

GOVERNMENT OF SAMOA



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Suavai mo le Ola

SAMOA WATER AUTHORITY

**WATER TREATMENT PLANTS INSTALLATIONS
VAILELE & ALEISA SCHEMES - WORKS CONTRACT**

Contract No.: SWA-TD-2011-04

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TENDER DOCUMENT

**VOLUME 4
BILL OF QUANTITIES**

DECEMBER 2011

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Acronyms and Abbreviations

EDF	European Development Fund
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPC	Electricity Power Corporation
EU	European Union
MAF	Ministry of Agriculture and Forestry
MNREM	Ministry of Natural Resources, Environment and Meteorology
MoH	Ministry of Health
NAO	Minister of Commerce, Industry and Labour and National Authorising Officer
NW	North West
PEAR	Preliminary Environmental Assessment Report
PRV	Pressure Reduction Valve
PUM	Planning and Urban Management
PUMA	Planning and Urban Management Agency
RWSS	Rural Water Supply and Sanitation
SMP	Sustainable Management Plan
SE	South East
SWA	Samoa Water Authority
SWAES	Samoa Water Authority Standards for Water Supplies
UFW	Unaccounted for Water
WaSSP	Water Sector Support Programme
WTP	Water Treatment Plant
WTW	Water Treatment Works

1 TENDER DOSSIER

Concerning:

WATER TREATMENT PLANTS INSTALLATIONS; VAILELE & ALEISA SCHEMES - WORKS CONTRACT

This tender dossier is made up of the following parts:

Volume 1:

1. The Notice of Invitation to Tender
2. Rules for tendering
 - a. Instructions to Tenderers, including:
 - i. The Tender form
 - ii. The Tender Guarantee form
 - b. The General Regulations for Works Contracts financed by the EDF.

Volume 2:

1. Contractual Provisions
 - a. Special Conditions, including:
 - i. The Contract form
 - ii. The Performance Guarantee form
 - iii. The Bank Guarantee for Payment of Advances form
 - b. The General Conditions for Works Contracts

Volume 3:

1. Technical Provisions including mainly a description of the works and the specifications

Volume 4:

1. The Preamble
2. The Bills of Quantities

Volume 5:

1. Drawings
2. Other relevant technical documents

2 PREAMBLE

The price is scheduled in Unit-price Contract. In unit-price contracts, the supplies/services/works are broken down into different items on the basis of bills of quantities drawn up by the contracting authority, and the proposed unit price for each item. The unit prices for the contract are fixed. The amounts due under the contract will be calculated by applying the said unit prices to the quantities actually supplied, in accordance with the contract.

Regarding the price revision, unless otherwise stipulated in the Special Conditions, contracts shall be at fixed prices which shall not be revised.

Tenderers must price each item in the price schedule separately and follow the instructions regarding the transfer of various totals in the summary. Tenderers must price all proposed bill of quantities regardless the priority defined.

The price schedule must be read with all the other contract documents and the Contractor shall be deemed to have thoroughly acquainted himself with the detailed descriptions of the works to be done and the way in which they are to be carried out. All the works must be executed to the satisfaction of the project supervisor.

2.1 QUANTITY OF ITEMS

The quantities set forth against the items in the price schedule are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that he will be required to carry out the works indicated under any one particular item in the price schedule or that the quantities will not differ from those stated.

There is no guarantee to the Contractor that he will be required to carry out all proposed works.

When pricing items, reference should be made to the conditions of contract, specifications and drawings relating to the management and description of the works and materials involved.

The quantities given in the price schedule are provisional and reflect the estimates made at the time of approval to provide a basis for this dossier and tenders. Tenderers must consider every aspect of the dossier carefully.

Any comments concerning the quantities or the items self must be made in the form of an attachment, following the system of itemisation, quoting the codes and giving brief descriptions, as in the present documents, including the rates and prices.

Save where the technical specifications or the price schedule specifically and expressly state otherwise, only permanent works are to be measured. Works will be measured net to the dimensions shown on the drawings or ordered in writing by the project supervisor, save where described or prescribed elsewhere in the contract.

In adjusting extras or variations on the contract, works will be measured on the same basis as that on which the quantities were prepared. All works not specifically mentioned in the price schedule will be taken as included in the prices of various items.

Where, in the opinion of the project supervisor, extra works cannot be properly measured or estimated, the Contractor may, if so directed by the project supervisor, carry out the work at the daywork rates shown in the schedule of daywork. All completed daywork sheets must be signed by the project supervisor on or before the end of the week in which the works are executed.

No allowance will be made for loss of materials or volume thereof during transport or compaction.

BOQs provide quantities for pipe laying 0 - 1.5 m deep – this item should include basis price for pipe installation. BoQs provide quantities for “1.5 - 3 m deep” and provisional quantities for “Rock excavation”, “Under Road construction” and “Imported additional granular backfilling”. These items should include extra charge only. BoQs provide « Cross country » and « Cross river » provisional quantity under “Network Supplementary”.

Horizontal pipe works will be measured under the concerned item – vertical pipe works and accessories for WTP, Reservoirs and Chlorination plants are supposed to be included as a lump sum in the main WTP, Reservoir and Chlorination plant item.

The scope of works gives a general description of the works to be implemented. Drawings – Volume 5, Maps – Volume 5 and BoQs – Volume 4 give all the necessary details.

Remarks regarding the BoQs “water intakes”, “reservoirs” and similar:

- *Installation of new fencing material to be paid under – PART 1 L & M.*
- *Refection of the concrete dam – elimination of possible underflow - Installation of appropriate overflow - Installation of an inox – 5mm – 200mm screen to be considered under PART 8 – Concrete works – Item A.*
- *Rehabilitation of the flow control device – installation of a new gate valve + valve box – 200mm - Installation of a new valve box downstream the intake including a new air-vent, a new gate valve and a new water meter – 200mm to be considered under PART 8 Valve Box Outlet.*
- *Replacement of all apparent PVC pipes + accessories by DI pipes + accessories - All new accessories and valves shall be standardized to 200mm to be considered under PART 5 Bis Valve Box Inlet and/or Valve Box Outlet and/or Valve Box Drainage sections, BUT under PART 5 bis civil works for the pipes and accessories directly linked to the reservoir.*
- *Construction of an outlet valves box and installation of the necessary new devices such as air vent, gate valve and water meter - This valve box should also include a bypass connection to the pipe coming from the intake and a connection to the outlet of the new and existing reservoirs – 200mm to be considered under PART 5 bis Valve Box Outlet section.*
- *Installation of a 200mm overflow and Installation of an inlet 200mm float valve to be considered under PART 5 bis civil works as it concerns accessories directly linked to the reservoir.*
- *Rehabilitation of the existing GI fence + access gate - Replacement of broken GI poles – 10 pieces - Installation of a main entrance gate – fencing material - Installation of new GI fencing material – 100m length to be considered under PART 1 - L & M.*

2.2 UNITS OF MEASUREMENT

The units of measurement used in the annexed technical documentation are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.)

Abbreviations used in the price schedule are to be interpreted as follows:

mm	means	millimetre
m	means	metre
mm ²	means	square millimetre
m ²	means	square metre
m ³	means	cubic metre
kg	means	kilogram
to	means	tonne (1000 kg)

pcs	means	pieces
h	means	hour
f	means	lump sum
km	means	kilometre
l	means	litre
%	means	per cent
DN	means	nominal diameter
m/m	means	man-month
m/d	means	man-day

2.3 TERMS RELATING TO PAYMENTS

The method for measuring the works as a whole will be in accordance with the Special Conditions (net measurement), save where "Description of the items on the price schedule" provides otherwise.

Use, in whole or in part, of the provisional sums in the price schedule must be at the discretion of the project supervisor.

Each item in the price schedule for which payment is to be made in a lump sum, and for which no payment schedule is provided, must be paid after the work covered by the lump sum has been completed to the satisfaction of the project supervisor.

2.4 PRICING

The prices and rates inserted in the price schedule are to be the full inclusive values of the works described under the items, including all costs and expenses which may be required in and for the construction of the works described together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.

The rates and prices tendered in the price schedule will be quoted at the rates current prior to the date of submission.

Rates and prices must be entered against each item in the price schedule. Schedule of Quantities where there is a “0” quantity do not require pricing. The rates will cover all taxes, duties and other liabilities which are not stated separately in the price schedule and the tender.

In any case, for pricing purposes the quantities mentioned in the BoQs will prevail.

2.5 COMPLETING THE PRICE SCHEDULE

In the price schedule, rates and prices will be entered in the appropriate columns in SAT currency only.

As per Article 15 of the ITT the tenderer must provide a breakdown in SAT. The currency of the tender will be the currency of the contract and of payment. It must be ensured however that the currency is clearly indicated in the tender submission and in the tables. The financial evaluation will be carried out based on SAT values only.

Errors will be corrected as follows:

- a) where there is a discrepancy between amounts in figures and in words, the amount in words will prevail; and
- b) where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will prevail.

2.6 NATURE AND CHARACTER OF WORK

In this Bill of Quantities the headings, sub-headings and item descriptions identify and define the work covered by the respective items, but the exact nature and character of the work to be executed (and to which such items refer), the conditions affecting and the obligations to be undertaken in its execution shall be ascertained by reference to the Drawings, Specifications and the General Conditions for this Works Contracts.

2.7 ADDITIONS AND AMENDMENTS TO THE METHOD OF MEASUREMENT

Further to Clause 1 of this Preamble the following constitute amendments and additions to the measurement rules and item descriptions:

- a) Preliminaries

The item for the design and construction of the chlorination houses at the treatment plants shall include for all items necessary to complete the houses to the standards currently applicable in Western Samoa.

In the Fixed Charges section of Preliminaries, the Contractor has been given the opportunity to include for any items he considers have been omitted from the respective sections. Should he decides not to use these sections it will be deemed that any item so omitted has been included within other items of the Bill of Quantities.

The Contractor should price the relevant areas of dayworks as indicated in the Appendix attached to this Preamble.

a) Site Investigation

In the Bills of Quantities for both the Vailele and Aleisa works, the item for the construction of the control and disinfection buildings – the water reservoirs, shall include for all equipment, accessories necessary to complete the works in accordance with the drawings and specifications.

b) Site Clearance and Demolition

The area of site clearance has been measured as square metres, demolition as a lump sum.

c) Excavation and Filling

The disposal of surplus excavated material off-site for identified items should be included under this budget line and shall include for transporting to and disposal at the Contractor's own tip.

The spreading and grading topsoil and surplus material shall include all necessary trimming over the areas concerned.

Rocky areas shall be defined as: those geological strata found only in ledges or masses in its original position which, in the opinion of the Supervisor, could not be removed by an hydraulically-operated excavator rated in excess of 100 kW having a standard length boom arm and fitted with a rock-toothed ripping bucket of 0.3m' maximum capacity, and which must be removed by a jackhammer or hydraulic rock-breaker fitted to the excavator, or if it is in excavation being removed by hand, requires the use of wedges and sledge hammers.

d) Water Mains - Sewerage and Drainage

The items for pipes shall include providing and placing pipe marker tape and trench breakers where necessary.

The items for fittings shall include for providing and erecting necessary marker posts and plates.

The items for spare parts should be itemised and priced on the sheets included in Appendix. The total values accruing must be transferred to the appropriate Bill of Quantities items.

The items for domestic connections shall include parts for the tapping, pipework, valves, water meters and all other associated accessories, excluding works.

Notwithstanding the provisions pipe items have not been described as including branches. Prices for pipe items are to include for branches.

Notwithstanding the provisions bends and junctions have been measured separately.

Where pipelines cross other pipelines, the Contractor is to allow for any additional excavation, surrounding pipes with concrete and formwork.

2.8 ORIGIN OF EQUIPMENT

Volumes 1 and 2 of tender dossiers specify: All materials, equipment and services to be supplied under the contract must satisfy the SWA engineering standards. All works, supplies and services must be in accordance to terms and conditions of this contract.

Manufacturers proposed in VOL 3 are given as a reference only. Manufactured equipments are indeed according to specifications. Proposed manufacturers must be approved and have the consent of SWA.

Normally suppliers from countries like New Zealand are eligible, subject to the approval of SWA.

APPENDIX A: DAYWORKS SCHEDULE

To facilitate checking by the contracting authority of the realism of rates quoted by the tenderers, the daywork schedule should normally comprise the following:

(a) a list of the various classes of labour, materials, and construction plant for which basic daywork rates or prices are given by the tenderer, together with a statement of the conditions under which the contractor will be paid for work executed on a daywork basis;

(b) the nominal quantities for each item of daywork, to be priced by each tenderer in his bid. The rate to be entered by the tenderer against each basic daywork item should include the contractor's profit, overheads, supervision and other charges.

When Daywork is ordered payment will be made for Labour, Materials and Plant as follows:

2.9 LABOUR

At the appropriate rate from the Labour Schedule without further adjustment other than any adjustment resulting from the Contract Price Fluctuations Clause (if any) included in the Contract.

The hourly rates are deemed to allow for all wages costs (including inter alia bonuses, plus-rates, and allowances for conditions, travel, subsistence and lodging), all statutory and other charges and any costs of free transport to and from the site and of welfare facilities. The hourly rates will apply to all labour, including that employed by sub-contractors and plant hirers.

Daywork Labour Table

Class of Labour	Definition	Quantity	Unit	Rate*	Amount
	Labourer (including plant operators up to 3t)		hr		
	Ganger (working foreman)		hr		
	Craftsman (including pipe fitters, carpenters, concreters, electricians, or any other skilled tradesman)		hr		
	Plant operator (exceeding 3t)		hr		
	Others (to be detailed)		hr		

The Contractor's particular attention is drawn to the fact that no further percentage additions or deductions shall be applied to the rates entered in the Table.

* To be entered by the Contractor when tendering

2.10 MATERIALS

Materials used on work carried out on Daywork basis shall be paid at invoiced cost plus * %

* Percentage to be inserted by Contractor when tendering

2.11 PLANT

2.11.1 Hired Plant

Hired plant employed for work carried out on a Daywork basis shall be paid for at invoiced cost plus *%

* Percentage to be inserted by Contractor when tendering

2.11.2 Contractor's Own Plant

When work is undertaken on a Daywork basis and the Contractor's own plant is used, this plant shall be paid for using the rates in the schedule below. The Contractor shall enter details of all plant he intends to use to construct the Works and insert hourly or daily rates for them.

Plant Description	Unit	Rate

(May be continued on extra sheets if required)

In the case of hourly rates, the quantity paid will be to the nearest hour. In the case of daily rates, quantities less than 4 hours will be paid as a 1/2 day and over 4 hours as a full day.

Provisional sums/Contingencies

A general provision for physical contingencies (quantity overruns) has been made by including a provisional sum in the overall price schedule. They will be used under the supervisor's authority.

3 APPENDIX B: SCHEDULES

3.1 SCHEDULE I : SCHEDULE OF INFORMATION AND MATERIALS TO BE PROVIDED BY THE TENDERER

- a) Programme for the performance of the Works and description of the proposed method for carrying out the Works. Programme for performance should be defined according to implementation constraints and not following the proposed works implementation priorities.
- b) Names and curricula vitae of senior staff proposed for the Contract including water treatment, borehole and electromechanical specialists.
- c) Programme and description of preliminary investigation such as topographical, geo-technical surveys, etc.
- d) Equipment and facilities for the supervisor:
 - a. accommodation,
 - b. transport facilities,
 - c. office equipment, including communication facilities,
 - d. survey equipment (Provided by SWA)
- e) Pipes, including PVC – PE – DI and GI pipes and accessories (T, elbow, etc.).
- f) Valves etc manufacturer, valve type and materials of construction:
 - a. gate (sluice) valves,
 - b. non-return (reflux) valves,
 - c. air valves,
 - d. pressure reducing valves,
 - e. float valves, etc.
- g) Chemical dosing pumps and accessories:
 - a. manufacturer,
 - b. type,
 - c. materials of construction, etc.
- h) Flow meters (bulk and domestic water meters):
 - a. manufacturer,
 - b. type,
 - c. materials of construction, etc.
- i) Water reservoirs,
 - a. manufacturer,

- b. type,
 - c. materials of construction,
 - d. detailed drawings, etc.
- j) Treatment plant:
- a. consumables (type and quantities), etc.

3.2 SCHEDULE 2: SPARE PARTS & CONSUMABLES (TREATMENT WORKS)

The following schedules of Spare Parts must be completed at the time of Tender.

The schedules should separately list and price for each Section of the recommended spare parts and lubricants for a normal operating period of two years. Due account shall be taken of the likely running hours within this period and frequency of operation of each item of plant. Account shall also be taken of the possibility of failure of essential plant items within this period and their effect upon the continuing operations of the Works.

Any special tools necessary for the routine repair of dismantling of the plant shall also be listed and priced.

Consumables, according to specifications should also be included in the proposed listing.

DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
			Total Carried forward to Bill of Quantities

(May be continued on extra sheets if required)

3.3 SCHEDULE 4: SPARE PARTS & CONSUMABLES (CHLORINATION PLANT)

The following schedules of Spare Parts must be completed at the time of Tender.

The schedules should separately list and price for each Section of the recommended spare parts and lubricants for a normal operating period of two years. Due account shall be taken of the likely running hours within this period and frequency of operation of each item of plant. Account shall also be taken of the possibility of failure of essential plant items within this period and their effect upon the continuing operations of the Works.

Any special tools necessary for the routine repair of dismantling of the plant shall also be listed and priced.

Consumables, according to specifications should also be included in the proposed listing.

DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
			Total Carried forward to Bill of Quantities

(May be continued on extra sheets if required)

3.4 SCHEDULE 5: SPARE PARTS (PREBRICATED WATER RESERVOIR)

The following schedules of Spare Parts must be completed at the time of Tender.

The schedules should separately list and price for each Section of the recommended spare parts and lubricants for a normal operating period of two years. Due account shall be taken of the likely running hours within this period and frequency of operation of each item of plant. Account shall also be taken of the possibility of failure of essential plant items within this period and their effect upon the continuing operations of the Works.

Any special tools necessary for the routine repair of dismantling of the plant shall also be listed and priced.

DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
			Total Carried forward to Bill of Quantities

(May be continued on extra sheets if required)

4 BILL OF QUANTITIES – DESCRIPTION OF UNIT PRICES

The tables that follow give the description of the rates (or unit prices) by using the relevant clauses of Volume 3 (Technical specifications) and the Drawings / Maps of Volume 5.

Bill of Quantities are proposed here below following an A, B, C and 1,2,3 order.

4.1 BILL OF QUANTITIES

N°	Description	Unit	Qty	Rate	Amount
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PART 0 GENERAL TO CONTRACT

FIXED CHARGES

A	Provision of all Bonds	ITEM	1		
B	Provision of all insurances	ITEM	1		
C	Establishment of Supervisor's offices as Specified	ITEM	1		
D	Establishment and removal of small testing laboratory for the Supervisor as Specified	ITEM	1		
E	Establishment and handover of surveying equipment for the Supervisor as Specified	ITEM	0		
F	Establishment and handover of office equipment as Specified	ITEM	0		
G	Establishment and handover of transport for the Supervisor as Specified	ITEM	2		
H	Establishment and handover of communications for the Supervisor as Specified	ITEM	0		
I	Establishment and removal of Contractor's accommodation	ITEM	2		
J	Establishment and removal of temporary services	ITEM	1		
K	Establishment and removal of site signboard	ITEM	1		
L	Set out works	ITEM	1		
M	Obtaining permits and payment of fees	ITEM	1		
N	Establishment and removal of plant and equipment for the construction of the works	ITEM	1		
O	Progress photography as Specified	ITEM	1		
A	Provide as-built drawings and maintenance manuals and assistance to initial operation as Specified	ITEM	1		
B	Clearing site on completion of the works	ITEM	1		
Provide for any Fixed charges not separately itemised above which the Contractor considers necessary to enable the works to be completed as set forth or implied in the Contract. All items to be fully described.					
C	(a) Traffic Management	ITEM	1		
D	(b) Customs	ITEM	1		
E	(c)	ITEM	1		
F	(d)	ITEM	1		
Time-Related Charges					
A	Maintenance of Supervisor's offices as specified	ITEM	1		
B	Maintenance of small testing laboratory for the Supervisor as Specified	ITEM	1		
A	Maintenance of surveying equipment for the Supervisor as Specified	ITEM	0		
B	Maintenance of transport for the Supervisor as Specified	ITEM	1		
C	Maintenance of communications for the Supervisor as Specified	ITEM	0		
D	Assistance for the Supervisor as Specified	ITEM	1		
E	Maintenance of the Contractor accommodation	ITEM	1		
F	Maintenance of the temporary services	ITEM	1		
G	Maintenance of signboards	ITEM	1		
H	Maintenance of the plant and equipment for the construction of the works	ITEM	1		
I	Provision of site supervision for the duration of the contract	ITEM	1		
Provide for any Time related charges not separately itemised above which the Contractor considers necessary to enable the works to be completed as set forth or implied in the Contract. All items to be fully described.					
J	(a)	ITEM	1		
K	(b)	ITEM	1		
L	(c)	ITEM	1		
O	(f)	ITEM	1		
Provisional Items					

A	Labour (carried forward from APPENDIX A of the the Preamble)	ITEM	1		
B	Plant	ITEM	1		
C	Materials	ITEM	1		
TOTAL					
Provision		0.5%			
Sub Total					

VAILELE

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	Unit	Qty	Rate	Amount
				SAT	SAT
PART 1					
SITES PREPARATION AND FINISHING					
A	Allow for clearing site of trees, bushes and undergrowth	m ²	1250		0.00
B	Allow for additional ground investigations that the contractor considers necessary	ITEM	1		0.00
C	Allow for locating and diverting existing pipes and accessories running across site prior to the commencement of the works	ITEM	1		0.00
D	Trimming of slopes and batters	m ²	125		0.00
E	Spreading and grading top soil	m ²	125		0.00
F	Disposal of surplus excavated material off site	m ²	125		0.00
H	Seeding on site	m ²	1250		0.00
I	Allow for constructing road				
	Site excavation for 400 thick coral sand construction	m ²	0		0.00
J	Rock excavation. Provisional quantity	m ²	0		0.00
	Constructing roadway (excavation included above) 400 thickness of coral sand and hot bitumen sealing with sealing chips as Specified	m ²	0		0.00
K	Allow for erecting security fence as clause 2.50 of the Tender				
L	Dossier 2.6 m high	m	200		0.00
M	Extra over for vehicular gates 4 m clear opening	n°	5		0.00
N	Access road rehabilitation	m ²	10300		0.00
O	Road Drainage – Open Drain	m	5800		0.00
P	Road Driveway culverts- 450mm				0.00
		m	108		0.00
Q	Demolition of existing structure - provisional quantity	m ²	20		0.00
TOTAL					0.00
Provision					0.00
Sub Total					0.00

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 2 WATER SUPPLY NETWORK PVC						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
MAIN PIPE LINE A						
	Class D PVC pipes, elastomeric ring jointed, to the tender dossier and as detailed on drawings	225				
A	0 - 1.5 m deep	225	m	1861		0.00
B	1.5 - 3 m deep	225	m	0		0.00
C	Rock excavation - Provisional quantity	225	m ³	279.15		0.00
D	Under Road construction. Provisional quantity	225	m	18.61		0.00
E	Imported additional granular backfilling. Provisional quantity	225	m ³	279.15		0.00
F	Trench breaker. Provisional quantity	225	n°	2		0.00
G	11.25° bend, complete in Ductile Iron	225	n°	2		0.00
H	22.5° bend, complete in Ductile Iron	225	n°	2		0.00
I	45° bend, complete in Ductile Iron	225	n°	1		0.00
J	90° bend, complete in Ductile Iron	225	n°	1		0.00
J'	T junction in Ductile Iron	225	n°	1		0.00
K	Reducer in Ductile Iron	According to drawings	n°	2		0.00
K	Reducer in Ductile Iron	According to drawings	n°	2		0.00
L	Air Valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	225	n°	0		0.00
N	Washout in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and Specified in the tender dossier	225	n°	0		0.00
O	Fire hydrant in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	225	n°	0		0.00
P	Pressure reducing valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	225	n°	1		0.00
Q	Step Gibault joint PVC in ductile Iron. Provisional quantity.	225	n°	2		0.00
TOTAL						0.00
Provision				0.5%		0.00
Sub Total						-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 3						
SUPPLEMENTARY ACCESSORIES and SERVICES FOR NETWORK						
	Ductile iron as Specified in the Tender Dossier, Tyton jointed, as detail on drawing					
A	Sluice valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier		n°	0		0.00
B	Butterfly valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier		n°	0		0.00
C	Water meter in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier		n°	0		0.00
D	Capped end in ductile iron		n°	0		0.00
E	Non-return valve with dismantling joint in ductile iron		n°	0		0.00
F	Ductile iron pipe, including all associated fittings and equipment for installation as Specified in the tender dossier	150	m	1176		0.00
	ANCHOR BLOCKS; as mentioned in the Tender Dossier					
A	Allow for constructing anchor blocks to suit pipelines and fittings including all necessary excavation, removal of surplus excavated material as necessary.		ITEM	1		0.00
	Supplementary services					
A	Pipes, fittings and valves for repair as Specified in the tender dossier		n°	0		0.00
B	Supplementary pressure service		n°	0		0.00
C	Domestic household equipment including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier		n°	0		0.00
	Supplementary works for pipe laying					
A	Cross country pipe laying - extra cost - provisonal quantity		m	530		0.00
B	Cross river pipe laying - extra cost - provisonal quantity		m	20		0.00
TOTAL						0.00
Provision						0.00
Sub Total						-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 5						
NEW PREFAB STORAGE RESERVOIR						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		Lump sum	1		0.00
C	Small tools for operation and maintenance		Lump sum	1		0.00
VALVE BOX INLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	1		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	8		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptor for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptor for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptor for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	1		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	1		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	6		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptor for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptor for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptor for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00

VALVE BOX DRAINAGE					
Ductile iron as Specified in the Tender Dossier, as detail on drawing					
A	1.5 - 3.0 m deep	225	m	3	0.00
B	3.0 - 4.5 m deep	225	m	0	0.00
C	Vertical in trench	225	m	0	0.00
D	Rock excavation. Provisional Quantity	225	m ³	1.5	0.00
E	Gibault joint complete	225	n°	0	0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0	0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0	0.00
H	45 degree bend. Flanged 2 sides	225	n°	0	0.00
I	90 degree bend. Flanged 2 sides	225	n°	4	0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0	0.00
K	Blanking plate one joint	225	n°	0	0.00
L	Air vent as specified	225	n°	0	0.00
M	Dismantling joint	225	n°	1	0.00
N	Taper complete	According to drawings	n°	0	0.00
O	Non-return valve complete	225	n°	0	0.00
P	Sluice valve complete	225	n°	1	0.00
Q	Ductile iron "Helix" water meter	225	n°	0	0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	6	0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0	0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0	0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	2	0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0	0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0	0.00
T	Flange	225	n°	0	0.00
MINOR STRUCTURES; as Specified in the Tender Dossier					
A	Allow for constructing standard chamber as drawing		n°	1	0.00
DRAINAGE FACILITIES					
Site drainage including excavation, pipe bed and surround					
Drainage run off trench complete with 100 mm perforated					
A	uPVC drain and stone fill		m	20	0.00
B	3 m ³ soakaway pit, including excavation and stone fill		n°	1	0.00
C	100 mm uPVC drain in trench up to 1.5 m deep		m	20	0.00
D	Standard manhole up to 1.5 m deep		n°	1	0.00
EARTHWORKS					
A	Excavating topsoil 200 thick, for reuse on site		m ³	45	0.00
B	Heavy duty proprietary low friction polythene membrane		m ²	225	0.00
C	Selected excavated material backfilling to excavations		m ³	9	0.00
D	Extra for Rock excavation. Provisional Quantity		m ³	22.5	0.00
PREFAB TANK OPTION					
Contact/storage tanks, 250m ³ - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework - PREFAB OPTION					
A			n°	1	0.00
Contact/storage tanks, 100m ³ - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework - PREFAB OPTION					
A bis			n°	0	0.00
Type 10 mPa minimum specification strength, blinding concrete 50 thick					
B			m ³	11.25	0.00
Type 35 mPa minimum specification strength, Floor slabs 300 thick; partly finished to falls					
C			m ³	67.5	0.00
TOTAL					0.00
Provision					0.00
Sub Total					-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 6						
WATER TREATMENT PLANT						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
VALVE BOX INLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	1		0.00
		According to				
N	Taper complete	drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	1		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	m	5		0.00
		According to				
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	drawings	n°	0		0.00
		According to				
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	1		0.00
		According to				
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	drawings	n°	0		0.00
		According to				
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	1		0.00
		According to				
N	Taper complete	drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	1		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	m	5		0.00
		According to				
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	drawings	n°	0		0.00
		According to				
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	1		0.00
		According to				
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	drawings	n°	0		0.00
		According to				
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00

VALVE BOX DRAINAGE					
Ductile iron as Specified in the Tender Dossier, as detail on drawing					
A	1.5 - 3.0 m deep	225	m	3	0.00
B	3.0 - 4.5 m deep	225	m	0	0.00
C	Vertical in trench	225	m	0	0.00
D	Rock excavation. Provisional Quantity	225	m ³	1.5	0.00
E	Gibault joint complete	225	n°	0	0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0	0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0	0.00
H	45 degree bend. Flanged 2 sides	225	n°	0	0.00
I	90 degree bend. Flanged 2 sides	225	n°	2	0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0	0.00
K	Blanking plate one joint	225	n°	0	0.00
L	Air vent as specified	225	n°	0	0.00
M	Dismantling joint	225	n°	1	0.00
N	Taper complete	According to drawings	n°	0	0.00
O	Non-return valve complete	225	n°	0	0.00
P	Sluice valve complete	225	n°	1	0.00
Q	Ductile iron "Helix" water meter	225	n°	0	0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	5	0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0	0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0	0.00
S	Flanged ductile iron adaptor for PVC pipe - dia 1	225	n°	1	0.00
S'	Flanged ductile iron adaptor for PVC pipe - dia 2	According to drawings	n°	0	0.00
S''	Flanged ductile iron adaptor for PVC pipe - dia 3	According to drawings	n°	0	0.00
T	Flange	225	n°	0	0.00
MINOR STRUCTURES; as Specified in the Tender Dossier					
A	Allow for constructing standard chamber as drawing		n°	1	0.00
DRAINAGE FACILITIES					
Site drainage including excavation, pipe bed and surround					
Drainage run off trench complete with 100 mm perforated uPVC drain and stone fill					
A	uPVC drain and stone fill		m	20	0.00
B	3 m ³ soakaway pit, including excavation and stone fill		n°	1	0.00
C	100 mm uPVC drain in trench up to 1.5 m deep		m	20	0.00
D	Standard manhole up to 1.5 m deep		n°	1	0.00
CIVIL - METAL WORKS					
Prefabricated water treatment unit - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework.					
A	20 m ³ /h		n°	0	0.00
Prefabricated water treatment unit - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework.					
B	60 m ³ /h		n°	1	0.00
EARTHWORKS					
A	Excavating topsoil 200 thick, for reuse on site		m ³	45	0.00
B	Heavy duty proprietary low friction polythene membrane		m ²	225	0.00
C	Selected excavated material backfilling to excavations		m ³	9	0.00
D	Extra for Rock excavation. Provisional Quantity		m ³	22.5	0.00
CONCRETEWORKS					
Type 10 mPa minimum specification strength, blinding concrete					
A	50 thick		m ²	11.25	0.00
Type 35 mPa minimum specification strength, Floor slabs 300 thick; partly finished to falls					
B			m ³	67.5	0.00
FILTERING MATERIAL; as clause 2.49 of the Tender Dossier					
A	Imported gravel filter bed, packing around filter pipes		m ³	0.8	0.00
B	Imported sand beds		m ³	2.4	0.00
TOTAL					0.00
Provision					0.00
Sub Total					-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 7						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
CHLORINATION PLANT						
	Allow for constructing chlorination building complete with chlorinator and all necessary pipework and connections all as drawing. Number complete including excavation, floors, walls, roof, reinforcement, floor grating, doors, fixtures and fittings etc.					
A	Permanent electricity supply underground feeder cables in trench, including excavation, backfill etc.		ITEM	1		0.00
B	Mains incoming and distribution cubicle containing metering section, mains incoming section, and distribution section as specified		m	20		0.00
D	Chemical dosing system, including chemicals		ITEM	1		0.00
E	Flow meter and strainer as specified		ITEM	1		0.00
F	Cable and wiring as specified		n°	1		0.00
H	Lighting and small power as specified		ITEM	1		0.00
I	Site inspection and testing on completion as specified		ITEM	1		0.00
J			ITEM	1		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 8						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
CHEMICAL INJECTION PLANT						
	Allow for constructing chemical injection building complete with Chemical injector pumps and all necessary pipework and connections all as drawing. Number complete including excavation, floors, walls, roof, reinforcement, floor grating, doors, fixtures and fittings etc.					
A	Permanent electricity supply underground feeder cables in trench, including excavation, backfill etc.		ITEM	1		0.00
B	Mains incoming and distribution cubicle containing metering section, mains incoming section, and distribution section as specified		m	20		0.00
D	Chemical dosing system, including chemicals		ITEM	1		0.00
E	Flow meter and strainer as specified		ITEM	1		0.00
F	Cable and wiring as specified		n°	1		0.00
H	Lighting and small power as specified		ITEM	1		0.00
I	Site inspection and testing on completion as specified		ITEM	1		0.00
J			ITEM	1		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 8						
INTAKE WORKS						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m ³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	0		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	1		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	1		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	8		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
CONCRETE WORKS						
A	Construction of Intake structures including excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework			1		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

Bill of Quantities

CONTRACT VAILELE SCHEME

N°	Description	Qty	Rate	Provision	Sub-Total	Comments
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SAT

SAT

PART 11 TOTAL BUDGET

		1				
PART 1	SITES PREPARATION AND FINISHING	1				
PART 2	WATER SUPPLY NETWORK PVC	1				
PART 3	SUPPLEMENTARY ACCESSORIES and SERVICES FOR NETWORK	1				
PART 4	VALVE BOXES FOR NETWORK	0				
PART 5	NEW PREFAB STORAGE RESERVOIR	1				
PART 6	WATER TREATMENT PLANT	1				
PART 7	CHLORINATION PLANT	1				
PART 8	CHEMICAL INJECTION PLANT	1				
PART 9	INTAKE WORKS	0				

TOTAL

4.2 BILL OF QUANTITIES ALEISA SCHEME

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	Unit	Qty	Rate	Amount
				SAT	SAT
PART 1					
SITES PREPARATION AND FINISHING					
A	Allow for clearing site of trees, bushes and undergrowth	m ²	1250		0.00
B	Allow for additional ground investigations that the contractor considers necessary	ITEM	1		0.00
C	Allow for locating and diverting existing pipes and accessories running accross site prior to the commencement of the works	ITEM	1		0.00
D	Trimming of slopes and batters	m ²	125		0.00
E	Spreading and grading top soil	m ²	125		0.00
F	Disposal of surplus excavated material off site	m ²	125		0.00
H	Seeding on site	m ²	1250		0.00
I	Allow for constructing road				
J	Site excavation for 400 thick coral sand construction	m ²	0		0.00
J	Rock excavation. Provisional quantity	m ²	0		0.00
K	Constructing roadway (excavation included above) 400 thickness of coral sand and hot bitumen sealing with sealing chips as Specified	m ²	0		0.00
L	Allow for erecting security fence as clause 2.50 of the Tender				
L	Dossier 2.6 m high	m	200		0.00
M	Extra over for vehicular gates 4 m clear opening	n°	5		0.00
N	Access road rehabilitation	m ²	5600		0.00
O	Road Drainage open drain	m	20		0.00
P	Driveway culverts- Roading (450mm culverts)	m	2000		0.00
TOTAL					0.00
Provision			0.5%		0.00
Sub Total					-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 2 WATER SUPPLY NETWORK PVC						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
SUPPLY PIPE LINE A NODE 3&5 to NODE 29						
	Class D PVC pipes, elastomeric ring jointed, to the tender dossier and as detailed on drawings	160				
A	0 - 1.5 m deep	160	m	1450		0.00
B	1.5 - 3 m deep	160	m	0		0.00
C	Rock excavation - Provisional quantity	160	m ³	279.15		0.00
D	Under Road construction. Provisional quantity	160	m	14.5		0.00
E	Imported additional granular backfilling. Provisional quantity	160	m ³	217.5		0.00
F	Trench breaker. Provisional quantity	160	n°	2		0.00
G	11.25° bend, complete in Ductile Iron	160	n°	2		0.00
H	22.5° bend, complete in Ductile Iron	160	n°	2		0.00
I	45° bend, complete in Ductile Iron	160	n°	1		0.00
J	90° bend, complete in Ductile Iron	160	n°	1		0.00
J'	T junction in Ductile Iron	160	n°	1		0.00
K	Reducer in Ductile Iron	According to drawings	n°	2		0.00
K	Reducer in Ductile Iron	According to drawings	n°	2		0.00
L	Air Valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	160	n°	0		0.00
N	Washout in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and Specified in the tender dossier	160	n°	0		0.00
O	Fire hydrant in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	160	n°	0		0.00
P	Pressure reducing valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawign and as Specified in the tender dossier	160	n°	0		0.00
Q	Step Gibault joint PVC in ductile Iron. Provisional quantity.	160	n°	2		0.00
TOTAL						0.00
Provision			0.5%			0.00
Sub Total						-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 3						
SUPPLEMENTARY ACCESSORIES and SERVICES FOR NETWORK						
	Ductile iron as Specified in the Tender Dossier, Tyton jointed, as detail on drawing					
A	Sluice valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawing and as Specified in the tender dossier		n°	0		0.00
B	Butterfly valve in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawing and as Specified in the tender dossier		n°	0		0.00
C	Water meter in ductile iron and chamber including all associated pipes, fittings and valves as detailed on drawing and as Specified in the tender dossier		n°	0		0.00
D	Capped end in ductile Iron		n°	0		0.00
E	Non-return valve with dismantling joint in ductile iron		n°	0		0.00
F	Ductile iron pipe, including all associated fittings and equipment for installation as Specified in the tender dossier		m	0		0.00
	ANCHOR BLOCKS; as mentioned in the Tender Dossier					
A	Allow for constructing anchor blocks to suit pipelines and fittings including all necessary excavation, removal of surplus excavated material as necessary.		ITEM	1		0.00
	Supplementary services					
A	Pipes, fittings and valves for repair as Specified in the tender dossier		n°	0		0.00
B	Supplementary pressure service		n°	0		0.00
C	Domestic household equipment including all associated pipes, fittings and valves as detailed on drawing and as Specified in the tender dossier		n°	0		0.00
	Supplementary works for pipe laying					
A	Cross country pipe laying - extra cost - provisional quantity		m	700		0.00
B	Cross river pipe laying - extra cost - provisional quantity		m	80		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 5						
NEW PREFAB STORAGE RESERVOIR						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		Lump sum	1		0.00
C	Small tools for operation and maintenance		Lump sum	1		0.00
VALVE BOX INLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	1		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	8		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	1		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	1		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	6		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00

VALVE BOX DRAINAGE					
Ductile iron as Specified in the Tender Dossier, as detail on drawing					
A	1.5 - 3.0 m deep	225	m	3	0.00
B	3.0 - 4.5 m deep	225	m	0	0.00
C	Vertical in trench	225	m	0	0.00
D	Rock excavation. Provisional Quantity	225	m ³	1.5	0.00
E	Gibault joint complete	225	n°	0	0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0	0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0	0.00
H	45 degree bend. Flanged 2 sides	225	n°	0	0.00
I	90 degree bend. Flanged 2 sides	225	n°	4	0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0	0.00
K	Blanking plate one joint	225	n°	0	0.00
L	Air vent as specified	225	n°	0	0.00
M	Dismantling joint	225	n°	1	0.00
N	Taper complete	According to drawings	n°	0	0.00
O	Non-return valve complete	225	n°	0	0.00
P	Sluice valve complete	225	n°	1	0.00
Q	Ductile iron "Helix" water meter	225	n°	0	0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	6	0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0	0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0	0.00
S	Flanged ductile iron adaptor for PVC pipe - dia 1	225	n°	2	0.00
S'	Flanged ductile iron adaptor for PVC pipe - dia 2	According to drawings	n°	0	0.00
S''	Flanged ductile iron adaptor for PVC pipe - dia 3	According to drawings	n°	0	0.00
T	Flange	225	n°	0	0.00
MINOR STRUCTURES; as Specified in the Tender Dossier					
A	Allow for constructing standard chamber as drawing		n°	1	0.00
DRAINAGE FACILITIES					
Site drainage including excavation, pipe bed and surround					
Drainage run off trench complete with 100 mm perforated uPVC drain and stone fill					
A	uPVC drain and stone fill		m	20	0.00
B	3 m ³ soakaway pit, including excavation and stone fill		n°	1	0.00
C	100 mm uPVC drain in trench up to 1.5 m deep		m	20	0.00
D	Standard manhole up to 1.5 m deep		n°	1	0.00
EARTHWORKS					
A	Excavating topsoil 200 thick, for reuse on site		m ³	45	0.00
B	Heavy duty proprietary low friction polythene membrane		m ²	225	0.00
C	Selected excavated material backfilling to excavations		m ³	9	0.00
D	Extra for Rock excavation. Provisional Quantity		m ³	22.5	0.00
PREFAB TANK OPTION					
Contact/storage tanks, 250m ³ - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework - PREFAB OPTION					
A			n°	1	0.00
Contact/storage tanks, 100m ³ - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework - PREFAB OPTION					
A bis			n°	0	0.00
B	Type 10 mPa minimum specification strength, blinding concrete 50 thick		m ³	11.25	0.00
C	Type 35 mPa minimum specification strength, Floor slabs 300 thick; partly finished to falls		m ³	67.5	0.00
TOTAL					0.00
Provision					0.00
Sub Total					-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 6						
WATER TREATMENT PLANT						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
VALVE BOX INLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	1		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	1		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	m	5		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	1		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	2		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	0		0.00
M	Dismantling joint	225	n°	1		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	1		0.00
Q	Ductile iron "Helix" water meter	225	n°	0		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	m	5		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	1		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00

VALVE BOX DRAINAGE					
Ductile iron as Specified in the Tender Dossier, as detail on drawing					
A	1.5 - 3.0 m deep	225	m	3	0.00
B	3.0 - 4.5 m deep	225	m	0	0.00
C	Vertical in trench	225	m	0	0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5	0.00
E	Gibault joint complete	225	n°	0	0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0	0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0	0.00
H	45 degree bend. Flanged 2 sides	225	n°	0	0.00
I	90 degree bend. Flanged 2 sides	225	n°	2	0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0	0.00
K	Blanking plate one joint	225	n°	0	0.00
L	Air vent as specified	225	n°	0	0.00
M	Dismantling joint	225	n°	1	0.00
N	Taper complete	According to drawings	n°	0	0.00
O	Non-return valve complete	225	n°	0	0.00
P	Sluice valve complete	225	n°	1	0.00
Q	Ductile iron "Helix" water meter	225	n°	0	0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	5	0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0	0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0	0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	1	0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0	0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0	0.00
T	Flange	225	n°	0	0.00
MINOR STRUCTURES; as Specified in the Tender Dossier					
A	Allow for constructing standard chamber as drawing		n°	1	0.00
DRAINAGE FACILITIES					
Site drainage including excavation, pipe bed and surround					
Drainage run off trench complete with 100 mm perforated uPVC drain and stone fill					
A			m	20	0.00
B	3 m³ soakaway pit, including excavation and stone fill		n°	1	0.00
C	100 mm uPVC drain in trench up to 1.5 m deep		m	20	0.00
D	Standard manhole up to 1.5 m deep		n°	1	0.00
CIVIL - METAL WORKS					
Prefabricated water treatment unit - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework.					
A	20 m³/h		n°	0	0.00
Prefabricated water treatment unit - Capacity complete as drawing - Number complete including trial hole, excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework.					
B	60 m³/h		n°	1	0.00
EARTHWORKS					
A	Excavating topsoil 200 thick, for reuse on site		m³	45	0.00
B	Heavy duty proprietary low friction polythene membrane		m²	225	0.00
C	Selected excavated material backfilling to excavations		m³	9	0.00
D	Extra for Rock excavation. Provisional Quantity		m³	22.5	0.00
CONCRETEWORKS					
Type 10 mPa minimum specification strength, blinding concrete					
A	50 thick		m²	11.25	0.00
Type 35 mPa minimum specification strength, Floor slabs 300 thick; partly finished to falls					
B			m³	67.5	0.00
FILTERING MATERIAL; as clause 2.49 of the Tender Dossier					
A	Imported gravel filter bed, packing around filter pipes		m³	0.8	0.00
B	Imported sand beds		m³	2.4	0.00
TOTAL					0.00
Provision					0.00
					0.5%
Sub Total					-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 7						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
CHLORINATION PLANT						
	Allow for constructing chlorination building complete with chlorinator and all necessary pipework and connections all as drawing. Number complete including excavation, floors, walls, roof, reinforcement, floor grating, doors, fixtures and fittings etc.					
A	Permanent electricity supply underground feeder cables in trench, including excavation, backfill etc.		ITEM	1		0.00
B	Mains incoming and distribution cubicle containing metering section, mains incoming section, and distribution section as specified		m	20		0.00
D	Chemical dosing system, including chemicals		ITEM	1		0.00
E	Flow meter and strainer as specified		ITEM	1		0.00
F	Cable and wiring as specified		n°	1		0.00
H	Lighting and small power as specified		ITEM	1		0.00
I	Site inspection and testing on completion as specified		ITEM	1		0.00
J			ITEM	1		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 8						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
B	Spare parts (carried forward from Appendix B of the Preamble)		ITEM	1		0.00
C	Small tools for operation and maintenance		ITEM	1		0.00
CHEMICAL INJECTION PLANT						
	Allow for constructing chemical injection building complete with Chemical injector pumps and all necessary pipework and connections all as drawing. Number complete including excavation, floors, walls, roof, reinforcement, floor grating, doors, fixtures and fittings etc.					
A	Permanent electricity supply underground feeder cables in trench, including excavation, backfill etc.		ITEM	1		0.00
B	Mains incoming and distribution cubicle containing metering section, mains incoming section, and distribution section as specified		m	20		0.00
D	Chemical dosing system, including chemicals		ITEM	1		0.00
E	Flow meter and strainer as specified		ITEM	1		0.00
F	Cable and wiring as specified		n°	1		0.00
H	Lighting and small power as specified		ITEM	1		0.00
I	Site inspection and testing on completion as specified		ITEM	1		0.00
J			ITEM	1		0.00
TOTAL						0.00
Provision						0.00
						0.5%
Sub Total						-

N°	Description	OD DIA	Unit	Qty	Rate	Amount
					SAT	SAT
PART 8						
INTAKE WORKS						
GENERAL						
A	As built drawings and maintenance manuals as specified		ITEM	1		0.00
VALVE BOX OUTLET						
Ductile iron as Specified in the Tender Dossier, as detail on drawing						
A	1.5 - 3.0 m deep	225	m	3		0.00
B	3.0 - 4.5 m deep	225	m	0		0.00
C	Vertical in trench	225	m	0		0.00
D	Rock excavation. Provisional Quantity	225	m³	1.5		0.00
E	Gibault joint complete	225	n°	0		0.00
F	11.25 degree bend. Flanged 2 sides	225	n°	0		0.00
G	22.5 degree bend. Flanged 2 sides	225	n°	0		0.00
H	45 degree bend. Flanged 2 sides	225	n°	0		0.00
I	90 degree bend. Flanged 2 sides	225	n°	0		0.00
J	90 degree T branch complete. Flanged 3 sides	225	n°	0		0.00
K	Blanking plate one joint	225	n°	0		0.00
L	Air vent as specified	225	n°	1		0.00
M	Dismantling joint	225	n°	2		0.00
N	Taper complete	According to drawings	n°	0		0.00
O	Non-return valve complete	225	n°	0		0.00
P	Sluice valve complete	225	n°	2		0.00
Q	Ductile iron "Helix" water meter	225	n°	1		0.00
R	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 1	225	n°	8		0.00
R'	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 2	According to drawings	n°	0		0.00
R''	Ductile iron pipe 800 long, flanged 2 ends, with or without puddle flange, embedded - dia 3	According to drawings	n°	0		0.00
S	Flanged ductile iron adaptator for PVC pipe - dia 1	225	n°	2		0.00
S'	Flanged ductile iron adaptator for PVC pipe - dia 2	According to drawings	n°	0		0.00
S''	Flanged ductile iron adaptator for PVC pipe - dia 3	According to drawings	n°	0		0.00
T	Flange	225	n°	0		0.00
MINOR STRUCTURES; as Specified in the Tender Dossier						
A	Allow for constructing standard chamber as drawing		n°	1		0.00
CONCRETE WORKS						
A	Construction of Intake structures including excavation, floors, walls, roof, reinforcement, fixtures, fittings and pipework			1		0.00
TOTAL						0.00
Provision				0.5%		0.00
Sub Total						-

Bill of Quantities

CONTRACT ALEISA SCHEME

N°	Description	Qty	Rate	Provision	Sub-Total	Comments
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SAT

SAT

PART 11 TOTAL BUDGET

PART 1	SITES PREPARATION AND FINISHING	1
PART 2	WATER SUPPLY NETWORK PVC	1
PART 3	SUPPLEMENTARY ACCESSORIES and SERVICES FOR NETWORK	1
PART 5	NEW PREFAB STORAGE RESERVOIR	1
PART 6	WATER TREATMENT PLANT	1
PART 7	CHLORINATION PLANT	1
PART 8	CHEMICAL INJECTION PLANT	1
PART 9	INTAKE WORKS	1

TOTAL

SUMMARY Bill of Quantities

CONTRACT VAILELE & ALEISA SCHEME

N°	Description	Qty	Rate	Provision	Sub-Total	Comments
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SAT

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TOTAL BUDGET

PART A	GENERAL TO CONTRACT	1
PART B	VAILELE WORKS	1
PART C	ALEISA WORKS	1

TOTAL