings, extension bar, heavy duty lifting belts. • Diagnostic kit complete with latest software version and adaptor. • OEM spare part: <ul style="list-style-type: none"> • engine oil filters- 10pcs • air filters- 10 pcs • fuel filters- 10 pcs • transmission oil filters- 10 pcs • water filters- 10 pcs • Brake Linings, FRONT Wheels- 20Sets • Brake Linings, REAR Wheels- 80Sets • Diaphragm, brake booster front- 10 pcs • Brake booster, Front- 4pcs • Brake booster, rear- 8pcs • Diaphragm, brake booster, rear- 40 pcs • Starter motor- 1pc • Battery charging alternators- 1pc • V – Belts- 2Nos • Fuses- 2 Sets • Spare Rims- 2pcs • Spare Tyres- 2pcs • Any Other consumable parts in sufficient quantities for two years' service and maintenance period (list to be provided) • Accessories: Four leg G-22 lifting chain, four leg lifting slings, extension bar, heavy duty lifting belts • Diagnostic kit c/w latest software version and adaptor. • Two sets of manuals in English hard and soft. Operator manual, spare parts catalogue, service manual, shop repair manual and overhaul manuals. • Preferable color: pantone cool grey 3 body or white 		
All terrain 80-ton truck crane	<ul style="list-style-type: none"> • Quantity: 1 Pc • Right hand drive truck crane • Capacity: 80t x 2.5 m –Max. Crane Capacity. • Telescopic Boom HA60, max length 60m with Jib extension. Single cylinder telescopic system. 		

	<ul style="list-style-type: none"> • Operation cab: cab type 875 • Model AC 4. 080-1. • Engine: Model No. OM 471 Diesel Engine; 349KW@1700 Rpm; 462 HP and Engine Torque of 2200NM@ 1000Rpm. Complies with EU stage V/ Tier 4F Complies with EU stage V/ Tier 4F (<i>Attached brochure</i>) • Transmission: G230-12 Automated gearbox with 12 forward speed and 2 reverse (<i>Attached brochure</i>). • Dimension: 12810mm (L)x2750mm(W)x3790mm(H). • Max. Traveling speed: 80Km/h. • Fuel Tank: at least 450 liters. • Dimension: overall 13365mm (L)x2,750mm (W)x3920mm (H) • Axles Configuration 8x4x8 • All Four steered, axle 1 and 4 driven and equipped with selectable transverse lock (<i>Attached brochure</i>). • Suspension: Hydro-pneumatic with axle load compensation, hydraulically lockable (<i>Attached brochure</i>). • Tires and rims: Size 385/ R22.5 (14.00R22.5)/ Steel Rim 9.5-25/1.7” • Cab 2550: Type 2.55m, Adjustable driver seat, armrest, and pneumatic suspension; Electrically adjustable rear-view mirrors, radio, seat heating (engine-dependent), air conditioning. • Rear View Camera: Display in carrier cab; Cameras installed on rear of Vehicle. • Outriggers: H-4-Point design. Fully hydraulic vertical and horizontal Movement • Central Lubrication: Automatic Central Lubrication system for all lubricating point at the carrier • Other Features: Outrigger load indicator, Electronic Immobilizer system, Pneumatic tire filling plug • Tools: <ul style="list-style-type: none"> • 2pcs-Wheeled air operated grease pump with (High pressure grease control valve, Universal swivel and coupler, 7-ft. hose, Drum cover, flexible follower plate and a band dolly with caster wheels). • 2 pc- Tyre inflation device (with pressure 2No. gauge and 20m tyre inflation hose) • 1 SET: Tyre changing and tubeless tyre repair tools kit. • 1 pc-Lifting jacks with lead free paint finish - 50Ton Heavy Duty Long Floor Jack • 1 unit- Lifting jacks with lead free paint finish – 50 Ton Air Hydraulic Bottle Jack • 2 units- Electric 12V portable fuel transfer pump system (with MIN 12ft LONG 1(one) inch DIA delivery and suction hose and storage case) • 1 set- Complete set of mechanical toolboxes with the following items; Set of combination spanner, 		
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	<p>½ & ¾ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, allen keys, set of pliers, Screw driver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment.</p> <ul style="list-style-type: none"> • Accessories: Four leg G-22 lifting chain, four leg lifting slings, extension bar, heavy duty lifting belts. • Diagnostic kit completes with latest software version and adaptor. • OEM spare part: <ul style="list-style-type: none"> • engine oil filters-10pcs • air filters-10 pcs • fuel filters-10 pcs • transmission oil filters-10 pcs • water filters-10 pcs • Brake Linings, FRONT Wheels-20Sets • Brake Linings, REAR Wheels-80Sets • Diaphragm, brake booster front-10 pcs • Brake booster, Front-4pcs • Brake booster, rear-8pcs • Diaphragm, brake booster, rear-40 pcs • Starter motor- 1pc • Battery charging alternators- 1pc • V – Belts-2Nos • Fuses-2 Sets • Spare Rims-2pcs • Spare Tyres-2pcs • Any Other consumable parts in sufficient quantities for two years’ service and maintenance period (list to be provided). • Two sets of manuals in English hard and soft. Operator manual, spare parts catalogue, service manual, shop repair manual and overhaul manuals. • Preferable color: pantone cool grey 3 body 		
Forklift	<ul style="list-style-type: none"> • Quantity: 2 set • Terex/ Manitou rough terrain telescopic forklift. • Capacity: minimum 15 tons • Engine: Cummins, CAT, Isuzu or Perkins Euro III diesel engine. Power 142Kw@2200rpm. • Transmission: Fully automatic with 3 forward and 2 reverse • Maximum unloaded weight:15000kg • Travel speed: at 33Km/h • Cab: all weather enclosed cab with air conditioning, stereo USB MP3 Player, and camera. overhead guard must be provided. • Overall dimensions without fork LxWxH:4300mmx2450mmx2900mm • Fork size LxWxT: 2100mmx200mmx85mm • Floating fork positioner: Integral side shift and fork positioner. • Fork regulating range min/max: 435/2115mm. • Mast tilt angle F/R: 15°/12° • Minimum ground clearance (bottom of mast): 275mm. 		

	<ul style="list-style-type: none"> • Turning radius: 4200mm • Gradeability %: 40 • Tyre: 10R20 tubeless- front and rear • Hydraulic service brakes • Load centre: 600mm • Lowered mast height: 3000mm • Extended mast height: 4500mm • Beacon Lamp: Amber • Diagnostic Kit: Complete with/ equipped with the latest version of software and adaptors. • 1 set- Complete set of mechanical toolboxes with the following items: Set of combination spanner, ½ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, hexagonal keys, set of pliers, Screwdriver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment. • Service parts <ul style="list-style-type: none"> • engine oil filters 10pcs • air filters, 10 pcs • fuel filters, 10 pcs • transmission oil filters 10 pcs • water filters, 10 pcs • Starter motor 1No • Battery charging alternators, 1No • V - Belts 2Nos • Fuses 2 Sets • Spare Rims 2Nos • Spare Tyres 2Nos • Any Other consumable parts in sufficient quantities for two years' service and maintenance period. • Two sets of manuals in English hard and soft. Operator manual, spare parts catalogue, service manual, shop repair manual and overhaul manuals. • Preferable color: pantone cool grey 3 body 		
<p>Prime mover (tractor units)-470-480Hp</p>	<ul style="list-style-type: none"> • Quantity: 5 Sets • Right hand drive 6x6 truck with winch: Model AD380T47W H- Chassis Cab 6x6. • Drive configuration: 6x6 with hub reduction, differential lock, and transfer case. • Engine power: 350-360Kw/470-480Hp C13; Cursor 13 EURO III. Turbo charged and water cooled adapted for tropical climates. • Permissible Gross Combined Weight (G.C.W.)-33 tons. • Permissible Gross Vehicle Weight- 72 tons • Axle configuration: rigid 6x6 with differential locks (attach datasheet/ brochures). • Tandem: 1400-1500mm • Manual transmission at least 10 forward and 2 reverse. • Clutch: single dry plate at least 430mm • Dimensions: 8480mm (max.L)x 2550mm (W). • Wheelbase: 3810mm. 		

	<ul style="list-style-type: none"> • Two fuel tanks: at least 350lts each • Hydraulic winch: VIME PH 30000, hydraulic driven by truck PTO operated inside driver's cabin. Ladder with platform. • Recommended tools <ul style="list-style-type: none"> • 2pcs- Wheeled air operated grease pump with (High pressure grease control valve, Universal swivel and coupler, 7-ft. hose, Drum cover, flexible follower plate and a band dolly with caster wheels). • 1pcs- Tyre inflation device (with pressure 2No. gauge and 20m tyre inflation hose). • 1 set- Tyre changing and tubeless tyre repair tools kit. • 1pc- Lifting jacks with lead free paint finish - 20Ton Heavy Duty Long Floor Jack. • 1 unit-Lifting jacks with lead free paint finish - 20Ton Air Hydraulic Bottle Jack. • 2 units- Electric 12V portable fuel transfer pump system (with MIN 12ft LONG 1(one) inch DIA delivery and suction hose and storage case). • 1 set- Complete set of mechanical toolboxes with the following items: Set of combination spanner, ½ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, Allen keys, set of pliers, Screwdriver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment. • Spare parts: <ul style="list-style-type: none"> • engine oil filters-10pcs • air filters-10 pcs • fuel filters-10 pcs • transmission oil filters-10 pcs • water filters-10 pcs • Brake Linings, FRONT Wheels- 20Sets • Brake Linings, REAR Wheels- 80Sets • Diaphragm, brake booster front-10 pcs • Brake booster, Front-4pcs • Brake booster, rear-8pcs • Clutch plate: 4pcs • Pressure plate: 4pcs • Diaphragm, brake booster, rear- 40 pcs • Starter motor-1No • Battery charging alternators-1No • V – Belts- 2Nos • Fuses-2 Sets • Spare Rims-2Nos • Spare Tyres-2Nos • Any Other consumable parts in sufficient quantities for two years' service and maintenance period. • Two sets of manuals in English hard and soft. Operator manual, spare parts catalogue, service manual, shop repair manual and overhaul manuals. 		
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Flat (high) bed trailer	<ul style="list-style-type: none"> • Quantity: 4 units • Four (4) units with flat bed with removable bulkhead. All the trailers to have twist locks and cradles. • Dimension(mm): 12500x2500x1500mm • Loading capacity(ton): 50000kg (1x20ft, 2x20ft and 1x40ft containers). • Main frame: Heavy duty carbon steel Q345B • Axles: 3 axles-16000kg • Adjustable heavy duty landing jacks. • Tyre: 12.00R22.5 or 315/80R22.5. Rim: 9.00-22.5 or 9.75-22.5 • Two spare tyres carrier and two spare tyres complete with rims. • Suspension: Mechanical suspension or air suspension. • Leaf springs for mechanical suspension: Thickness 13mm, ten pieces • King Pin: 2" Jost • Landing Gear: Double speed Jost D200. • Double air brake chambers WABCO. • Twist locks: 12 sets lifting type. • Removable headboard- to fit using twist locks. • Casing or pipe cradles- to fit using twist locks. • Checkered plate platform: 5mm thickness, • Side markers • All Led lights to be fitted with suitable protection. • Toolbox- lockable • Water tank • Two spare tyre carrier with two complete spare tyres. • Electrical: Complete 24V system in explosion proof installation. 7-pin ISO standard socket. • Tools <ul style="list-style-type: none"> • 2pcs- Tyre inflation device (with pressure 2No. gauge and 20m tyre inflation hose). • 1 set- Tyre changing and tubeless tyre repair tools kit. • 1 unit-Lifting jacks with lead free paint finish - 20Ton Air Hydraulic Bottle Jack. • 1 set- Complete set of mechanical toolboxes with the following items: Set of combination spanner, ½ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, allen keys, set of pliers, Screwdriver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment. • Paint: pantone cool grey 3. Marine paint anti corrosion. standard 		
Lowbed trailers	<ul style="list-style-type: none"> • Quantity: 3 sets • Payload: 60 to 80tons • Heavy duty, durable strong and light weight for use in rough and steep terrains. • Six axle trailer- 1set, five axle- 1set and four axle- 1 set. 		

	<ul style="list-style-type: none"> • Axle capacity: 16tons • Material: high quality steel ST-52A. • Platform: 6mm thickness • Suspension: Air/steel • Tyre: 10R 22.5 twin tyres • Bed length: about 12000mm with twist locks, and folded ramps. • Width: 2550mm • Deck length: 4200 • King Pin: 2" Jost • All Led lights to be fitted with suitable protection • Electrical system: 24V with LED lights. Side makers • WABCO brake system with EBS. • Toolbox- lockable • Water tank • Two spare tyre carrier with two complete spare tyres. • Foldable Hydraulic/pneumatic activated rear ramp <ul style="list-style-type: none"> • 2pcs- Tyre inflation device (with pressure 2No. gauge and 20m tyre inflation hose). • 1 set- Tyre changing and tubeless tyre repair tools kit. • 1 unit-Lifting jacks with lead free paint finish - 20Ton Air Hydraulic Bottle Jack. • 1 set- Complete set of mechanical toolboxes with the following items: Set of combination spanner, ½ drive combination socket spanners with T-sliding handle and ratchet set, combination fix spanner, Allen keys, set of pliers, Screwdriver set, chisel set, Double end ring set, and all special tools required during servicing of the equipment. • Paint: pantone cool grey 3. Marine paint anti corrosion. standard 		
Accessories	<ul style="list-style-type: none"> • Ratchet load bidders, Grade 80 with clevis grab hooks-50 pcs • Load bidder chains Grade 80, 20mm and 10m length- 30pcs • Ratchet straps 10m length x 75mm width minimum 10000kg breaking force- 50pcs • Four legs lifting 19mm, 6m long wire rope sling- 8pcs. • Bow shackles Crosby G-209- 30 pcs. • Dee shackles Crosby G2150-30pcs. • Two 20ft container and two hand tools box size: 9x2.9x3m fitted with adequate storage shelves and racks for tools, load handling equipment and spares. • Crescent wrenches (10", 12", 15"), vice grips, channel locks, side cutters, large and small pliers, pipe wrenches (42", 36", 24", 18", 12"), claw hammer, ball peen hammer, set of screw drivers, Allen wrench set, hacksaw, files, chisels, etc. • Air impact wrench with socket diameters available for all wellhead nut components and BOP equipment. 		

	<ul style="list-style-type: none"> • Specialized tools for measuring pipe and down hole equipment sizes, such as inside and outside calipers, derrick tape (30 m), etc. • Hydraulic wireline cutter for cutting drilling line to 1½" diameter. • Dope brushes, wire brushes, paint brushes, scrapers, chain tongs, measuring stick, rope for tag lines, endless rope line, rags, driller's calculator, white boards, driller's books, handover books, writing materials, commonly used reference manuals, communications. • Shovels (flat and round), rakes, wheelbarrows, bag cutting devices, and any other small hand tools required by third party roustabouts and supplied by operator to perform routine daily work on the mud tanks or assisted support to the rig crews or mud engineer. • The rig mechanic dedicated toolbox containing all the tools, meters, gauges, air powered tools required to perform his work. • All electrical extension cables and hand tools will be protected by, at a minimum, a portable CGFI device of suitable capacity. 		
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SECTION 15: RIG SITE BARRACKS AND OFFICES

- All units shall be Skid mounted, with external dimensions of 12m Long by 3m Wide complete with power connection.
- All containers to be painted white and with KenGen logo. The paint shall be marine paint and corrosion resistant.
- Aluminum steel windows with steel bars, adequate size to allow day lighting. All windows shall be of double glass and of soundproof with wire mesh to prevent small insect.
- Insulated steel security doors fitted with foldable and non-slip access steps.
- Adequate 220-250V, 50Hz power supply c/w adequate twin wall sockets and adequate room lighting. There shall security light on the outside, above each door.
- Suitably sized power cables c/w connectors and waterfall receptacles to supply all the containers.
- All cables should be compliant to IEC or BS standards.
- All cables should be insulated with EPR (Ethylene Propylene rubber) or an equivalent UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard.
- All cables utilizing sheaths should utilize CSP (Chlorosulphonated polyethylene) or an UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard.
- All partitions and rooms have adequate sockets UK type, LAN ports with provisions of interconnection from outside, TV Ariel Ports, Communications Ports and office wired telephones pre-installed.
- All offices to come with office accessories e.g., water dispensers, hanging hooks, Notice boards on all partitions and other necessary accessories.
- All containers to be raised at least 2ft from the ground.
- The container shall be properly grounded.
- General fire alarms to be wired into the containers.
- All offices shall be of high quality anti-slip floors. Wear resistant materials to be used.
- All containers shall be fitted with exit and security light fixtures with battery packs (emergency lighting).
- Safety features: Lightning protection system, explosion-proof Air conditioner, fire extinguisher (CO2 type, 2kg), ceiling mounted smoke detectors, first aid box. Container to be marked as non-smoking.
- Fully heated and air conditioned at least 12000BTU per partition. Preferred LG or Samsung units. All air conditioning units to use the latest refringent gas i.e., R410a/ A2L
- All roofing and walling shall be fitted with proper insulation and leakproof.
- All containers shall be fitted with External container ladder to access container top. All containers shall have lifting points by crane and forklift.
- All internal mounting of Accessories shall be firm with secondary retainers to avoid falling and dismounting during movements.
- Water line and wastewater connections with quick couplers for fast rig up. All containers shall conform to all office and housing standard with appropriate certifications provided.
- The general alarm system to be wired into each container.
- Four manual sound alarm system with a coverage radius of 100m to be provided.
- Drawings and layout shall be provided.
- The containers shall be new and unused, and not older than two years from date of manufacture. CSC plate shall be provided.
- To provide all necessary signages
- All TV's to come with 10m HDMI cables and all other accessories.
- Corner and intermediate fittings shall be designed to ISO 1161: 2016 and shall withstand loads according to ISO 1496-1 and lifting methods of ISO 3874.
- DNV certification
- The containers office shall be supplied as per description and specifications below;

SPECIFICATION

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Drilling Supervisors office.	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into 2 with interconnecting door, lockable from either side. • Partition 1 shall be the office with; <ul style="list-style-type: none"> i. Two executive desks and chairs ii. Equipped with lockable file cabinets. • Partition 2 shall be a conference room fitted with. <ul style="list-style-type: none"> i. Wall mounted 50" HD smart TV with all connecting accessories. ii. Oval wooden conference table, floor-mounted, c/w adjustable office chairs, with a sitting capacity of at least 10 persons. iii. Small kitchen with coffee maker and microwave. 		
Rig Managers Office	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into 2 with interconnecting door, lockable from either side. • Partition 1 shall be the office with; <ul style="list-style-type: none"> i. Two executive desks and chairs ii. Equipped with lockable file cabinets. • Partition 2 shall be a conference room fitted with; <ul style="list-style-type: none"> i. Wall mounted 50" HD smart TV with all connecting accessories. ii. Oval wooden conference table, floor-mounted, c/w adjustable office chairs, with a sitting capacity of at least 10 persons. iii. Small kitchen with coffee maker and microwave. 		
Drilling engineer & Aerated Engineers Office	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into two with each partition equipped with the following; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for two with side drawers c/w adjustable office chairs. iii. Equipped with lockable file cabinets iv. Wall mounted 43" HD smart TV with all connecting accessories. v. Floor-mounted 3-seater couch 		
Tool pusher and Shift Supervisor	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into two with each partition equipped with the following; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for two with side drawers c/w adjustable office chairs. iii. Equipped with lockable file cabinets iv. Wall mounted 43" HD smart TV with all connecting accessories. v. Floor-mounted 3-seater couch 		

Mud Engineer and Cementing Engineer	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into two with each partition equipped with the following; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for two with side drawers c/w adjustable office chairs. iii. Equipped with lockable file cabinets iv. Wall mounted 43” HD smart TV with all connecting accessories. v. Floor-mounted 3-seater couch 		
Mechanical Engineer and Mechanical Superintendent	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into two with each partition equipped with the following; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for two with side drawers c/w adjustable office chairs. iii. Equipped with lockable file cabinets iv. Wall mounted 43” HD smart TV with all connecting accessories. v. Floor-mounted 3-seater couch 		
Electrical engineer and Electrical Superintendent	<ul style="list-style-type: none"> • Quantity: 1set • To be partitioned into two with each partition equipped with the following; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for two with side drawers c/w adjustable office chairs. iii. Equipped with lockable file cabinets iv. Wall mounted 43” HD smart TV with all connecting accessories. v. Floor-mounted 3-seater couch 		
Directional/ logging engineer	<ul style="list-style-type: none"> • Quantity: 1set • Partitioned into two • Partition 1; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for three with side drawers c/w adjustable office chairs. iii. Equipped with wall mounted lockable file cabinets iv. Wall mounted 43” HD smart TV with all connecting accessories. • Partition 2: <ul style="list-style-type: none"> i. Suited with tool storage racks, 4-levels with adjustable racks. ii. Wall-mounted working desk c/w chairs for two on the opposite side of the racks with ample access area at the middle. 		
Geologist container/ lab	<ul style="list-style-type: none"> • Wall mounted 43” HD smart TV with all connecting accessories • Quantity: 1set • Geological Equipment/Instruments <ol style="list-style-type: none"> 1. Nixon E400 Dual viewing binocular stereomicroscope (side-by-side) fitted with camera as detailed below. <ul style="list-style-type: none"> • Head- Main: Ergonomic tilting • Secondary: Binocular • Eyepieces- 10x eyepieces • Nosepiece- 5 position. 		

	<ul style="list-style-type: none"> • Focusing- Coaxial coarse and fine adjustment • Stage- Graduated mechanical XY stage. • Objectives- Plan 2x, 4x, 10x, 20x, 40x • Condenser- Flip out condenser • Light source- Halogen <p>2. Olympus BX40 Dual Viewing Petrographic Microscope (Face-to-Face) fitted with camera as detailed below.</p> <ul style="list-style-type: none"> • Head- Main: Trinocular • Secondary: Binocular • Eyepieces- 10x/20mm (x4) • Dual viewing- Face-to-face w/pointer • Nosepiece- 5 place nosepiece. • Objectives- Plan 4x, 10x, 40x, 100x • Stage- Mechanical XY • Focusing- Coarse and Fine • Illumination- Halogen w/pointer <p>3. Two (2) pcs- Thermocouple thermometers for measuring inflow and outflow temperatures</p> <p>4. Two (2) units- Infrared thermometers for measuring inflow and outflow temperatures</p> <p>5. Portable XRF machine for rock cutting analysis.</p> <p>6. Sample weighing scale/balance; precision 0.01g.</p> <p>7. Methylene Blue (MeB) kit (complete with accessories) as detailed below.</p> <ul style="list-style-type: none"> • Graduated glass measuring cylinder 50ml. • Whatman filter paper, API: 5-inch (12.5 cm) diameter 100 per box • Flask, Erlenmeyer, 250 ml • Methylene blue, 3.2 g/l, 1ml = 0.01 meq, 8oz analytical grade • Hydrogen Peroxide, 3% solution • Pipettes, 0.5ml, 1 ml and 10 ml • Pipette dropper • Pump pipette filler/dispenser • Syringe, leur-lock, glass, 5 ml • 230 V hot plate with magnetic stirrer <p>8. Two sets- Granitic mortar and Pestle</p> <p>Tools and Accessories</p> <ul style="list-style-type: none"> • One set- Laboratory working bench complete with sinks and cabinets. • 3 set- Storage cabinets • 6 pieces- Office seats • 1 piece- Titration stand' 		
Safety office container	<ul style="list-style-type: none"> • Quantity: 1 set • Partitioned in to two; One side for safety use and the other side to be equipped for First Aid examination. • Wall mounted office desks c/w chairs for at least 3 persons. • Wall mounted 43" HD smart TV with all connecting accessories 		

	<ul style="list-style-type: none"> • The safety office shall have all necessary rig safety equipment, required for safe, incident-free operation. • SCBA escape packs,10minnutes each- ten pieces. • SCBA escape packs,30minnutes each- ten pieces • Fully furnished first aid station with examination room and separate office and bathroom for Company's medic. 		
Reservoir Engineer Office	<ul style="list-style-type: none"> • Quantity: 1set • Partitioned into two • Partition 1; <ul style="list-style-type: none"> i. External access doors. ii. Wall mounted tables for three with side drawers c/w adjustable office chairs. iii. Equipped with wall mounted lockable file cabinets iv. Wall mounted 43" HD smart TV with all connecting accessories. • Partition 2: <ul style="list-style-type: none"> i. Suited with tool storage racks, 4-levels with adjustable racks. ii. Wall-mounted working desk c/w chairs for two on the opposite side of the racks with ample access area at the middle. 		
Rig mechanic and electrician workshop	<ul style="list-style-type: none"> • Quantity: 1set • To be used by rig mechanic and electrician complete with all necessary tools and equipment for onsite rig repair and maintenance including. <ul style="list-style-type: none"> i) Small duty lathe ii) Fixed vertical drilling machine iii) Fixed grinder iv) Angle grinder -2pcs v) Bench vice vi) Platform vii) Hand drill (black &decker) 2pcs viii)Milling drilling ix) Hydraulic Press machine x) Hose Skiving and Crimping machines • All equipment shall be floor-mounted. • The container to be fitted with several industrial 3-phase and single-phase UK-Type power supply points • Portable heavy duty extension cable- at least 50m (2.5mm) 		
Welder's workshop	<ul style="list-style-type: none"> • Quantity: 1set • Electric welding set-500amp capable of TIG and MIG. • Plasma cutter • Oxy acetylene set. • Blazing set • Vertical drilling machines • Angle grinders • Portable hand drill • Tool cabinet • Working bench • All equipment shall be floor-mounted. 		

	<ul style="list-style-type: none"> • The container to be fitted with several industrial 3-phase and single-phase UK-Type power supply points • extension cable- at least 50m (2.5mm) 		
Changing room	<ul style="list-style-type: none"> • Quantity: One set • 60 lockable drawers all both lengths of the container. • Changing seat/ benches • Fitted with dressing mirrors. 		
Dining unit	<ul style="list-style-type: none"> • Quantity: one set • Dining to be used at the Rig site. • To be supplied in one single container modules with two doors located on the opposite side of the lengths fitted with outside steps. • One side to be fitted with Baine-marie food warmers and on the other side floor-mounted tables and chairs to accommodate 30 persons. • Suitable seats and tables to accommodate 30 persons. Tables and chairs to be fixed onto the floor. • Provision for stainless steel serving table. • Provisions for lockable stainless steel shelves • The Dining to come with provision of stainless steel sinks fitted with all plumbing connections and accessories and an overhead removable 1000-Litre water tank. 		
Store Unit	<ul style="list-style-type: none"> • Quantity: two set • The container shall be of 12m by 3m length by width. • The unit shall be partitioned into two equal parts with each with its one door. • Shall contain steel shelves for storing both heavy and light spares. • The floor should be made of steel preferably checker plate or equivalent. • The stores should be lockable. • The store to have adequate lighting, emergency lighting and ventilation. 		
Guard house unit	<ul style="list-style-type: none"> • Quantity: one unit • The container shall be 20ft of length fitted with one office table with three seats, with big glass windows all round for monitoring all sides and should contain one lockable file cabinet. 		
Ablution Block unit	<ul style="list-style-type: none"> • Quantity: one set • The container should come with 5000Litre water tank to be used to store water, easy to mount on top of the container, fitted with all plumbing connections and accessories. • The container shall be able to drain spilled water to avoid corrosion. Bituminous paint and water-resistant materials (Aluminum or stainless) and paints. • The unit shall be partitioned equally into two. One partition for Gents and the other for Ladies • All toilets and showers should be cubicles with lockable doors. 		

	<ul style="list-style-type: none"> • Gents partition shall be equipped with: <ul style="list-style-type: none"> • One overhead shower with instant heater fitted with towel hook and soap dish. • Three Asian (squat) flash type stainless steel toilet with cistern and fitted with a tissue holder and hand-held bidet toilet sprayer. • Two wall mounted stainless steel urinals. • One stainless steel hand-washing basin fitted with soap and hand tissue dispenser. • Wall mounted mirror • Partition between toilets and shower area • Ladies partition shall be equipped with: <ul style="list-style-type: none"> • One overhead shower with instant heater fitted with towel hook and soap dish. • Two Asian (squat) flash type stainless steel toilet with cistern and fitted with a tissue holder and hand-held bidet toilet sprayer. • One stainless steel hand basin fitted with soap and hand tissue dispenser. • Small dressing table with full length mirror • Toilets and shower area to be partitioned. 		
Mobile septic unit	<ul style="list-style-type: none"> • Quantity: one set • Mobile septic system and biodigester capable of handling at least 100 persons incinerator system for use at rig site. 		

SECTION 16: RIG BASE CAMP ACCOMONDATION UNITS

- All units shall be Skid mounted, with external dimensions of 12m Long by 3m Wide complete with power connection.
- All containers to be painted white and with KenGen logo (A sample to be provided). The paint shall be marine paint and corrosion resistant.
- Aluminum steel windows with steel bars, adequate size to allow day lighting. All widows shall be of double glass and of soundproof with wire mesh to prevent small insect.
- Insulated steel security doors fitted with foldable and non-slip access steps.
- Adequate 220-250V,50Hz power supply c/w adequate twin wall sockets. Adequate lighting to be provided.
- All rooms to have adequate sockets UK type, LAN ports with provisions of interconnection from outside, TV Ariel Ports, Communications Ports and office wired telephones pre-installed.
- All rooms to come with applicable accessories e.g. water dispensers, hanging hooks.
- All containers to be raised at least 2ft from the ground.
- The container shall be properly grounded.
- General fire alarms to be wired into the containers.
- All rooms shall be of good hardwood floors with wear resistant materials (Vinyl finish).
- All containers shall be fitted with exit and security light fixtures with battery packs (emergency lighting).
- Suitably sized power cables c/w connectors and waterfall receptacles to supply all the containers.
- All cables should be compliant to IEC or BS standards.
- All cables should be insulated with EPR (Ethylene Propylene rubber) or an equivalent UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard.
- All cables utilizing sheaths should utilize CSP (Chlorosulphonated polyethylene) or an UV resistant, Oil Resistant, Flame-Retardant insulation to IEC/EN standard.
- Safety features: Lightning protection system, explosion-proof Air conditioner, fire extinguisher (CO2 type, 2kg), ceiling mounted smoke detectors, first aid box. Container to be marked as non-smoking.
- Fully heated and air conditioned at least 12000BTU per partition. Preferred LG or Samsung units.
- All roofing and walling shall be fitted with proper insulation and leakproof.
- All containers shall be fitted with external container ladder to access container top. All containers shall have lifting points by crane and forklift.
- All internal mounting of Accessories shall be firm with secondary retainers to avoid falling and dismounting during movements.
- Minor adjustments on drawings provided by the supplier may be done jointly with KenGen.
- The camp to have General fire alarm wired into each container.
- Manual and electric sound alarm systems to be provided.
- Drawings and layout shall be provided.
- Water line and wastewater connections with quick couplers for fast rig up. All containers shall conform to all office and housing standard with appropriate certifications provided.
- Corner and intermediate fittings shall be designed to ISO 1161: 2016 and shall withstand loads according to ISO 1496-1 and lifting methods of ISO 3874.
- DNV certification
- The containers office shall be supplied as per description and specifications below;

SPECIFICATIONS

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Two-man executive container	<ul style="list-style-type: none"> • Quantity: Ten (10) Units • Partitioned into two and each side shall be equipped with the following: <ul style="list-style-type: none"> • One wooden single 4×6-feets bed fitted with 8” heavy duty mattress c/w fully hemmed heavy duty Mackintosh material (mattress protector) • One 3-seater executive armchair. 		

	<ul style="list-style-type: none"> • One office desk and chair • One ceramic western-style toilet fitted with tissue holder and hand-held bidet toilet sprayer. • One ceramic hand basin fitted with soap and hand tissue dispenser. • One overhead shower with 40L capacity water heater, towel hanger and soap dish Two lockable wardrobes. • High-definition Smart TV: 49” wall mounted c/w 10m HDMI cable. 		
4-Man Accommodation Unit	<p>Quantity: Ten (10) Unit</p> <ul style="list-style-type: none"> • Shall be partitioned into two with each partition equipped with the following: <ul style="list-style-type: none"> a. Two wooden single 3×6-feets beds fitted with 6” heavy duty mattress c/w fully hemmed heavy duty Mackintosh material (mattress protector) b. Wall-mounted working table with drawers and a chair in-between the beds c. One ceramic western-style toilet fitted with tissue holder and hand-held bidet toilet sprayer. d. One ceramic hand basin fitted with soap and hand tissue dispenser. e. One overhead shower with 40L capacity water heater, towel hanger and soap dish. f. Two lockable wardrobes 		
8-Man Accommodation Unit	<ul style="list-style-type: none"> • Quantity: Six (6) Unit • Shall be partitioned into two with each partition equipped with the following: <ul style="list-style-type: none"> a. Two wooden 3×6-feets double decker beds (four beds) fitted with 6” heavy duty mattress c/w fully hemmed heavy duty Mackintosh material (mattress protector) b. One ceramic western-style toilet fitted with tissue holder and hand-held bidet toilet sprayer. c. One ceramic hand basin fitted with soap and hand tissue dispenser. d. One overhead shower with 40L capacity water heater, towel hanger and soap dish e. Four lockable wardrobes 		
Gents Ablution Block	<ul style="list-style-type: none"> • Quantity: One (1) unit • The container shall be able to drain spilled water easily to avoid corrosion. Bituminous paint and water-resistant materials (Aluminum or stainless) and paints. • The unit shall be partitioned equally into two. One partition for toilets and the other for showers. • Toilet side shall be equipped with: <ul style="list-style-type: none"> • Five cubicles toilets with lockable doors • Toilets should be Asian (squat) flash type stainless steel toilet with cistern and fitted with a tissue holder and hand-held bidet toilet sprayer. • Wall mounted stainless steel urinal 		

	<ul style="list-style-type: none"> • Two side by side stainless steel hand basins fitted with soap dispenser. Hand tissue dispenser should be fitted on the side. • Wall mounted mirror • Shower side to be equipped with; • Five overhead showers with a 100L water heater • Each shower cubicle to be lockable and fitted with a towel hook, soap dish • A wooden wall mounted dry bench. 		
Ladies Ablution Block	<ul style="list-style-type: none"> • Quantity: One (1) unit • The container shall be able to drain spilled water easily to avoid corrosion. Bituminous paint and water-resistant materials (Aluminum or stainless) and paints. • The unit shall be partitioned equally into two. One partition for toilets and the other for showers. • Toilet side shall be equipped with: <ul style="list-style-type: none"> • Five cubicles toilets with lockable doors • Toilets should be Asian (squat) flash type stainless steel toilet with cistern and fitted with a tissue holder and hand-held bidet toilet sprayer. • Two side by side stainless steel hand basins fitted with soap dispenser. Hand tissue dispenser should be fitted on the side. • Wall mounted full length mirror • Shower side to be equipped with; • Five overhead showers with a 100L water heater • Each shower cubicle to be lockable and fitted with a towel hook, soap dish • A wooden wall mounted dry bench and a dressing table. • Wall mounted full length mirror 		
Laundry Unit	<ul style="list-style-type: none"> • Quantity: one (1) set • The unit shall be partitioned equally into two with interconnecting door. • Proper ventilation • One partition to have a heavy-duty washing machine with the following specifications: <ul style="list-style-type: none"> • Minimum 22KG heavy duty washing capacity. • Clear glass porthole design • Stainless steel drum • Electrical installation: 415V/50Hz/3PH • Residual moisture of <25% • Minimal noise & vibration generation in operation • Automated Control • The other partition to have a heavy-duty tumbler dryer machine with the following specifications: <ul style="list-style-type: none"> • Capacity: Minimum 30KG; Ratio 1/20 • Clear glass porthole design • Stainless steel drum • Electrical installation: 415V/50Hz/3PH 		

	<ul style="list-style-type: none"> • All cables to have suitable protection that can withstand up to 100°C and placed in metallic trunking. • Motorized extractor fans to be fitted for regulating the laundry room temp at $\leq 40^{\circ}\text{C}$ while operating. • Heat capture to avoid any air leakage and heat to the environment. • Minimal noise & vibration generation in operation • Automated speed and humidity Control • Provision for 3-phase power supply • Each partition to have stainless steel shelves for storing clothes. <p>the washing and drying machine to be LG or Samsung who have local dealership.</p>		
Recreation Room	<ul style="list-style-type: none"> • Quantity: one (1) set • To be supplied in two modules, each with one open side along the length • Wall mounted 65" HD smart TV with all connecting accessories • The two modules shall be installed side by side to create a 12m long by 6m wide recreation room. • The two modules shall be designed to be leak proof after interconnecting into one. • To be equipped with adequate air conditioning, natural lighting, and proper ventilation • Flooring shall be level, slip proof with no gaps. • Fully equipped pool table mounted on the floor, darts board c/w two sets of darts fixed on the wall, equipped table tennis (2pcs), volleyball nets (2pcs), 85g squash rackets with no joints (6pcs) and FIFA approved soccer balls size 5 (15 pcs). • Two doors located on the opposite side of the lengths fitted with outside steps. 		
Office Unit	<ul style="list-style-type: none"> • Quantity: Two (2) sets • Shall be partitioned into two independent external access doors • Wall mounted 50" HD smart TV with all connecting accessories • Each partition to come with. <ul style="list-style-type: none"> a. One 3-seater executive armchair b. Two executive desks complete with two executive chairs. c. Each equipped with at least two wall mounted file cabinets 		
Cementing Store Unit	<ul style="list-style-type: none"> • Quantity: one (1) set • Shall be partitioned into two with steel (never wood) • Shall have metal reinforced base, forklift & crane friendly with four lifting points. • Partition 1, Office space, shall be 8m long and suited with the following: <ul style="list-style-type: none"> a. One access door with suitable soundproof cladding 		

	<ul style="list-style-type: none"> b. At least two sliding glass windows with soundproof rubber seal (or better material) c. Inbuilt shelves d. Adequate lighting e. Doorstep assist f. One conference table g. External container ladder to access container top h. Inbuilt four computer desk mounted against one side of the wall and fitted with lockable drawers and four adjustable office chairs. i. Electrical wiring and ports: 4 ports at Laptop desk, and 2 on the side of conference desk <ul style="list-style-type: none"> • Partition 2, Equipment Store, shall be 4m long and suited with: <ul style="list-style-type: none"> a. Lockable full open original container access door b. Steel partitioned shelves with wooden bases c. Suitable checkered floor 		
Kitchen Unit	<ul style="list-style-type: none"> • Quantity: one (1) set • To be supplied in two modules, each with one open side along the length • The two modules shall be installed side by side to create a 12m long by 6m wide cooking area . • Provision for 3-phase power supply • The two modules shall be designed to be leak proof after interconnecting into one. • To be suited with adequate air conditioning, natural lighting and proper ventilation • Two doors located on the opposite side of the lengths fitted with outside steps. • The kitchen shall be designed and supplied with the following minimum equipment: <ul style="list-style-type: none"> • High pressure 4 burner cooker (4 pcs) • SL-9 wide 3-deck oven • Deep fryer (2 pcs) • Dough mixer (Planery), (2pcs) • Potato chiller-2pcs • Fridges (3 pcs) • The kitchen equipment above should be sourced from a local dealer for ease of after sales service support. 		
Dining unit	<ul style="list-style-type: none"> • Quantity: one (1) set • To be supplied in two modules, each with one open side along the length • The two modules shall be installed side by side to create a 12m long by 6m wide dining room. • The two modules shall be designed to be leak proof after interconnecting into one. • Two doors located on the opposite side of the lengths fitted with outside steps. • Two (2) wall mounted 65” HD smart TV with all connecting accessories (Mounted on opposite sides) 		

	<ul style="list-style-type: none"> • Suitable seats and tables to accommodate 44 persons. Tables to be fixed onto the floor. • Provision for serving table. • The Dining to come with provision of sinks and stainless-steel serving tables. • The dinning shall be fitted with Bain-Marie food warmers and plate warmers 		
Freezer and chiller unit	<ul style="list-style-type: none"> • Quantity: one (1) set • ISO 1161 20ft steel containerized internally stainless-steel lined chiller/freezer. • To be partitioned into two: The chiller and freezer compartments should have the following specifications: • Operating temperature range: +1°C to +4°C for chiller, -18°C to -35° for freezer • 240V 1PH 50Hz power supply • Personnel door on each partition • Internal lighting • Fitted with two (2) stainless steel goods frame for holding food pallets 		
Mobile clinic	<ul style="list-style-type: none"> • Quantity: one (1) set • Suitably powerful and sized chassis-cab to carry the mobile clinic body. • Body Interior, Sides and Roof to be fabricated in Chromadek-clad Panels. • Consulting room with drawer and working table. • Bathroom with recirculating toilet & hand was basin. • Fit with 300 litres water tank for sinks in the room and toilet. • Fit 3 KVA Generator for electrical supply. • Fit retractable 4.5M side mounting awning. • Examination bed with adjustable back, cup boards below bed. • Welch Allyn Integrated wall diagnostic system with aneroid BP machine, Coaxial Ophthalmoscope, Macro view Otoscope & Disposable Specula Dispenser • Reusable Cuffs per room (Child & Adult) • Wall Mount Examination Light with flexible arm • Adult Mechanical weight/height scale • Desk with 4 Drawers and Executive Chair • Patient Chair • Patient stepper • Inbuilt refrigerator • Defibrillator with monitor • Digital thermometer • Glucometer with strips • Suction pump • Cabinet for oxygen therapy kit • Patient monitor trolley • Pulse oximeter • Stethoscope • I.V giving stand 		

	<ul style="list-style-type: none"> • Drugs/ records cabinets • Wheelchair • 220v Plug points. • Battery charger • Stainless steel sink with 24 water pumps connected to a tap (Supplied via 300ltr water tank mounted on side of chassis) - Waste pipe to separate RESEVOIR. • Soap dispenser, hand paper towel dispenser, disinfection liquid dispenser, OT hand glove/towel holder. • Waste bin made of stainless steel, incl. transport holder. • Curtain rail to separate consultation area and ablution block • Led Strip Lighting in each room. • PVC lockable doors on exit and entrance • Sliding cover clinic & toilet floors in hygienic easy to clean • PVC vinyl Windows/doors will Be Fitted in Each Compartment • Lights installation incl. 4 roof lamps place on the left hand and right-hand side each below the ceiling • Roof/wall mounted 220v Aircon for the Consulting Room/ablution/ Ceiling extraction fans • 1500w inventor with auxiliary Battery per consulting room • Fire extinguisher 5kg • Fitted with two (2) doors . <p style="text-align: center;"><u>TOILET</u></p> <p>Are-circulating chemical toilet between the rooms. Separate Sink with 24v Water Pump in the Bathroom. Disposal of waste should be through a valve underneath the load body.</p>		
Camp site generator	<ul style="list-style-type: none"> • Quantity: One (1) set • The camp site generator and back-up generator unit shall be enclosed, and sound proofed. Mounted on oilfield skid Super silent generators highly preferred. • Euro III CAT C15 engines with sizeable generators with prime rating of 500KW. Governor ADEM A4. • Output voltage: 380- 415 volts, 3 phase, frequency 50Hz. • Sufficient battery powered emergency lamps shall be located at strategic points to allow escape to muster point in event of power outage during emergency. Automatic change over system shall be installed to change from grid power to generator in case of grid power failure. • The generator shall be delivered together with a fuel tank of at least 20000 liters (20m³), skid mounted. The tank has two centrifugal pumps (duty and standby). 		

	<ul style="list-style-type: none"> • Spill containment system to be provided around the tank and the generator with oil trap and water drainage ports. • Diesel hoses to be fitted with leak prove fittings. • Elevated platform for the fuel tank to enable gravity feed during operation. • The fuel tank has both manual and digital level indicators. • Flowmeters to be fitted to monitor consumption. 		
Water tank and water treatment plant	<ul style="list-style-type: none"> • Quantity: Two (2) Units • 50m³ water tanks c/w 5m high platform capable of fast moving each. • Suitably sized water treatment plant: two units (duty and standby) • The water treatment to be supplied should be sourced from a local dealer for ease of after sales service support. 		
Fire fighting unit	<ul style="list-style-type: none"> • Suitable water pumps to be provided for firefighting. • Two pumps: one electric and one diesel driven (Deutz engine) mission pumps. • Firefighting hoses and reels • Fire extinguishers- Portable dry powder 10kg- 30pcs, wheel mounted, dry chemical fire extinguishers 6pcs, Portable CO₂ fire extinguisher 5kg- 12pcs powder with shelter to protect from weather. 		
Guard house unit	<ul style="list-style-type: none"> • Quantity: two (2) unit • The container shall be 20ft of length fitted with one office table with three seats, with big glass windows all round for monitoring all sides and should contain one lockable file cabinet 		

SECTION 17: DRILLING STRING TUBULARS AND TOOLS

- All drill string components shall be new, unused, and appropriately marked in accordance with API specifications.
- A valid NS-1 certificate for the manufacturer of the drill string components shall be provided.
- Manufacturers' authorization for all components offered must be provided.
- A valid API Spec Q1, 9th Edition certificate for all drill string components must be provided.

Drill Pipes

- Drill pipes shall be manufactured to API Spec 5DP. Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided.
- Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided.
- Threaded connections shall be in accordance with API Spec 7-1. Gall-resistant treatment shall be applied on the threads and sealing shoulders of all end connections.
- The drill pipes shall be suited with internal plastic coating (IPC) for corrosion, pitting and washout resistance under a wide range of temperature and pH range.
- The drill pipes shall be grade G105, Range II and conform to the following minimum specifications:

Tube OD (inch)	Tube ID (inch)	Weight (lbs/ft)	Upset	Tool Joint OD (inch)	Tool Joint ID (inch)	Pin Tong Space (inch)	Box Tong Space (inch)
5	4.276	19.5	IEU	6 5/8	3 1/4	9	12

Hard banding on Drill Pipe

Hard banding shall be applied on tool joints for 5" OD drill pipe with Duraband NC or Arnco 350XT (minimum hardness 57 HRC) as follows: - Prove of material test to be provided.

Box tool joint:

A 3 inch (76mm) wide raised hardband on the OD adjacent to the 18° shoulder. The height of the hardband should not be less than 2.5mm. The hardbanding should be applied approximately 3/8" (9.5mm) from the 18° shoulder.

A 3/4 inch (19mm) wide hardband applied flush on the 18° shoulder.

Pin tool joint:

A 2 inch (50mm) wide raised hardband on the OD adjacent to the 18° shoulder. The height of the hardband should not be less than 2.5mm. The hardbanding should be applied approximately 3/8" (9.5mm) from the 18° shoulder.

- a. All drill pipes shall be fitted with pressed steel thread protectors at both ends.
- b. Mill test certificates shall be provided at the point of supply.

Heavy Weight Drill Pipes

- a. The HWDP shall be new, unused, and appropriately marked in accordance with API specifications.
- b. The HWDP shall be manufactured to API Spec 7-1.
- c. A valid API Spec 7-1 from the manufacturer shall be submitted with the bid document.
- d. Valid NS-1 certificate for the manufacturer of the HW drill pipe shall be provided.
- e. Material: AISI 1340 alloy steel for body and AISI 4145H for tool joint. Material test certificate to be provided.
- f. Threaded connections shall be in accordance with API Spec 7-1. The thread roots shall be cold rolled. Gall-resistant treatment (phosphating) shall be applied on the threads and sealing shoulders of all end connections. Stress relief groove on pin and boreback on box connections shall be provided as specified in API Spec 7-1.
- g. Taper shoulders on box and pin ends shall be 18° (35° taper on pin end at manufacturer's option).
- h. The HW drill pipes shall be suited with internal plastic coating (IPC) for corrosion, pitting and washout resistance under a wide range of temperature and pH range.
- i. The HWDP shall be welded type and shall conform to the following minimum specifications:

Tube OD: 5"
Tube ID: 3"
Length: Range II
Connections: NC 50
Tool joint OD: 6-5/8"
Tool joint ID: 3"
Center upset OD: 5-1/2"
Tool joint length ~ pin end: Not less than 27"
Tool joint length ~ box end: Not less than 21"
Center upset length: Not less than 24"
Approximate weight: 1550 lbs

j. Hard banding on HWDP

The HWDP shall be hardbanded with Duraband NC (minimum hardness 57 HRC). The hardbanding shall be applied as follows: -

Tool joints:

- 4" (100mm) wide raised hardband on both the pin and box tool joints.
- 1" (25mm) wide hardband applied flush on the taper section of the box.

Center upset area: Two 3" (76mm) wide raised hardband.

- k. All HWDP shall be fitted with pressed steel thread protectors at both ends.
- l. Mill test certificates shall be provided at the point of supply.

DRILL COLLARS, STABILIZERS AND SUBS

Drill Collars

- a. The drill collars shall be manufactured according to API Spec 7-1.
- b. Valid API spec 7-1 and API Spec Q1 from the manufacturer shall be submitted with the bid document.
- c. Technical catalogue/brochure, detailing the design, the dimensional details and the performance characteristics must be provided. The bidders **must** provide the model of each component that is offered from the datasheet.
- d. Material: AISI 4145H modified heat-treated alloy steel. Proof of material test to be provided.
- e. Threaded connections shall be in accordance with API Spec 7-1. The thread roots shall be cold rolled. Gall-resistant treatment shall be applied on the threads and sealing shoulders of all end connections. Stress relief groove on pin and boreback on box connections shall be provided as specified in API Spec 7-1.
- f. The drill collars shall be provided with elevator and slip recesses.
- g. The drill collars shall be spiral type with three right-hand spirals and conform to the following minimum specifications.

Hardbanding

The drill collars shall be hardbanded with Duraband NC (minimum hardness 57 HRC) or equivalent. The hardbanding shall be applied as follows: - Prove of hard banding material test to be provided.

- i) 10" (250 mm) wide band under the slip recess
- ii) 1" (25 mm) wide band above the slip recess
- iii) 4" (100 mm) wide band above the elevator recess
- h. All drill collars shall be fitted with pressed steel thread protectors at both ends.
- i. Mill test certificates in accordance with API Spec 7-1 will be provided at the point of supply.

Stabilizers

- a. The stabilizers shall be new, unused, and appropriately marked in accordance with API specifications.
- b. The stabilizers shall be manufactured to API Spec 7-1.
- c. Valid API Spec 7-1 from the manufacturer must be submitted with the bid document. The scope of API 7-1 and API Spec Q1 shall be consistent and cover the items requested for in the tender.
- d. Material: AISI 4145H modified heat treated alloy steel. Material test certificate to be provided.
- e. The stabilizers shall be integral blade type with three right-hand open spirals.
- f. The stabilizers shall be hardfaced with HF 4000. Material test of the hard banding to be provided.
- g. The near-bit stabilizers shall be suited with NRV recess to accommodate the Baker type float valves as below:

Dimensions for 8½" near-bit stabilizer NRV recess

Float valve size – 4R

Bore ID – 3½"

Bore Length – 8-9/16"

Face to face length – 13-1/16"

Dimensions for 12¼" near-bit stabilizer NRV recess

Float valve size – 5F-6R

Bore ID – 4-13/16"

Bore Length – 12"

Face to face length – 17"

- i. Bidders must provide a detailed technical drawing detailing the dimensions of the NRV recess assembled with the float valve.
- ii. Threaded connections shall be in accordance with API Spec 7-1. The thread roots shall be cold rolled. Gall-resistant treatment (phosphating) shall be applied on the threads and sealing shoulders of all end connections. Stress relief Stress relief groove on pin and boreback on box connections shall be provided as specified in API Spec 7-1.
- iii. All stabilizers shall be provided with pressed steel thread protectors at both ends.
- iv. Mill test certificates in accordance with API Spec 7-1 shall be provided at the point of supply

Rotary Subs

- a. The subs shall be new, unused, and appropriately marked in accordance with API specifications.
- b. Bidders must provide a detailed technical drawing for the back off subs.
- c. The subs shall be manufactured according to API Spec 7-1.
- d. Valid API Spec 7-1 and API Spec Q1 from the manufacturer shall be submitted with the bid document.
- e. Material: AISI 4145H modified heat-treated alloy steel. Proof of material test to be provided.
- f. Threaded connections shall be in accordance with API Spec 7-1. The thread roots shall be cold rolled. Gall-resistant treatment shall be applied on the threads and sealing shoulders of all end connections. Stress relief groove on pin and boreback on box connections shall be provided as specified in API Spec 7-1.

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Drill Pipes	<ul style="list-style-type: none">• Quantity: 6000m• 5" OD x 19.5 lb/ft drill pipes, grade G105, range II, IEU with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding.• All pipe to be internally coated with TC2000• Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided.• Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided		
Pup Joints – (Short drill pipes)	<ul style="list-style-type: none">• Quantity: 6 pieces• 5" OD x 19.5 lb/ft drill pipes, grade G105, 20ft long, IEU with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding.• All pipe to be internally coated with TC2000• Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided.• Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided		

Pup Joints – (Short drill pipes)	<ul style="list-style-type: none"> • Quantity: 6 pieces • 5" OD x 19.5 lb/ft drill pipes, grade G105, 10ft long, IEU with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding. • All pipe to be internally coated with TC2000 • Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided. • Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided 		
Heavy weight drill pipes	<ul style="list-style-type: none"> • Quantity: 48 pieces • 5" OD heavy weight drill pipes, 31 ft long ($\pm 6''$), 3" ID, with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding. • All pipe to be internally coated with TC2000 • Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided. • Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided 		
Pup joint –(Short HWDP)	<ul style="list-style-type: none"> • Quantity: 6 pieces • 5" OD heavy weight drill pipes, 20 ft long ($\pm 6''$), 3" ID, with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding. • All pipe to be internally coated with TC2000 • Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided. • Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided 		
Pup joint –(Short HWDP)	<ul style="list-style-type: none"> • Quantity: 6 pieces • 5" OD heavy weight drill pipes, 10 ft long ($\pm 6''$), 3" ID, with NC50 connections and 6-5/8" OD tool joints complete with pressed steel thread protectors and suitable hard banding. • All pipe to be internally coated with TC2000 • Valid API 5DP, API Spec Q1 and NS-1 license for the manufacturer shall be provided. • Valid certificate to apply hardbanding on the manufactured drill pipes from Duraband or Arnco shall be provided 		
Near Stabilizer 26" Bit	<ul style="list-style-type: none"> • Quantity: 3 pieces • Integral spiral blade string stabilizer for 26" diameter hole. • Connections: 7 5/8" REG (pin) and 6-5/8" REG(box) • Number of blades: 3; open spiral type • Neck diameter: 9" • Inside diameter: 3" • Upper neck length: at least 33" Lower neck length: at least 24" Crown length: at least 18" • Blade width: 3½ " 		

String Stabilizer 26"	<ul style="list-style-type: none"> • Quantity: 3 pieces • Integral spiral blade string stabilizer for 26" diameter hole. • Connections: 6-5/8" REG (pin & box) • Number of blades: 3; open spiral type • Neck diameter: 9" • Inside diameter: 3" • Upper neck length: at least 33" Lower neck length: at least 24" Crown length: at least 18" • Blade width: 3½ " 		
17½" String Stabilizer	<ul style="list-style-type: none"> • Quantity: 8 pieces • Integral spiral blade string stabilizer for 17½" diameter hole. • Connections: 6 5/8" REG (pin & box) • Number of blades: 3; open spiral type • Neck diameter: 9" • Inside diameter: 3" • Upper neck length: at least 33" Lower neck length: at least 24" Crown length: at least 18" • Blade width: 3½ " 		
17½" Near Bit Stabilizer	<ul style="list-style-type: none"> • Quantity: 8 pieces • Integral spiral blade near bit stabilizer for 17½ " diameter hole complete with NRV recess to fit size 5F-6R baker type float valve. • Connections: 6 5/8" REG (box & box) • Number of blades: 3; open spiral type • Neck diameter: 9" • Inside diameter: 3" • Upper neck length: at least 33" Lower neck length: at least 24" Crown length: at least 18" • Blade width: 3½" 		
Reamer 17½"	<ul style="list-style-type: none"> • Quantity: 3 pieces • 17½" 3-point roller reamer (string type) designed with integral cutters for medium-hard formations. • Connections: 6 5/8" REG (pin & box) • Neck diameter: 9" • Inside diameter: 3" • Overall length: 9 ¾" ft 		
12¼" String Bit Stabilizer	<ul style="list-style-type: none"> • Quantity: 12 pieces • Integral spiral blade string stabilizer for 12¼" diameter hole. • Connections: 6 5/8" REG (pin & box) Number of blades: 3; open spiral type • Neck diameter: 8" • Inside diameter: 2 13/16" • Upper neck length: at least 30" • Lower neck length: at least 24" • Crown length: at least 18" • Blade width: 3" 		
12¼" Near Bit Stabilizer	<ul style="list-style-type: none"> • Quantity: 12 pieces • Integral spiral blade near bit stabilizer for 12¼" diameter hole complete with NRV recess to fit size 5F-6R baker type float valve. • Connections: 6 5/8" REG box up and box down 		

	<ul style="list-style-type: none"> • Number of blades: 3 • Neck diameter: 8" Inside diameter: 2-13/16" • Upper neck length: at least 30" • Lower neck length: at least 18" • Crown length: at least 18" • Blade width: 3" 		
12¼" Reamer	<ul style="list-style-type: none"> • Quantity: 3 pieces • 12¼", 3-point roller reamer (string type) designed with integral cutters for medium-hard formations. • Connections: 6 5/8" REG (pin & box) • Neck diameter: 8¼" • Inside diameter: 2 13/16" • Overall length: 9¼ ft 		
8½" String Stabilizer	<ul style="list-style-type: none"> • Quantity: 15 pieces • 8½" integral spiral string stabilizer: OD: 8½", fishing neck: 6½", connection: NC50 PIN*BOX, ID: 2¼" 		
8½" Near Bit Stabilizer	<ul style="list-style-type: none"> • Quantity: 15 pieces • 8½" integral spiral near bit stabilizer: OD: 8½", fishing neck: 6½", connection: NC50 BOX*BOX, ID: 2¼" 		
Drill collar 6½"	<ul style="list-style-type: none"> • Quantity: 36 pieces • 6½" OD x 2-13/16" ID spiral type drill collars, 30ft long (± 6") with slip and elevator recesses and NC50 connections with suitable hard banding as per the technical specifications. 		
Drill collars 6½"	<ul style="list-style-type: none"> • Quantity: 6 pieces • 6½" OD x 2-13/16" ID spiral type drill collars, 24ft long (± 6") with slip and elevator recesses and NC50 connections with suitable hard banding as per the technical specifications. 		
Nonmagnetic Drill collars 6½"	<ul style="list-style-type: none"> • Quantity: 3 pieces • 6½" OD x 2-13/16" ID slick type non-magnetic drill collars, 31ft long (± 6") with slip and elevator recesses and NC50 connections. 		
Drill collars 8"	<ul style="list-style-type: none"> • Quantity: 15 pieces • 8" OD x 2-13/16" ID spiral type drill collars, 30ft long (± 6") with slip and elevator recesses and 6-5/8" API REG connections with suitable hard banding as per the technical specifications. 		
Drill collars 8"	<ul style="list-style-type: none"> • Quantity: 4 pieces • 8" OD x 2-13/16" ID spiral type drill collars, 24ft long (± 6") with slip and elevator recesses and 6-5/8" API REG connections with suitable hard banding as per the technical specifications. 		
Drill collars 9½"	<ul style="list-style-type: none"> • Quantity: 9 pieces • 9½" OD x 2-13/16" ID spiral type drill collars 30ft long, 7-5/8" Reg pin x box connections, with slip and elevator recesses, AISI 4145H material. 		
Drill collars 9½"	<ul style="list-style-type: none"> • Quantity: 2 pieces • 9-1/2" OD x 2-13/16" ID x 10ft long, 7-5/8" Reg pin box connections, with slip recess, AISI 4145H material. 		

Nonmagnetic Drill collars 8"	<ul style="list-style-type: none"> Quantity: 3 pieces 8" OD x 2-13/16" ID slick type non-magnetic drill collars, 31ft long ($\pm 6"$) with slip and elevator recesses and 6-5/8" API REG connections. 		
Crossover sub-8"	<ul style="list-style-type: none"> Quantity: 6 pieces 8" OD to 6 1/2" OD Bottleneck Crossover Sub, 6-5/8" API REG Pin and NC50 Box, 2 13/16" ID and 36" long. Length of the reduced section shall be half. 		
Crossover sub-9 1/2"	<ul style="list-style-type: none"> Quantity: 3 pieces 9 1/2"OD x 2-13/16" ID, with 7-5/8" API Reg. stressed relief grooved PIN ' 8 1/4" OD x 2-13/16" ID, tapered, with 6-5/8" API Reg. bore back BOX, 48" long. 		
Crossover sub-9 1/2"	<ul style="list-style-type: none"> Quantity: 3 pieces 9 1/2"OD x 2-13/16" ID, with 7-5/8" API Reg. stressed relief grooved PIN ' 6 3/4" OD ' 2-13/16" ID, tapered, with NC50 bore back BOX, 48" long 		
Crossover sub-8"	<ul style="list-style-type: none"> Quantity: 3 pieces 8" OD x 2-13/16" ID, with 6-5/8" API Reg. stressed relief grooved PIN ' 6 3/4" OD x 2-13/16" ID, with NC50 bore back BOX, 48" long. 		
Crossover sub-NC50-NC38	<ul style="list-style-type: none"> Quantity: 3 pieces NC38 Pin x NC50 bore back box, 48" long 		
Bit subs 9 1/2" OD	<ul style="list-style-type: none"> Quantity: 3 pieces Size: 9 1/2" OD x 2-13/16" ID connection: 7-5/8" Reg, bore back box x box 		
Bit subs 8" OD	<ul style="list-style-type: none"> Quantity: 3 pieces Size 8" OD x 2-13/16" ID connection:6-5/8" API Reg, bore back box x box 		
Bit subs 6 1/2"OD	<ul style="list-style-type: none"> Quantity: 3 pieces Size: 6-1/2"OD x 2-13/16" I.D. connection: 4 1/2" I.F. box x 4 1/2" Reg bore back box 		
Side entry sub	<ul style="list-style-type: none"> Quantity: 3 pieces NC50 pin x box with 2"1502 male threaded outlet 		
Pump in sub	<ul style="list-style-type: none"> Quantity: 3 pieces NC 50 Pin x 1502 male threaded outlet. 		
Jet subs	<ul style="list-style-type: none"> Quantity: 3 pieces each NC 50 Pin/Box, 3' for 5" DP string NC 38 Pin/Box, 3' for 3 1/2" DP string 		
Drill collar lifting pony 7 5/8"	<ul style="list-style-type: none"> Quantity: 3 pieces Drill collar lifting pony with 7-5/8" API REG pin connection, 36" overall length and suited with 18° tapered elevator shoulder. 		
Drill collar lifting pony 6 5/8"	<ul style="list-style-type: none"> Quantity: 3 pieces Drill collar lifting pony with 6-5/8" API REG pin connection, 36" overall length and suited with 18° tapered elevator shoulder. 		
Drill collar lifting pony NC50	<ul style="list-style-type: none"> Quantity: 5 pieces Drill collar lifting pony with NC50 pin connection, 36" overall length and suited with 18° tapered elevator shoulder 		

Drill collar lifting cap 6 5/8"	<ul style="list-style-type: none"> • Quantity: 5 pieces • Drill collar lifting cap with 6-5/8" API REG pin connections. 		
Drill collar lifting cap NC50	<ul style="list-style-type: none"> • Quantity: 5 pieces • Drill collar lifting cap with NC50 pin connections. 		
Top drive saver sub	<ul style="list-style-type: none"> • Quantity: 12 pieces • 7 3/4" OD Top drive saver sub with 6-5/8" REG pin (<i>up</i>) and NC50 pin (<i>down</i>), and 2 1/2". The overall length shall be around 490mm. 		
Hexagonal Kelly	<ul style="list-style-type: none"> • Quantity: 2 pieces • 5 1/4" Hexagonal Kelly with 7 3/4" OD by 6-5/8" API REG Left hand box connection and 6 1/4" OD by NC50 pin connection, 3 1/4" ID and 40 feet long. • Kelly shall supplied complete with kelly saver sub and Kelly cock 		
Shock subs 9 1/2"	<ul style="list-style-type: none"> • Quantity: 4 pieces • OD: 9 1/2", ID: 2-1/2", connection: 7-5/8"REG Pin*Box, 		
Shock subs 8"	<ul style="list-style-type: none"> • Quantity: 6 pieces • OD: 8", ID: 2-1/2", connection: 6-5/8"REG Pin*Box, 		
Shock subs 6 1/2"	<ul style="list-style-type: none"> • Quantity: 8 pieces • OD: 6-1/2", ID: 1-7/8", connection: NC50 Pin*Box 		
Drilling jars 8"	<ul style="list-style-type: none"> • Quantity: 6 pieces • Hydro-mechanical drilling jar, OD:8", ID: 2-13/16", connection: 6-5/8"REG Pin*Box 		
Drilling jars 6 1/2"	<ul style="list-style-type: none"> • Quantity: 6 pieces • Hydro-mechanical drilling jar, OD:6 1/2", ID: 2-1/4", connection: NC50 Pin*Box 		
Tools	<ul style="list-style-type: none"> • Specialized tools for measuring pipe and down hole equipment sizes, such as inside and outside calipers, derrick tape (30 m), • Bit Gauge for 26", 17 1/2", 12 1/4" and 8 1/2" all graduated in both metric and imperial units 		

SECTION 18: FISHING TOOLS

General technical requirements applicable to all fishing Tools.

- a. The fishing tools shall be new, unused, and appropriately marked in accordance with API specifications.
- b. Threaded connections shall be in accordance with API Spec 7-1. The thread roots shall be cold rolled. Gall-resistant treatment shall be applied on the threads and sealing shoulders of all end connections. Stress relief groove on pin and boreback on box connections shall be provided as specified in API Spec 7-1.
- c. The scope **covered** by the Manufacturer's API 7-1 must be specific to the tools offered.
- d. The scope covered by the Manufacturer's API Spec Q1 must be specific to the tools offered.
- e. Both API 7-1 and API Spec Q1 shall be provided. None shall be used in place of the other.
- f. The bidders must provide technical datasheet/catalogue detailing the performance characteristics/parameters for the mud motors offered.
- g. The bidder must provide the user manual (in soft copy) for the drilling jars at the point of tendering.
- h. All end connections shall be fitted with pressed steel thread protectors.
- i. Additionally, the fishing tools shall conform to the following minimum technical specifications in the table below:

Full Circle Releasing Spears

- a. The full circle releasing (FCR) spear shall be new, unused and of latest design.
- b. The full circle releasing spears shall be Bowen type or Logan type of equivalent specifications.
- c. Shall have the capacity to retrieve the specified range of casings, tubing, or drill pipes.
- d. The releasing spear shall be suited with at least 3 slips or more depending on the casing size.
- e. Shall be designed with a friction block assembly comprising a unitizer, 2 retainers, friction blocks, retainer screws, outer block spring and inner block springs.
- f. Shall be supplied suited with a standard bullnose nut.

Requirement	Casing spear for 7" casings	Casing spear for 9 5/8" casings	Casing spear for 13 3/8" casings
Nominal size	7" CSG	9 5/8" CSG	13 3/8" CSG
Recommended range	7"	9 5/8"	13- 13 5/8
Expansion slips over safety ring	5/8"	3/4	13/16
OD smallest slip retracted	5 3/4"	8 3/16	12
Slip engagement area	365	580	890
Minimum Load Rating (klbs)	280	320	200
Top Connection	NC50	API 6 5/8 REG	API 6 5/8 REG

- g. The full circle releasing spear shall be supplied with:
 - i. 2 sets of Slips for each size
 - ii. 1 Safety Ring for each size
 - iii. 1 unitizer and 2 friction retainers on 2-3/8" to 3 1/2" Tubing Spears or 2 friction block assemblies on 4" Tubing Spears and larger
 - iv. 1 Stop
 - v. 1 mill type nut

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Left hand drill pipes	<ul style="list-style-type: none"> • 5" left hand drill pipes 3000m • Backoff subs • Left hand Kelly drive complete with saver subs 		
Overshot 8 1/4"	<ul style="list-style-type: none"> • Quantity: 2 sets (complete assembly) • 8 1/4" OD Full Strength releasing and circulating overshot (Bowen series 150 or equivalent), complete with spiral grapple, spiral grapple control and type 'A' packer, standard cut-lipped guide, top sub with NC50 box up connection. 		

Spiral grapples for 8¼" Overshot	<ul style="list-style-type: none"> • Spiral grapple accessories for above overshot: • Spiral grapple, size 6 5/8" (4 pc). • Spiral grapple control, size 6 5/8" (5 pc). • Type 'A' packer, size 6 5/8" (5 pcs). • Spiral grapple, size 6½" (4 pcs). • Spiral grapple control, size 6½" (5 pc). • Spiral grapple, size 6¼" (4 pcs). • Spiral grapple control, size 6¼" (5 pc). • Type 'A' packer, size 6¼" (5 pcs). 		
Basket grapples for 8¼" Overshot	<ul style="list-style-type: none"> • Basket grapple accessories for above overshot: • Basket grapple, size 5" (5 pcs). • Basket grapple control, size 5" (5 pcs). • Basket grapple, size 4½" (5 pcs). • Basket grapple control, size 4½" (5 pcs). 		
Accessories 8¼" Overshot	<ul style="list-style-type: none"> • Accessories for above overshot: • Extension sub, size 8¼" OD & 30" long (1 pc). • 12¼" OD oversize cut-lipped guide (3 pc). 		
Overshot 11-3/4"	<ul style="list-style-type: none"> • Quantity: 2 set (complete assembly) • 11-3/4" OD Full Strength releasing and circulating overshot (Bowen series 150 or equivalent), complete with spiral grapple, spiral grapple control and type 'A' packer, standard cut-lipped guide, top sub with 6 5/8" API REG box up connection. 		
Basket grapples for 11-3/4" Overshot	<ul style="list-style-type: none"> • Basket grapple accessories for above overshot: • Basket grapple, size 8" (4 pcs). • Basket grapple control, size 8" (4 pcs). • Basket grapple, size 9½" (3 pcs). • Basket grapple control, size 9½" (4 pcs). • Basket grapple, size 9" (4 pcs). • Basket grapple control, size 9" (4 pcs). 		
Overshot 10-5/8"	<ul style="list-style-type: none"> • Quantity: 3 set (complete assembly) • 10-5/8" OD Full Strength releasing and circulating overshot (Bowen series 150 or equivalent), complete with spiral grapple, spiral grapple control and type 'A' packer, standard cut-lipped guide, top sub with 6 5/8" API REG box up connection. 		
Basket grapples for 10-5/8" Overshot	<ul style="list-style-type: none"> • Basket grapple accessories for above overshot: • Basket grapple, size 8" (4 pcs). • Basket grapple control, size 8" (4 pcs). • Basket grapple, size 6½" (3 pcs). • Basket grapple control, size 6½" (4 pcs). • Basket grapple, size 6¼" (4 pcs). • Basket grapple control, size 6¼" (4 pcs). 		
Accessories 10-5/8" Overshot	<ul style="list-style-type: none"> • Other accessories for above overshot: • Extension sub, size 10 5/8" OD & 36" long (1 pc). 		
Rotary taper 6¹/₈" OD Bowen type	<ul style="list-style-type: none"> • Quantity: 4 pieces • 6¹/₈" OD Bowen type or equivalent rotary taper tap with fluted wickers and NC50 connection to catch ID range 2 ¹³/₁₆" to 3 ¹¹/₁₆" 		
Rotary taper 6¹/₈" OD Bowen	<ul style="list-style-type: none"> • Quantity: 4 pieces 		

type with fluted wickers	<ul style="list-style-type: none"> • 6¹/₈" OD Bowen type or equivalent rotary taper tap with fluted wickers and NC50 connection to catch ID range 3¹/₄" to 4³/₄". 		
Fishing magnet 7" OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 7" OD Bowen type or equivalent fishing magnet with 4¹/₂" API REG connections, suited with circulation ports to provide at least 330 lbs pulling force. 		
Fishing magnet 10 ¹ / ₂ "	<ul style="list-style-type: none"> • Quantity: 2 pieces • 10¹/₂" OD Bowen type or equivalent fishing magnet with 6⁵/₈" API REG connections suited with circulation ports to provide at least 560 lbs pulling force. 		
Impression block 11 ³ / ₄ " OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 11³/₄" OD, water course lead impression block, with 6⁵/₈" API REG top sub connections. 		
Impression block 7 ¹ / ₂ " OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 7¹/₂" OD, water course lead impression block, with 6⁵/₈" API REG top sub connections. 		
Junk mill 7 ⁵ / ₈ " OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 7⁵/₈" OD, Bowen-type or equivalent casing friendly bladed junk mill with 4¹/₂" API REG connections and 6¹/₂" OD by 12" long fishing neck, dressed with itcoloy or similar hard-facing material. 		
Junk mill 11 ³ / ₄ " OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 11³/₄" OD, Bowen-type or equivalent casing friendly bladed junk mill with 6⁵/₈" API REG connections and 8" OD by 12" long fishing neck, dressed with itcoloy or similar hard-facing material. 		
Reverse circulation junk basket for 8 ¹ / ₂ hole	<ul style="list-style-type: none"> • Quantity: 2 pieces • 7⁷/₈" OD Bowen-type or equivalent reverse circulation junk basket for 8¹/₂ hole with 4¹/₂" API REG top sub connection complete with bowen type B (itocoloy dressed) mill shoe, 2 spare type B mill shoes and 2 junk catchers 		
Reverse circulation junk basket for 12 ¹ / ₄ " hole	<ul style="list-style-type: none"> • Quantity: 2 pieces • 11" OD, Bowen-type or equivalent reverse circulation junk basket for 12¹/₄" hole with 6⁵/₈" API REG top sub connection complete with Bowen type B (itocoloy dressed) mill shoe, 2 spare type B mill shoes and 2 junk catchers 		
Fishing jar 7-3/4" OD	<ul style="list-style-type: none"> • Quantity: 3 pieces • 7-3/4" OD by 2¹/₄ ID Logan type or equivalent integral mandrel hydraulic fishing jar with 6-5/8" API REG connections. Total stroke: 12", Length of jar: 15ft; Maximum pull load: 275,000lbs. 		
Fishing jar 6-1/4" OD	<ul style="list-style-type: none"> • Quantity: 2 pieces • 6-1/4" OD by 2¹/₄ ID, Logan type or equivalent integral mandrel hydraulic fishing jar with NC50 connections. Total stroke: 12"; Length of jar: 13ft; Maximum pull load: 200,000lbs. 		
Back-off Sub 6 ¹ / ₂ " OD	<ul style="list-style-type: none"> • Quantity: 3 pieces 		

	<ul style="list-style-type: none"> • 6½" OD Back-off Sub (back-off spear or pin tap) with NC50 left hand upper box connection complete with expanding fishing sleeve and NC50 right hand pin-type fishing connection 		
Back-off Sub 8" OD	<ul style="list-style-type: none"> • Quantity: 3 pieces • 8" OD Back-off Sub (back-off spear or pin tap) with 6 5/8" REG left hand upper box connection complete with expanding fishing sleeve and 6 5/8" REG right hand pin-type fishing connection 		
Wash over pipe 8" OD	<ul style="list-style-type: none"> • Quantity: 10 pieces • 8" OD by 7 ¼" ID by 33ft long; two-step double shouldered buttress threaded wash over pipe. Connection yield torque- 24,000 ft-lbs 		
Wash over pipe 9-5/8" OD	<ul style="list-style-type: none"> • Quantity: 10 pieces • 9-5/8" OD by 8 5/6" ID by 33ft long; two-step double shouldered buttress threaded wash over pipe. Connection yield torque- 45,000 ft-lbs 		
Wash over pipe 11 ¾" OD	<ul style="list-style-type: none"> • Quantity: 10 pieces • 11 ¾" OD by 10.88" ID by 33ft long; two-step double shouldered buttress threaded wash over pipe. Connection yield torque- 65,000 ft-lbs 		
Drive sub for 8" OD Wash over pipe	<ul style="list-style-type: none"> • Quantity: 3 pieces • 19" long, Drive sub for 8" OD wash over pipe with NC50 box (up) connection and two-step double shouldered buttress connections. 		
Drive sub for 9½" OD Wash over pipe	<ul style="list-style-type: none"> • Quantity: 3 pieces • 20" long, Drive sub for 9½" OD wash over pipe with NC50 box (up) connection and two-step double shouldered buttress connections. 		
Drive sub for 11 ¾" OD Wash over pipe	<ul style="list-style-type: none"> • Quantity: 3 pieces • 20" long, Drive sub for 11 ¾" OD wash over pipe with 6 5/8" REG box (up) connection and two-step double shouldered buttress connections. 		
Casing Spear for 7" OD casing	<ul style="list-style-type: none"> • Quantity: 1 piece (Complete assembly) • Bowen or Logan type Full Circle Releasing Casing Spear to catch 7" OD casing, as per technical specifications 		
Casing Spear for 9 5/8" OD casing	<ul style="list-style-type: none"> • Quantity: 1 piece (Complete assembly) • Bowen or Logan type Full Circle Releasing Casing Spear to catch 9 5/8" OD casing, as per technical specifications 		
Casing Spear for 13 3/8" OD casing	<ul style="list-style-type: none"> • Quantity: 1 piece (Complete assembly) • Bowen or Logan type Full Circle Releasing Casing Spear to catch 13 3/8" OD casing, as per technical specifications 		

SECTION 19: DIRECTIONAL EQUIPMENT AND TOOLS

General technical requirements applicable to all Directional Drilling Tools.

- All directional tools shall be new, unused and of the latest design.
- Technical catalogue/brochure, detailing the design, the dimensional details and the performance characteristics must be provided. The bidders **must** provide the model of each component that is offered from the datasheet.
- The manufacturer's warranty and guarantee attesting to the quality of supplied goods shall be provided.

Mud Motors and Accessories

- Threaded connections shall be in accordance with API Spec 7-1
- The scope covered by the Manufacturer's API 7-1 must be specific to the items offered.
- The scope covered by the Manufacturer's API Spec Q1 (9th Edition) must be specific to the items requested for in the tender.
- Both API 7-1 and API Spec Q1 (9th Edition) shall be provided. None shall be used in place of the other.
- The bidders must provide technical datasheet/catalogue detailing the performance characteristics/parameters for the mud motors offered.
- The motor performance curves, for differential pressure against torque, speed, power and efficiency must be provided for each size of mud motor.
- All mud motors shall be fitted with pressed steel thread protectors at both ends.
- Additionally, the mud motors shall conform to the minimum technical specifications captured in the table below:

Tool Size (in)	9 5/8" or 9 1/2"	7 3/4" or 8"	6 1/2" or 6 3/4"
Motor Type	PDM	PDM	PDM
Hole Size (in)	12 1/4" - 17 1/2"	9 7/8" - 12 1/4"	8 1/2"
Integral spiral blade stabilizer size (in)	17 3/8"	12 1/8"	8 3/8"
Drilling Fluid	Water based mud	Aerated water, air, foam	Aerated water, air, foam
Flow Range (GPM)	800-1200	500-1000	200-650
Lobe Configuration	5/6	7/8	7/8
Temp Rating (°C)	Not less than 120 °C	Not less than 120 °C	Not less than 148 °C
Differential Pressure (psi)	Above 350 psi	Above 350 psi	Above 350 psi
Bend type & settings	Rig adjustable bend with settings to achieve 1-3°/10m	Rig adjustable bend with settings to achieve 1-3°/10m	Rig adjustable bend with settings to achieve 1-3°/10m
Minimum Operating Torque (kN.m)	9.5	15	6
Horsepower (HP)	Not less than 120 HP	Not less than 260 HP	Not less than 180 HP
Bearing Type / Seal Mechanism	Sealed oil /mud lubricated bearing assembly	Sealed oil lubricated bearing assembly	Sealed oil lubricated bearing assembly
Maximum WOB (kN)	400	380	180
Connections (API Reg)	Top: 6 5/8" API REG BOX Bottom: 7 5/8" API REG BOX	Top: 5 1/2" API REG BOX Bottom: 6 5/8" API REG BOX	Top: 4 1/2" API REG BOX Bottom: 4 1/2" API REG BOX

Measurement While Drilling Equipment and Accessories

- The MWD shall be new and unused.
- The MWD shall be National Oil Varco Tolteq dual-telemetry or equivalent specifications.
- The MWD shall be based on dual telemetry system. Both electromagnetic (EM) Telemetry and mud pulse.
- The MWD system shall be supplied complete with class and on-job training on operation and maintenance and fishing.
- Lowest ID for tools currently in use is 2-13/16."
- 5" OD x 19.5 lb/ft drill pipes, grade G105

- g. All surface system must have back-up (Sensor cables, umbilical cables, AJB, Sensors)
h. The MWD system shall meet the following minimum technical requirements:

Requirement	Compliance specifications
Application	Survey (Inclination, Azimuth), Drilling dynamics and Continuous inclination.
Surface system	<ul style="list-style-type: none"> ▪ Dual telemetry combining electromagnetic (EM) Telemetry and mud pulse telemetry. ▪ Capable of running as standalone electromagnetic telemetry or mud pulse telemetry system. ▪ The system to incorporate on board memory logging. ▪ Measured directional, drilling, and formation data to be transmitted to surface as EM waves or pressure pulses, processed and displayed on the driller's console. ▪ Retrievable system in case of stuck pipe conditions, the equipment can be pulled out to surface. ▪ Software set with multiple user programmable systems for survey, steering and rotation. The system to have easy to use interface. ▪ Full set of MWD sensors including directional, pressure (internal and annular), temperature, rpm, gyro while drilling, vibration (axial and radial), azimuthal gamma, gamma, and resistivity. ▪ Supplied complete with all running accessories and tools.
Temperature Recording	Must provide real time temperature
Retrievable	Yes. Two retrievable Probe Based MWD Strings
Pressure Rating	20,000PSI
Survival Temperature Rating	0-185° C
LCM Tolerance	50 lb/bbl mud pulse
Telemetry	Dual telemetry
Vibration, Random	20 g RMS
Sensor Accuracy	Tool face $\pm 1^\circ$ Azimuth $\pm 0.75^\circ$ absolute, 0.5 Inclination $\pm 0.15^\circ$ at all angles
Battery	Required for Air and Foam Drilling. 400Hrs run time per battery
Flow Rate Range	200(757L/M)-1200 (4542L/M)GPM
Total G field accuracy	3.0 mg
Total H field accuracy	4.0 m Gauss
Generic Variables capability	Minimum 16
Decoding capability	Must be automatic digital filtering
Diagnostics capability	Must store and analyze pulse current, flow state, time & temp logs, vibration & shock count
Raw Survey Time	Max 90 sec
Bit rate	Up to 4 bps (Mud Pulse) and 6.0bps (EM)
Continuous inclination (cInc) accuracy.....up to 150 RPM	Capable: cInc (Inc <10°) -1.0 / +3.0° cInc (Inc >10°) +/- 0.5°
Continuous azimuth (cAzm) accuracy up to 150 RPM	Capable: cAzm (Inc <45°) +/- 15° cAzm (Inc >45°) +/- 5°
Drilling dynamics	Stick & Slip, Lateral and axial vibrations
Fishing Gear	Complete Fishing gear for retrieving probes inside pipe.
Interconnects protection	Must be designed to protect against misalignment / protect against pin damage. Half-moon connectors not permitted
Depth tracking	Stand alone, DWE and HLT, option for RTC added advantage

Engineering Support	Must have 24/7 remote support via screenshare & WhatsApp
In country Support	Provide CV's of existing trained OEM engineers in country to support

i. The following additional requirements shall apply:

No.	Item	Specifications	Qty
1	MWD Kit supplied as one (1) complete strings	Dual telemetry as per technical specifications above	1
2	Rugged Laptops each with field case, acquisition software installed	Processor – 10th Gen Intel Core i9 Operating System - Windows 11 Office 2019 or 2021 Display – 14” RAM – 16GB DDR Battery – 10 Hours Storage – 1TB and above Color – Grey or Black Connectivity – WiFi and Bluetooth Keyboard – Backlight will be an added advantage. Preferred type – Lenovo ThinkPad	2
3	9.50” UBHO	7-5/8 Reg pin x 7-5/8 reg box	2
4	8” UBHO	6-5/8 Reg pin x 6-5/8 reg box	2
5	8” UBHO	5-1/2 Reg pin x 6-5/8 reg box	2
6	6-3/4” UBHO	4-1/2 Reg pin x NC50 box	2
7	9.5” NMDC (with bore ideal for the probe)	7-5/8 Reg pin x 7-5/8 reg box	2
8	8” NMDC (with bore ideal for the probe)	6-5/8 Reg pin x 6-5/8 reg box	2
9	6-3/4” NMDC (with bore ideal for the probe)	NC50 pin x NC50 box	2
10	MWD Batteries	Ideal for the tools	4
11	Workshop Equipment	Ideal for the MWD	1 compete
12	Class Training and OJT (Mud Pulse system)	Classroom and on-the-job training for 10 pax paid as lump sum. Class training at manufacturer’s workshop and on-job training at the Employers rig site in Kenya	1
13	Fishing Gear supplied as a complete string	Ideal for retrieving string inside pipe.	1

Self-Contained Wireline Logging Unit and Accessories

A self-contained one-piece trailer mounted wireline logging unit retrofitted in a modified ISO 20ft shipping container and complete with inbuilt winch bay and operator station and additional cabin space that can accommodate data acquisition equipment, computers and an engineer’s desk and two adjustable seats.

Additional technical specifications as detailed in the table below.

Technical specifications for wireline logging unit

No	Item	Requirement
1	Key features	<ul style="list-style-type: none"> Self-contained one-piece trailer mounted wireline logging unit complete with inbuilt winch bay and operator station. Suited with additional cabin space that can accommodate data acquisition equipment, 2 racks full of computers and an engineer’s desk with two adjustable seats. Self-contained power pack to meet all power demands of the winch.

		<ul style="list-style-type: none"> • Suitable space for three computer racks and fully equipped with 2 computers loaded with software for directional data processing. • suited with ergonomic, safe, and responsive operator controls. • Suited with smart monitor control system for precision automatic operation. • Suited with adequate air conditioning system for the unit. • Designed as operations ready unit on delivery. • Closed loop hydraulic system with dual speed gear box for precision control at very low logging speeds • Superior sound and thermally insulated unit
2	Power pack	<ul style="list-style-type: none"> • Water-cooled 6-cylinder caterpillar diesel engine delivering 176KW @ 2200 rpm. • Electrical supply rig: 110/220VAC 60Hz; 230VAC 50Hz phase • Control voltage: 24VDC (internally converted) • Diesel reservoir – 300 liters • Engine controls- Start & Stop/Hour Counter, monitoring and safety system
3	Depth and tension system	<ul style="list-style-type: none"> • Smarthead measuring head with integral load pin suited with two encoders, maximum line tension of 0- 10,000kg. • Smart monitor basic depth panel for visualization of depth, speed, and tension • MMD, dual encoder depth connection and stretch correction
4	Winch System	<ul style="list-style-type: none"> • Chain driven winch drum suited with fail safe spring return brake. • Wire diameter- 2.7mm (0.108") • Drum capacity of 7500m (25,000ft) on 2.7mm (0.108") wire diameter
5	Hydraulic drive system	<ul style="list-style-type: none"> • 400 bar closed loop hydraulic winch system • Variable displacement hydraulic pump and motor • Dynamic hydraulic braking system • Hydraulic tank capacity - 175 liters
6	Control panel	<ul style="list-style-type: none"> • Hydraulic main pressure gauge • Line tension valve • Throttle valve • Air pressure • Winch direction and speed control • Emergency stop • Brake control • Generator stop

Schedule of Requirements for Directional Drilling Tools

Mud Motors and Accessories

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Mud motors- 9-5/8"	<ul style="list-style-type: none"> • Quantity: 3 pieces • 9-5/8" OD Positive displacement drilling mud motors c/w user's service and maintenance manual in soft copy, as per the technical specifications 		
Mud motors- 8" OD	<ul style="list-style-type: none"> • Quantity: 3 pieces • 7¾" or 8" OD Positive displacement aerated drilling mud motors c/w user's service and 		

	<p>maintenance manual in soft copy, as per the technical specifications</p>		
Mud motors- 6¾" OD	<ul style="list-style-type: none"> • Quantity: 3 pieces • 6½" or 6¾" OD Positive displacement aerated drilling mud motors c/w user's service and maintenance manual in soft copy, as per the technical specifications 		
Orient sub-8"	<ul style="list-style-type: none"> • Quantity: 2 pieces • 8" OD by 2¾" ID Universal Bottom Hole Orientation (Mule shoe) sub; UBHO with 6 5/8" API REG Box and 5½" API REG Pin connections. Shall be suited with SRG and Boreback. 		
Orient sub-6½"	<ul style="list-style-type: none"> • Quantity: 2 pieces • 6½" OD by 2¾" ID Universal Bottom Hole Orientation (Mule shoe) sub; UBHO with NC50 Box and 4½" API REG Pin connections. Shall be suited with SRG and Boreback. 		
Keyseat wiper 8½"	<ul style="list-style-type: none"> • Quantity: 3 pieces • Cougar type or equivalent Keyseat wiper for 8½" diameter hole • Connections: NC50 (pin & box) • Fishing Neck diameter: 6½" " • Inside diameter: 2 13/16" 		
Keyseat wiper for 12-1/4"	<ul style="list-style-type: none"> • Quantity: 3 pieces • Cougar type or equivalent Keyseat wiper for 12-1/4" diameter hole • Connections: 6-5/8" API REG (pin & box) • Fishing Neck diameter: 8" • Inside diameter: 2 13/16" 		
Electronic multi-shot	<ul style="list-style-type: none"> • Quantity: 3 pieces • Electronic multi-shot directional survey tools c/w heat shield, carrying case, software, battery pack and handling tools. • Directional drilling modelling software • Calibration stand tools to be provided. 		
Inclinometer – Anderdrift	<ul style="list-style-type: none"> • Quantity: 2 pieces • MD TOTCO or equivalent Single-shot inclination-only survey tool for operation inside 2-13/16" ID DC. Complete with carrying case and accessories. 		
Gyroscope	<ul style="list-style-type: none"> • Quantity: 2 sets • Gyro inclinometer for azimuth and inclination measurement complete with accessories and running gear. • Operation inside 2-13/16" ID DC • Calibration stand 		
MWD	<ul style="list-style-type: none"> • Quantity: 1 set complete with all accessories and running gear. • Measurement While Drilling Equipment and accessories. • Classroom and on-job training on operation, fishing, and maintenance of the MWD system as per technical requirements 		

Wireline Logging Winch unit	<ul style="list-style-type: none"> • Quantity: 1 set complete with all accessories and spare parts for two years operation. • Self-contained one-piece trailer mounted wireline logging unit complete with standalone generator power pack, sophisticated logging and control cabin and winch module retrofitted in an ISO 20ft container. • Supplied with 25,000ft of 0.108" slickline spooled onto the winch drum. • On-job training on operation, and maintenance of the logging unit 		
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SECTION 20: MISCELLANEOUS ITEMS / EQUIPMENT

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Cellar pump	<ul style="list-style-type: none"> • Two (2) Gorman Rupp model 4DB or Wilden model M8 SAAS double diaphragm air operated cellar pump complete with oil resistant 6m (20ft) suction hose and 50m (150ft) discharge hose. Mounted on a suitable oil field type skid, for cellar cleaning purpose. Pump • Alternatively, a suitable electric driven Gorman rupp or wilden pump or suitable cellar ejection system may be offered with complete description. • Two (2) Flygt model H 8044 Vertical Type Vortex Pump complete package with control & monitoring data 		
Rig washer	<ul style="list-style-type: none"> • Two (2) suitable electrically operated (single phase 220 V 50 Hz ac power) high pressure portable cleaning pump complete with suitable electric motor, 6m (20 ft) long cable & necessary fittings. The pump should have 25mm (1") suction port & 20m (60 ft) long delivery hose with nozzle for cleaning the draw-works & mast with water jet. • Clear description of the pump to be given. 		
Submersible pumps	<ul style="list-style-type: none"> • Two (2) of Electric Motor driven submersible pumps with 2" delivery outlet having a maximum flow rate of 10m³ per hour and maximum head of 30m. 		
Rathole assembly	<ul style="list-style-type: none"> • One (1) Rathole assembly with digger unit or suitable mechanical device for drilling rat hole and mouse hole complete with suitable size scabbards. • One (1) Mousehole Scabbard Assembly 		
Casing line cutter	<ul style="list-style-type: none"> • Two (2) manually operated wire line cutter suitable for cutting 1½" and smaller size wireline. 		
Sound level meter and calibrator	<ul style="list-style-type: none"> • Ten (10) portable battery-operated Sound Level Meter with Liquid Crystal Display (LCD) providing readings in 0.1 dB increments with 40-130 dBA or higher measurement range. • The sound level meter should have a low battery indicator, RFI-shielded construction, and all required accessories, certified to be intrinsically safe and complete with storage case. • Two (2) sound meter Calibrator to verify accuracy of sound meter. 		
Source water pump	<ul style="list-style-type: none"> • Three (3) independently driven, diesel-powered centrifugal pumps. Flow rate: 3.33m³/min (200m³/h) lift capability: 20m power rate : 24kw driven by: 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>CAT/ Cummins/ Perkins diesel engine with the control panel.</p> <ul style="list-style-type: none"> • One CAT/ Cummins/ Perkins diesel engine driven Reciprocating Type Duplex Double acting pump having different sizes of liners with a maximum flow rate of 60m³/hr and a head of at least 4om.The power transmission shall be through belt & pulley drive and suitable power take-off (Clutch) arrangement. Four sets of Liners, pistons, valve seats and seal to be provide. 		
Tools and Wrenches Set	<ul style="list-style-type: none"> • Four (4) set of tools and wrenches with toolboxes for every accessories / system viz. draw-works, mud pumps, engines & compressor unit, mud tanks, electrical system, top drive, mast, substructure, aerated equipment. 		
Rig matting boards and skid	<ul style="list-style-type: none"> • Adequate skid beams and matting boards for the substructure and mud pumps to facilitate easy and fast rigging up. Rig matting boards 4000mmx 2500 x210mm 4700mmx 2100mmx 210mm 		
Welding sets	<ul style="list-style-type: none"> • Quantity: 2 sets • Portable trailer mounted miller or Lincoln welding sets diesel driven electric arc welder sets, 600-amp. The unit shall be capable of both MIG and TIG welding. • The welding machines shall have oven, rods, and 30 m (100') of cable and other standard welding tools. • Electric arc welder sets- 2 sets. Portable 400-amp electric welding machines with oven, rods, and 30 m of welding cables and other standard welding tools. • Four (4) sets of BOC oxy-acetylene gas cutting & blazing torches, c/w flash back arrestors at the regulators, industry standard fittings, purpose-built gas rack, 25 m hoses, nozzles for various applications, rose buds, blowers and other tools. 		
Stab-in Safety Valve	<ul style="list-style-type: none"> • 2 Sets of Stab in safety valve with NC50 connections complete with wrench. 		
Gray Valve	<ul style="list-style-type: none"> • 2 sets of Gray valve with NC50 connection. 		

SECTION 21: RIG SAFETY EQUIPMENT

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Rig safety equipment	<ul style="list-style-type: none"> • 30 sets-Fall protection harness, complete with full body harness and two shock absorption lanyards. • 30 sets- Fall-arrest devices, for use in derrick substructure and other areas requiring fall protection. • 10 sets- dyna-lock Derrick escape device, including 2x½" wire line and escape gin pole (Escape Unit on racking board) • 6 sets- Sureclimb ladder fall arrests for climbing derrick ladders. • 30 pcs- Portable 10kg dry powder fire extinguishers • 8pcs- wheel mounted 50kg dry powder fire extinguishers. • 20 pcs- Portable 8kg CO₂ fire extinguishers. • 12 set- large first aid kits complete with all materials recommended by ISO and ANSI. Compliance with CEN.EN3.7 international standards. • 15 set- Burn kits, complete with all materials recommended by ISO and ANSI. • 6 sets- fold type stretchers complete with four body straps and bride slings. They shall be lightweight, durable, and capable of bringing patients from high elevation and to be positioned at doghouse and rig medical room. It shall be completed with four body straps and bride slings. • 12pcs- 30 minutes SCBA rescue packs complete with two recharge air-purifying unit and 12 suits for emergency and medivac operations. • 12 pcs- 10 minutes SCBA escape packs. • 20 sets- portable clip-on H₂S monitors complete with calibration kits. • 8 sets- Altair5X hand-held gas detectors complete with all standard accessories including pump and extension hose for detecting H₂S, CO₂, O₂ and SO₂ with calibration kits. • 12 pieces- stationary H₂S monitors to be installed at high-risk locations around the rig and sump area. To be connected to rig sense and other drill monitoring system. Capable of sounding alarms in case of gas leaks. • 5 sets- sirens and strobe lights. • 20 sets- LXM05 windsocks • 5 sets- LIFEPAK 20e defibrillator/ monitor complete with BLS/ACLS Front door, cpr MAX technology version 1.5, Active color matrix LCD screen, manual and AED functionality, rechargeable lithium-ion 		

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
	<p>internal battery, ADAPTIV Biphasic - Escalating energy, synchronous cardioversion, lead select ECG monitoring, CODE summary event record, printer, A/C power cord, 3 lead ECG cable, and other accessories.</p> <ul style="list-style-type: none"> • 5 sets- explosion proof electric driven bug blowers with 30" steel blades. 380-415v /50HZ, rate power 11kw. 		

SECTION 22: TRAINING AND COMMISSIONING

Description	Requirement	Bidder's Specification	Manufacturer, Model and Country of Origin
Training at the Manufacturer's Plant	<ul style="list-style-type: none">• Training of 90 personnel from KenGen at the supplier factory. In groups of 30 technical personnel.• Accommodation and inland transportation for the team for at least 30 days for each group.• Assembly, commissioning, and training on the drilling field. List of key personnel to be provided.		
Factory Acceptance Test	<ul style="list-style-type: none">• Factory inspection for all manufactured components and rig accessories.• Conducted by 15 personnel.• Supplier to arrange itinerary and inland transport		
Assembly, commissioning and Training in Kenya	<ul style="list-style-type: none">• Fully assembly of the rig and associated equipment. Test running and commissioning of equipment.• Drilling one directional well using Kelly system to 3000m• Walking the rig and drilling one directional well to 3000m using top drive system.• Rigging down the rig, rig move and rigging up on new location.		

SECTION 23: NOTES AND INSTRUCTIONS

1. All major rig components such as generator sets, power control rooms, mud pumps, mud tanks, aerated equipment, barracks, water tanks, etc shall be mounted on heavy duty self-loading skid used in oilfields.
2. Bidder to note that overall dimensions of each rig component having oilfield skid should preferably not exceed 9.0m **Length** x 2.5m **Width** x 2.5m **Height**. For power control rooms, generators, mud pumps and draw-works maximum allowed dimensions shall not exceed 12.0m **Length** x 3m **Width** x 3m **Height**.
3. Rig components without oilfield skid like main mast sections should preferably not exceed 10.0m **Length** x 2.5m **Width** x 3m **Height**.
4. The rig components shall be designed for them to be evenly placed on trailers with proper load distribution during transportation. Dimensions of the subbase shall not exceed **10.0m Length** x **2.5m Width** x **3m Height**.
5. The total weight of single rig component with or without the skid including all accessories assembled should not exceed **21 tons**. For major components such generators, PCR, mud pumps and draw-works can be up to **27 tons**.
6. Rig components shall have suitable lifting lugs. For components with skid, four lugs shall be provided at each corner.
7. Bidders shall give specific details and specifications in their bid document. Responses such as “noted”, “accepted” and “as per KenGen specifications” will not be accepted as bid response.
8. Bidders shall organize for **Third Party Inspection (TPI)** by an approved IADC/API inspection agency. The charges for third party inspection shall be quoted for in the price bid. Preferred either Aberdeen Drilling Consultant, UK or Oil Field Afit & Service Inc., USA. KenGen reserves the right to arrange for inspection of the rigs through any of the third-party inspection agencies and bidders must allow the required facility for inspection by such agencies.
9. Bidders shall arrange for pre-shipment inspection of the complete package of drilling rig (with all accessories) after assembling for inspection and functional testing at manufacturer’s yard by KenGen technical team prior to dispatch with at least two months’ notice. Bidders to note that pre dispatch inspection shall be carried out only after receipt of final TPI report.
10. Minimum of three (3) coats after applying primer. Under Coating with Anti Corrosive Treatment for cement and rust and polyurethane marine paint. The color shades preferred shall be a captured below.
 - a) Mast (Bottom Section)- **White**
 - b) Mast (Top 20 ft. Section)- **Red**
 - c) Crown- **Red**
 - d) Racking board- **White**
 - e) Base- **Grey**
 - f) Dog huts- **Grey**
 - g) All handrails- **Orange**
 - h) Mud pumps - **Grey**
 - i) All Skids - **Black**
 - j) Travelling Block - **Yellow**
 - k) Draw-Works - **Grey**
 - l) Air - **Purple**
 - m) Mud and Water Tank - **Grey**
 - n) VFD Control Room- **White**
 - o) Generators- **White**
 - p) Aerated equipment-**Grey**
 - q) Air Lines-**Orange**
 - r) Diesel tanks- **Orange**
 - s) Barracks (camp and rig)- **White**
 - t) BOP and well control equipment- **Red**



11. All operating and warning labels on equipment shall be in English.
12. The rig and all associated equipment shall be function tested and test certificates in **English** provided along with the shipment of the equipment.
13. Bidders shall provide in **English** spare parts for two years normal operation of all equipment and systems and shall be included in the bid indicating item, part number, quantity required and price. Item wise price of the spares shall be provided in commercial bid. Bidder must indicate the part number against each item along with OEM's part number (if different).
14. Bidders shall provide in **English** at least three sets of parts lists, operations manual and service manual covering all the items and its accessories including any special and alignment tools. Technical details of the engine, draw-works, mast and sub-structure, top drive, rig controls, mud system, electrical system, data acquisition with dimensional drawing (including circuit diagrams) must also be provide along with the technical offer. Weights of each component shall be provided.
15. Installation, operation, and maintenance manuals in **English** shall cover start up, normal shut down, emergency shut down, operating limits and operational procedures, rig-up and rig-down sequence. Layout drawing of all components on the unit with details of load distribution.
16. Site layout drawings in **English** with load bearing capacity and distribution for various components of the rig package shall be provided. All dimensions shall be metric system. The drawings to be provided in both hard copy (3 sets) and soft copy.
17. Four (4) hard copy and two (2) soft copies sets of catalogues indicating exploded view of each spare part with part numbers and quantity, workshop and service manuals for all major components and systems such as engines, draw-works, mast, substructure, top drive, iron rough neck, hoisting system, rotating equipment, mud system, solid control equipment, electrical system, casing running tool shall be provided complete with all schematics. All manuals and catalogues shall be in English.
18. The supplier shall arrange for comprehensive training program in English before pre-dispatch inspection and after assembly and commissioning for KenGen technical staff including mechanical engineers, electrical engineers, instrumentation engineers, transport engineers, drilling engineers and drilling crew. Pre dispatch training will be the manufacturing plant for at least three weeks. The training shall include rig operation (simulator and on-site training), maintenance, diagnosis, trouble shooting and operation principle of all rig components and systems. Training after assembly and commissioning will be conducted at KenGen site involving actual operations. Bidder should indicate the training module with duration and shall quote for both training at the manufacturing plant and training at KenGen's site.

PART 3 ~ CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VI - GENERAL CONDITIONS OF CONTRACT

1. Definitions

In the Conditions of Contract (“these Conditions”), which include Special Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

- a) “Contract” means the Contract Agreement entered into between the Procuring Entity and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
- c) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- d) “Day” means calendar day.
- e) “Completion” means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- f) “GCC” means the General Conditions of Contract.
- g) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Procuring Entity under the Contract.
- h) “Procuring Entity” means the Procuring Entity purchasing the Goods and Related Services, as **specified in the SCC**.
- i) “Related Services” means the services incidental to the supply of the goods, such as insurance, delivery, installation, commissioning, training and initial maintenance and other such obligations of the Supplier under the Contract.
- j) “SCC” means the Special Conditions of Contract.
- k) “Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- l) “Supplier” means the person, private or government entity, or a combination of the above, whose Tender to perform the Contract has been accepted by the Procuring Entity and is named as such in the Contract Agreement.
- m) “**Base Date**” means a date 30 day prior to the submission of tenders.
- n) “**Laws**” means all national legislation, statutes, ordinances, and regulations and by-laws of any legally constituted public authority.
- o) “**Letter of Acceptance**” means the letter of formal acceptance, signed by the contractor. Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.
- p) “**Procuring Entity**” means the Entity named in the Special Conditions of Contract.

2. Interpretation

21. If the context so requires it, singular means plural and vice versa.
22. Incoterms
 - a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms **specified in the SCC**.
 - b) The terms EXW and CIP and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the **SCC** and published by the International Chamber of Commerce in Paris, France.

3. **Contract Documents**

Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole. The documents forming the Contract shall be interpreted in the following order of priority:

- a) the Contract Agreement,
- b) the Letter of Acceptance,
- c) the General Conditions of Contract
- d) Special Conditions of Contract
- e) the Form of Tender,
- f) the Specifications and Schedules of the Drawings (if any), and
- g) the Schedules of Requirements, Price Schedule and any other documents forming part of the Contract.

4. **Fraud and Corruption**

31. The supplier shall comply with anti-corruption laws and guidelines and the prevailing sanctions, policies and procedures as set forth in the Laws of Kenya.
32. The Supplier shall disclose any commissions, gratuity or fees that may have been paid or are to be paid to agents or any other person with respect to the Tendering 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.

4.1 **Entire Agreement**

- 4.3.1 The Contract constitutes the entire agreement between the Procuring Entity and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

4.2 **Amendment**

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

4.3 **Non-waiver**

- a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- b) Any waiver of a party's rights, powers, or remedies under the Contract must be in

writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.4 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Procuring Entity, shall be written in the **English Language**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate and certified translation of the relevant passages in the **English Language**, in which case, for purposes of interpretation of the Contract, the English language is translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6. Joint Venture, Consortium or Association

6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Procuring Entity for the fulfilment of the provisions of the Contract and shall designate one member of the joint venture, consortium, or association to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior written consent of the Procuring Entity.

7. Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Sub-contractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

7.3 The Tenderer, if a Kenyan firm, must submit with its tender a valid tax compliance certificate from the Kenya Revenue Authority.

8. Notices

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the **SCC**. The term "in writing" means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

9. Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of Kenya.

9.2 Throughout the execution of the Contract, the Supplier shall comply with the import of goods and services prohibitions in Kenya:

- a) where, as a matter of law, compliance or official regulations, Kenya prohibits commercial relations with that country or any import of goods from that country or any payments to any country, person, or entity in 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, Kenya prohibits any import of goods from that country or any payments to any country, person, or entity.

10. Settlement of Disputes

10.1 The Procuring Entity and the Supplier shall make every effort to resolve amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Procuring Entity or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

10.2 Arbitration proceedings shall be conducted as follows:

10.2.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 10.1 shall be finally settled by arbitration.

10.2.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within thirty days of the occurrence or discovery of the matter or issue giving rise to the dispute.

10.2.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.

10.2.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any due payments.

10.2.5 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for the dispute given in its notice of a claim or dispute.

10.2.6 Arbitration may be commenced prior to or after delivery of the goods. The obligations of the Parties shall not be altered by reason of any arbitration being conducted during the progress of the delivery of goods.

10.2.7 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

10.3 Arbitration Proceedings

10.3.1 Arbitration proceedings with national suppliers will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person or persons to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;

- i) Kenya National Chamber of Commerce
- ii) Chartered Institute of Arbitrators (Kenya Branch)
- iii) The Law Society of Kenya

10.3.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

1033 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

104 Arbitration with Foreign Suppliers

104.1 Arbitration with foreign suppliers shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules

104.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

105 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

106 Failure to Comply with Arbitrator's Decision

106.1 The award of such Arbitrator shall be final and binding upon the parties.

10.6.1 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

10.7 Contract operations continue

Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) the Procuring Entity shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Procuring Entity

11.1 The Supplier shall keep, and shall cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time, changes and costs.

11.2 Pursuant to paragraph 2.2 of Instruction to Tenderers, the Supplier shall permit and shall cause its subcontractors to permit, the Procuring Entity and/or persons appointed by the Procuring Entity or by other statutory bodies of the Government to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Procuring Entity. The Supplier's and its Subcontractors' attention is drawn to Sub- Clause 3.1 which provides, inter alia, that acts intended to materially impede the exercise of the Procuring Entity's inspection and audit rights constitute a prohibited practice subject to contract termination, as well as to a determination of ineligibility.

12. Scope of Supply

12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

13. Delivery and Documents

13.1 Subject to GCC Sub-Clause 33.1, the delivery of the Goods and completion of the Related Services shall be in accordance with the List of Goods and Delivery Schedule specified in the Supply Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the **SCC**.

14. Supplier's Responsibilities

14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15. Contract Price

15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Tender, with the exception of any price adjustments authorized in the **SCC**.

15.2 Where the contract price is different from the corrected tender price, in order to ensure the supplier is not paid less or more relative to the contract price (*which would be the tender price*), any partial payment valuation based on rates in the schedule of prices in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: *(corrected tender price – tender price)/tender price X 100*.

16. Terms of Payment

16.1 The Supplier shall request for payment by submitting invoice(s), delivery note(s) and any other relevant documents as specified in the **SCC** to the Procuring Entity.

16.2 Payments shall be made promptly by the Procuring Entity, but not later than thirty (30) days after submission of an invoice by the Supplier, and after the Procuring Entity has accepted it.

16.3 Where a Procuring Entity rejects Goods and Related Services, in part or wholly, the procuring Entity shall promptly inform the Supplier to collect, replace or rectify as appropriate and give reasons for rejection. The Supplier shall submit a fresh invoice, delivery note and any other relevant documents as specified in the **SCC**.

16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the Tender price is expressed.

16.5 In the event that the Procuring Entity fails to pay the Supplier any payment by its due date or within the period set forth in the **SCC**, the Procuring Entity may pay to the Supplier interest on the amount of such delayed payment at the rate shown in the **SCC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.

17. Taxes and Duties

17.1 The Supplier shall be entirely responsible for all taxes, duties, license fees, and other such levies incurred to deliver the Goods and Related Services to the Procuring Entity at the final delivery point.

17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in Kenya, the Supplier shall inform the Procuring Entity and the Procuring Entity shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

18. Performance Security

18.1 If required as specified in the **SCC**, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the

Contract in the amount specified in the **SCC**.

- 182 The proceeds of the Performance Security shall be payable to the Procuring Entity as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 183 As specified in **the SCC**, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Procuring Entity; and shall be in one of the formats stipulated by the Procuring Entity in **the SCC**, or in another format acceptable to the Procuring Entity.
- 184 The Performance Security shall be discharged by the Procuring Entity and returned to the Supplier not later than thirty (30) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

19. Copyright

- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring Entity by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Procuring Entity directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20. Confidential Information

- 20.1 The Procuring Entity and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Sub-Supplier such documents, data, and other information it receives from the Procuring Entity to the extent required for the Sub Supplier to perform its work under the Contract, in which event the Supplier shall obtain from such Sub Supplier undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
- 20.2 The Procuring Entity shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Procuring Entity for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
- a) the Procuring Entity or Supplier need to share with other arms of Government or other bodies participating in the financing of the Contract; such parties shall be disclosed in **the SCC**;
 - b) now or hereafter enters the public domain through no fault of that party;
 - c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
 - d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- 20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

- 21.1 The Supplier shall notify the Procuring Entity in writing of all subcontracts awarded under the Contract if not already specified in the Tender. Such notification, in the original Tender or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
- 21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

- a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
- b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Procuring Entity, by giving a notice of such disclaimer to the Procuring Entity.
- c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Procuring Entity and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

- 23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified **in the SCC**, and in any other instructions ordered by the Procuring Entity.

24. Insurance

- 24.1 Unless otherwise specified in the **SCC**, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the **SCC**.

25. Transportation and Incidental Services

- 25.1 Unless otherwise specified in the **SCC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.
- 25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified **in SCC**:
- a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
 - b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;

- c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- e) training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

253 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services

26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the Procuring Entity carry out all such tests and/or inspections of the Goods and Related Services as are specified in the **SCC**.

262 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in Kenya as specified in the **SCC**. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring Entity.

263 The Procuring Entity or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Procuring Entity bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and board and lodging expenses.

264 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Procuring Entity. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Procuring Entity or its designated representative to attend the test and/or inspection.

265 The Procuring Entity may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

266 The Supplier shall provide the Procuring Entity with a report of the results of any such test and/or inspection.

267 The Procuring Entity may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Procuring Entity, and shall repeat the test and/or inspection, at no cost to the Procuring Entity, upon giving a notice pursuant to GCC Sub- Clause 26.4.

268 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Procuring Entity or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Procuring Entity may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Procuring Entity may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

28.4 The Procuring Entity shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Procuring Entity shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Procuring Entity.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Procuring Entity may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract.

29. Patent Indemnity

29.1 The Supplier shall, subject to the Procuring Entity's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Procuring Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Procuring Entity may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

- a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
- b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 292 If any proceedings are brought or any claim is made against the Procuring Entity arising out of the matters referred to in GCC Sub-Clause 29.1, the Procuring Entity shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Procuring Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 293 If the Supplier fails to notify the Procuring Entity within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its own behalf.
- 294 The Procuring Entity shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 295 The Procuring Entity shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Procuring Entity.

30. Limitation of Liability

- 30.1 Except in cases of criminal negligence or willful misconduct,
- a) the Supplier shall not be liable to the Procuring Entity, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Procuring Entity, and
 - b) the aggregate liability of the Supplier to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the Procuring Entity with respect to patent infringement.

31. Change in Laws and Regulations

- 31.1 Unless otherwise specified in the Contract, if after the date of 30 days prior to date of Tender submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Kenya (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

- 32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Procuring Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

323 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring Entity in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

33.1 The Procuring Entity may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring Entity;
- b) the method of shipment or packing;
- c) the place of delivery; and
- d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Procuring Entity's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 **Value Engineering:** The Supplier 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 costs) the Procuring Entity may incur in implementing the value engineering proposal; and
- c) a description of any effect(s) of the change on performance/functionality.

33.5 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerates the delivery period; or
- b) reduces the Contract Price or the life cycle costs to the Procuring Entity; or
- c) improves the quality, efficiency or sustainability of the Goods; or
- d) yields any other benefits to the Procuring Entity, without compromising the necessary functions of the Facilities.

33.6 If the value engineering proposal is approved by the Procuring Entity and results in:

- a) a reduction of the Contract Price; the amount to be paid to the Supplier shall be the percentage specified **in the SCC** 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 Supplier shall be the full increase in the Contract Price.

33.7 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Procuring Entity in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Procuring Entity shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. Termination

35.1 Termination for Default

- a) The Procuring Entity, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Procuring Entity pursuant to GCC Clause 34;
 - ii) if the Supplier fails to perform any other obligation under the Contract; or
 - iii) if the Supplier, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix to the GCC, in competing for or in executing the Contract.
- b) In the event the Procuring Entity terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Procuring Entity for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.

The Procuring Entity may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Procuring Entity

35.2 Termination for Convenience.

- a) The Procuring Entity, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect:
 - i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. Assignment

36.1 Neither the Procuring Entity nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

37. Export Restriction

37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Procuring Entity, to Kenya, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Procuring Entity that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Procuring Entity's convenience pursuant to Sub-Clause 35.3.

SECTION VII - SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and/or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1 (h)	The Procuring Entity is: <i>Kenya Electricity Generating Company PLC</i>
GCC 2.2 (b)	<p>The version edition of Incoterms shall be <i>INCOTERMS 2020</i></p> <p><u>Applicable Incoterm 2020 is DAP Olkaria Basis; and as further clarified below;</u></p> <ul style="list-style-type: none"> i. Sea Shipment & Local Road Transportation to Olkaria: Under DAP, the bidder will be responsible for the physical logistics and shipment from source upto KenGen’s power station premises in Olkaria, Naivasha. ii. Customs Duties, Taxes and Customs Clearance KenGen Plc will be responsible for payment of customs duties, taxes and levies, including customs clearance. iii. Unloading at Olkaria Site Upon arrival of the cargo at Olkaria, the bidder will be required to handle physical unloading to designated places; bidder is therefore expected to include any and all costs associated with unloading at site in their Price Schedule.
GCC 8.1	<p>For <u>notices</u>, the Procuring Entity’s address shall be:</p> <p>Attention: General Manager, Supply Chain Postal address P.O Box 47936 00100 Nairobi, Kenya Physical Address KenGen Pension Plaza II, 9th Floor, Kolobot Road, Parklands. Telephone: 0711036000 Electronic mail address: contracts@kengen.co.ke;</p>
GCC 10.4.2	The place of arbitration shall be Nairobi, Kenya. (Nairobi Centre for International Arbitration)
GCC 15.1	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1	<p>Payment shall be based on the following Milestones;</p> <p>Milestone 1: 20% Advance Payment upon issuance of the performance bond and advance payment guarantee. Milestone 2: 20% Payment Upon receipt of all shipping documents Milestone 3: 30% Payment Upon physical Delivery, Inspection & Acceptance of the complete rig at KenGen Olkaria Power Station, Kenya Milestone 4: 20% Payment Upon successful Training & Commissioning Milestone 5: 10% Payment after completion of Defects Liability Period, DLP</p> <p><i>All payments shall be done through Electronic Fund Transfer (EFT)</i></p> <p>Contract Duration is 12 Months from contract signature</p>
GCC 18.1	<p>A Performance Security shall be required.</p> <p>Performance Security</p> <p>Performance security shall be at 10% of the Contract Price where the contract value is above five million shillings.</p> <p>The performance security shall remain valid for 30 days beyond the validity of the contract.</p>

	<p>The Performance Security shall be in the form of: an on-Demand Bank Guarantee from a bank registered by Central Bank of Kenya”</p> <p>The Performance security shall be denominated in the currency of the contract or a freely convertible currency acceptable to the Procuring Entity.</p> <p>For foreign firms, the guarantee shall be issued by a local bank or authorised financial institution issued by a corresponding bank in Kenya recognized by the Central Bank of Kenya.</p>
GCC 18.3	<p>The Performance Security shall be in the form of: an on-Demand Bank Guarantee from a bank registered by Central Bank of Kenya</p> <p>The Performance security shall be denominated in the currency of the contract.</p>
GCC 24.1	<p>The insurance coverage shall be as specified in the Incoterms.</p> <p>The terms shall be strictly DAP Olkaria basis .(Incoterm 2020)</p>
GCC 25.1	<p>“The Supplier is required under the Contract to transport the Goods to a specified place of final destination within Kenya, defined as the Project Site, transport to such place of destination in Kenya, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price”; or any other agreed upon trade terms</p>
GCC 26.1	<p>The inspections and tests shall be:</p> <ul style="list-style-type: none"> ➤ All consignments subject to Pre-Export Verification of Conformity (PVoC) to Standards Programme must obtain a Certificate of Conformity (CoC) issued by PvoC Country Offices Prior to shipment. The Certificate is a mandatory Customs Clearance document in Kenya; ➤ Consignments arriving at Kenyan Ports without this document will be denied entry into the Country. ➤ Since PVoC is a conformity assessment process to verify that products imported to Kenya are in compliance with the applicable Kenya standards or approved equivalents, regulations and technical requirements before shipment, it is the sole responsibility of the supplier (i.e. exporter) to demonstrate the same and hence meet any associated costs of verification.
GCC 26.2	<p>The Inspections and tests shall be conducted at KenGen premises.</p> <p>However, prior to shipment of the goods, the supplier will be required to submit detailed designs and manufacturing datasheets for approval by KenGen engineers. This approval shall form part of the payment prerequisite documents.</p>
	<p>Resolution of disputes</p> <p>The procuring entity’s and the contractor shall make every effort to resolve to be amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract</p>
	<p>Governing Language</p> <p>The contract shall be written in the English language. All correspondence and other documents pertaining to the contract, which are exchanged by the parties, shall be written in the same language.</p>
	<p>Delivery:</p> <p>Delivery period shall be within eight (8) months from the contract signature.</p>
Taxes	<p>a) "Taxes" means all present and future taxes, levies, duties, charges, assessments, deductions or withholdings whatsoever, including any interest thereon, and any penalties and fines with respect thereto, wherever imposed,</p>

levied, collected, or withheld pursuant to any regulation having the force of law and "Taxation" shall be construed accordingly.

b) Local Taxation

i. Nothing in the Contract shall relieve the Contractor and/or his Sub-Contractors from their responsibility to pay any taxes, statutory contributions and levies that may be levied on them in Kenya in respect of the Contract.

ii. The Contract Price shall include all applicable taxes and shall not be adjusted for any of these taxes.

iii. Tax exemption granted under this Contract shall be for an official aid funded project and shall be as provided under the applicable tax laws in Kenya.

iv. The Contractor shall be deemed to be familiar with the tax laws in the Employer's Country and satisfied themselves with the requirements for all taxes, statutory contributions and duties to which they may be subjected during the term of the Contract. This shall include applicable local or foreign withholding tax, excise duty, Value Added Tax (VAT), importation duties, Local government taxes, and any other taxes not mentioned herein.

v. In instances where discussions are held between the Employer and the Contractor regarding tax matters, this shall not be deemed to constitute competent advice and hence does not absolve the Contractor of their responsibility in relation to due diligence on the tax issue as per (i).

c) Tax Deduction

i. If the Employer is required to make a tax deduction by Law, then the deduction shall be made from payments due to the Contractor and paid directly to the Kenya Revenue Authority. The Employer shall upon remitting the tax to Kenya Revenue Authority furnish the Contractor with the relevant tax deduction certificates.

ii. Where payments for the Contract Price are made directly by the financiers to the Contractor, the Contractor and the financiers shall make the necessary arrangements with Employer to ensure that withholding income tax is remitted to the Kenya Revenue Authority.

d) Tax Indemnity

i. The Contractor shall indemnify and hold the Employer harmless from and against any and all tax liabilities, which the Employer may incur for any reason of failure by the Contractor to comply with any tax laws arising from the execution of the Contract whether during the term of the Contract or after its expiry.

ii. The Contractor warrants to pay the Employer (within fourteen (14) days of demand by the Employer), an amount equal to the loss, liability or cost which the Employer determines has been (directly or indirectly) suffered by the Employer for or on account of the Contractor's Tax liability arising from the Contract.

iii. Where the amount in (ii) above remains unpaid after the end of the fourteen (14) days moratorium, the Employer shall be entitled to compensation for financing charges.

SECTION VIII - CONTRACT FORMS

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful tenderer after contract award.

FORM No. 1: NOTIFICATION OF INTENTION TO AWARD

This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

i) Name: _____ *[insert Authorized Representative's name]*

ii) Address: _____ *[insert Authorized Representative's Address]*

iii) Telephone: _____ *[insert Authorized Representative's telephone/fax numbers]*

iv) Email Address: _____ *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: _____ *[email]* on *[date]* _____ (local time)

This Notification is sent by _____ *(Name and designation)*

3. Notification of Intention to Award

i) Employer: _____ *[insert the name of the Employer]*

ii) Project: _____ *[insert name of project]*

iii) Contract title: _____ *[insert the name of the contract]*

iv) Country: _____ *[insert country where ITT is issued]*

v) ITT No: _____ *[insert ITT 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:

4. Request a debriefing in relation to the evaluation of your tender

Submit a Procurement-related Complaint in relation to the decision to award the contract.

a) The successful tenderer

i) Name of successful Tender _____

ii) Address of the successful Tender _____

iii) Contract price of the successful Tender Kenya Shillings _____ (in words _____)

b) Other Tenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out. For Tenders not evaluated, give one main reason the Tender was unsuccessful.

S/No.	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing
 - a) **DEADLINE:** The deadline to request a debriefing expires at midnight on [*insert date*] (*local time*).
 - b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
 - c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: _____ [*insert full name of person, if applicable*]
 - ii) Title/position: _____ [*insert title/position*]
 - ii) Agency: _____ [*insert name of Employer*]
 - iii) Email address: _____ [*insert email address*]
 - d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) 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 (3) 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.
 - e) 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.
 - f) 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) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint
 - a) **Period:** Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [*insert date*] (*local time*).
 - b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: _____ [*insert full name of person, if applicable*]
 - ii) Title/position: _____ [*insert title/position*]
 - iii) Agency: _____ [*insert name of Employer*]

- iv) Email address: _____ [*insert email address*]
- c) 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.
- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website www.ppra.go.ke or email complaints@ppra.go.ke.

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
 - i) You must be an ‘interested party’. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract.
 - iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) DEADLINE: The Standstill Period is due to end at midnight on [*insert date*] (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5 (d) 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: _____

FORM NO. 2 - REQUEST FOR REVIEW

FORM FOR REVIEW(r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION

NO.....OF.....20.....BETWEEN.....

APPLICANT ANDRESPONDENT (Procuring Entity)

Request for review of the decision of the..... (Name of the Procuring Entity ofdated the...day of20.....in the matter of Tender No.....of20..... for(Tender description).

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box No..... Tel. No.....Email, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

SIGNED(Applicant) Dated on.....day of/...20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on.....day of20.....

SIGNED

Board Secretary

FORM NO. 3 LETTER OF AWARD

[Use letter head paper of the Procuring Entity]

_____ *[Date]*

To: _____ *[name and address of the Supplier]*

Subject: _____ **Notification of Award Contract No.**

This is to notify you that your Tender dated _____ *[insert date]* for execution of the _____ *[insert name of the contract and identification number, as given in the SCC]* 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 tenderers is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the Tendering document.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract Agreement

FORM NO. 4 - CONTRACT AGREEMENT

[The successful tenderer shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made the _____ *[insert: number]* day of _____ *[insert: month]*, *[insert: year]*. BETWEEN (1) _____ *[insert complete name of Procuring Entity]* and having its principal place of business at *[insert: address of Procuring Entity]* (hereinafter called "Procuring Entity"), of the one part; and (2) _____ *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at _____ *[insert: address of Supplier]* (hereinafter called "the Supplier"), of the other part.

1. WHEREAS the Procuring Entity invited Tenders for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Tender by the Supplier for the supply of those Goods and Services, the Procuring Entity and the Supplier agree as follows:
 - i) In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
 - ii) 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 Tender
 - c) the Addenda Nos. ____ (if any)
 - d) Special Conditions of Contract
 - e) General Conditions of Contract
 - f) the Specification (including Schedule of Requirements and Technical Specifications)
 - g) the completed Schedules (including Price Schedules)
 - h) any other document listed in GCC as forming part of the Contract
 - iii) In consideration of the payments to be made by the Procuring Entity to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Procuring Entity to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
2. The Procuring Entity hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services 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.
3. IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Kenya on the day, month and year indicated above.

For and on behalf of the Procuring Entity

Signed: _____ *[insert signature]*

in the capacity of _____ *[insert title or other appropriate designation]* In the presence of _____

_____ *[insert identification of official witness]* **For and on behalf of the**

Supplier

Signed: _____ *[insert signature of authorized representative(s) of the Supplier]* in the capacity of _____

_____ *[insert title or other appropriate designation]* in the presence

of _____ *[insert identification of official witness]*

FORM NO. 5 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

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

1. We have been informed that _____
(hereinafter called "the Contractor") has entered into Contract No. _____ dated
_____ with *(name of Employer)* _____ (the
Employer as the Beneficiary), for the execution of _____ (hereinafter called "the
Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ ¹ *(in words)*, 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.
4. 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 the office indicated above on or before that date.
5. 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."

[Name of Authorized Official, signature(s) and seals/stamps]

FORM No. 6 - PERFORMANCE SECURITY [Option 2- Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

PERFORMANCE BOND No.: _____

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

1. By this Bond _____ as Principal (hereinafter called “the Contractor”) and _____] as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____] as Obligee (hereinafter called “the Employer”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Employer dated the _____ day of , 20 _____, for _____ in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.
3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Employer to be, in default under the Contract, the Employer having performed the Employer's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:
 - 1) complete the Contract in accordance with its terms and conditions; or
 - 2) obtain a tender or tenders from qualified tenderers for submission to the Employer for completing the Contract in accordance with its terms and conditions, and upon determination by the Employer and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Employer and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Employer to Contractor under the Contract, less the amount properly paid by Employer to Contractor; or
 - 3) pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Employer named herein or the heirs, executors, administrators, successors, and assigns of the Employer.

6. In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day _____ of _____ 20____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

FORM NO. 7 - ADVANCE PAYMENT SECURITY [Demand Bank Guarantee]
[Guarantor letterhead]

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]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").

2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (*in words* _____) is to be made against an advance payment guarantee.

3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (*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 goods; 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.

4. 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 has been credited to the Contractor on its account number _____ at _____.

5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor 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 ___ day of _____, 2____, 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.

6. 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.

[Name of Authorized Official, signature(s) and seals/stamps]

¹The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.

² Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time 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.

FORM NO. 8 BENEFICIAL OWNERSHIP DISCLOSURE FORM

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer 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 Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.: _____ [insert identification no]

Name of the Tender Title/Description: _____ [insert name of the assignment]
to: _____ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: ___ [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name	Directly--	Directly.....	1. Having the right to appoint a majority of the board of the directors or an equivalent governing	1. Exercises significant influence or control over the Company body of the Company (tenderer)
	National identity card number or Passport number	----- % of shares% of voting rights		
	Personal	Indirectly-	-----% of voting rights		

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
Identification Number (where applicable)		----- % of shares		body of the Tenderer: Yes - ----No----	Yes -----No----
Nationality				2. Is this right held directly or indirectly?:	2. Is this influence or control exercised directly or indirectly?
Date of birth [dd/mm/yyyy]				Direct.....	Direct.....
Postal address					
Residential address					
Telephone number					
Email address					
Occupation or profession				Indirect.....	Indirect..... ...
2.	Full Name	Directly-- ----- % of shares	Directly.....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ----No----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----
	National identity card number or Passport number		Indirectly---- -----% of voting rights		
	Personal Identification Number (where applicable)	Indirectly-- ----- % of shares			
	Nationality(ies)			2. Is this right held	
	Date of birth				

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
[dd/mm/yyyy]				directly or indirectly?:	2. Is this influence or control exercised directly or indirectly?
Postal address				Direct.....	Direct.....
Residential address			
Telephone number				Indirect.....	Indirect.....
Email address			
Occupation or profession					
3.					
e.t					
.c					

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer:[insert complete name of the Tenderer]_____*

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

Designation of the person signing the Tender: [insert complete title of the person signing the Tender]

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

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp