kouga wind farm
Community Development Trust

REQUEST FOR PROPOSAL (RFP)

DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING, COMMISSIONING AND HANDOVER OF A COMPLETE REVERSE OSMOSIS (RO) BOREHOLE WATER TREATMENT SYSTEM

Humansdorp Primary School

(Kouga Wind Farm Community Development Trust)

RFP NUMBER: KWFCDT-HPS-RFP-001	**TO BE SUBMITTED TO:** Kouga Wind Farm Community Development Trust (KWFCDT) ON EMAIL BELOW
CLOSING DATE: Friday, 25 July 2026, 17h00	
PROJECT: DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING, COMMISSIONING AND HANDOVER OF A COMPLETE REVERSE OSMOSIS (RO) BOREHOLE WATER TREATMENT SYSTEM	ADMINISTRATION@KWFTRUST.CO.ZA

CONFIDENTIAL

This document has been prepared solely for the use of the Kouga Wind Farm Community Development Trust for the purpose of obtaining competitive proposals for the design, supply, installation and commissioning of a Reverse Osmosis (RO) Borehole Water Treatment System for the Humansdorp Primary School development. No part of this document may be reproduced or used for any purpose other than the preparation of a proposal without the written consent of the Kouga Wind Farm Community Development

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

TABLE OF CONTENTS

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

1. INTRODUCTION

The Kouga Windfarm Community Development Trust (KWFCDT) hereby invites suitably qualified and experienced Tenderers to submit proposals for the design, supply, delivery, installation, testing, commissioning and handover of a complete Reverse Osmosis (RO) Borehole Water Treatment System for the new Humansdorp Primary School development.

The Trust has successfully developed a groundwater source to supplement the school's long-term water requirements. Hydrogeological investigations, borehole drilling, borehole yield testing and comprehensive laboratory water quality analyses have been completed by specialist consultants. These reports are included as supporting documentation to this Request for Proposal and shall form the basis of the proposed treatment system design.

The proposed Reverse Osmosis (RO) Borehole Water Treatment System shall provide a complete turnkey solution capable of producing treated water that complies with the requirements of SANS 241:2015 (Edition 2) – Drinking Water Specification.

The Successful Tenderer shall be responsible for the detailed design, supply, delivery, installation, testing, commissioning, operator training and final handover of a fully operational treatment system, including all mechanical, electrical, instrumentation and control components necessary to achieve the required performance.

The Trust seeks a practical, reliable and cost-effective solution that provides the best overall value for money while minimising lifecycle costs, energy consumption and ongoing

maintenance requirements.

---

2. PURPOSE OF THIS REQUEST FOR PROPOSAL

The purpose of this Request for Proposal (RFP) is to obtain competitive proposals from experienced water treatment specialists for the provision of a complete Reverse Osmosis (RO) Borehole Water Treatment System designed specifically for the known hydrogeological conditions and water quality characteristics of the Humansdorp Primary School borehole.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

This RFP has been prepared to:

- Clearly define the Trust's technical, operational and commercial requirements.
- Ensure all Tenderers prepare proposals based on the same design information.
- Obtain technically compliant and commercially competitive proposals.
- Ensure proposals are directly comparable during evaluation.
- Minimise technical and commercial risks to the Trust.
- Obtain the best overall value for money over the expected life of the installation.

The Trust is not seeking the lowest-priced solution at the expense of quality or reliability, nor an unnecessarily over-designed system that results in excessive capital or operating costs. Tenderers are encouraged to propose practical, energy-efficient and robust solutions specifically suited to the supplied borehole information and anticipated operational requirements.

---

3. REFERENCE DOCUMENTS

The following documents are attached to this Request for Proposal and shall be read in conjunction with this document. These documents contain the hydrogeological, borehole and laboratory information upon which the proposed Reverse Osmosis (RO) Borehole Water Treatment System shall be designed.

Appendix Description

AppendixA GlobiWell Borehole Drilling Results Report

AppendixB GlobiWell Borehole Yield Recommendations Report

AppendixC SANAS Accredited Borehole Water Quality Analysis Report

Tenderers shall familiarise themselves with the contents of the above documents before preparing their proposals.

The information contained within these reports shall be regarded as the minimum design information available to Tenderers. Where additional assumptions are made, these assumptions shall be clearly stated and technically justified within the proposal.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

Should the Tenderer identify any discrepancies or require clarification regarding the supplied information, these shall be submitted to the Trust in writing prior to submission of the proposal.

---

4. PROJECT DESCRIPTION

The Kouga Windfarm Community Development Trust is currently developing the new Humansdorp Primary School as a modern educational facility that will serve the surrounding communities for many years to come.

As part of the long-term sustainability strategy for the development, a borehole has been successfully drilled and tested to supplement the school's water supply. Specialist hydrogeological investigations and water quality analyses have confirmed that, although the borehole provides a sustainable groundwater source, the untreated groundwater does not comply with the requirements for potable water and requires appropriate treatment before use.

The Trust therefore intends to appoint a suitably qualified and experienced Tenderer to provide a complete Reverse Osmosis (RO) Borehole Water Treatment System capable of treating the available groundwater to potable quality in accordance with SANS 241:2015 (Edition 2) – Drinking Water Specification.

The successful Tenderer shall be responsible for the complete design, supply, delivery, installation, testing, commissioning and handover of a fully operational treatment system. The installation shall include all mechanical, electrical, instrumentation, control and ancillary equipment necessary to provide a reliable, safe and efficient water treatment solution.

The proposed system shall be specifically designed around the known borehole characteristics, sustainable abstraction recommendations and laboratory water quality results supplied as part of this Request for Proposal.

The Trust's objective is to obtain a practical, reliable and cost-effective installation that minimises lifecycle costs while providing dependable long-term operation and ease of maintenance.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

5. DESIGN BASIS

The proposed Reverse Osmosis (RO) Borehole Water Treatment System shall be designed using the information contained in the supporting hydrogeological and laboratory reports. Tenderers shall base their proposals on the engineering design criteria provided below.

5.1 Borehole Information

Parameter	***Design Requirement***
Water Source	Existing Borehole
Borehole Depth	300m
Static Water Level	14.66 m below ground level
Recommended Sustainable Abstraction Rate	0.25 L/s
Maximum Monthly Abstraction	648 m^3/month
Recommended Pump Installation Depth	Approximately 100 m
Design Standard	SANS 241:2015 (Edition 2)

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

5.2 Water Quality

Water Quality Summary		
Parameter	***Laboratory Result***	***SANS 241 Limit***
Electrical Conductivity	573 mS/m	≤170 mS/m
Total Dissolved Solids	3 120 mg/L	≤1 200 mg/L
Sodium	895.4 mg/L	≤200 mg/L
Chlorides	1 723 mg/L	≤250 mg/L
Manganese	0.677 mg/L	≤0.1 mg/L
E. coli	Not Detected	Complies
Total Coliforms	>200 /100 mL	≤10 /100 mL

The Tenderer shall use the above information together with the complete laboratory report contained in Appendix C when developing the proposed treatment process.

Particular consideration shall be given to the elevated concentrations of dissolved salts and other constituents identified within the laboratory analysis, including but not limited to:

Electrical Conductivity (EC)

Total Dissolved Solids (TDS)

Chlorides

Sodium

Manganese

Microbiological quality

pH

The Tenderer shall satisfy himself that the proposed treatment process is technically suitable for the supplied water quality.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

5.3 Design Philosophy

The proposed Reverse Osmosis (RO) Borehole Water Treatment System shall be designed to provide a practical, reliable and cost-effective long-term solution for the Humansdorp Primary School.

The design shall:

- Produce treated water complying with SANS 241:2015 (Edition 2).
- Be designed around the recommended sustainable borehole abstraction rate.
- Minimise operating and maintenance costs.
- Maximise operational reliability.
- Minimise energy consumption.
- Provide safe and user-friendly operation.
- Allow easy access for inspection and routine maintenance.
- Include all equipment necessary for a complete and fully operational installation.

Borehole Operating Limits	
Parameter	***Requirement***
Sustainable Abstraction Rate	0.25 L/s
Maximum Monthly Abstraction	648 m^3
Recommended Pump Installation Depth	100m
Pump Cut-off Level	98m
Dynamic Water Level	45–55 m below ground level
Critical Water Level	64 m below ground level

The Trust seeks the best overall value for money and not necessarily the lowest capital cost. Tenderers are encouraged to propose technically sound and economical solutions without unnecessary over-design.

6. SCOPE OF WORK

The Successful Tenderer shall be responsible for the complete design, supply, delivery, installation, testing, commissioning and handover of a fully operational Reverse Osmosis (RO) Borehole Water Treatment System.

The proposed installation shall be supplied as a complete turnkey solution and shall include all labour, materials, equipment, consumables and services necessary to deliver a safe, reliable and fully functional installation.

The Scope of Work shall include, but not necessarily be limited to, the following:

6.1 Process Design

The Successful Tenderer shall:

- Review all available hydrogeological and water quality information.
- Confirm the suitability of the proposed treatment process.
- Design a complete treatment system appropriate for the supplied borehole water quality.
- Design the system around the recommended sustainable borehole abstraction rate.
- Optimise the process to minimise operating costs while maintaining the required treated water quality.

6.2 Supply of Equipment

The proposal shall include the complete supply of all equipment required for a fully operational installation, including but not limited to:

- Feed water pumps.
- Raw water storage (where required).
- Pre-treatment equipment.
- Cartridge filtration.
- Reverse Osmosis membranes and pressure vessels.
- High-pressure pumps.
- Chemical dosing systems (where required).

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

- Treated water storage interface.
- Reject water pipework and associated fittings.
- Complete instrumentation.
- Electrical control panel.
- PLC and HMI.
- All valves, fittings, supports and interconnecting pipework.

6.3 Mechanical Installation

The Successful Tenderer shall undertake the complete mechanical installation of the treatment system, including:

- Equipment positioning.
- Pipework installation.
- Valve installation.
- Equipment supports.
- Mechanical connections.
- Pressure testing.
- Leak testing.
- Final commissioning.

6.4 Electrical Installation

The Successful Tenderer shall provide all electrical works required for the complete installation, including:

- Power distribution.
- Motor control.
- Electrical protection.
- Cable management.
- Earthing.
- Instrument wiring.
- Control wiring.
- Final testing.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

6.5 Instrumentation and Control

The treatment system shall include all instrumentation necessary for reliable and efficient operation.
Instrumentation shall include all sensors, transmitters and control devices necessary to monitor and protect the installation.

6.6 Commissioning

The Successful Tenderer shall:

- Test all installed equipment.
- Commission the complete system.
- Demonstrate satisfactory operation.
- Verify treated water quality.
- Train the Trust's nominated operators.
- Hand over a fully operational installation.

---

7. TECHNICAL AND PERFORMANCE REQUIREMENTS

The proposed Reverse Osmosis (RO) Borehole Water Treatment System shall be specifically designed to provide reliable long-term operation under the known borehole conditions.
The Tenderer shall clearly demonstrate that the proposed system is suitable for the supplied borehole water quality and sustainable abstraction recommendations.
As a minimum, the proposed system shall satisfy the following requirements.

7.1 Water Quality

The treated water shall comply with the requirements of:

SANS 241:2015 (Edition 2) – Drinking Water Specification.

Where additional treatment stages are required to achieve compliance, these shall be included within the proposal.

7.2 Reliability

The installation shall:

- Operate safely under normal operating conditions.
- Provide reliable continuous operation.
- Minimise equipment downtime.
- Be suitable for daily operation within a school environment.
- Be designed for ease of maintenance.

7.3 Operational Efficiency

The Tenderer shall optimise the treatment process to:

- maximise treated water production;
- minimise reject water volumes where practical;
- minimise electrical energy consumption;
- minimise chemical consumption;
- reduce maintenance requirements; and
- maximise membrane service life.

The Tenderer shall state the expected:

- Recovery rate (%).
- Permeate production rate.
- Reject water production rate.
- Specific energy consumption.
- Expected membrane replacement interval.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

7.3.1 Reject Water Management

The Tenderer shall clearly state the anticipated reject water volume, reject water quality and the proposed method of disposal or beneficial reuse. Any infrastructure or operational requirements associated with reject water management shall be clearly identified in the proposal.

7.4 Borehole Protection

The proposed system shall incorporate suitable measures to protect the borehole against over-abstraction.

The control philosophy shall be designed around the sustainable abstraction recommendations contained within the hydrogeological reports.

Where applicable, the proposal shall include:

- low water level protection;
- dry-run protection;
- automatic shutdown under fault conditions;
- automatic restart after fault clearance; and
- alarm indication.

7.5 Maintainability

The installation shall be designed to facilitate routine inspection and maintenance. Equipment shall be arranged to provide safe access for:

- membrane replacement;
- filter replacement;
- pump maintenance;
- valve maintenance;
- instrumentation calibration; and
- routine inspection.

Routine maintenance shall not require major dismantling of the installation.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

7.6 Design Responsibility

The Successful Tenderer shall remain fully responsible for confirming that the proposed treatment system is technically suitable for the supplied borehole water quality and operating conditions.

Any assumptions made during the design process shall be clearly identified within the proposal.

No additional costs arising from inadequate assessment of the available borehole information will be accepted after award of the Contract.

---

8. CONTROL, INSTRUMENTATION AND AUTOMATION

The proposed Reverse Osmosis (RO) Borehole Water Treatment System shall incorporate a fully integrated control, instrumentation and automation system to ensure safe, reliable and efficient operation.

The control system shall minimise operator intervention while providing adequate monitoring, protection and fault indication for all major process equipment.

8.1 Control Philosophy

The treatment system shall be designed for fully automatic operation under normal operating conditions.

The control philosophy shall include, as a minimum:

- Automatic system start-up and shutdown.
- Automatic operational sequencing.
- Automatic membrane flushing cycles.
- Automatic fault detection.
- Automatic system shutdown under abnormal operating conditions.
- Automatic restart following fault clearance where appropriate.
- Manual override capability for maintenance purposes.

8.2 PLC

The treatment system shall be controlled by an industrial Programmable Logic Controller (PLC) specifically selected for continuous industrial operation.

The PLC shall control all major equipment associated with the treatment process, including pumps, valves, instrumentation and alarm functions.

The Tenderer shall identify the proposed PLC manufacturer and model within the proposal.

8.3 Human Machine Interface (HMI)

The installation shall include a local colour touchscreen Human Machine Interface (HMI) to provide operators with an intuitive user interface for monitoring and operating the treatment system.

The HMI shall, as a minimum, display:

- System operating status.
- Pump status.
- Alarm conditions.
- Operating pressures.
- Flow rates (where measured).
- Water quality measurements (where monitored).
- Tank levels (where applicable).
- Historical alarm information.

8.4 Instrumentation

The Tenderer shall provide all instrumentation required for the safe and efficient operation of the treatment system.

Instrumentation shall be selected to suit the operating conditions and shall include all associated transmitters, indicators, wiring and mounting accessories.

Typical instrumentation may include, where applicable:

- Pressure indicators.
- Pressure transmitters.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

- Flow meters.
- Conductivity meters.
- Level switches.
- Level transmitters.
- Temperature sensors.
- Water quality monitoring instruments.

The Tenderer shall clearly identify all proposed instrumentation within the proposal.

8.5 Alarm Functions

The control system shall generate alarms for abnormal operating conditions.

Typical alarm conditions shall include:

- High pressure.
- Low pressure.
- Pump failure.
- Low borehole level.
- Electrical fault.
- Instrument fault.
- High conductivity (treated water).
- Emergency stop activation.
- Communication failure (where applicable).

8.6 Remote Monitoring

Where available, the Tenderer is encouraged to include remote monitoring capability.

Any remote monitoring functionality shall be clearly identified as either:

- Included in the base proposal; or
- Offered as an optional extra.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

9. INSTALLATION REQUIREMENTS

The Successful Tenderer shall be responsible for the complete installation of the proposed Reverse Osmosis (RO) Borehole Water Treatment System.
All work shall be carried out in accordance with recognised engineering practice, the applicable South African National Standards (SANS), Occupational Health and Safety legislation and the manufacturer's installation requirements.

The installation shall include all labour, supervision, lifting equipment, tools, consumables and temporary works necessary to complete the installation safely and efficiently.

9.1 Mechanical Installation

The Tenderer shall install all mechanical equipment required for the complete operation of the treatment system, including:

- Pumps.
- Pressure vessels.
- Filtration equipment.
- Reverse Osmosis units.
- Pipework.
- Valves.
- Supports.
- Chemical dosing equipment (where applicable).

9.2 Electrical Installation

The Tenderer shall complete all electrical installations associated with the treatment system, including:

- Motor control.
- Power distribution.
- Instrumentation wiring.
- Control wiring.
- Earthing.
- Cable management.
- Electrical testing.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

9.3 Pipework

All pipework shall be suitable for the intended operating pressures, water quality and environmental conditions.
Pipework shall be neatly installed, adequately supported and clearly identified where appropriate.
All joints shall be watertight and capable of withstanding the design operating pressure.

9.4 Quality of Workmanship

All work shall be executed to a high standard of workmanship.

The Trust reserves the right to require the rectification of any work that does not comply with recognised engineering standards or the requirements of this Request for Proposal.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

10. TESTING AND COMMISSIONING

The Successful Tenderer shall be responsible for the complete testing, commissioning and demonstration of the Reverse Osmosis (RO) Borehole Water Treatment System prior to Practical Completion.

Commissioning shall only be deemed complete once the system has demonstrated stable and reliable operation under normal operating conditions.

10.1 Mechanical Testing

The Successful Tenderer shall perform all mechanical testing required to verify the integrity and functionality of the installation, including but not limited to:

- Pressure testing of all pipework.
- Leak testing.
- Verification of valve operation.
- Verification of pump operation.
- Inspection of all mechanical connections.

Any defects identified during testing shall be rectified prior to commissioning.

10.2 Electrical Testing

The electrical installation shall be tested to confirm correct operation of:

- Power distribution.
- Motor control.
- Protective devices.
- PLC inputs and outputs.
- Instrumentation.
- Emergency stop functions.
- Alarm systems.

All electrical testing shall be completed before the plant is commissioned.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

10.3 Functional Testing

The complete treatment system shall undergo functional testing to demonstrate correct operation of all process equipment.

The functional test shall verify:

- Automatic start-up.
- Automatic shutdown.
- Automatic flushing.
- Alarm functions.
- Interlocks.
- Borehole protection.
- Pump sequencing.
- Normal operating cycles.

10.4 Water Quality Verification

Following commissioning, the Successful Tenderer shall demonstrate that the treated water complies with the requirements of ***SANS 241:2015 (Edition 2)***.

Where required by the Trust, treated water samples may be submitted to an independent SANAS-accredited laboratory for verification.

Should the treated water fail to comply with the specified standard due to deficiencies in the supplied treatment system, the Successful Tenderer shall rectify the installation at no additional cost to the Trust.

10.5 Operator Training

The Successful Tenderer shall provide practical operator training covering, as a minimum:

- Normal operation.
- Routine inspections.
- Start-up procedures.
- Shutdown procedures.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

- Alarm acknowledgement.
- Routine maintenance.
- Basic fault identification.
- Safe operation.

Training shall be conducted on site following successful commissioning.

10.6 Practical Completion

Practical Completion shall only be achieved once:

- The installation has been successfully commissioned.
- All defects have been rectified.
- Required documentation has been submitted.
- Operator training has been completed.
- The Trust has accepted the installation.

---

11. DOCUMENTATION REQUIREMENTS

The Successful Tenderer shall provide comprehensive documentation for the completed installation.

All documentation shall be supplied in both electronic (PDF) and hard-copy format.

The following documentation shall be provided as a minimum:

- Process Flow Diagram (PFD).
- General Arrangement Drawing.
- Equipment Layout.
- Equipment Data Sheets.
- Electrical Single Line Diagram.
- Control Philosophy.
- PLC and HMI Operating Manual.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

- Instrument Schedule.
- Operation and Maintenance Manual.
- Recommended Preventative Maintenance Schedule.
- Spare Parts List.
- Warranty Certificates.
- Commissioning Report.
- As-built Drawings.

All documentation shall become the property of the Kouga Windfarm Community Development Trust.

---

12. EXCLUSIONS

Tenderers shall clearly identify all items excluded from their proposal.

Any exclusion shall be specific, unambiguous and fully described.

Failure to clearly identify an exclusion shall be deemed to indicate that all items necessary for a complete and fully operational installation have been included within the proposal. No claims for additional payment arising from omitted items that are reasonably necessary for the proper operation of the treatment system will be accepted after award of the Contract.

---

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

13. PROGRAMME REQUIREMENTS

Tenderers shall submit a proposed programme indicating the anticipated duration of each phase of the project.
The programme shall include, as a minimum:

- Design.
- Procurement.
- Manufacture (where applicable).
- Factory assembly.
- Delivery to site.
- Installation.
- Testing.
- Commissioning.
- Operator training.
- Practical Completion.

Tenderers shall clearly state the total delivery period from receipt of an official Purchase Order to Practical Completion.

Where long-lead items are anticipated, these shall be clearly identified within the proposal.

---

14. AFTER-SALES SUPPORT

The Kouga Windfarm Community Development Trust recognises the importance of reliable technical support and ongoing maintenance to ensure the long-term performance of the Reverse Osmosis (RO) Borehole Water Treatment System.
Tenderers shall therefore provide details of the after-sales support available following Practical Completion.

As a minimum, the proposal shall include:

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

14.1 Warranty

Tenderers shall clearly state the warranty applicable to:

- The complete treatment system.
- Reverse Osmosis membranes.
- Pumps.
- Electrical equipment.
- PLC and HMI.
- Instrumentation.
- Mechanical equipment.

The warranty shall clearly identify any exclusions or conditions applicable to the warranty.

14.2 Technical Support

Tenderers shall provide details regarding:

- Local technical support availability.
- Normal response times.
- Breakdown call-out procedures.
- Availability of emergency support.
- Availability of remote technical assistance (where applicable).

14.3 Spare Parts

Tenderers shall confirm:

- Availability of replacement parts.
- Estimated delivery periods for critical components.
- Recommended operational spare parts.
- Recommended strategic spare parts for the first two years of operation.

14.4 Preventative Maintenance

Tenderers shall submit a recommended preventative maintenance schedule indicating:

- Daily inspections.
- Weekly inspections.
- Monthly servicing.
- Annual servicing.

Where optional maintenance agreements are available, these shall be submitted separately from the base proposal.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

15. PRICING SCHEDULE

Tenderers shall submit a detailed priced proposal clearly identifying all costs associated with the complete supply, installation and commissioning of the proposed Reverse Osmosis (RO) Borehole Water Treatment System.

Lump sum pricing without supporting detail will not be accepted.

The pricing schedule shall include, as a minimum:

Description	***Price(Excl.VAT)***
Process Design	
Mechanical Equipment	
Feed Pumps	
Pre-treatment Equipment	
Reverse Osmosis System	
High Pressure Pump(s)	
Instrumentation	
PLC & HMI	
Electrical Installation	
Mechanical Installation	
Testing & Commissioning	
Operator Training	
Documentation	
Delivery	
Optional Equipment (if applicable)	
Optional Annual Maintenance	
Electrical Consumption (Estimated kWh/day)	
Estimated Annual Operating Cost	
Total Tender Price (Excl. VAT)	

Where optional equipment is offered, it shall be clearly identified and priced separately. Any assumptions affecting pricing shall be clearly stated.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

16. TENDER SUBMISSION REQUIREMENTS

Tenderers shall submit a complete proposal comprising both the Technical Proposal and Commercial Proposal.
The submission shall include, as a minimum:

Technical Proposal

- Company Profile.
- Relevant Project Experience.
- Proposed Process Description.
- Process Flow Diagram (PFD).
- Preliminary General Arrangement Drawing.
- Equipment Data Sheets.
- Instrumentation Schedule.
- Control Philosophy.
- Proposed Programme.
- Recommended Maintenance Philosophy.
- List of Exclusions.

Commercial Proposal

- Completed Pricing Schedule.
- Warranty Information.
- Optional Equipment Pricing.
- Optional Maintenance Pricing.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

Enquiries

All enquiries relating to this Request for Proposal shall be directed to:

Nosisana Morris

Kouga Windfarm Community Development Trust

Email: administration@kwftrust.co.za

ContactNo: 042 004 0003

ClosingDate: Friday, 25 July 2026

Late submissions may not be considered unless otherwise approved by the Kouga Windfarm Community Development Trust.

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

17. APPENDICES

The following documents form part of this Request for Proposal and shall be read in conjunction with this document.

Appendix Description:

Appendix A: GlobiWell Borehole Drilling Results Report

Appendix B: GlobiWell Borehole Yield Recommendations Report

Appendix C: SANAS Accredited Water Quality Analysis Report

TRUST RESERVATION OF RIGHTS

The Kouga Windfarm Community Development Trust reserves the right to:

- accept or reject any proposal, in whole or in part;
- request clarification or additional information from any Tenderer;
- negotiate with one or more Tenderers;
- cancel or amend this Request for Proposal at any time; and
- not necessarily accept the lowest-priced proposal.

The evaluation of proposals will be based on the overall value offered to the Trust, taking into consideration technical compliance, reliability, quality, lifecycle cost, after-sales support, project experience and commercial value.

---

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp

Appendix A:
Borehole Drilling Results - Humansdorp Primary School

GlobiWell
Borehole and Groundwater Specialists

Borehole Drilling Results: Kouga Windfarm Community Trust ERF 3298 - Humansdorp

June 2026

Mr. R. van Jaarsveld,
Hydrogeologist,
Pr. NAT. Sci,
GlobiWell

GlobiWell
19 Frykenhuis Street,
Summerstrand,
Port Elizabeth

Cell: 084 80 79166
Email: ruan@globiwell.com
Web: www.globiwell.co.za

INTRODUCTION

GlobiWell Consulting Hydrogeologists have sited and supervised the borehole drilling of one new borehole on ERF 3298, Humansdorp. This report details the outcomes of the drilling process, as well as the drilling results.

The groundwater augmentation project was commissioned by the Kouga Windfarm Community Trust; to develop a groundwater resource for the property.

The results from the groundwater investigation and borehole siting are captured in the following GlobiWell report: *Groundwater Investigation and Borehole Siting: ERF 3298, October 2025.*

Figure 1: *Aerial overview of the property boundaries (green polygon), showing the locations of the new borehole, Globi 1.*

Table 1: *Borehole Name and Coordinates*

Borehole Name	Coordinates
Globi 1	-34.031811° / 24.796281°

DRILLING RESULTS

Following the groundwater investigation conducted in October 2025, the borehole named Globi 1 was drilled. Borehole drilling started on the 30th of April, and was completed by the 13th of May, 2026. The borehole drilling contractor was Steyn's Drilling CC, from Port Elizabeth.

Globi 1:

Target geology and site adjustment: The borehole was designed to target a NW–SE striking fracture zone within the Baviaanskloof Formation, which underlies the shale of the Bokkeveld Group. When drilling commenced, the proposed borehole position was moved approximately 45 m east to avoid potential environmental impacts associated with a nearby wetland area. This relocation may have reduced the expected yield, as the borehole may have intersected the targeted fractured zone only marginally.

The borehole was drilled to a final depth of 300 meters, achieving a final blow yield of 1.5 litres per second, and an electrical conductivity of 445 mS/m.

Borehole drilling consisted of two diameters: From 0 to 24 metres below ground level, a diameter of 254 mm was used. Two meters of 273 mm OD steel casing was installed and 24 meters of 200 mm OD Class 12 uPVC was installed. This was to stabilize the overburden and weathered bedrock. Bedrock was intersected at 13 meter depth. From 24 – 300 meters below ground level, the borehole was drilled using a diameter of 165 mm. From 13 – 139 meters below ground level, the borehole intersected black shales of the Bokkeveld Group. From 139 meter to the end of the hole, the borehole was drilled into fine-grained dark-grey quartzitic sandstones of the Baviaanskloof Formation, which was the targeted formation.

After drilling, the borehole was developed for 1 hour. Following development, 140 mm OD class 12 uPVC casing was installed from 0 – 300 meter depth below ground level. No primary aquifer ws intersected, rest water level is 14.66 meters below ground level, confirming the borehole will have no influence on nearby wetland, and does not draw any water from the wetland. The uPVC casing was perforated at intervals corresponding to water strikes recorded during the drilling. Full details of the borehole design and water strike depths can be found in the drilling log, see below.

Table 2: *Water strike depths, yield and electrical conductivity*

Water Strike Depth (m)	Cumulative Yield (L/s)	Electrical Conductivity (mS/m)
49	0.13	294
77	0.23	243
116	0.77	492
149	1.26	450
268	1.5	433

BOREHOLE DRILLING LOG

Kouga Windfarm Community Trust - Groundwater Augmentation Project on ERF 3298, Humansdorp

Bh No:	**Globi 1**				
Location:	**Humansdorp**	**Depth:**	300 m	**Logged by:**	Keanu Gouws
Lat/Long:	-34.031811°	**Final EC:**	445 mS/m	**Completion Date:**	2026/05/13
	24.796281°	**Air-lift yield:**	1.5 l/s		
RWL:	14.66 mbgl				

Drilling Diameters	Casing Diameters		Water Strikes	Depth (m)	Geology
0 - 24 m:	0 - 2 m:	Steel Plain 0 - 2 m (273 mm OD)		0 - 13	Yellow silt with quartzite fragments (1 - 4 cm clasts)
Air rotary 254 mm	273 mm OD				
	4.5 mm WT steel casing	uPVC 0 - 24 m (200 mm OD)	Primary aquifer: none	13 - 16	Weathered shale (0.5 - 1 cm fragments)
24 - 300 m:				16- 47	Black shale (0.5 - 1 cm fragments)
Air rotary 165 mm	0 - 24 m:				
	200 mm OD		Strike 1: 49 m, 0.13 L/s, 294 mS/s	47 - 51	Black shale, interbedded feldspathic sandstone (0.5 - 1 cm fragments)
	12 mm WT uPVC class 12	uPVC 0 - 300 m (140 mm OD)		51 - 68	Black shale (1 - 2 cm fragments)
	0 - 300 m:	140 mm OD uPVC perforations:		68 - 70	Black shale, fractured (1 - 3 cm fragments)
	140 mm OD	72 - 78 m	Strike 2: 77 m, 0.23 L/s, 243 mS/m	70 - 77	Black shale (0.5 - 1 cm fragments)
	8 mm WT uPVC class 12				
				77 - 80	Black shale, fractured (1 - 4 cm fragments)
	uPVC 140 mm	90 - 96 m		80 - 97	Black shale (1 - 2 cm fragments)
	Perforated between:			97 - 102	Black shale, fractured (1 - 3 cm fragments)
	72 - 78 m; 90 - 96 m;	102 - 108 m		102 - 115	Black shale (0.5 - 1 cm fragments)
	102 - 108 m; 114 - 126 m;				
	132 - 138 m; 144 - 150 m;	114 - 126 m	Strike 3: 116 m, 0.77 L/s, 492 mS/m	115 - 122	Black shale, fractured (1 - 3 cm fragments)
	156 - 162 m; 174 - 180 m;			122 - 133	Black shale (0.5 - 1 cm fragments)
	192 - 198 m; 204 - 210 m;				
	216 - 222 m; 228 - 234 m;	132 - 138 m		133 - 139	Black shale, fractured (1 - 4 cm fragments)
	240 - 246 m; 258 - 276 m;			139 - 144	Dark grey quartzite, fractured, well-jointed, quartz veining (1 - 2 cm fragments)
	282 - 288 m	144 - 150 m		144 - 149	Dark grey quartzite, well-jointed (1 cm fragments)
			Strike 4: 149 m, 1.26 L/s, 450 L/s	149 - 150	Dark grey quartzite, fractured, well-jointed, pyrite veining prominent (1 - 3 cm fragments)
		156 - 162 m		150 - 158	Dark grey quartzite, well-jointed, pyrite veining prominent (1 cm fragments)
				158 - 160	Dark grey quartzite, fractured, well-jointed, pyrite veining prominent (1 - 3 cm fragments)
				160 - 176	Dark grey quartzite, well-jointed, pyrite veining prominent (1 cm fragments)
		174 - 180 m		176 - 181	Dark grey quartzite, fractured, well-jointed, pyrite veining prominent (1 - 2 cm fragments)
				181 - 199	Dark grey quartzite, well-jointed, interbedded phyllite (1 cm fragments)
		192 - 198 m		199 - 200	Dark grey quartzite, fractured, well-jointed, pyrite veining prominent (1 - 2 cm fragments)
				200 - 208	Dark grey quartzite, well-jointed, pyrite veining prominent (1 cm fragments)
		204 - 210 m		208 - 210	Dark grey quartzite, fractured, well-jointed, pyrite veining prominent (1 - 3 cm fragments)
				210 - 214	Dark grey quartzite, well-jointed, quartz veining (1 cm fragments)
		216 - 222 m		214 - 221	Dark grey quartzite, fractured, quartz veining (1 - 2 cm fragments)
				221 - 230	Dark grey quartzite, fractured, well-jointed, quartz veining (0.5 - 1 cm fragments)
		228 - 234 m		230 - 241	Dark grey quartzite, fractured, quartz veining (1 - 2 cm fragments)
		240 - 246 m		241 - 268	Dark grey quartzite, well-jointed, interbedded phyllite, pyrite veining (0.3 - 0.8 cm fragments)
		258 - 276 m			
			Strike 5: 268 m, 1.5 L/s, 433 mS/m	268 - 270	Dark grey quartzite, fractured, quartz veining, pyrite veining (1 - 2 cm fragments)
				270 - 286	Phyllite dominant, interbedded dark grey quartzite (0.2 - 0.5 cm fragments)
		282 - 288 m			
		Anulus: open		286 - 300	Dark grey quartzite, well-jointed (0.5 - 0.8 cm fragments)

Not to scale

EOH: 300 m

Ruan van Jaarsveld,

Hydrogeologist, Pr.Sci.Na, GlobiWell Consulting Hydrogeologists

Appendix B:
Borehole Yield Recommendations - Humansdorp Primary School

GlobiWell
Borehole and Groundwater Specialists

Borehole Yield Recommendation: Kouga Windfarm Community Trust ERF 3298 - Humansdorp

June 2026

Mr. R. van Jaarsveld,
Hydrogeologist,
Pr.Sci.Nat
GlobiWell

GlobiWell
19 Frykenhuis Steet
Summerstrand
Port Elizabeth

Cell: 084 80 79166
Email: ruan@globiwell.com
Web: www.globiwell.co.za

INTRODUCTION

GlobiWell Consulting Hydrogeologists undertook a comprehensive borehole yield analysis based on test pumping data obtained from a single borehole on the on ERF 3298, located near the town of Humansdorp. The project was initiated by Kouga Windfarm Community Trust. The test pump data, which served as the basis for this analysis, was provided by the test pump contractor, Steyn's Drilling CC, who conducted the test pumping from 5-8 June 2026.

The yield testing process consisted of the following components:

4 x 1 hour Step Test
2 x 12-hour Constant Discharge Test (CDT)
2 x Recovery Test

The primary objective of the yield analysis was to calculate the sustainable pumping yield of the borehole and to provide informed recommendations regarding the equipping and utilisation of the borehole. These pumping recommendations are intended to guide the sizing and selection of an appropriate borehole pump. Selecting the correct pump is critical, as an unsuitable pump can result in borehole, aquifer, or pump failure.

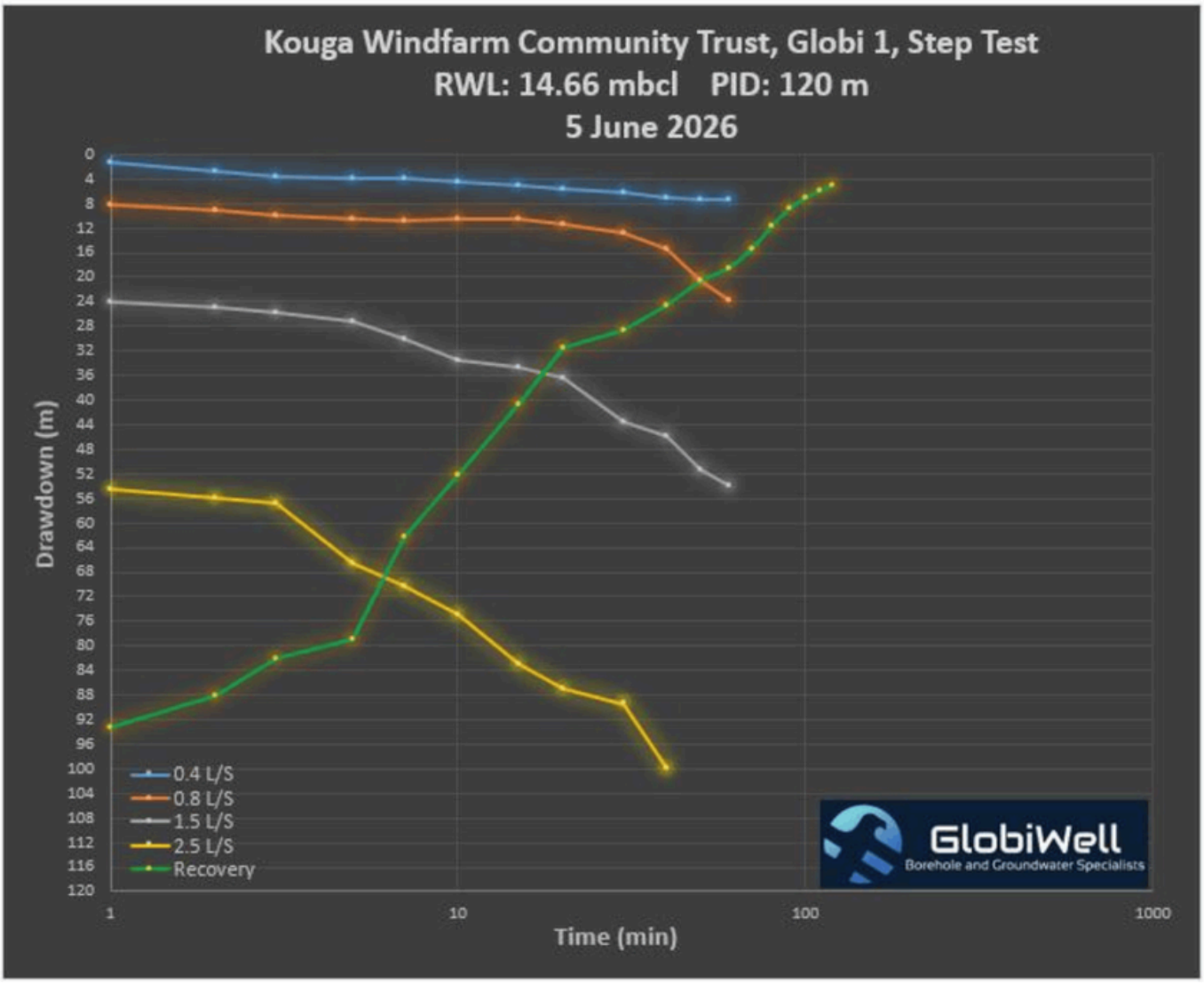
Sustainable yields for the borehole were calculated using established methods: the Fracture Characteristic method and the Cooper Jacobs Approximation of the Theis method. Graphs illustrating the results of the constant discharge test are included in this report.

Figure 1 *Indicates the property approximate boundaries (green polygon) and the location of the borehole, Globi 1, which the test pumping and yield analysis was conducted on (blue dot).*

TEST PUMPING RESULTS

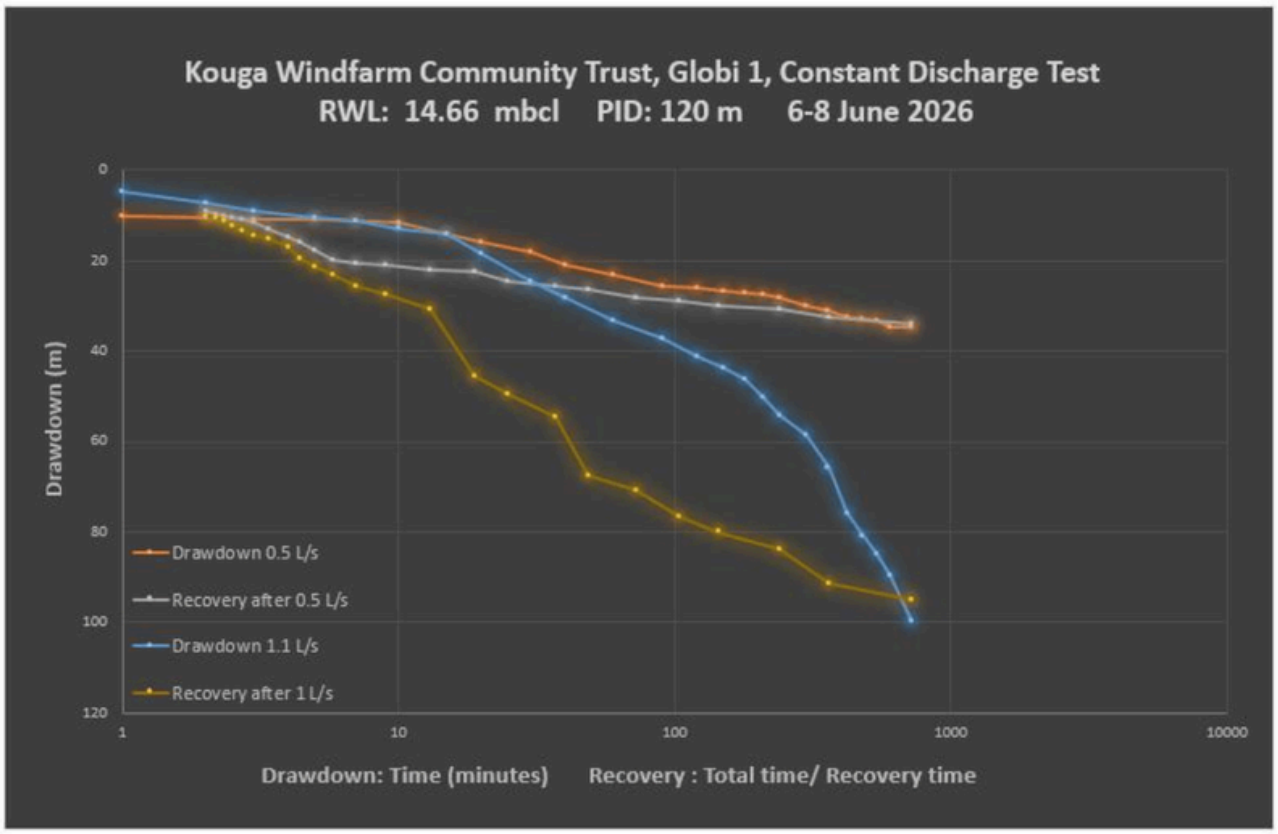
The field data was graphed and is shown below.

Graph: Step Test Data. The x-axis which plots time duration is represented in log format. The y-axis shows the drawdown/recovery in meters. Zero drawdown is equal to the rest water level, prior to testing (14.66 meters below ground level). During the step test the borehole was pumped for 4 hours, after each hour the discharge rate was increased; followed by recovery readings. During the fourth step the water level reach the pump intake depth.



Graph: Constant Discharge Test Data. The results of the constant discharge test are presented in the following graph. The x-axis of the graph represents the time duration and is displayed in a logarithmic format. The y-axis indicates the drawdown and recovery in meters. Notably, the recovery data is plotted in reverse; early recovery measurements appear on the right side of the graph, while later recovery data are shown on the left. The point of zero drawdown corresponds to the rest water level, which was recorded at 14.66 meters below ground level, prior to the commencement of the test.

The yield test was initially planned as a single 24-hour constant discharge test. However, during pumping at 1.1 L/s, the water level intersected the inflection point, after which it declined rapidly to the pump suction depth. This response provided valuable insight into the borehole's behaviour and helped identify the inflection point. A second 12-hour constant discharge test was therefore conducted at 0.5 L/s to keep the water level just above this critical threshold. Recovery measurements were taken of each of the constant discharge test.



Comment on the data:

- The borehole has a very poor recovery rate
- Transmissivity: 0.8 m^2/Day
- The data show a dewatering signature and did not fully recover after pumping.
- Over pumping could lead to aquifer or borehole pump failure
- The borehole has a very prominent inflection point at 50 m drawdown (64.66 m below ground level).

YIELD RECOMMENDATIONS

Table 1: *Borehole Yield Recommendations*

Borehole Information	**Globi 1**
Latitude	-34.031811°
Longitude	24.796281°
Borehole cased depth (m)	300
Borehole casing ID (mm)	~128
Rest water level (mbcl)	14.66
Electrical conductivity (mS/m)	471
Drilling yield (L/s)	1.5
Yield Recommendations	
Recommended rate (L/s) for 24 hours per day of pumping	0.25
Maximum amount of water allowed to be abstracted per month (m^3)	648
Recommended PID & max. pumping water level	
Recommended PID (m)	100
Critical depth that water level must not exceed (m)	64
Pump cut off switch (m)	98
Dynamic water level (mbcl)	45-55

Note:

Because the borehole did not fully recover after test pumping, this was taken into account when determining the sustainable yield. Long-term aquifer monitoring is therefore essential to ensure that water levels do not fall below the expected or modelled dynamic groundwater level.

BOREHOLE EQUIPPING & MONITORING RECOMMENDATIONS

It is critical to monitor both the static and dynamic water levels of the borehole on a weekly basis. Regular monitoring allows for the early detection of any significant declines in water levels, ensuring that appropriate measures can be taken in a timely manner.

If the recorded water levels fall below the expected static and dynamic values, as outlined in Table 1, it is necessary to contact a hydrogeologist. The hydrogeologist will assess the situation and recommend adjustments to the pumping rates or modify the pump and rest cycles to prevent further decline in water levels and to protect the borehole's integrity. It is also important to note that recovery rates may fluctuate with seasonal changes. These variations can either increase or decrease the available abstraction volumes from the borehole. However, such trends and their effects can only be accurately identified through the collection and analysis of long-term groundwater monitoring data. For effective and sustainable operation of the borehole, long-term groundwater monitoring is recommended. GlobiWell offers support in this regard, assisting in the ongoing monitoring of the borehole to ensure its sustainable use and to maintain the health of the underlying aquifer.

Monitoring and installation:

The borehole should be equipped with:

- HDPE or equivalent piezometer tube with an ID of 35 mm, installed to pump inlet depth.
- Flow meter correctly installed (manufacturers specifications), at the borehole.
- Gate valve with a pressure gauge installed to the borehole manifold.
- A discharge point at the borehole to dispose water when the borehole is operated after rest periods (non-pumping). The water must be pumped to waste until it is clear (to remove iron oxides, sand etc. that may precipitate in the borehole and rising main while standing).
- Install borehole logger to piezo tube to monitor water levels electronically.
- It is recommend that GlobiWell assist with long term monitoring of the groundwater levels to ensure the borehole is being operated in a sustainable manner for many years to come.
- Regular water sampling is advised.
- Water use license application.

WATER QUALITY

A water sample was collected at the end of the constant discharge test, and the water sample was sent to a laboratory for drinking water standards. Currently awaiting results.

Ruan van Jaarsveld, Hydrogeologist, Pr. Sci. Nat, GlobiWell Hydrogeologists

Appendix C:

SANAS Laboratory Analytical Report - HPS - 2026.06.19

GEOSCIENCE TESTING LABORATORY (PTY)LTD
Reg. No. 2022/794178/07

Deliveries: 3 Brand Street, Westering, Gqeberha 6001
Tel: +27 (0)41 487-3130
E-mail: civil@geosciencelab.co.za

ISO/IEC 17025 ACCREDITED

sanas Testing Laboratory
T1102

CLIENT : Steyns Drilling

PROJECT : Humansdorp School
JOB CARD : TET3326
DATE SAMPLED : 11/06/2026
DATE DELIVERED: 15/06/2026
DATE COMPLETED: 19/06/2026
DATE REPORTED: 19/06/2026
SAMPLED BY: Client
SAMPLING PROCEDURE : N/A

DATE TESTED: 15/06/2026
ATT : Sarel

SHORT SANS LABORATORY ANALYTICAL REPORT

Parameter	Units	Method Reference / Method No	Limits SANS 241:2015	SANS 241 RISK CLASS	Sample No:	Sample No:	Sample No:	Sample No:
					WL10974			
					Sample ID:	Sample ID:	Sample ID:	Sample ID:
					Borehole Water			
PHYSICAL AND AGGREGATE PROPERTIES								
Electrical Conductivity	mS/m	GSF 346S	≤ 170	Aesthetic	573.00			
pH at 25°C	pH units	GSF 373S	≥5.0-≤9.7	Operational	6.76			
Turbidity	NTU	GSF 377S	≤1	Operational	6.27			
Colour *	Pt-Co Units	GSF 372S	≤15	Aesthetic	<5			
Total Dissolved Solids @180°C	mg/l	GSF 297S	≤1200	Aesthetic	3120			
Total Hardness	mg equiv. $CaCO_3$/L	APHA 2340-B	N/A	Operational	371.51			
Total Alkalinity	mg/l $CaCO_3$	GSF 368S	N/A	N/A	452.40			
CHEMICAL - MACRO CONSTITUENTS								
Sodium *	mg/l Na	SANS 11885	≤200	Aesthetic	895.40			
Chloride	mg/l Cl^-	GSF 354S	≤250	Aesthetic	1723.15			
Calcium *	mg/l Ca	SANS 11885	N/A	N/A	36.96			
Magnesium *	mg/l Mg	SANS 11885	N/A	N/A	67.81			
Potassium *	mg/l K	SANS 11885	N/A	N/A	9.60			
Zinc *	mg/l Zn	SANS 11885	≤5	Aesthetic	0.30			
Ammonia as N	mg/l NH_3-N	GSF 372S	≤1.5	Aesthetic	0.40			
Nitrate as N	mg/l NO_3-N	GSF 372S	≤11	Acute Health	1.00			
Nitrite as N	mg/l NO_2-N	GSF372S	≤0.9	Acute Health	0.007			
Combined Nitrate plus Nitrite	Ratio	GSF372S	≤1.0	Acute Health	0.10			
Flouride as F	mg/l F^-	GSF 372S	≤1.5	Chronic Health	0.660			
Sulphate as SO_4^{2-}	mg/l SO_4^{2-}	GSF 372S	≤250	Aesthetic	210			
CHEMICAL- MICRO CONSTITUENTS								
Copper *	mg/l Cu	SANS 11885	≤2	Chronic Health	0.465			
Iron *	mg/l Fe	SANS 11885	≤0.3	Aesthetic	0.025			
Manganese *	mg/l Mn	SANS 11885	≤0.1	Aesthetic	0.677			
MICROBIOLICAL CONSTITUENTS								
E.coli *	count/100ml	GSF 282S	N/D	Acute Health	ND			
Total Coliforms *	count/100ml	GSF 282S	≤10	Operational	>200			

Remarks: 1. The above test results are pertinent only to the samples received and tested at the laboratory. This report shall not be reproduced, except in full, without the prior consent of Geoscience Lab (Pty) Ltd. (*) = Indicate non-accredited tests. (s) = Subcontracted test. (N/D) = Not Detected

2. The highlighted result is an intrepretation of the direct comparison between the quoted specification and the single test sample results obtained.

3. The results met/not met is based on an aproximate 95% level of confidence with reference to ISO/IEC 98-4

Name : Aviwe Nontenja
Technical Signatory

The End

082 544 5618 042 004 0003 info@kwftrust.co.za kwftrust.co.za 7 Kemp Street, Humansdorp