ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1	**SANS 1200 A**		**PRELIMINARY AND GENERAL**				
1.1	8,3		**Scheduled Fixed-Charge and Value-Related Items**				
1.1.1	8.3.1		Contractual Requirements	Sum	1		
			Provision for the site facilities:				
1.1.2	8.3.2.1		a) Facilities for the Engineer	Sum	1		
1.1.3	8.3.2.2		b) Facilities for the Contractor	Sum	1		
1.1.4	8.3.3		General reponsibilities and other fixed charge obligations including other obligations for Epedemic	Sum	1		
1.1.5	8.3.4		Removal of site establishment on completion	Sum	1		
1.1.6			Compliance with the OHS Act regulations (Rate to include for risk assessment for Ependemic and other adjustments to ensure compliance for the assignment including maintenance of a register for workers contacts.)	Sum	1		
			Costs of medical certificate and Medical Surveillance including Screenings for Employees with fever Symptoms				
1.1.7			a) Initial (baseline) medical examinations	No.	20		
1,18			b) Exit examinations	No.	20		
1.1.9			Allowance for Health and Safety Officer	Sum	1		
			Environmental Managemant				
1.1.10			a) Compliance with Environmental Management plan	Sum	1		
			Contract Name boards				
1,1,11			(a) Supply & erect Contract name board, See **Drawing standard**	No	1		
1.2	**8.4**		**SCHEDULED TIME-RELATED ITEMS**				
1.2.1	8.4.1		Contractual requirements	Sum	1		
1.2.2	8.4.2		Occupation and maintanance of the site facilities				
1.2.3	8.4.2.1		a) Facilities required by the Engineer	Sum	1		
1.2.4	8.4.2.2		b) Facilities required by the Contractor	Sum	1		
1.2.5			General responsibilities and other time related abligations including other obligations.	Sum	1		
1.2.6			Compliance with the OHS Act regulations (Rate to include for risk assessment for Ependemic and other adjustments to ensure compliance for the assignment including maintenance of a register for workers contacts.)	Sum	1		
1.2.7	8.4.3		Supervision for the duration of the contract	Sum	1		
						Carried Forward	

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
						Brought Forward	
1.3			**SUMS STATED PROVISIONALLY BY THE ENGINEER**				
1.3.1	PSA3		Employment of CLO for the duration of the Contract (R8500 pm plus R500 pm cellphone allowance)	Prov. Sum	1	R51 000,00	R51 000,00
1.3.2			Payment of PSC members for attendance of meetings for the duration of the contract (5 No members at R500 per member per meeting)	Prov. Sum	1	R18 000,00	R18 000,00
1.3.3			Allow for Civil Engineering trainee	Prov. Sum	1	R60 000,00	R60 000,00
1.3.5			Contractors markup on item 1.3.1 to 1.3.3	%	R129 000,00		
1.3.5			Provision of Engineering Survey as instructed by the Engineer and for any As-built survey	Prov. Sum	1	R60 000,00	R60 000,00
			Provision of Geotechnical Investigation / any other Tests as instructed by the Engineer a	Prov. Sum	1	R70 000,00	R70 000,00
1.3.5			Allow for Airtime to the Engineers site Personnel for the duration of the Contract	Prov. Sum	1	R6 000,00	R6 000,00
1.3.6			Allow for the provision of the Engineer's Bakkie for the duration of the Contract	Prov. Sum	1	R120 000,00	R120 000,00
1.3.7			Percetange mark-up on item 1.3.4 to 1.3.6	%	R256 000,00		
1.4	8.7		**DAYWORKS**				
1.4.1			**LABOUR**				
			Supervision, transport etc to be included in P&G allowance. Any other allowance to be included in the rate)				
1.4.1.1		LIC	Foreman	hr	65		
1.4.1.2		LIC	Skilled	hr	65		
1.4.1.3		LIC	Semi-skilled	hr	65		
1.4.1.4		LIC	Unskilled	hr	65		
1.4.2			**PLANT**				
1.4.2.1			a) TLB	hr	1		
1.4.2.2			Establishment and Destablishment for item 1.4.3.1	Sum	1		
1.4.2.3			b) Excavator	hr	1		
1.4.2.4			Establishment and Destablishment for item 1.4.3.3	Sum	1		
1.4.2.5			c) Flatbed truck	hr	1		
1.4.2.6			Establishment and Destablishment for item 1.4.3.3	Sum	1		
1.4.2.7			d) Wacker	day	1		
1.4.2.8			e) Water Pump	day	1		
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
2	**SANS 1200 C & PSC**	**SITE CLEARANCE**				
2.1		CLEAR SITE				
2.1.1	8.2.1	Clear and grub vegetation in strip 2m wide on pipe route. Rate to include for trees of girth up to and including 1m.	m	23 663		
2.1.2	8.2.2	Where instructed remove and grub large trees and tree stumps of girth:				
2.1.2.1	8.2.2(a)	over 1m and up to 2m.	No.	7		
2.1.3	8.2.10	Remove topsoil in 600mm wide strip to depth of 150mm, stockpile, maintain and reinstate.	m^3	2 130		
2.1.4	PSC 8.2.13	Remove existing gravel layer works to stockpile and maintain (for use as selected layers) as instructed by the Engineer.				
2.1.4.1		Gravel layer works to District Roads.	m^3	59		
2.1.4.2		Fill material	m^3	59		
2.1.4.3		Relocation of existing fences	km	1		
2.1.4.4		Working adjacent to existing services (stormwater pipes, stormwater v-drains, water pipes and electrica and telecommunication services)	m	33		
2.1.4.5		Working parallel to existing services (stormwater pipes, stormwater v-drains, water pipes and electrica and telecommunication services)	No	7		
2.1.5		Temporary Works				
2.1.5.1		Preparation of access road to the reservoir positions	Prov. Sum	1	R100 000,00	R 100 000,00
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3	**SANS 1200 D & 200 DB**	**PIPE TRENCHES**				
3.1	PSDB 8.3.2	Excavation				
3.1.1	8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes:				
3.1.1.1		Up to and including 100mm ND for total trench depth:				
3.1.1.1.1		Exceeding 0,0m but not exceeding 1.0m	m³	14 198		
3.1.1.1.2		Exceeding 1.0m but not exceeding 1,5m	m³	1 420		
3.1.1.1.3		Exceeding 1.5m but not exceeding 3.5m	m³	710		
3.1.2		Extra over item for 3.1.1.1.1 for hard rock (Prov)	m³	1 420		
3.2		Slope Protection (Provisional)				
3.2.1		Earth diversion berms as instructed by the Engineer	No.	68		
3.3		Excavation Ancillaries				
3.3.1		Make up defieciency in backfill material				
3.3.1.1		a) From other necessary excavations on site (provisional)	m³	1 420		
3.3.1.2		b) By importation from commercial or off-site sources (provisional)	m³	1		
Total Carried Forward to Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
4	**SANS 1200 DK**	**GABIONS AND PITCHING**				
4.1	8,2	Excavate materials for gabions	m^3	30		
4.2	8.2.1	Surface preparation for bedding of gabions.				
4.2.1	8.2.1	Cavities filled with approved excavated material or rock (Provisional Quantity)	m^2	5		
4.2.2	8.2.1	Cavities filled with 15MPa concrete	m^2	5		
4.3	8.2.2 PSDK 3.1.2	Construct gabions using double twisted hexagonal mesh type 80 with 3.4mm OD frame wire and 2.7mm OD mesh wire to SANS 1480:2005:				
4.3.1		Supply and install the following rock filled gabion baskets complete :				
4.3.1.1		2 x 1 x 1m with 80 x 100mm galv. mesh	m^3	15		
4.3.1.2		3 x 2 x 1m with 80 x 100mm galv. mesh (Reno Mattress)	m^3	15		
4.4	8.2.4 PSDK 3.1.3	Geotextile (Type AG 200) placed where ground water seepage occurs:				
4.4.1	8.2.4	Below gabion mattresses	m^2	30		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5	**SANS 1200 LB & PS LB**	**BEDDING**				
5.1	8.2.1 & PS LB 3.1	Provision of Bedding from Trench Excavation				
5.1.1	8.2.1 (a)	Selected granular material	m³	5 537		
5.1.2	8.2.1 (b)	Selected fill material	m³	9 938		
5.2	8.2.2	Supply only of Bedding by Importation				
5.2.1	8.2.2.1	From other necessary excavations (Provisional)				
5.2.1.1	8.2.2.1 (a)	Selected granular material	m³	554		
5.2.1.2	8.2.2.1 (b)	Selected fill material	m³	994		
5.2.2	8.2.2.3	From Commercial sources				
5.2.2.1	8.2.2.3 (a)	Selected granular material	m³	1		
5.2.2.2	8.2.2.3 (b)	Selected fill material	m³	1		
5.3	8.2.3	Concrete Bedding Cradle (Provisional)				
5.3.1		15/19 Grade concrete	m³	1		
5.4	8.2.4	Encasing of Pipes in Concrete (Provisional)				
5.4.1		Encasement of Pipe in 25/19 Grade concrete including all formwork and reinforcement (100kg steel per m^3 conctrete) for water crossings	m³	1		
5.5	8.2.4	Thrust Blocks				
5.5.1		Construct thrust blocks in 25/19 Grade concrete including all preparation work and formwork required.	m³	3		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
6	**SANS 1200 L**	**MEDIUM PRESSURE PIPELINES**				
6.1	8.2.1	Supply, bed, lay, disinfect, join, backfill and test potable water pipelines. All works inclusive in the rate, except where specific items are provided. All activites in accordance with project specifications.:				
		HDPe Pipes				
6.1.1		50 mm dia. PN 10	m	17 333		
6.1.2		50 mm dia. PN 12	m	1 895		
6.1.3		63 mm dia. PN 10	m	1 175		
	8.2.1	uPVC Pipes class 9				
6.1.5		75 mm dia. uPVC pipes	m	445		
6.1.6		90 mm dia. uPVC pipes	m	1 045		
6.2		**RISIN MAIN PIPELINE**				
6.2.1		50 mm dia. HDPe PN 12 to SABS 533	m	1 250		
6.2.2		50 mm dia. HDPe PN 16 to SABS 533	m	520		
6.3	PSL 8.2.16	Pipeline Markers (as per drawing)	No.	95		
6.4		Supply and install standpipe complete including HDPE saddle, 32mm HDPe pipe(20m), tap and galvanised riser pipe, concrete work including shuttering, elbows, nipples, etc, as per drawing no. P2024_17_D-405. Work to be executed by a nominated sub contractor	No.	43		
6.5		Install Aqua Flow limiters where instructed by the Engineer complete as per drawing P2024_17_D-405	No	43		
6.6		Mark up on Item 6.4 and 6.5 above	%			
6.7		Refurbishment of existing standpipes where instructed by the Engineer	No	5		
6.8		Supply and install **Break Pressure Tank** model 01LW16 or similar approved complete with pipework **set.**	No.	4		
Total Carried Forward to Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
7	**SANS 1200 L**	**PIPE FITTINGS AND SPECIALS**				
7.1.	8.2.2 PSL 8.2.4 PSL 8.2.5	Extra-over 8.2.1 for the Supplying, Laying and Bedding of Specials complete with Couplings as follows:-				
	8.2.4 PSL 8.2.6	Supply, lay, joint and bed including cutting pipes where required for the following:				
		mPVC Pipe Bends (Class 16)				
7.1.1		75mm dia. x 11,25° bends.	No.	2		
7.1.2		75mm dia. x 22,5° bends.	No.	3		
7.1.3		75mm dia. x 45° bends.	No.	1		
7.1.4		75mm dia. x 90° bends.	No.	1		
7.1.5		90mm dia. x 11,25° bends.	No.	9		
7.1.6		90mm dia. x 22,5° bends.	No.	9		
7.1.7		90mm dia. x 45° bends.	No.	4		
7.1.8		90mm dia. x 90° bends.	No.	1		
		HDPE Pipe Bends (PN16)				
7.1.9		50mm dia. x 45° bends.	No.	13		
7.1.10		50mm dia. x 90° bends.	No.	13		
		Reducers and Tees (Class 16)				
7.1.11		63mm HPDe x 50mm HPDe reducer coupling	No.	1		
7.1.12		75mm PVC x 63mm HPDe reducer coupling	No.	4		
7.1.14		90mm mPVC x 75mm mPVC reducer coupling	No.	1		
7.1.15		75mm PVC x 63mm HPDe reducer coupling	No.	2		
7.1.16		75mm mPVC x 63mm HPDe reducing TEE	No.	5		
7.1.17		63mm HPDe x50mm HPDe reducing TEE	No.	5		
7.1.18		50mm HPDe x32mm HPDe reducing TEE	No.	16		
7.1.19		90mm x 90mm x 90mm mPVC equal TEE	No.	4		
7.1.20		75mm x 75mm x 75mm mPVC equal TEE	No.	3		
7.1.21		63mm x 63mm x 63mm HPDe equal TEE	No.	15		
7.1.22		50mm x 50mm x 50mm HPDe equal TEE	No.	15		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
8		**VALVES**				
		Valves				
8.1	8.2.3	Extra-over 8.2.1 for the supplying, fixing and Bedding of Valves as indicated below:				
		Isolation Valves Complete (Class 25)				
8.1.1	PSL 3.13.2	Supply and install the following flanged Resilient seal Gate valves complete with valve chamber, PN 10 with non-rising spindle, Clockwise closing, including all gaskets, bolts, nuts and washers as per detailed drawing				
8.1.1.1		50mm HDPe	No.	8		
8.1.1.2		63mm HDPe	No.	3		
8.1.1.3		75mm PVC	No.	3		
8.1.1.4		90mm PVC	No.	3		
		Air Valves Complete (Class 25)				
8.1.2	8.2.5	Supply and install Air Valve assemblies Complete with valve chamber as per detailed drawings. Rate is inclusive of valve chamber, scour pipework and headwall to scour pipe.				
8.1.2.1		50mm HDPe	No.	15		
8.1.2.2		63mm HDPe	No.	1		
8.1.2.3		75mm PVC	No.	2		
8.1.2.4		90mm PVC	No.	2		
		Scour Valves Complete (Class 25)				
8.1.3	8.2.5	Supply and install Scour Valve assemblies Complete with wedge gate valve and valve chamber as per detailed drawings. Rate is inclusive of valve chamber, scour pipework and headwall to scour pipe.				
8.1.3.1		50mm HDPe	No.	7		
8.1.3.2		63mm HDPe	No.	2		
8.1.3.3		75mm PVC	No.	1		
8.1.3.4		90mm PVC	No.	1		
					Carried Forward	

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
					Brought Forward	
8.1.5		Bulk Water Meter Complete				
8.1.5.1	8.2.5	Supply and install Bulk Water Meter assemblies Complete with valve chamber as per detailed drawings.	No.	3		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
9		**RESERVOIRS AND FENCING**				
9.1		Construct new 160kl Reservoir complete as per Engineers instructions. Rate to include for all excavations, concrete bases, inlet and outlet pipes, overflow pipe, gate valves, ball valve, disinfection, associated chambers,thrust blocks, etc.	No.	1		
9.2		Construct new 30kl collector tank complete as per Engineers instructions. Rate to include for all excavations, concrete bases, inlet and outlet pipes, overflow pipe, gate valves, ball valve, disinfection, associated chambers,thrust blocks, etc.	No.	2		
9.3		Contractor's mark up on Item 9.1 and 9.2 above	%			
9.4		In-line chlorination complete with chamber	Sum	3		
9,5		Security fence constructed of 2.4m High formed of thirteen strands of straining wires each strand formed of twisted double strand 1,6mm thick galvanised wires incorporating three barbs in every twist at 150mm centres mechanically strained between straining and/or gate and corner posts at maximum 10m centres with one end passed through holes and securely tied to posts and other end securely tied to and including eyebolts bolted onto posts with and including 2,5mm galvanised binding wire; the fence complete with and including three rows of flat wrap razor security wire in 600mm diameter vertical loops fixed at each intersection with barbed straining wires with and including 2,5mm galvanised binding wire. With 100mm Diameter x 3,5mm thick galvanised intermediate post 3,4m long with pressed steel cap welded onto top; the post to be holed as required for wires and straining bolts and with 150 x 150 x 4mm mild steel base plate welded onto bottom end: including setting up post and embedding in position in concrete baseas per drawing no. P2024_17_D-404	m	120		
9,6		Supply and install double leaf vehicle gates	No.	2		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
10		**SMALL WORKS**				
10.1		**Booster Pump Station Building**				
10.1.1		Supply all material and labour to construct borehole pump station building complete in accordance with drawing no. P2024_17_D-426 and P2024_17_D-427 as directed by the Engineer. The tendered rate shall be inclusive of all earthworks and relevant tests required. All materials and workmanship to conform to specifications.	No	1		
10.2		**Borehole Pump Station Building**				
10.2.1		Supply all material and labour to construct booster pump station building complete in accordance with drawing no. P2024_17_D-422, P2024_17_D-423 and P2024_17_D-424 as directed by the Engineer. The tendered rate shall be inclusive of all earthworks and relevant tests required. All materials and workmanship to conform to specifications.	No	1		
10.3		**Spring Protection**				
10.3.1		Refurbishment spring protection infrastructure as per drawing P2024_17_D-425. Contractors should be inlusive of all associated works	No	2		
10.3.2		Contractor's mark up on Item 10.1.1, 10.2.1 and 10.3.1 above	%			
10,4		**Fencing**				
10.4.1		Security fence constructed of 2.4m High formed of thirteen strands of straining wires each strand formed of twisted double strand 1,6mm thick galvanised wires incorporating three barbs in every twist at 150mm centres mechanically strained between straining and/or gate and corner posts at maximum 10m centres with one end passed through holes and securely tied to posts and other end securely tied to and including eyebolts bolted onto posts with and including 2,5mm galvanised binding wire; the fence complete with and including three rows of flat wrap razor security wire in 600mm diameter vertical loops fixed at each intersection with barbed straining wires with and including 2,5mm galvanised binding wire. With 100mm Diameter x 3,5mm thick galvanised intermediate post 3,4m long with pressed steel cap welded onto top; the post to be holed as required for wires and straining bolts and with 150 x 150 x 4mm mild steel base plate welded onto bottom end: including setting up post and embedding in position in concrete baseas per drawing no. P2024_17_D-404	m	148		
		Supply and install double leaf vehicle gates	No.	4		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
11	SANS 1200 LD 8.2.1	**BOOSTER PUMP STATION**				
11,1		**Booster Pump Station Mechanical and Electrical Works**				
11.1.1		Mechanical and Electrical Works. Supply and install duty and standby electrical driven booster pumpset Grund fos Hydro MPC-E 2 CRIE 3-11 pumps or similar approved, including diesel driven backup generator. The tendered rate should include the all Electrical and Mechanical works (electrical panel, all pipework, water meters, valves, pump controls, etc). The contractor will also be required to compile an operations manual and train operators as identified by the Client. The booster to be Vertical Multistage Centrifugal pump capable of delivering the following: Duty: H = 64m and Q = 0.4 l/s	Sum	1		
11.1.2		Running of Gen-Set till hand-over	Sum	1		
11.1.3		Power supply from Eskom Kiosk for both Borehole Pump Stations	Prov. Sum	1	R 67 440,21	R 67 440,21
11,2		**Balancing Tank**				
11.2.1		Construct new 10kl galaxy or steel Pump storage tank complete as per Engineers instructions. Rate to include for all excavations, concrete bases, inlet and outlet pipes, overflow pipe, scour pipe, gate valves, ball valve, disinfection, associated chambers,thrust blocks, etc.	No.	1		
11.2.2		Contractor's mark up on item 11.1.1 to 11.2.1 above	%			
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
12	SANS 1200 LD 8.2.1	**BOREHOLE PUMP STATION**				
12,1		**Borehole Pump Station Mechanical and Electrical Works**				
12.1.1		Mechanical and Electrical Works at Borehole EC–T60–1721. Supply and install electrical driven borehole pumpset with Grundfos 09102B48 SP 2A-48 50 Hz pump or similar approved. The tendered rate should include the installation of all Electrical and Mechanical works (electrical panel, all pipework, water meters, valves, pump controls, etc). The contractor will also be required to compile an operations manual and train operators as identified by the Client. The electrical materials are measured else where under electrification of borehole pump station. Duty: H = 156m and Q =0.5 8l /s	No	1		
12.1.2		Power supply from Eskom Kiosk for both Borehole Pump Stations	Prov-Sum	1	R 50 000,00	R 50 000,00
12.1.3		Contractor's mark up on item 12.1.1 and 12.1.2 above	%			
Total Carried Forward To Summary						

OR TAMBO DISTRICT MUNICIPALITY

SIHLITHO WATER SUPPLY SCHEME: CONTRACT 2

ORTDM SCMU 20-25/26

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	PRELIMINARY AND GENERAL	
2	SITE CLEARANCE	
3	PIPE TRENCHES	
4	GABIONS AND PITCHING	
5	BEDDING	
6	PRESSURE PIPELINES	
7	PIPE SPECIALS & FITTINGS	
8	VALVES	
9	RESERVOIRS	
10	SMALL WORKS (PUMP STATION)	
11	BOOSTER PUMP STATION	
12	BOREHOLE PUMP STATION	
13	**TOTAL OF SECTIONS (VAT EXCLUDED)**	
14	ADD: CONTINGENCIES @ 7.5%	
15	**SUB-TOTAL**	
16	ADD: VAT @ 15%	
17	**TOTAL PROJECT COST**	

Project Duration is 6 Months

Signature : _____

Name: _____

Capacity: _____

Company Name : _____

Date : _____