ST. JOHN'S COLLEGE - WAU

Water Yard Project Narrative Report

Presented to

Poole – Wau Partnership Organisation (UK)

By
ST. JOHN'S COLLEGE – WAU,
SOUTH SUDAN

April 14th, 2026

Executive Summary of the Report

St. John's College awarded a contract to **Christ Mission to the World Co. Ltd** for the construction of a new water yard. The project encompassed the **drilling of new boreholes**, **installation of a solar-powered water pump system**, **lightning arresters**, **a steel water tower**, **a steel water tank**, and the **development of a water distribution network** with fetching points across the ECSS compound. The initiative was generously funded by the **Poole–Wau Partnership** based in the United Kingdom.

This report provides a **comprehensive account** of the construction process, including the drilling of boreholes and the installation of the solar water pump system. It outlines the **key achievements**, **challenges encountered** during implementation, and offers **recommendations** for improvement. The overarching aim is to ensure that the contracting company takes **decisive and corrective action** on the issues identified, thereby safeguarding the quality and safety of the water yard before its formal handover to St. John's College and the wider church community.

The report presents a **summary of findings, achievements, challenges, and recommendations**, beginning with the most pressing matters of concern to the **Water Management Committee**. It is strongly advised that the contractor address these issues with due diligence and seriousness to guarantee the long-term functionality and safety of the facility.

Work commenced with a **hydrological survey** within the compound in **October 2025**, and the findings were duly communicated to partners in the United Kingdom. Subsequently, the **boreholes were drilled and tested** by the **Government of South Sudan**, under the supervision of the **Department of Rural Water in Wau Town**. Project materials were transported from **Nairobi** in **December 2025**, and the **erection of structures** for the water yard began on **15 December 2025**, alongside **plumbing works**, which continued for three weeks until **5 January 2026**.

The project has now been **successfully completed**, and the **supervisory committee** has compiled its final report, which was submitted to the **Office of the Principal** on **24 January 2026**. The Principal subsequently reviewed the report in consultation with **water management committee**, ensuring that all aspects of the project were properly evaluated and documented.

Purpose of the Report

The purpose of this report is to **analyse the overall functionality** of the newly constructed water yard, encompassing aspects such as **water yield and quality**, **borehole drilling**, and the **water network system**. It seeks to **evaluate the quality of workmanship**, **materials utilised**, and the **efficiency and effectiveness** of the water distribution network, including the **construction standards** of underground pipes and tap installations. Furthermore, the report provides a **comprehensive overview** of achievements, challenges, recommendations, and action points directed to both the **contracted company** and **ST. JOHN'S COLLEGE - WAU**.

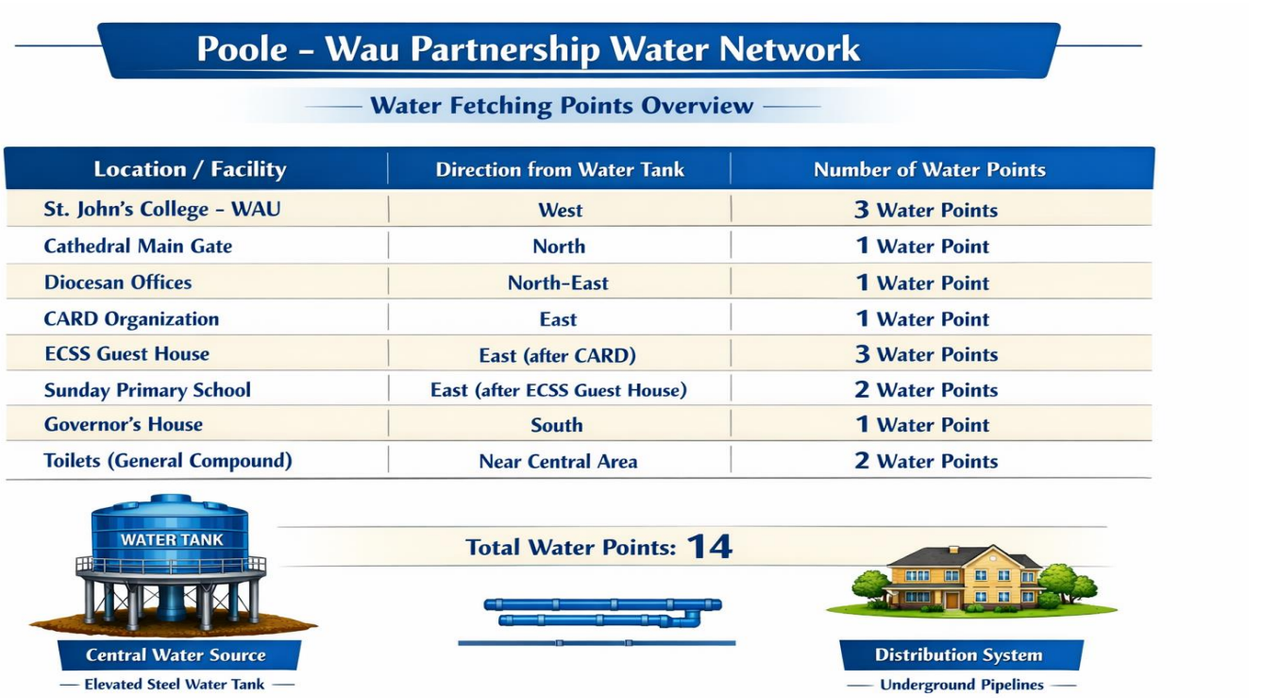
Project Activities and Achievements

1. **Hydrogeological Survey:** Christ Mission to the World Co. Ltd (CMW) successfully conducted a hydrogeological survey prior to commencement, identifying the most suitable site for borehole drilling. The company employed **GPS technology**, ensuring precision and efficiency.
2. **Borehole Drilling:** A borehole was drilled to a depth of **115 metres**, yielding an adequate and sustainable water supply to meet the institution's requirements.
3. **Float Switch Installation**: The installation of the **main float switch** in the tank was completed and effectively connected to the **auxiliary float switches** and the **supply terminal**, ensuring automatic regulation of water levels.
4. **Water Quality Analysis:** A **chemical analysis** of the borehole water was conducted to determine its suitability for human consumption. The results confirmed that the water met the **required health and safety standards** for drinking.
5. **Steel Tower and Tank Installation:** CMW installed a **robust metallic tank stand** capable of withstanding environmental and mechanical stresses. A **31,000-litre steel water tank** was mounted on the tower, complete with all necessary pipes and fittings, in accordance with the contractual specifications.
6. **Solar Power System Installation:** A **solar energy system** was installed, including a **control panel** to power the submersible pump, enabling efficient water elevation from the borehole to the tank. The system comprised **solar panels rated at 4,200 watts**, a **CU box**, **stands**, **cables**, and other accessories, all successfully integrated.
7. **Protective Fencing:** A **chain-link fence** measuring **6.0m × 5.0m** was constructed around the water tank.
8. **Water Network Development:** CMW established a **comprehensive water network** within the ECSS compound, extending to the **Guest House**, **CARD**, **Sunday Primary School**, **St. John's College – Wau**, and the **Governor's House**. Each fetching point was equipped with **durable plastic taps** for public use.

9. **Guest House Connection**: The water system was successfully connected to the **Guest House rooms**, ensuring consistent and reliable water flow throughout the facility.
10. **Water Yield**: The water yield has proven satisfactory; since the system was opened for use, **no interruptions or shortages** have been reported.
11. **Water Quality**: The water quality remains **consistently high**, with **no complaints** regarding taste, colour, or contamination since the commencement of public access.
12. **Water Fetching Points:** A total of **14 water fetching points** were constructed and distributed as follows:
    - St. John's College – 3
    - Good Shepherd Cathedral – 1
    - Diocesan Offices – 1
    - CARD – 1
    - Guest House – 3
    - Toilets – 2
    - Sunday Primary School – 2
    - Governor's House – 1

- **NB:** Look at the table shown below.

Table 1: Number of water fetching points



- **NB:** Below are some photos that can help understanding better in brief.

Figure 1: These are the technicians who conducted the survey on 15th of October 2025.

Figure 2: Photo of the drilling machine on the 29th of October 2025

Figure 3: Photo of staff, Students and Church Leaders with the drilling machine on the 29th of October 2025

Figure 4: This is the car which brought Borehole materials from Juba to Wau on 15/12/2025

Figure 5: Staff of the College with the car of the materials on 15/12/2025

Figure 6: Water Tank and the fence with security wires 28/12/2025.

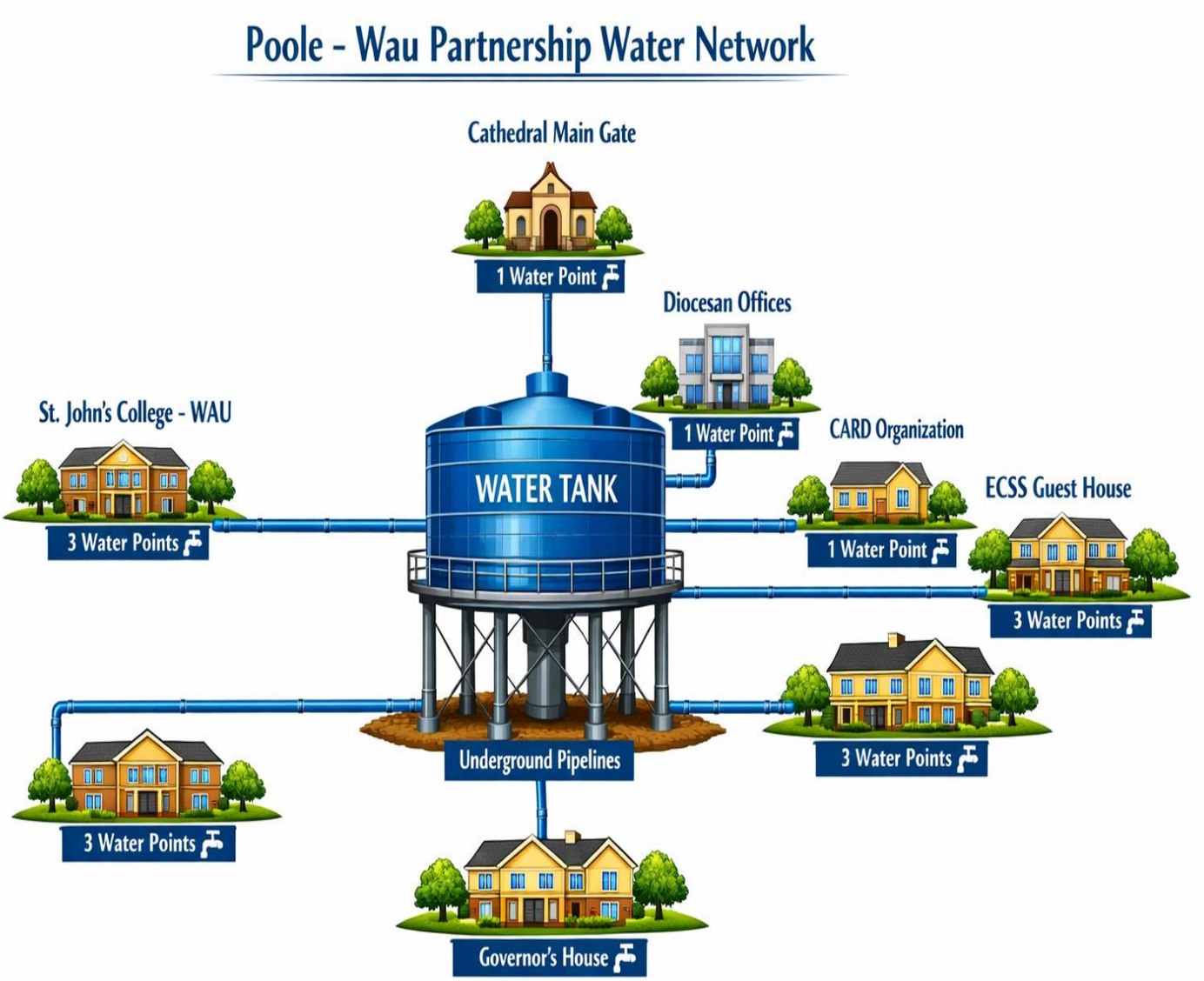
Figure 7: Bore Hole and the fence with security wires on 28/12/2025.

Figure 8: Bore Hole with near distance and the fence with security wires on 28/12/2025.

Figure 9: Water Fetching Points 15/02/2026

Figure 10: Photo of a goat for Engineers to celebrate on 28th of December 2025

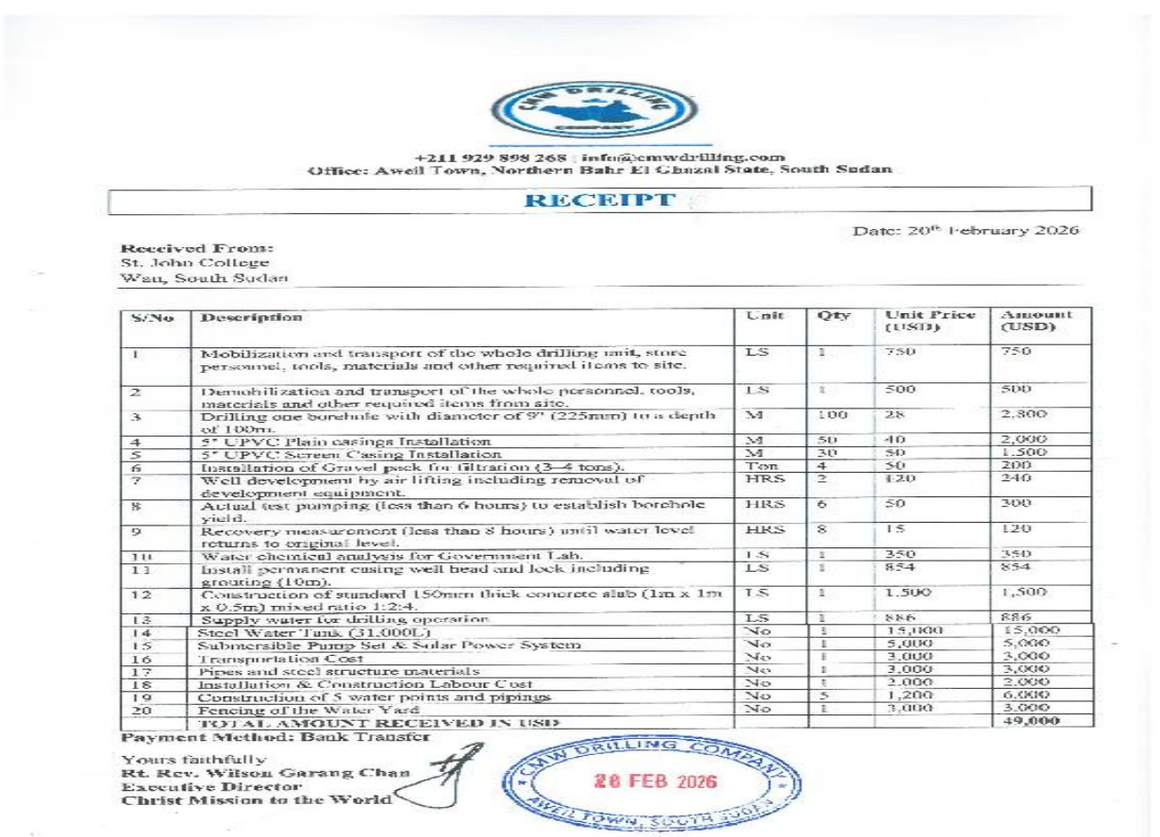
Figure 11: Water Network



Project Financial Report

ST. JOHN'S COLLEGE - WAU			
Finance Report from November 2025 - February 2026			
Date / S/N	**Particulars**	**SSP**	**USD$**
1	**Grants Received**		
07/11/2025	Grant Received from PWP	150,000,000.00	$ 25,000.00
19/11/2025	Grant Received from PWP	144,000,000.00	$ 24,000.00
	Total grants received	**294,000,000.00**	**$ 49,000.00**
2	**Payments**		**$ -**
21/11/2025	1st Payment	150,000,000.00	$ 25,000.00
28/11/2025	2nd Payment	120,000,000.00	$ 20,000.00
15/12/2025	3rd Payment	12,000,000.00	$ 2,000.00
27/12/2025	4th Payment	6,000,000.00	$ 1,000.00
02/02/2026	5th Payment	2,100,000.00	$ 350.00
11/02/2026	6th Payment	3,900,000.00	$ 650.00
	Total Payments	**294,000,000.00**	**$ 49,000.00**
3	**Balance**	**-**	**$ -**
EXCHANGE RATE USED $ 1 USD=SSP 6000			

Official Receipts



CMW DRILLING COMPANY

+211 929 898 268 | info@cmwdrilling.com
Office: Aweil Town, Northern Bahr El Ghazal State, South Sudan

RECEIPT

Date: 20th February 2026

Received From:
St. John College
Wau, South Sudan

S/No	Description	Unit	Qty	Unit Price (USD)	Amount (USD)
1	Mobilization and transport of the whole drilling unit, store personnel, tools, materials and other required items to site.	LS	1	750	750
2	Demobilization and transport of the whole personnel, tools, materials and other required items from site.	LS	1	500	500
3	Drilling one borehole with diameter of 9" (225mm) to a depth of 100m.	M	100	28	2,800
4	5" UPVC Plain casings Installation	M	50	40	2,000
5	5" UPVC Screen Casing Installation	M	30	50	1,500
6	Installation of Gravel pack for filtration (3–4 tons).	Ton	4	50	200
7	Well development by air lifting including removal of development equipment.	HRS	2	120	240
8	Actual test pumping (less than 6 hours) to establish borehole yield.	HRS	6	50	300
9	Recovery measurement (less than 8 hours) until water level returns to original level.	HRS	8	15	120
10	Water chemical analysis for Government Lab.	LS	1	350	350
11	Install permanent casing well head and lock including grouting (10m).	LS	1	854	854
12	Construction of standard 150mm thick concrete slab (1m x 1m x 0.5m) mixed ratio 1:2:4.	LS	1	1,500	1,500
13	Supply water for drilling operation	LS	1	886	886
14	Steel Water Tank (31,000L)	No	1	15,000	15,000
15	Submersible Pump Set & Solar Power System	No	1	5,000	5,000
16	Transportation Cost	No	1	3,000	3,000
17	Pipes and steel structure materials	No	1	3,000	3,000
18	Installation & Construction Labour Cost	No	1	2,000	2,000
19	Construction of 5 water points and pipings	No	5	1,200	6,000
20	Fencing of the Water Yard	No	1	3,000	3,000
	TOTAL AMOUNT RECEIVED IN USD				**49,000**

Payment Method: Bank Transfer

Yours faithfully
Rt. Rev. Wilson Garang Chan
Executive Director
Christ Mission to the World

CMW DRILLING COMPANY
28 FEB 2026
AWEIL TOWN, SOUTH SUDAN

Project Challenges

1. **Employment of Unqualified Personnel**: Christ Mission to the World Co. Ltd assigned individuals with limited technical expertise to the project. Several of those engaged were casual labourers rather than trained technicians or engineers. The absence of a full-time engineer to oversee the work resulted in substandard quality, particularly in plumbing, where the workers' skills proved inadequate.
2. **Poor Planning and Coordination**: The project suffered from weak planning and coordination. Staff from CMW Co. Ltd arrived on site and commenced work without proper consultation with the management of St. John's College – Wau. For example, the drilling company arrived without prior notification, and similarly, the engineer responsible for installing and constructing the water tanks was not informed in advance. This led to confusion and disorganisation.
3. **Incomplete Tank Foundation**: The construction of the water tank foundation was left incomplete. Although the four metallic poles were embedded in concrete beams, the entire base was not covered with slabbing, leaving the foundation structurally deficient.
4. **Absence of Lightning Arrester**: No lightning arrester was installed to protect the solar system and water tank. Given the area's history of thunderstorms, this omission poses a significant risk to the safety and durability of the installation.
5. **Inadequate Training of Local Operators**: Although the contractor had agreed to provide training for local operators to ensure proper management of the water yard, the training delivered was insufficient. The technicians departed immediately afterwards, leaving the operators with insufficient knowledge and skills.
6. **Failure to Dispose of Excess Soil**: Following the drilling and construction of the water tank base, the company did not remove or dispose of the excess soil heap generated during the activity. This neglect created an untidy environment and potential hazards around the site.

Figure 12: Indispose excess soil

Deviation from Planned Objectives

The project activities and designated locations did not diverge from the original objectives and plans. However, the absence of an introductory meeting at the outset created opportunities for numerous challenges during implementation. The lack of competence among the contractor's technicians, particularly the plumbing staff, resulted in unprofessional and substandard work.

Lessons Learned

1. **Importance of Introductory Meetings and Leadership Engagement**: The project underscored the necessity of conducting an introductory meeting prior to commencement. The absence of such a meeting contributed significantly to the difficulties encountered during implementation. An introductory session would have facilitated the presentation of work policies, established communication channels, introduced staff, and clarified roles and responsibilities. This would have enabled emerging issues to be addressed more effectively. Moving forward, both institutions will prioritise introductory meetings before launching any future projects.
2. **Need for Effective Coordination**: The challenges highlighted the consequences of poor coordination between senior management and the contractor's personnel. Employing full-time, qualified staff to manage both administrative and technical aspects would ensure prompt and professional resolution of issues arising in the field, while also fostering effective collaboration with stakeholders.
3. **Risks of Employing Unskilled Personnel**: The project revealed the risks associated with engaging unprofessional and unskilled voluntary staff. Such practices compromise the quality of work and undermine the institution's reputation. In future, the contractor should prioritise the deployment of qualified and skilled personnel to guarantee professional standards and commendable outcomes.

Appreciation Remarks

Poole–Wau Partnership Strengthens St. John's College – Wau with Major Water Yard Project. Beyond infrastructure, partnership extends support to staff incentives and theology teaching. St. John's College – Wau proudly acknowledges the generous contribution of the **Poole–Wau Partnership** in funding the construction of a **Water Yard**, a landmark project that has significantly improved access to clean water for students, staff, and the wider community.

This initiative stands alongside other vital contributions, including the construction of additional facilities in 2025, financial support for college staff incentives, and dedicated assistance to theology teaching staff. Together, these efforts demonstrate a shared commitment to strengthening education, community resilience, and faith-based learning in South Sudan. Your partnership stands as a beacon of solidarity and progress, strengthening both our academic mission and our service to the wider community.

The College extends its deepest gratitude to the Poole–Wau Partnership for their unwavering solidarity and vision, which continue to inspire hope and progress. ***"Your partnership brings life, learning, and hope to our community."***