TRANSNE



A Division of Transnet SOC Limited Registration number 1000/00900/30

REQUEST FOR CUOTATION

KBY/52593 KBC_12200

Senior Buyer Supply Chain Services TRANSNET FREIGHT RAIL Austen Street KIMBERLEY 8301



Transnet Freight Rail, a division of

TRANSNET SOC LTD

Registration Number 1990/000900/30 [Hereinafter referred to as **Transnet**]

REQUEST FOR QUOTATION [Rive] No KBY/ 52593

CLEANING OF CULVERTS (DE AAR- BEUFORT WEST AND BELMONT, OOLGLAS) KBS FOR A PERIOD OF THREE (3) MONTHS

FOR DILLYERY TO:

TRANSNET FREIGHT RAIL, INFRASRTUCTURE KIMBERLEY

SOUTH

ISSUE DATE:

18 OCTOBER 2013

CLOSING DATE:

19 NOVEMBER 2013

CLOSING TIME:

10:00

Section 1 NOTICE TO BIDDERS

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD:

Tender Box

CLOSING VENUE:

Transnet Freight Rail, Property Management Building, Office no. 2, Austen

Street, Beaconsfield

1 Responses to RFQ

Responses to this RFQ [**Quotations**] must not include documents or reference relating to any other quotation or proposal. Any additional conditions must be embodied in an accompanying letter.

2 Broad-Based Black Economic Empowerment [B-BBEE]

Transnet fully endorses and supports the Government's Broad-based Black Economic Empowerment Programme and it would therefore prefer to do business with Irical business enterprises who share these same values. Transnet will accordingly allow a "preference" to companies who provide a valid B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

2.1 B-BBEE Scorecard and Ratin

As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Respondents are to note the following:

- Proposals will be ever ated on price which will be allocated 80 points and preference which will be allocated 20 points, dependent on the value of the Services.
- The 80/20 perference point system applies where the acquisition of the Services will be less than R1 000 000.00.

If the 80/20 preference point system is stipulated and all Bids received exceed R1 000 000.00, the RFQ will be cancelled.

In this RFQ, Transnet will apply 80/20 preference point system prescribed in the PPPFA.

In compliance with the Government Gazette No 34612, Notice No. 754 dated 23 September 2011, as from 1 October 2011 valid B-BBEE Verification Certificates must be issued by:

- (i) Verification Agencies accredited by the South African National Accreditation System [SANAS]; or
- (ii) Registered Auditors approved by the Independent Regulatory Board of Auditors [IRBA], in accordance with the approval granted by the Department of Trade and Industry.

Enterprises will be rated by such agencies based on the following:

- a) Large Enterprises [i.e. annual turnover greater than R35 million]:
 - Rating level based on all seven elements of the B-BBEE scorecard

- b) **Qualifying Small Enterprises QSE** [i.e. annual turnover between R5 million and R35 million]:
 - Rating based on any four of the elements of the B-BBEE scorecard
- c) **Exempted Micro Enterprises EME** [i.e. annual turnover less than R5 million]:

In accordance with B-BBEE Codes of Good Practice [Statement 000, Section 4], any enterprise with an annual total revenue of R 5 million or less qualifies as an EME.

- Automatic rating of B-BBEE Level 4 irrespective of race or ownership
- Black ownership greater than 50% or Black Women ownership greater than 50% automatically qualify as B-BBEE Level 3

Sufficient evidence to qualify as an EME would be a certificate (which may be in the form of a letter) from an auditor or accounting officer or a certificate from a rerification Agency accredited by SANAS. The certificate must confirm the company's turnover, black ownership / black female ownership, B-BBEE status level and validity date.

Respondents are required to furnish proof of the above to transpet. [i.e. a valid detailed scorecard as stipulated above in respect of Large Enterprises and OSEs, or a valid certificate in respect of EMEs].

Transnet will accordingly allocate a maximum of **20 [twenty] points** in accordance with the **80/20** preference point system prescribe in the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations to the Respondent's final score based on an entity's B-BBEE scorecard rating.

N.B. Failure to submit a B-B-EE ce tificate, which is valid as at the Closing Date of this RFQ, will result in a score of zero leing allocated for B-BBEE.

[Refer clause 0 below for teturnable Documents required]

3 Communication

- a) Respondent are warned that a response will be liable for disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer(s) or employee of Transnet in respect of this RFQ between the closing date and the date of the award of the business.
- A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name:

Refilwe Ramothwala

Email:

Refilwe.Ramothwala@transnet.net

4 Tax Clearance

The Respondent's original valid Tax Clearance Certificate must accompany the Quotation. Failure to provide this document with the RFQ submission will result in disqualification.

5 VAT Registration

The valid VAT registration number must be stated here: ______ [if applicable].

6 Legal Compliance

The successful Respondent shall be in full and complete compliance with any and all applicable national and local laws and regulations.

7 Changes to Quotations

Changes by the Respondent to its submission will not be considered after the closing date and time.

8 Pricing

All prices must be quoted in South African Rand on a fixed price basis, excluding VAT.

9 Prices Subject to Confirmation

Prices quoted which are subject to confirmation will not be considered.

10 Negotiations

Transnet reserves the right to undertake post-tender negotiations with selected Respondents or any number of short-listed Respondents.

11 Binding Offer

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

12 Disclaimers

Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that Transnet reserves the right to:

- modify the REC's good / service(s) and request Respondents to re-bid on any changes;
- reject any Que ation which does not conform to instructions and specifications which are detailed herein;
- dicqualify puotations submitted after the stated submission deadline;
- necessarily accept the lowest priced Quotation;
 - reject all Quotations, if it so decides;
 - place an order in connection with this Quotation at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier/Service Provider; or
- make no award at all.

In addition, Transnet reserves the right to exclude any Respondent from the bidding process who ha
been convicted of a serious breach of law during the preceding 5 [five] years, including but not limited to
breaches of the Competition Act 89 of 1998. Respondents are required to indicate below whether or no
they have been found guilty of a serious breach of law during the past 5 [five] years:
I/We do hereby certify that I/w
have/have not been found guilty during the preceding 5 [five] years of a serious breach of law
including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal of

other administrative body. The type of breach that the Respondent is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:				
DATE OF BREACH:		 		

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Respondent from the bidding process, should that person or entity have been found guilty of a serious breach of law, tribunal or regulatory obligation.

13 Evaluation Criteria

Transnet will utilise the following criteria [not necessarily in this order] in choosing a Supplier/Service Provider, if so required:

- Administrative responsiveness Completeness of response and returnable documents
- Substantive responsiveness Prequalification criteria, fan, must be met and whether the Bid materially complies with the scope and/or specification given
- Technical threshold of 60%: Compliance to pecification / quality, previous performance, delivery lead-time
- Weighted evaluation based on 20,20 preference point system as indicated in paragraph 2 above:
 - Pricing and price basis [firm] whilst not the sole factor for consideration, competitive pricing and overall level of uncontamonal discounts¹ will be critical
 - B-BBEE status frompany

Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BB E Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	16
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

¹ Only unconditional discounts will be taken into account during evaluation. A discount which has been offered conditionally will, despite not being taken into account for evaluation purposes, be implemented when payment is effected.

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14	Validity Period	
	Transnet desires a validity period of 30 [thirty] days from the closing date of this	RFO.
	This RFQ is valid until	·
15	Banking Details	
	BANK:	
	BRANCH NAME / CODE:	
	ACCOUNT HOLDER:	
	ACCOUNT NUMBER:	
16	Company Registration	
	Registration number of company / C.C.	
	Registered name of company / C.C.	
17	Disclosure of Prices Quoted	
	Respondents must indicate here whether Transnet may discose their quoted	prices and conditions to
	other Respondents: YES NO NO	

18 Returnable Documents

Returnable Documents means all the documents, Sections and Annexures, as listed in the tables below.

a) Respondents are required to submit with their Quotations the <u>Compulsory Returnable</u>
 <u>Documents</u>, as detailed below and marked with an *

Failure to provide all these Compulsory Returnable Documents at the Closing Date and time of this RFQ will result in a Respondent's disqualification. Respondents are therefore urged to ensure that <u>all</u> these Documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, samped and dated by the Respondent. Please confirm submission of these mandatory Returnable Documents by so indicating [Yes or No] in the table below:

Returnable Documents	Submitted [Yes or No]
SECTION 1 : Notice to Bidders	
- Valid B-BBEE Verification Certificate [RSA Large Enterprises and QSEs]	
Note: failure to provide a valid B-BBEL terification Certificate at the closing date and time of the tender will result it an automatic score of zero being allocated for B-BBEE scorecard	
 Valid B-BBEE certificate from audior, accounting officer or SANAS accredited Verification Agency [RSA EMIS] 	
Note: failure to provide a valid b-BBEE Verification Certificate at the closing date and time of the tender will result in an automatic score of zero being allocated for B-BBEE score and	
- In the case of Joint Ventures, a copy of the Joint Venture Agreement or written communation of the intention to enter into a Joint Venture Agreement	
SECTION 2 : Quota ion corm	*
SECTION 3 Vendor Application Form	
Original cancelled cheque or bank verification of banking details	
certified copies of IDs of shareholder/directors/members [as applicable]	
Certified copy of Certificate of Incorporation [CM29/CM9 name change]	
Certified copy of share certificates [CK1/CK2 if C.C.]	
Entity's letterhead	
Certified copy of VAT Registration Certificate [RSA entities only]	
Certified copy of valid Company Registration Certificate [if applicable]	
 Original valid Tax Clearance Certificate [Consortia / Joint Ventures / Sub- contractors must submit a separate Tax Clearance Certificate for each party] 	*
Valid Letter of Good Standing	
ANNEXURE A - Project Specifications	*

PENILIN

Section 2 QUOTATION FORM

I/We
hereby offer to supply the services at the prices quoted in the Price Schedule below, in accordance with
the conditions related thereto and as per Annexure A

I/We agree to be bound by those terms and conditions in:

the Standard Terms and Conditions for the Supply of Goods or Services to Transnet, the E4E and the E7/1 [all available on request]; and

any other standard or special conditions mentioned and/or embodied in this Riquest for Quotation.

I/We accept that unless Transnet should otherwise decide and so inform me/us, this Quotation [and, if any, its covering letter and any subsequent exchange of correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

I/We further agree that if, after I/we have been notified on the acceptance of my/our Quotation, I/we fail to deliver the said service within the delivery lead-time quoted, Transnet may, without prejudice to any other legal remedy which it may have, cancer the order and recover from me/us any expenses incurred by Transnet in calling for Quotations afrech notion having to accept any less favourable offer.

Price Schedule

I/We quote as follows for the Service required, excluding VAT: See Annexure A for Specifications.

SCHEDULE OF WORK AND PRICES PROJECT SPECIFICATION FOR CLEANING OF CULVERTS (DE AAR- BEUFORT WEST AND BELMONT -DOUGLAS) KBS FOR A PERIOD OF THREE (3) MONTHS

ITEM	RAILWAY SECTIONS	AREA TO CLEANED (m²)	BE	NUMBER OF CULVERTS	DIASTANCE ON TRACK (KM)	UNIT PRICE	TOTAL AMOUNT
1.	De Aar- Beufort West	41190.116		415	251 813		
2.	Belmont-Douglas	12050.940		250	86.116		
3.	Totals	53241.056		665	344.929		
4.	P and G's	(O				
	1			<u>-</u>	SUB TOTAL	<u></u>	
		N			VAT		
	•				TOTAL		

Notes to Printing:

- a) Al Prices must be quoted in South African Rand, exclusive of VAT
- price discount(s) in the final evaluation stage if offered on an unconditional basis.

Section 3

Transnet Supplier Declaration/Application

The Financial Director or Company Secretary

Transnet Vendor Management has received a request to load your company on to the Transnet vendor database. Please furnish us with the following to enable us to process this request:

- Complete the "Supplier Declaration Form" (SDF) on page 2 of this letter
- 2. Original cancelled cheque OR letter from the bank verifying banking details (the bank stamp)
- 3. Certified copy of Identity document of Shareholders/Directors/Members (whire applicable)
- 4. Certified copy of certificate of incorporation, CM29 / CM9 (name change)
- Certified copy of share Certificates of Shareholders, CK1 / CK2 (if CC) 5.
- A letter with the company's letterhead confirming physical and postal addresses 6.
- Original or certified copy of SARS Tax Clearance certificate and Valregistration certificate 7.
- A signed letter from the Auditor / Accountant confirming most recent an utal turnover and percentage 8. black ownership in the company AND/OR BBBEE certificate and be led scorecard from an accredited rating agency (SANAS member).
- NB:
- Failure to submit the above documentation will delay the vendor creation process.
 Where applicable, the respective Transnet business unit processing your application may request further information from you. E.g. proof of arr one ence of a Service/Business contract between your business and the respective Transnet business unit es.

IMPORTANT NOTES:

Regards,

- If your annual turnover is less than R5 million, then in terms of the DTI codes, you are classified as an Exempted Micro Enterprise (EME). Your company is classified as an EME, please include in your a) submission, a signed letter rom your Auditor / Accountant confirming your company's most recent annual turnover is less tree 1.5 million and percentage of black ownership and black female ownership in the company AND OR BBLE certificate and detailed scorecard from an accredited rating agency (e.g. permanent SANAS amber), should you feel you will be able to attain a better BBBEE score.
- If your annual turn by is between R5 million and R35million, then in terms of the DTI codes, you are classified as Qualifying Small Enterprise (QSE) and you claim a specific BBBEE level based on b) any 4 the lelements of the BBBEE score-card, please include your BEE certificate in your subraission as confirmation of your status.

 NB. BEBEE certificate and detailed scorecard should be obtained from an accredited rating agency g. prognent SANAS Member).
- vour annual turnover is in excess of R35million, then in terms of the DTI codes, you are classified as Large Enterprise and you claim a specific BEE level based on all seven elements of the BBBEE generic score-card. Please include your BEE certificate in your submission as confirmation of your
 - NB: BBBEE certificate and detailed scorecard should be obtained from an accredited rating agency (permanent SANAS Member).
- To avoid PAYE tax being automatically deducted from any invoices received from you, you must d) also contact the Transnet person who lodged this request on your behalf, so as to be correctly classified in terms of Tax legislation.
- e) Unfortunately, No payments can be made to a vendor until the vendor has been registered, and no vendor can be registered until the vendor application form, together with its supporting documentation, has been received and processed.
- f) Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents mentioned above to the Transnet Official who is intending to procure your company's services/products in order that he/she should complete and Internal Transnet Departmental Questionnaire before referring the matter to the appropriate Transnet Vendor Master Office.

	10	
Respondent's Signature		Date & Company Stamp

Supplier Declaration Form

* *									
Company Trading	Name								
Company Registe	ered Name								
Company Registra	ition Number C	or ID Number If A	Sole Prop	rietor					
Form of entity	CC	Trust	Pty Ltd	Li	mited	Partners	ship	Sole Propriet	tor
VAT number (if re	egistered)								
Company Teleph	one Number								
Company Fax Nu									
Company E-Mail									
Company Websit	e Address								
Bank Name			Bank	Accoun	t Number				
Postal Address					-	—	Cod	do	
Physical							1 000	ue	
Address							Cod	de	
Contact Person			· · · · · · · · · · · · · · · · · · ·				1		
Designation			1						*
Telephone			1				-		
Email	· · · · · · · · · · · · · · · · · · ·	4		•				•	
Annual Turnover Ra	ange (Last Fina	incial Year)	5 dillion		R5-35 n	nillion		> R35 million	
Does Your Compa	ny Provide	Pro	ucts		Services	s		Both	
Area Of Delivery		No.	onal		Provinci	al		Local	
Is Your Company	A Public Or Pr	ivate El tity			Public			Private	
Does Your Compa					Yes			No	
Main Product Or S	Service Suppli	o (È G.: Stationer	ry/Consult	ing)					
BEE Ownership	Details	7							
% Black Ownership		6 Black women owr	arabi-		% D	isabled per	son/s		
•			iersnip			ownership			
Does your compa				Yes			No.		
What is your broa		•							
How many purso	nel does the	tirm employ	Pern	nanent		Part	time		
Transmit Juniact	Person								
Cunta It number									
Transpet operation	ng division								
Duly Authorised	To Sign For	And On Behalf	Of Firm /	Orgai	nisation				
Name				D	esignatio	n			
Signature Date									
Stamp And Sign	ature Of Con	nmissioner Of C	Dath						
Name				D	ate				
Signature				Т	elephone	No.			
	<u> </u>								



INFRASTRUCTURE MAINTENANCE KIMBERLEY SOUTH DEPOT

KIMBERLEY SOUTH CLEANING OF CULVERTS (De Aar – Beaufort West and Belmont – Douglas)

PROJECT SPECIFICATIONS

SPECIAL CONDITIONS OF THE WORKS:-

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PROJECT SPECIFICATIONS

A1. SCOPE OF WORK

This contract makes provision for the cleaning of storm water drainage culverts that are located within the geographical areas controlled by the Depot Engineer, Infrastructure, Kimberley South by means of the manual removal of vegetation, soil deposits, and other wastes within the culverts. The storm water culverts consist of either pipe culverts with a diameter that ranges from Ø200mm to 1000mm or box culverts with a width/breadth/span that ranges from 350mm to 6000mm.

As shown on the schedule of quantities, there are 665 culverts to be cleaned.

The Contractor must be familiar with the procedures and techniques of civil maintenance works of this type and to comply with the required standards.

The culverts are to be cleaned in such a way as to permit the free-flow of water through the culverts to their maximum capacity. Gridient must be in such a way that allows water to flow free without it (the water) damping inside the culvert.

The tenderer must clearly state in his tender the method to be used to clean the culverts. (Preferably: use of shovels etc.)

A2. SUFFICIENCY OF CONTRACT

The areas identified in the Schedule of the Quantities will only be awarded to a tenderer who has experience in civil maintenance works.

A Site Inspection Conficate Signed by the Technical Officer (compulsory) must be submitted with the function, and the submission thereof will be deemed to indicate the Contractor's acquirintance with the occurrence and extent of the works that need to be performed.

A3. DURA ION OF CONTRACT/TIME TO COMPLETE THE WORK

The contractor shall indicate the duration in months that they will require to complete the works, but this shall not be longer than three (3) months.

The contractor shall be required to complete the works and have it approved in this period. This period shall be inclusive of weekends, and public holidays.

Failing to complete of the works within the period as stipulated above or with any shorter period offered by the contenders and accepted by Transnet Freight Rail, the contractor shall pay to Transnet Freight Rail as penalty 5% of the contract amount for every day or part thereof during which the works remain incomplete.

Working hours for the contractor will be from 7:00 till 16:30 on weekdays.



A4. WORK PROCEDURES

The works that need to be performed is stipulated as follows:

All solid wastes, soil deposits or other materials (including vegetation) that prevents the water from flowing through the culverts must be removed with the proper equipment as needed to complete the works under this Contract.

All materials removed from the culvert must be transported to a designated area as indicated by the Technical Officer or his/her Deputy.

A5. TO BE PROVIDED BY TRANSNET

The following services will be provided free of charge by Transnet Freight Rail where required:

A Deputy Technical Officer will assist the Technical Officer on site where possible, for supervision of the works in order to monitor the Contractor's performance and ensure quality of the works.

Safety Induction Training to the Contractor and his/her staff.

A6. TO BE PROVIDED BY THE CONTRACTOR

The Contractor shall provide sufficient personnel, material, plant and equipment to clean the culvert as identified according to the specification to complete the work successfully.

No accommodation or camping site will be provided by Transnet or be allowed on Transnet property.

The Contractor shall a point at the work site a person whose sole task it shall be to be on the lookout for approaching rail traffic (flagman/observer). This employee shall operate an audible warning device to timeously warn all people on the work site of approaching traffic.

The Contactor shall provide three 100 leaf Triplicate Books (Croxley JD222 or similar) to be used on site for the duration of the works for following:

Site Instruction Book Site Diary Calculation Book

The Site Instruction Book shall have numbered sheets for receiving and recording instructions by the Technical Officer and Project Manager and shall be clearly marked "Site Instruction Book".

The Site diary shall be clearly marked "Site Diary". At the end of each day a line shall be drawn below the last entry of the day and both the Contractor and the Technical Officer or his Deputy shall sign across the line. If no entry was made, a "NIL" return must be entered and signed. Any claim arising from delays, which cannot be substantiated by reference to the site diary will not be considered.



This site diary shall serve as a daily record of all relevant information concerning the site conditions prevailing on site (e.g. Weather conditions, work performed etc).

Only persons authorised in writing by the Technical Officer or Contractor may make entries in the site diary.

After the works have been completed and the final completion certificate is issued, these books must be handed over to the Technical Officer/Deputy Technical Officer and they shall become Transnet Freight Rails' Property.

No tender will be considered unless the E4D and E4E documents are completed.

Contractor to provide all tools and equipment to perform duties as described.

A7. SAFETY

Before any work commences the Contractor is to do a risk assessment of each situation and to provide a written safety plan, of which, a copy is to be kept on site with the Site Diary, Site Instruction Book and Calculation Book. In the safety plan the Contractor must clearly state his/her intentions to provide a safe environment for his workers when working in the culverts.

The Contractor shall supply all the necessary Personal Protective Equipment to each person working on the site. This will include items such as safety boots, hand gloves, dust masks and other protective clothing needed to protect the workers against all the risks which may be encountered on site.

Before the Contracto commences with any work, the entire team will be required to attend a compulsory 1 nour long Safety Talk given by a designated Transnet Safety Representative

The Contractor shall provide at his/her own cost any security/safety measures he/she may tee n necessary for safe and effective execution of the work.

This work is to be carried out close to railway lines with trains moving and passing directly next to the work area. No work is to be done within a 3m distance of a railway line without the presence of a flagman and Track Inspector/Master or without notifying the CTC.

The Contractor or his supervisor must have a Safety Talk every morning before work begins to remind the workers to be on the lookout for trains and to make the workers aware of the dangers of working underneath electrified traction lines. Record of what was discussed shall be recorded in the "Site Diary".

All workers shall work as a team in one area in the Transnet Freight Rail's reserve.

The personnel of the Contractor shall at all times while on Transnet property and during the operations wear reflective safety jackets. These reflective jackets must preferably bear the name of the contractor's company.



No open fires are allowed on Transnet property.

Safety Induction to be given to Contractor by Transnet Freight Rail.

A8. POLLUTION PREVENTION AND ENVIRONMENTAL AWARNESS

According to the Environmental Management System of Transnet, pollution must be prevented as far as possible and where pollution occurs due to the negligence of the Contractor, he\she will be responsible for corrective actions.

A9. SCHEDULE OF WORK AND PRICES

The Contractor shall submit with his/her tender a complete and detailed priced schedule (prepared in ink) for the works.

If the Contractor has omitted to price any items in the schedule, the cost of the work included in such items will be held to be spread over and usuaded in the prices given for other items of work.

Reasonable prices should therefore be inserted for example as these prices may be considered in adjudication of the quotation.

A10. INFORMATION TO BE PROVIDED WITH THE TENDER

The Tenderer shall submit the following information at the time of tendering:

- 1. Signed Site Inspection Certificate of the work area as signed by the Technical Officer on the day of the site briefing.
- 2. The Schedule of The Works and Prices must be completed in full.
- 3. An undertaking that all equipment will be ready for operation on the agreed date to stan work.
- 4. The conset and proper procedure for carrying out the work.

A11. PERSONMANCE MONITORING AND EVALUATION

The contractor shall at all times be responsible for the supervision of the work and for allow-up inspections to monitor the success of control achieved over the area. He when shall immediately take appropriate remedial action in areas where the specified standards of control are not achieved.

The Technical Officer or the Deputy shall at anytime during the construction period carry out inspections of the Contractor's performance methods and procedures.

A12. REMEDIAL WORK

The Contractor shall carry out remedial work to areas where control has not been achieved, prior to the official inspections. Such remedial work may include: excess solid waste removal to a designated area as indicated by the Technical Officer or the Deputy, cleaning the culverts to the specified requirements, removing the waste material away from the opening of the culvert or any other works as described under the specification of the works for this tender.



A13. MEASUREMENT AND PAYMENT

Payment will be based on the successful completion of the works as specified in terms of the tender and where the Contractor has successfully achieved the standard of the specifications for the tender within the required time frame.

No payment will be made where the work has not been successfully completed accordance the specifications.

Measurement and payment for work completed will be as follows:

After the completion of the work, the Technical Officer and the Contractor will inspect the work performed.

If the works is found to be satisfactory and according the specified specifications, the Contractor will receive 100% of the tendered price as initially tendered for each specific railway sections as indicated by the Schedule of Quantities.

The Contractor will thereafter receive a final Completion Certificate to certify that the works under the agreement is finalised

Penalties of 5% of the contract amount for every day or part thereof during which the works remain incomplete.

A14. SCHEDULE OF QUANTITIES

SCHEDULE OF QUANTITIES

Railway Sections	Area to be cleaned (m²)	Number of Culverts	Distance on track (km)	Unit Price (Rands)	Grand Total (Rands)
ja Asr Biose, An Mass			2018 \$10		
Totala	50044.050		044.000		
Totals	53241.056	665	344.929		

E.4E Transnet (Feb 2011)

TRANSNET LIMITED

(Registration no. 1990/00900//06)

SAFETY HEALTH AND ENVIRONMENTAL (SHE) SPECIFICATIONS FOR CONTRACTORS

AND

SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND APPLICABLE REGULATIONS

1. General

- 1.1 The Contractor and Transnet Limited (hereinafter referred to as "Transnet") are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the Ceneral Conditions of Contract and in terms of the Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site of place of work or on the work to be executed by him, and under his control. He shan, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a SHE Plan as described in the Construction Regulations, 2003 and as approved by Transact, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations convithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transput accepts, in terms of the Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and TFR Contract Representative/Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the Works.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

2. Definitions

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -
- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "Construction Work", which, in terms of the Construction

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Regulations, 2003 means any work in connection with: -

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 "competent person" in relation to construction work means by person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 "contractor" means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 **"fall protection plan"** means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 "Safety, Health and Environmental (SHE) File" means a file, or other record in permanent form, cartaining the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 "Safety, Hearth and Environmental (SHE) Plan" means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or on rol the hazards identified;
- 2.8 Risk Assessment" means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 "the Act" means the Occupational Health and Safety Act No. 85 of 1993.

3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
 - (a) includes the demolition of a structure exceeding a height of 3 metres; or
 - (b) includes the use of explosives to perform construction work; or
 - (c) includes the dismantling of fixed plant at a height greater than 3m,

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and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-

- (a) includes excavation work deeper than 1m; or
- (b) includes working at a height greater than 3 metres above ground or a landing.
- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, TFR Contract Representative/Technical Officer or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing in a form similar to Annexure 2 of this Specification (e.g Construction Site Supervisor, Construction Safety Officer etc) and deliver copies hereof to the TFR Contract Representative/Technical Officer. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the TVR Contract Representative/Technical Officer.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and uppervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexire 3, by which he personally undertakes the duties and obligations of the "Nief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the TFR Contract Representative Dechnical Officer an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Precedural compliance with Act and Regulations, as above, shall also apply to any succontractors as employers in their own right. The Contractor shall furnish the TFR Contract Representative/Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

4. Special Permits

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the TFR Contract Representative/Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such permits.

5. Health and Safety Programme

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- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
 - (i) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the Act;
 - (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety;
 - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the Act that no employee or subcontractor of the Contractor dees or omits to do any act which would be an offence for the Contractor to do any act to do.
- 5.2 The Contractor's Health and Safety Programme shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protections the safety and health of such employees and persons.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Hearh and Safety programme to be applied on the site and shall include at least the following:
 - (a) The identification of the risks and hazards that persons may be exposed to;
 - (b) the analysis and evaluation of the hazards identified:
 - (c) a decumented SHE Plan, including safe work procedures to mitigate, reduce or control the risks identified;
 - a monitoring and review plan.
- 5.4 The SHE Plan shall include full particulars in respect of: -
 - (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
 - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
 - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;
 - (d) the site access control measures pertaining to health and safety to be implemented;

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- (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the TFR Contract Representative/Technical Officer with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
- (f) the introduction of control measures for ensuring that the SHE Plan is maintained and monitored for the duration of the Contract.
- The Health and Safety programme shall be subject to the TFR Contract Representative/TFR Contract Representative/Technical Officer's a proval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety comment be used or safety clothes be issued which, in the TFR Contract Representative/Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The TFR Contract Representative/Technical Officer or his departs shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's SHE Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's SHE Plan for the site or which posts a inreat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the SHE Plan is available on site for inspection by an inspector, TFR Contract Representative/Technical Officer, agent, subcontractor employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the Risk Assessment.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the Risk Assessment before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes SHE induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

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Fall Protection Plan 6.

In the event of the risk and hazard identification, as required in terms of clause 5.3 of 6.1 this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;



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- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include:-
 - (a) A Risk Assessment of all work carried out from an elevated position;
 - (b) the procedures and methods to address all the identified risks per location;
 - (c) the evaluation of the employees physical and psychological fitness necessary to work at elevated positions;
 - (d) the training of employees working from elevated positions; and
 - (e) the procedure addressing the inspection, testing and leaintenance of all fall protection equipment.

7. Hazards and Potential Hazardous Situations

The Contractor and the TFR Contract Representative/Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

8. Safety, Health and Entiro mental (SHE) File

- 8.1 The Contractor shall entere that a SHE file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an Aspector, the TFR Contract Representative/Technical Officer, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his SHE Plan as well as any sulcontractor's SHE Plan is available on request to an employee, inspector, contractor or he TFR Contract Representative/Technical Officer.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the TFR Contract Representative/Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

9. Medical Surveillance

9.1 The contractor shall ensure that all the appropriate medical surveillance documents are available as required by the Act and be kept in the safety file.

10. Substance Abuse

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10.1 All contractors must comply with the TFR Substance Abuse Policy and Regulation 2A of the General Safety Regulations, .

11. Incidents/Occurrences

- All incidents referred to in Regulation 9 of General Administration Regulations of the Act involving the contractor and his subcontractor on Transnet Ltd premises, shall be reported as prescribed. TFR hereby obtains an interest in the issue of any investigation, formal inquiry conducted in terms of Section 31 and 32 of the Act into any incident involving the contractor, his subcontractor, any person or machinery under his control on TFR premises.
- 11.2 TFR Contract Representative must be informed of the above incidents/occurrences before the end of shift when the incident/occurrence occurred.

12 Monthly Safety Reports

12.1 All Contracts of more than 1 month shall provide a monthly safety report as required by TFR

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ENVIRONMENTAL CONTRACT CLAUSES

INSTRUCTIONS

Except as set forth below, the content of this document when instuded within a contract shall not be changed, modified or altered in any way.

CONDITIONS OF CONTRACT

- 1. The Contractor shall identify, document and comply with all pertinent Environmental laws and associated Regulations, approvals, licenses and permits which are applicable to the Services and activities under aken
- 2. Before commencement with thy of the services to be rendered to TFR, the Contractor shall make available alone sonnel who will be working on the specified contract to be given environmental induction training. All Contractors' Personnel arriving on the Site shall attend such induction.
- 3. The Contractor shall adhere to all instructions issued by Project Manager or his /her delegaled erson in promotion of environmental management and legal compliance.
- 4. The Contractor shall determine the correct positioning of topsoil stockpiling to avoid massive disturbance and prepare the topsoil for reuse during landscaping.
- 5. Concrete shall not be mixed directly on the ground or any other permeable surface. Should concrete batching activities occur, these should be located in the designated area on site with low environmental sensitivity levels.
- 6. All excess concrete shall be removed from site on completion of plastering or concrete pouring and disposed of in an environmentally acceptable manner.
- 7. The Contractor shall ensure that his or her employees are aware of the procedures to be followed when dealing with spills and leaks, which shall include notifying the relevant authorities and TFR as required in terms of NEMA, 1998 and NWA, 1998. The

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Contractor shall ensure that all necessary material and equipment required for use during clean – up/rehabilitation of spills and leaks are available on site at all times. Treatment, remediation and/or rehabilitation of contaminated areas shall be undertaken to the reasonable satisfaction of the TFR Environmental Control Officer or relevant Environmental Specialist.

- 8. Contractor shall be solely responsible for the control of dust generated from his or her activities. Excavation, handling and transport of erodable material shall be avoided under aggressive wind conditions or when a visible dust plume is present. If dust damping measures are deemed inadequate, working must cease until the wind speed drops to an acceptable level.
- 9. Construction activities generating output levels of 85 db (1) or more shall be confined to the hours 08h00 to 17h00 Mondays to Fridays (close to residential areas).
- 10. No on-site burying or dumping of waste material shall over. Waste must be collected by a licensed waste transporting contractor and disposed of at a licensed disposal site. Disposal certificate must be made available of TFR on request.
- 11. Waste bins must be provided in sufficient number and capacity to store solid waste produced on a daily basis. These bins must be kept closed and emptied regularly.
- 12. A designated re-fuelling area (s) must be provided. The re-fuelling area must be protected from hydrocarbon spillage to the reasonable satisfaction of the TFR Environmental Control Officer or Relevant Environmental Specialist. As a minimum requirement, refuelling and work hop areas shall have a bunded floor surface and stormwater collection mechanism Republing shall always be accompanied by the use of drip trays.
- 13. The Contractor must notify the Project Manager immediately of any pollution incident. An incident record system shall be maintained on site for inspection by TFR and relevant authorities.
- 14. All vehicles and equipments shall be kept in good working condition. All leaking equipments shall be repaired immediately or removed from site. All vehicles and equipment shall be maintained not emit excessive noise.
- 15. In case of major hydrocarbon spill or leakage as a result of equipment failure, Project Manager must be made aware of such event and the affected area must be fenced off and be cleaned immediately to the reasonable satisfaction of the TFR Environmental Control Officer to prevent contamination of soil and both surface and groundwater.
- 16. The Contractor shall ensure that no spillage occurs when toilets are being cleaned or emptied and that the contents are removed from site by a licensed service provider.

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- 17. The use of borrow pits for the construction of access roads must comply with the provisions of Minerals and Petroleum Resources Development Act of 2004 as amended and should not be located inside the border of any protected area (e.g. Nature Reserve).
- 18. All disturbed areas must be rehabilitated to the reasonable satisfaction of TFR Environmental Control Officer or Relevant Environmental Specialist.
- 19. Transportation, handling and storage of all substances classified as hazardous must comply with the provisions of the Hazardous Substances Act, 15 of 1973, relevant Regulations and SANS Codes.
- 20. Archaeological remains, artificial features and structures older than 60 years are protected by the Natural Heritage Resources Act, 25 of 1999. Should any a chaeological artefact be exposed during construction or any contract work, such work must be stopped immediately. The TFR Environmental Control Officer must be called in for inspection and to recommend the way-forward. Under no circumstances may any artefacts be destroyed or removed from site.
- 21. The extraction of water for construction purposes must at all times comply with licensing requirements of Department of Water Affairs, where applicable. Extraction of water from a stream or a river requires applicable.
- 22. Blasting work that may be required on site shall be carried out entirely within the provisions of the Explosives Act, 26 of 1956 and other relevant engineering and safety standards.
- 23. Office and camp sites shall be established, as far as is practicable, outside the flood plain, so we the 1:50 flood level mark within the boundaries of the construction area.
- 24. No camp or office site shall be located closer than 100 metres from a stream, river, spring dam or pan.
- 25. The area chosen for these purposes shall be the minimum reasonably required and which will involve the least disturbance to vegetation.
- 26. Camps and site offices shall be fenced (where necessary) in consultation with the landowner.
- 27. The Project Manager or TFR Contract Representative may, at his or her discretion stop any work, activity or process not in accordance with Environmental laws and associated Regulations, approvals, licenses and permits
- 23. The contractor shall preserve wild life in terms of the NEMA.

Revision 00-00

IMS-PR-015.1 (Attachment 7.3)

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11. E	Estimated maximum numb	per of persons on the construction site	o:
12. P	lanned number of contract	ctors on the construction site account	able to the principle contractor
13.	Name(s) of contractors	already chosen.	
			4
			4
			W
Princ	cipal Contractor	4	Date
Clien		c _O	 Date

- * THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
- * <u>ALL PRINCIPAL CONTRACTORS</u> THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PLINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

Revision 00-00

Date: 10 February 2011

IMS-PR-015.1 (Attachment 7.3)

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ANNEXURE 2

(COMPANY LETTER HEAD)

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993):

SECTION/REGULATION:
REQUIRED COMPETENCY:
In terms of I,
representing the Employer) do hereby appoint
As the Competent Person on the premises at
(physical address) to assist in compliance with the Act and the applicable Regulations.
Your designated area/s is/are as follows:-
Date: Signature:-
Designation :-
ACCEPTANCE OF DESIGNATION
I, do hereby accept this Designation and acknowledge that I understand the requirements of this appointment.
Date:
Signature :-
Designation :-

IMS-PR-015.1 (Attachment 7.3)

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ANNEXURE 3

(COMPANY LETTER HEAD)

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993):

DECLARATION

In terms of the above Act I, and obligations as Chief Executive Officer, as far as is reasonably practicable, ensure the above Act are properly discharged.	am personally assuming the dutien defined in Section 1 of the Act and in terms of Section 16(1), I will at the duties and obligations of the Employer as contemplated in the
Signature :- Date :	
OPENIL.	
2V'	

Revision 00-00

Date: 10 February 2011

E.4E Transnet (Feb 2011)

ANNEXURE 4

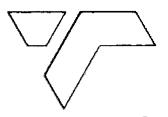
(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET LIMITED)

SITE ACCESS CERTIFICATE

Access to:	(Area)
Contract/Order No.:	
The contract works site/area described above	are made available to you for the carrying out of associated works
In terms of your contract/order with (company)	
Kindly note that you are at all times respons having access to the site.	sible for the control and safety of the Works Site, and for persons
requirements of the Occupational Health and	n of the centract you will be responsible for compliance with the Safet (Act, 1993 (Act 85 of 1993) as amended, and all conditions ones as befined and demarcated in the contract documents including thereof
Signed :	Date:
ACKNOW	VLEDGEMENT OF RECEIPT
Name of Contractor/Builder :-	I, do hereby acknowledge and accept the duties
and obligations in respect of the Safety of Safety Act; Act 85 of 1993.	the site/area of Work in terms of the Occupational Health and
Name :	Designation:
Signature :	Date :

E.4D

TRANSNER



(REGISTRATION NO.1990/000900/06) TRADING AS TRANSNET FREIGHT RALL

TENDER No.

SCHEDULE OF PLANT

Schedule of major plant and equipment to be used in the execution of this contract in terms of the Contract Conditions and specifications. The tenderer must state which plant is immediately available and which will have to be acquired.

(i)	Plant immediately available for work tendered for:	
(ii)	Plant on order and which will be available for work tendered for :	
(iii)	Plant to be acquired for the work tendered for:	
` ,		
Date	20	
		Tenderer(s)

AREA TO BE CLEANED

AREA TO BE CLEANED

250 Culverts		Culvert			· · · · · · · · · · · · · · · · · · ·			T	Area	Area	m²	
Belmont - Douglas (Line 119)	Number	Asset number	Fence (LHS)	km distance on track	Fence (RHS)	Number of Spans	Andra of Span	n	n ² (Fence L)	m² (Fence R)	Total Area	Туре
Belmont - Skietbaan	1	05JB248	11.00	1.040	11.00		2.75		30.250	30.250	181.500	Вох
Belmont - Skietbaan	2	05JB249	11.00	2.132	11.00	1	2.75	Г	30.250	30.250	60.500	Box
Belmont - Skietbaan	3	05JB250	11.00	2.527	11.00	1	2.70	Г	29.700	29.700	59.400	Box
Belmont - Skietbaan	4	05JB251	11.00	3.205	11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	5	05JB252	11.00	3.585	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	6	05JB253	11.00	3.732	1.0	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	7	05JB254	11.00	4.254	1.10	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	8	05JB255	11.00	5.300	1 .00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	9	05JB256	11.00	5.605	1.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	10	05JB257	11.00	7.21	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	11	05JB258	11.00	1.120	11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	12	05JB259	11.00		11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	13	05JB260	11,00		11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	14	05JB261	1,.00	0.111	11.00	2	2.75		30.250	30.250	121.000	Box
Belmont - Skietbaan	15	05JB262	0	10.588	11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	16	05JB263	11.60	11.020	11.00	1	2.73		30.030	30.030	60.060	Box
Belmont - Skietbaan	17	05JB264	1 00	12.592	11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	18	05JB235	11.00	13.687	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	19	05J(26°	11.00	14.051	11.00	1	2.75		30.250	30.250	60.500	Box
Belmont - Skietbaan	20	05 1B2 7	11.00	14.349	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	21	15,13268	11.00	14.835	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	12	0ა \B269	11.00	15.076	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan		05JB270	11.00	15.430	11.00	1	1.85	L	20.350	20.350	40.700	Box
Belmont - Skietbaan	24	05JB271	11.00	15.679	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	25	05JB272	11.00	16.042	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	26	05JB273	11.00	16.380	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	27	05JB274	11.00	16.691	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	28	05JB275	11.00	17.018	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	29	05JB276	11.00	17.123	11.00	1	1.85		20.350	20.350	40.700	Box
Belmont - Skietbaan	30	05JB277	11.00	17.610	11.00	1	1.85	L	20.350	20.350	40.700	Box

Belmont - Skietbaan	31	105JB278	11.00	17.894	11.00	1	1.85	20.350	20.350	40.700	Box
Belmont - Skietbaan		05JB279	11.00	18.298	11.00	1	2.75	30.250		60.500	Box
Belmont - Skietbaan	4	05JB280	11.00	18.863	11.00	1	1.85	20.350		40.700	Box
Belmont - Skietbaan		05JB281	11.00	19.044	11.00	1	1.85	20.350	20.350	40.700	Box
Belmont - Skietbaan		05JB282	11.00	19.632	11.00	1	1.85	20.350	20.350	40.700	Box
Skietbaan - Hayfield	36	05JB283	11.00	19.889	11.00	1	1.75	20.350	20.350	40.700	Box
Skietbaan - Hayfield	37	05JB284	11.00	20.213	11.00	1	85	20.350	20.350	40.700	Box_
Skietbaan - Hayfield	38	05JB285	11.00	20.353	11.00	1		20.350		40.700	Box
Skietbaan - Hayfield	39	05JB286	11.00	20.960	11.00	3	2.70	29.700		178.200	Box
Skietbaan - Hayfield	40	05JB287	11.00	21.375	11.00		1.85	20.350		40.700	Box
Skietbaan - Hayfield	41	05JB288	11.00	21.987	11.00	1	1.85	20.350		40.700	Box
Skietbaan - Hayfield	42	05JB289	11.00	22.680	11.0	1	1.85	20.350	20.350	40.700	Box
Skietbaan - Hayfield	43	05JB290	11.00	22.865	1.0	1	2.75	30.250	30.250	60.500	Box
Hayfield - Salt Lake	44	05JB291	11.00	23.303	11 00	1	1.85	20.350	20.350	40.700	Box
Hayfield - Salt Lake	45	05JB292	11.00	23.54	1.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	46	05JB293	11.00	23.87	11.00	3	2.75	30.250	30.250	181.500	Box
Hayfield - Salt Lake	47	05JB294	11.00	21.268	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	48	05JB295		24.318	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	49	05JB296		25.176	11.00	2	1.85	20.350		81.400	Box
Hayfield - Salt Lake	50	05JB297	100		11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	51	05JB298	1 0		11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	52	05JB299	71.6		11.00	1	1.85	20.350	· · · · · · · · · · · · · · · · · · ·	40.700	Box
Hayfield - Salt Lake	53	05JB300	1.00	27.237	11.00	2	1.85	20.350		81.400	Box
Hayfield - Salt Lake	54	05JB371	11.00	27.315	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	55	05JE302	11.00	27.477	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	56	05.183L3	11.00	27.834	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	57	75,1 2304	11.00	28.411	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	 ∫ β	05.1B305	11.00	29.098	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	5.	05JB306	11.00	29.811	11.00	1:	1.85	20.350		40.700	Box
Hayfield - Salt Lake	60	05JB307	11.00	30.165	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake		05JB308	11.00	30.564	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake		05JB309	11.00	31.200	11.00	1	2.75	30.250		60.500	Box
Hayfield - Salt Lake	63	05JB310	11.00	31.343	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	64	05JB311	11.00	31.794	11.00	1	1.85	20.350		40.700	Box
Hayfield - Salt Lake	65	05JB312	11.00	32.116	11.00	1	2.75	30.250		60.500	Box
Hayfield - Salt Lake	66	05JB313	11.00	32.506	11.00	1	1.85	20.350	20.350	40.700	Box

Hayfield - Salt Lake	67	05JB314	l 11.00Γ	32.780	11.00	1	1.85		20.350	20.350	40.700	Box I
Hayfield - Salt Lake	_	05JB315	11.00	33.268	11.00	1	1.85		20.350	20.350	40.700	Вох
Hayfield - Salt Lake		05JB316	11.00	33.445	11.00	1	1.85	1	20.350	20.350	40.700	Вох
Hayfield - Salt Lake		05JB317	11.00	33.746	11.00	1	1.85	\	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB318	11.00	33.945	11.00		1.85		20.350	20.350	40.700	Вох
Hayfield - Salt Lake		05JB319	11.00	34.249	11.00	1	1.85		20.350	20.350	40.700	Вох
Hayfield - Salt Lake		05JB320	11.00	34.509	11.00	- 1	1 35	/ -	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB321	11.00	34.831	11.00	1	85	 	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB322	11.00	35.349	11.00		1.85	\vdash	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB323	11.00	35.940	11.00	1	1.85	-	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB324	11.00	36.225	11.00			\vdash	30.250	30.250	242.000	Box
Hayfield - Salt Lake		05JB325	11.00	36.348	11.00		1.85		20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB326	11.00	36.479			1.85	-	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JB327	11.00	36.753	14.00	4	2.75	-	30.250	30.250	242.000	Box
Hayfield - Salt Lake		05JB328	11.00	36.865	11.00		2.75	-	30.250	30.250	60.500	Box
Hayfield - Salt Lake		05JB329	11.00	37.570	1 .00	2	2.75	\vdash	30.250	30.250	121.000	Box
Hayfield - Salt Lake		05JB329	11.00	37.99	1.00	2	1.85	\vdash	20.350	20.350	81.400	Box
		05JB331	11.00	38.39	11.00	1	2.75	\vdash	30.250	30.250	60.500	Box
Hayfield - Salt Lake		05JB331	11.00	38.587	11.00	2	1.85	-	20.350	20.350	81.400	Box
Hayfield - Salt Lake		05JB332 05JB333		38 944	11.00	2	1.85	-	20.350	20.350	81.400	Box
Hayfield - Salt Lake		05JB334		35 54	11.00	2	1.85	\vdash	20.350	20.350	81.400	Box
Hayfield - Salt Lake		05JB335	100	9.738	11.00	2	1.85	\vdash	20.350	20.350	81.400	Box
Hayfield - Salt Lake		05JB336	1.00	39.968	11.00	3	2.75	-	30.250	30.250	181.500	Box
Hayfield - Salt Lake		05JB337	11. 0	40.339	11.00		2.75	-	30.250	30.250	60.500	Box
Hayfield - Salt Lake	+	05JB338	1 90	40.539	11.00	2	2.75	-	30.250	30.250	121.000	Box
Hayfield - Salt Lake		05JB339	11.00	40.624	11.00	1	1.85	\vdash	20.350	20.350	40.700	Box
Hayfield - Salt Lake		05JK340	11.00	41.593	11.00		2.75	\vdash	30.250	30.250	60.500	Box
Hayfield - Salt Lake	93	05.18	11.00	41.830	11.00	2	0.60	-	6.600	6.600	26.400	Pipe
Hayfield - Salt Lake	94	DE IB	11.00	41.030	11.00		0.00	-	0.000	0.000	20.400	
Salt Lake - Bakenskop	J 5	05 1B341	11.00	42.418	11.00	1	1.85	\dashv	20.350	20.350	40.700	Box
		05 B341 05JB342	11.00	42.731	11.00		1.85	 	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB342 05JB343	11.00	43.197	11.00	- 1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB344	11.00	43.197	11.00		1.85	-	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB344 05JB345	11.00	43.922	11.00	- <u>'</u>	1.85	-	20.350	20.350	40.700	Box
Salt Lake - Bakenskop			11.00	44.380	11.00	- 1	1.85	\vdash	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB346	-	44.380	11.00	- 1	1.85	-	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB347	11.00			- '			20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB348	11.00	45.272	11.00	<u> </u>	1.85	-	20.350	20.350	40.700	Box
Salt Lake - Bakenskop	103	05JB349	11.00	46.018	11.00	1	1.85	L	∠∪.35∪	20.350	40.700	DOX

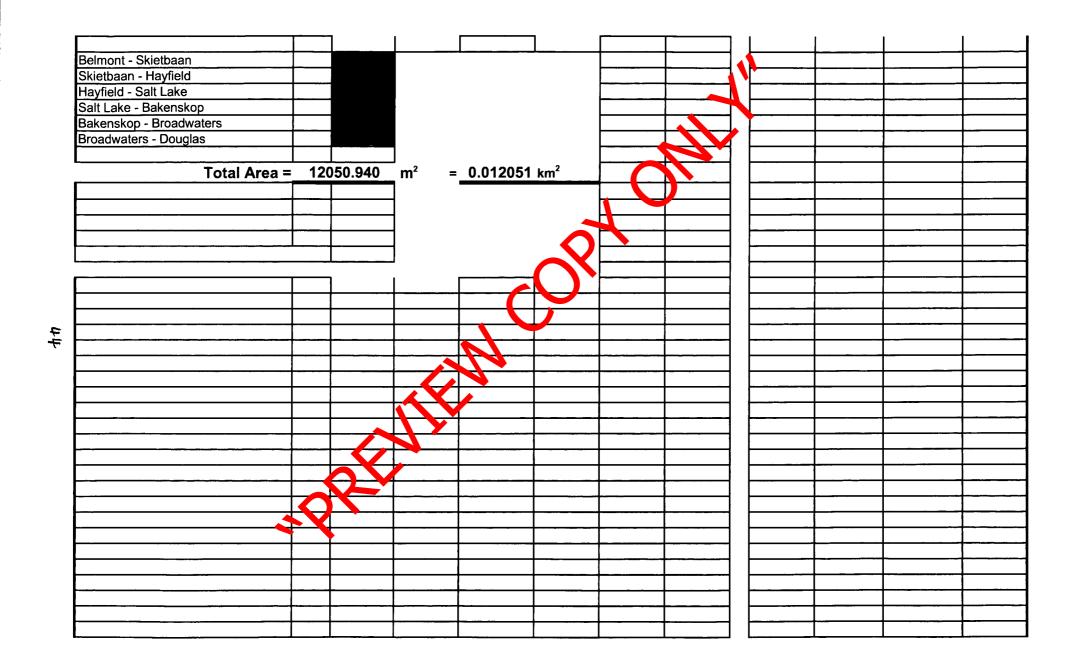
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Salt Lake - Bakenskop	104	105JB350	11.00	46.195	11.00	- 1	1.85	1	20.350	20.350	40.700	Box
		05JB351	11.00		11.00		1.85	<u> </u>	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB351			11.00			1				Box
Salt Lake - Bakenskop			11.00		11.00	1	1.85	\	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB353	11.00			1	1.85	\ -	20.350	20.350	40.700	
Salt Lake - Bakenskop		05JB354	11.00		11.00	1	1.85	\	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB355	11.00		11.00		1.85	.	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB356	11.00		11.00	1	1 85	´ _	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB357	11.00		11.00	1	75	_	30.250	30.250	60.500	Box
Salt Lake - Bakenskop		05JB358	11.00		11.00		1.85	ļ	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB359	11.00		11.00	1	2.75	_	30.250	30.250	60.500	Box
Salt Lake - Bakenskop		05JB360	11.00		11.00		1.03		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB361	11.00		11.00		2.75	<u> </u>	30.250	30.250	60.500	Box
Salt Lake - Bakenskop		05JB	11.00		11 00	1	0.90		9.900	9.900	19.800	Pipe
Salt Lake - Bakenskop		05JB362	11.00		(1.0)	1	2.75	<u> </u>	30.250	30.250	60.500	Box
Salt Lake - Bakenskop		05JB363	11.00		11.10	1	1.80	_	19.800	19.800	39.600	Box
Salt Lake - Bakenskop		05JB364	11.00		1 .00	1	1.85	L	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB365	11.00		17.00	1	1.85	L	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB366	11.00		11.00	1	1.85	L	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB	11.00	2.700	11.00	3	0.30	L	3.300	3.300	19.800	Pipe
Salt Lake - Bakenskop		05JB	11.00		11.00	2	0.90	L	9.900	9.900	39.600	Pipe
Salt Lake - Bakenskop	124	05JB		52 80	11.00	2	0.30	L	3.300	3.300	13.200	Pipe
Salt Lake - Bakenskop	125	05JB367		3.007	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	126	05JB368	1.00		11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	127	05JB369	11.70	53.604	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	128	05JB370	11.90	53.896	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	129	05JB37	11.00	54.680	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	130	05J	11.00	54.969	11.00	1	0.45		4.950	4.950	9.900	Pipe
Salt Lake - Bakenskop	131	05 IB ₂ 2	11.00	55.292	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	132	05, 3375	11.00	55.710	11.00	1	1.85		20.350	20.350	40.700	-Box
Salt Lake - Bakenskop	1/5	0. IB374	11.00	56.138	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	134	05JB375	11.00	56.579	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	135	05JB376	11.00	56.876	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB377	11.00	57.400	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	137	05JB378	11.00	57.904	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB379	11.00	57.957	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop	139	05JB380	11.00	58.155	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB381	11.00	58.512	11.00	1	1.85		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB382	11.00	58.775	11.00	1	1.85		20.350	20.350	40.700	Box

California Dalamatan	4.40	105JB383	11.00	59.066	11.00	- 1	1.85	20.350	20.350	40.700	Box 1
Salt Lake - Bakenskop		05JB384	11.00	59.575	11.00		1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB385	11.00	60.185	11.00		1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop			11.00	60.406	11.00		1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB386		60.825	11.00	1	1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB387	11.00			1	_		20.350	40.700	Box
Salt Lake - Bakenskop		05JB388	11.00	61.175	11.00		1.85 1.85	20.350		40.700	Box
Salt Lake - Bakenskop		05JB389	11.00	61.691	11.00	11		20.350	20.350		Box
Salt Lake - Bakenskop		05JB390	11.00	62.259	11.00	1		20.350	20.350	40.700	
Salt Lake - Bakenskop		05JB391	11.00	62.478	11.00		1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB392	11.00	62.802	11.00	1		20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB393	11.00	63.064	11.00		1.00	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB394	11.00	63.245	11.00	1	1.85	20.350	20.350	40.700	Box
Salt Lake - Bakenskop		05JB395	11.00	63.846	14.70	1	1.80	19.800	19.800	39.600	Box
Salt Lake - Bakenskop		05JB396	11.00	64.249	1.0	1	1.80	19.800	19.800	39.600	Box
Salt Lake - Bakenskop		05JB397	11.00	64.533	1.10	1	1.80	19.800	19.800	39.600	Box
Salt Lake - Bakenskop		05JB398 _	11.00	65.148	1 .00	1	2.73	30.030	30.030	60.060	Box
Salt Lake - Bakenskop	158	05JB399	11.00	65.40	1.00	1	1.90	20.900	20.900	41.800	Box
Salt Lake - Bakenskop	159	05JB400	11.00	65.60	11.00	1	1.80	19.800	19.800	39.600	Box
Salt Lake - Bakenskop	160	05JB401	11.00	6.136	11.00	1,	1.90	20.900	20.900	41.800	Box
Salt Lake - Bakenskop	161	05JB402	11.00	66 427	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	162	05JB403	1,00	7.162	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	163	05JB404	1 0		11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	164	05JB405	11.60	67.904	11.00	2	2.75	30.250	30.250	121.000	Box
Bakenskop - Broadwaters	165	05JB406	1, 20	68.359	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	166	05JB407	11.00	68.766	11.00	1	1.90	20.900	20.900	41.800	Box
Bakenskop - Broadwaters		05J. 40°	11.00	69.129	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	168	CC 1B4.19	11.00	69.350	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters		75, 2410	11.00	69.652	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters		05 B411	11.00	70.035	11.00	1	1.80	19.800	19.800	39.600	Box
		05JB412	11.00	70.374	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters		05JB413	11.00	70.765	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	173	05JB414	11.00	71.149	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	174		11.00	71.240	11.00	1	0.20	2.200	2.200	4.400	Pipe
Bakenskop - Broadwaters	175		11.00	71.310	11.00	1	0.20	2.200	2.200	4.400	Pipe
Bakenskop - Broadwaters		05JB415	11.00	71.713	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters	177		11.00	71.770	11.00	1	0.20	2.200	2.200	4.400	Pipe
Bakenskop - Broadwaters	178		11.00	72.000	11.00	1	0.20	2.200	2.200	4.400	Pipe

Bakenskop - Broadwaters	179	05JB416	11.00	72.498	11.00	2	2.70	29.700	29.700	118.800	Box
Bakenskop - Broadwaters		05JB417	11.00	72.843	11.00	1	1.80	19.800	19.800	39.600	Box
Bakenskop - Broadwaters		05JB	11.00	73.211	11.00	1	0.90	9.900	9.900	19.800	Pipe
Bakenskop - Broadwaters		05HB001	11.00	73.460	11.00	1	0.50	5.500	5.500	11.000	Box
Bakeriskop Broadwaters		00.12001	, ,,,,			· · ·					
Broadwaters - Douglas	182		11.00	73.789	11.00	2	2.65	29.150	29.150	116.600	Box
Broadwaters - Douglas		05JB	11.00	73.843	11.00	1	0.10	4.400	4.400	8.800	Pipe
Broadwaters - Douglas		05JB	11.00	74.016	11.00	1		4.400	4.400	8.800	Pipe
Broadwaters - Douglas		05JB	11.00	74.195	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05JB	11.00	74.298	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05JB	11.00	74.500	11.00		0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05JB419	11.00	74.746	11,00	1	2.80	30.800	30.800	61.600	Box
Broadwaters - Douglas		05JB420	11.00	74.861	10	1	2.70	29.700	29.700	59.400	Вох
Broadwaters - Douglas		05JB421	11.00	74.948	1.0)	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas		05JB422	11.00	75.059	1.0	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas		05JB423	11.00	75.231	1 .00	1	2.70	29.700	29.700	59.400	Box
Broadwaters - Douglas		05JB424	11.00	75.44	1.00	1	2.75	30.250	30.250	60.500	Box
Broadwaters - Douglas		05JB	11.00	75.51	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05JB425	11.00	15.662	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas		05JB426	11.00	76 015	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas	197		11,60	7b. 30	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	198	05JB427	1.00	6.337	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas	199		11,00	76.450	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	200	05JB428	11.0	76.671	11.00	1	1.90	20.900	20.900	41.800	Box
Broadwaters - Douglas	201	05JB429	1 30	76.845	11.00	1	1.75	19.250	19.250	38.500	Box
Broadwaters - Douglas	202	05JB430	11.00	77.025	11.00	2	1.86	20.460	20.460	81.840	Box
Broadwaters - Douglas	203	05J 43	11.00	77.190	11.00	2	1.85	20.350	20.350	81.400	Box
Broadwaters - Douglas	204	CC 1B4. 2	11.00	77.376	11.00	2	2.70	29.700	29.700	118.800	Box
Broadwaters - Douglas	205	75.	11.00	77.521	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas	2.06	0ა ^I B	11.00	77.738	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas	2,7	05JB433	11.00	77.786	11.00	2	2.75	30.250	30.250	121.000	Box
Broadwaters - Douglas	208	05JB	11.00	77.973	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas	209	05JB434	11.00	78.074	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas	210		11.00	78.090	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	211		11.00	78.120	11.00	_1	0.30	3.300	3.300	6.600	Pipe
Broadwaters - Douglas	212	05JB435	11.00	78.274	11.00	2	2.70	29.700	29.700	118.800	Box
Broadwaters - Douglas	213		11.00	78.400	11.00	1	0.23	2.530	2.530	5.060	Pipe
Broadwaters - Douglas	214		11.00	78.550	11.00	1	0.20	2.200	2.200	4.400	Pipe

Broadwaters - Douglas	215	05JB436	11.00	78.613	11.00	1	1.85	20.350	20.350	40.700	Box
Broadwaters - Douglas	216	<u> </u>	11.00	78.710	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	217		11.00	78.900	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	218	05JB437	11.00	79.021	11.00	1	2.70	29.700	29.700	59.400	Box
Broadwaters - Douglas	219	05JB438	11.00	79.153	11.00	1	2.10	23.100	23.100	46.200	Box
Broadwaters - Douglas	220		11.00	79.340	11.00	1	0.20	2.200	2.200	4.400	Pipe_
Broadwaters - Douglas	221	05JB439	11.00	79.674	11.00	1	2.70	29.700	29.700	59.400	Box
Broadwaters - Douglas	222		11.00	79.760	11.00	1	20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	223	05JB440	11.00	80.003	11.00	2		19.800	19.800	79.200	Box
Broadwaters - Douglas	224		11.00	80.120	11.00	1		2.200	2.200	4.400	Pipe
Broadwaters - Douglas	225		11.00	80.200	11.00		0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	226		11.00	80.320	11.00	1	0.20	2.200	2.200	4.400	Pipe_
Broadwaters - Douglas	227		11.00	80.400	14.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	228		11.00	80.410	1.0	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas		05JB	11.00	80.487	1. 0	1	0.40	4.400	4.400	8.800	Pipe
Broadwaters - Douglas		05JB	11.00	80.533	1 .00	1	0.40	4.400	4.400	8.800	Pipe
Broadwaters - Douglas	231		11.00	80.70	1.00	2	1.80	19.800	19.800	79.200	Box
Broadwaters - Douglas		05JB441	11.00	80.93	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas		05JB442	11.00		11.00	3	1.90	20.900	20.900	125.400	Box
Broadwaters - Douglas		05JB443	11.00		11.00	1	1.70	18.700	18.700	37.400	Box
Broadwaters - Douglas		05JB444	11,00		11.00	3	3.66	40.260	40.260	241.560	Box
Broadwaters - Douglas		05JB445	1,.00		11.00	2	4.50	49,500	49.500	198.000	Box
Broadwaters - Douglas		05JB446	11.0		11.00	2	1.90	20.900	20.900	83.600	Box
Broadwaters - Douglas		05JB447	11.0		11.00	2	2.70	29.700	29.700	118.800	Box
Broadwaters - Douglas		05JB	1 00	83.094	11.00	1	0.60	6.600	6.600	13.200	Box
Broadwaters - Douglas		05JB	11.00	83.280	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05J 448	11.00	83.978	11.00	1	1.80	19.800	19.800	39.600	Box
Broadwaters - Douglas	242		11.00	84.240	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	243		11.00	84.290	11.00	1	0.20	2.200	2.200	4.400	Pipe
Broadwaters - Douglas	244		11.00	84.440	11.00	1	0.40	4.400	4.400	8.800	Pipe
Broadwaters - Douglas	2.15		11.00	84.450	11.00	2	0.20	2.200	2.200	8.800	Pipe
Broadwaters - Douglas	246		11.00	84.460	11.00	1	0.40	4.400	4.400	8.800	Pipe
Broadwaters - Douglas		05JB	11.00	84.546	11.00	1	0.90	9.900	9.900	19.800	Pipe
Broadwaters - Douglas		05JB449	11.00	84.918	11.00	_ 1	2.73	30.030	30.030	60.060	Box
Broadwaters - Douglas	249		11.00	85.270	11.00	1	0.50	5.500	5.500	11.000	Box
Broadwaters - Douglas	250		11.00	85.590	11.00	1	0.20	2.200	2.200	4.400	Pipe
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415 Culverts		Culvert							Area	Area	m²	
De Aar - Beaufort West (Line 101 and 102)	Number	Asset number	Fence (LHS)	km distance on track	Fence (RHS)	Number of Spans	Wirth of Span		m² (Fence L)	m² (Fence R)	Total Area	Туре
De Aar - Britsville	1	05JB134	11.00	0.157	11.00		2.70		29.700	29.700	59.400	Box
De Aar - Britsville	2	05JG001	11.00	0.923	11.00	2	4.60		50.600	50.600	202.400	Box
Britsville - Die Put	3	05HG003	11.00	7.281	11.00		1.80		19.800	19.800	39.600	Box
Britsville - Die Put	4_	05HG005	11.00	7.709	11.00	1	1.60		17.600	17.600	35.200	Box
Britsville - Die Put	5	05HG008	11.00	9.635	1100	1	1.80		19.800	19.800	39.600	Box
Britsville - Die Put	6_	05JG006	11.00	10.160	11 00	2	4.40		48.400	48.400	193.600	Box
Britsville - Die Put	7	05JG007	11.00	10.252	1.00	4	2.60		28.600	28.600	228.800	Box
Britsville - Die Put	8	05JG008	11.00	10.416	1.00	4	4.40		48.400	48.400	387.200	Box
Britsville - Die Put	9	05JG009	11.00	10.513	11.00	4	4.10		45.100	45.100	360.800	Box
Britsville - Die Put	10	05JG010	11.00	11.13	11.00	1	2.75		30.250	30.250	60.500	Box
Britsville - Die Put	11	05HG009	11.00	1.537	11.00	1	1.85		20.350	20.350	40.700	Box
Britsville - Die Put	12	05HG010	11.00	12 015	11.00	1	1.70		18.700	18.700	37.400	Box
Britsville - Die Put	13	05HG011	11.00	12 63	11.00	1	1.70		18.700	18.700	37.400	Box
Britsville - Die Put	14	05HG012	17.00	12.843	11.00	1	1.90		20.900	20.900	41.800	Box
Britsville - Die Put	15	05HG013	11.0	12.938	11.00	3	1.80		19.800	19.800	118.800	Box
Britsville - Die Put	16	05JG011	1. 00	12.996	11.00	3	2.70		29.700	29.700	178.200	Box
Britsville - Die Put	17	05HG014	11.00	13.465	11.00	1	1.70		18.700	18.700	37.400	Box
Britsville - Die Put	18	05JG012	17.00	14.387	11.00	2	3.00		33.000	33.000	132.000	Box
Britsville - Die Put	19	05JG0/3	11.00	14.567	11.00	6	2.70		29.700	29.700	356.400	Box
Britsville - Die Put	20	05JG0 4	11.00	14.781	11.00	1	2.70		29.700	29.700	59.400	Box
Britsville - Die Put	21	PJJG 115	11.00	15.192	11.00	3	2.50		27.500	27.500	165.000	Box
Die Put - Oloff	2.	(5JG)18	11.00	16.459	11.00	1	2.70		29.700	29.700	59.400	Box
Die Put - Oloff	23	05JG020	11.00	17.533	11.00	1	2.70		29.700	29.700	59.400	Box
Die Put - Oloff	24	05JG023	11.00	18.763	11.00	1	2.80		30.800	30.800	61.600	Box
Die Put - Oloff	25		11.00	19.670	11.00	1	2.30		25.300	25.300	50.600	Box
Die Put - Oloff	26	05JG025	11.00	20.738	11.00	2	2.70		29.700	29.700	118.800	Box
Die Put - Oloff	27	05JG026	11.00	21.344	11.00	2	2.60		28.600	28.600	114.400	Box
Die Put - Oloff	28	05HG016	11.00	22.155	11.00	1	1.85		20.350	20.350	40.700	Box
Die Put - Oloff	29	05HG017	11.00	22.171	11.00	1	1.80		19.800	19.800	39.600	Box
Die Put - Oloff	30	05HG018	11.00	22.494	11.00	1	1.85		20.350	20.350	40.700	Box

Die Put - Oloff	31	05HG019	11.00	22.959	11.00	1	0.60	6.600	6.600	13.200	Pipe
Oloff - Joen	32	05JG033	11.00	27.833	11.00	1	2.70	29.700	29.700	59.400	Вох
Oloff - Joen	33	05HG020	11.00	28.348	11.00	1	1,80	19.800	19.800	39.600	Box
Oloff - Joen	34	05HG021	11.00	29.327	11.00	1	1.90	20.900	20.900	41.800	Box
Oloff - Joen	35	05JG034	11.00	29.883	11.00	2		28.600	28.600	114.400	Box
Oloff - Joen	36	05JG035	11.00	29.946	11.00	2		29.700	29.700	118.800	Box
Oloff - Joen	37	05HG022	11.00	30.264	11.00		1.90	20.900	20.900	41.800	Box
Oloff - Joen	38	05JG036	11.00	30.859	11.00			30.800	30.800	184.800	Box
Oloff - Joen	39	05JG037	11.00	31.047	11.00	1	2.70	29.700	29.700	59.400	Box
Oloff - Joen	40	05HG023	11.00	31.282	11.00	1	1.90	20.900	20.900	41.800	Box
Oloff - Joen	41	05JG040	11.00	33.465	11.00	1	2.80	30.800	30.800	61.600	Box
Oloff - Joen	42	05JG041	11.00	33.662	11.00	2	2.70	29.700	29.700	118.800	Box
Oloff - Joen	43	05JG042	11.00	34.066	11.10	1	2.75	30.250	30.250	60.500	Box
Oloff - Joen	44	05HG026	11.00	34.509	11.00	1	1.80	19.800	19.800	39.600	Box
Oloff - Joen	45	05HG027	11.00	35.054	11.00	1	1.90	20.900	20.900	41.800	Box
Oloff - Joen	46	05HG028	11.00	35.739	1.00	1	1.90	20.900	20.900	41.800	Box
Oloff - Joen	47	05HG029	11.00	36.18	11.00	1	1.85	20.350	20.350	40.700	Вох
Oloff - Joen	48	05HG030	11.00	36.70	11.00	1	1.00	20.900	20.900	41.800	Box
Oloff - Joen	49	05JG043	11.00	6.982	11.00	2	2.80	30.800	30.800	123.200	Box
Oloff - Joen	50	05JG044	11.00	3) 252	11.00	1	2.70	29.700	29.700	59.400	Box
Oloff - Joen	51	05JG045	11.00	37 95	11.00	2	2.70	29.700	29.700	118.800	Box
Joen - Deelfontein	52	05JG046	11,00	38.444	11.00	2	2.70	29.700	29.700	118.800	Вох
Joen - Deelfontein	53	05JG048	11 70	39.650	11.00	2		30.800	30.800	123.200	Box
Joen - Deelfontein	54	05JG049	1 00	40.313	11.00	2	2.70	29.700	29.700	118.800	Box
Joen - Deelfontein	55	05HG031	11.00	40.953	11.00	1	1.70	18.700	18.700	37.400	Box
Joen - Deelfontein	56	05HG/32	11.00	40.964	11.00	1	1.70	18.700		37.400	Box
Joen - Deelfontein	57	05HG0	11.00	41.469	11.00	1	1.85	20.350		40.700	Вох
Joen - Deelfontein	58	C HE 134	11.00	42.154	11.00	1	1.80	19.800	19.800	39.600	Вох
Joen - Deelfontein	59	95. CUSU	11.00	43.587	11.00	1	2.70	29.700		59.400	Box
Joen - Deelfontein	6	(5HC)35	11.00	44.011	11.00	1	1.00	19.800		39.600	Box
Joen - Deelfontein	61	05HG036	11.00	44.454	11.00	1	1.80	19.800	19.800	39.600	Box
Joen - Deelfontein	62	03HG039	11.00	45.818	11.00	1	1.30	14.300		28.600	Box
Joen - Deelfontein	63	05HG040	11.00	46.023	11.00	1	1.90	20.900	20.900	41.800	Box
Deelfontein - Plaatfontein	64	05HG041	11.00	46.408	11.00	1	1.90	20.900	20.900	41.800	Box
Deelfontein - Plaatfontein	65	05HG042	11.00	46.813	11.00	1	1.80	19.800		39.600	Box
Deelfontein - Plaatfontein	66	05JG051	11.00	47.438	11.00	1	2.70	29.700		59.400	Box
Deelfontein - Plaatfontein	67	05HG043	11.00	47.904	11.00	1	1.80	19.800	19.800	39.600	Box

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Deelfontein - Plaatfontein	68	05HG044	11.00	48.519	11.00	1	1.80		19.800	19.800	39.600	Box
Deelfontein - Plaatfontein	69	05JG052	11.00	48.892	11.00	1	2.90		31.900	31.900	63.800	Box
Deelfontein - Plaatfontein	70	05HG046	11.00	50.142	11.00	1	1.80		19.800	19.800	39.600	Box
Deelfontein - Plaatfontein	71	05JG053	11.00	50.767	11.00	2	2.70		29.700	29.700	118.800	Box
Deelfontein - Plaatfontein	72	05JG054	11.00	51.190	11.00	3	2.80		30.800	30.800	184.800	Box
Deelfontein - Plaatfontein	73	05JG055	11.00	51.458	11.00	1	2.70		29.700	29.700	59.400	Box
Deelfontein - Plaatfontein	74	05HG047	11.00	51.561	11.00	1	40		15.400	15.400	30.800	Box
Deelfontein - Plaatfontein	75	05HG048	11.00	51.795	11.00		7.60		6.600	6.600	13.200	Box
Deelfontein - Plaatfontein	76	05JG056	11.00	52.319	11.00	~			30.800	30.800	123.200	Box
Deelfontein - Plaatfontein	77	05JG057	11.00	52.763	11.00	1	2.70		29.700	29.700	59.400	Box
Plaatfontein - Sterkaar	78	05HG049	11.00	54.254	11.00	1	1.80		19.800	19.800	39.600	Box
Plaatfontein - Sterkaar	79	05HG050	11.00	54.878	11.00	1	1.75		19.250	19.250	38.500	Box
Plaatfontein - Sterkaar	80	05HG051	11.00	55.623	11.00	1	1.90		20.900	20.900	41.800	Box
Plaatfontein - Sterkaar	81	05JG059	11.00	56.187	11.00	1	2.70		29.700	29.700	59.400	Box
Plaatfontein - Sterkaar	82	05HG052	11.00	57.338	11 70	1	1.80		19.800	19.800	39.600	Box
Plaatfontein - Sterkaar	83	05HG053	11.00	57.849	1.00	1	1.80		19.800	19.800	39.600	Box
Plaatfontein - Sterkaar	84	05JG061	11.00	59.37	11.00	2	2.60		28.600	28.600	114.400	Box
Plaatfontein - Sterkaar	85	05JG062	11.00	60.25	11.00	2	2.70		29.700	29.700	118.800	Box
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Sterkaar - Laken	86	05HG638	11.00	61 123	11.00	1	2.00		22.000	22.000	44.000	Box
Sterkaar - Laken	87	05HG056	11.00	65. 38	11.00	1	1.70		18.700	18.700	37.400	Box
Sterkaar - Laken	88	05HG059	1.00	7.349	11.00	. 1	1.90		20.900	20.900	41.800	Box
Sterkaar - Laken	89	05HG060	11.00	67.712	11.00	1	2.00		22.000	22.000	44.000	Box
Sterkaar - Laken	90	05JG069	11,00	68.316	11.00	2	3.00		33.000	33.000	132.000	Box
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Laken - Merriman	91	05JG071	11.00	70.250	11.00	1	2.70		29.700	29.700	59.400	Box
Laken - Merriman	92	05HG(63	11.00	72.103	11.00	. 1	2.10		23.100	23.100	46.200	Box
Laken - Merriman	93	05JG07	11.00	72.586	11.00	1	2.80		30.800	30.800	61.600	Box
Laken - Merriman	94	€ JG 75	11.00	73.472	11.00	1	3.00		33.000	33.000	66.000	Box
Laken - Merriman		75. 4070	11.00	73.875	11.00	1	3.00		33.000	33.000	66.000	Box
Laken - Merriman	90	05JG 77	11.00	74.319	11.00	1	2.90		31.900	31.900	63.800	Box
Laken - Merriman	97	05JG078	11.00	75.018	11.00	1	3.00		33.000	33.000	66.000	Box
Laken - Merriman	98	03JG079	11.00	75.482	11.00	1	3.00		33.000	33.000	66.000	Box
Laken - Merriman	99	05JG080	11.00	75.923	11.00	2	2.90		31.900	31.900	127.600	Box
Laken - Merriman	100	05JG081	11.00	77.013	11.00	3	4.00		44.000	44.000	264.000	Box
Merriman - Wildebeeste	101	05BG003	11.00	78.230	11.00	4	1.22		13.420	13.420	107.360	Box
Merriman - Wildebeeste		05JG082	11.00	78.582	11.00	3	3.00		33.000	33.000	198.000	Box
Merriman - Wildebeeste		05JG083	11.00	79.083	11.00	3	2.80		30.800	30.800	184.800	Box
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Merriman - Wildebeeste	104	05JG084	11.00	79.909	11.00	1	2.60	- 1	28.600	28.600	57.200	Вох
Merriman - Wildebeeste	105	05HG064	11.00	81.801	11.00	1	2.00		22.000	22.000	44.000	Вох
Merriman - Wildebeeste	106	05JG085	11.00	82.324	11.00	3	3.00	V	33.000	33.000	198.000	Box
Merriman - Wildebeeste	107	05HG065	11.00	83.794	11.00	1	1.80	1	19.800	19.800	39.600	Box
Merriman - Wildebeeste	108	05JG087	11.00	84.998	11.00	2	5.40	V	59.400	59.400	237.600	Box
Merriman - Wildebeeste	109	05BG004	11.00	85.117	11.00	1	5.80	7	63.800	63.800	127.600	Box
Merriman - Wildebeeste	110	05BG005	11.00	85.773	11.00	2	40	• [59.400	59.400	237.600	Box
Merriman - Wildebeeste	111	05BG006	11.00	86.125	11.00	4	3.40	Γ	37.400	37.400	149.600	Box
Merriman - Wildebeeste	112	05HG066	11.00	86.529	11.00		1.80		19.800	19.800	39.600	Box
Merriman - Wildebeeste	113	05HG067	11.00	87.054	11.00	1	1.80		19.800	19.800	39.600	Box
Merriman - Wildebeeste	114	05HG068	11.00	87.737	11.00	1	1.20		13.200	13.200	26.400	Box
Merriman - Wildebeeste	115	05HG069	11.00	88.190	11.00		1.20		13.200	13.200	26.400	Box
Merriman - Wildebeeste	116	05JG088	11.00	88.540	14.00	1	2.70		29.700	29.700	59.400	Box
Merriman - Wildebeeste	117	05HG070	11.00	89.247	11 00	1	1.90	L	20.900	20.900	41.800	Box
Merriman - Wildebeeste	118	05HG071	11.00	89.731	11 00	1	1.90	L	20.900	20.900	41.800	Box
Merriman - Wildebeeste	119	05JG089	11.00	90.396	1. 00	2	3.60	L	39.600	39.600	158.400	Box
Merriman - Wildebeeste	120	05JG090	11.00	91.019	1.00	2	2.60		28.600	28.600	114.400	Box
Merriman - Wildebeeste	121	05JG091	11.00	91.623	11.00	2	2.70	L	29.700	29.700	118.800	Box
Merriman - Wildebeeste	122	05JG092	11.00	92.22	11.00	_2	2.70	L	29.700	29.700	118.800	Box
Merriman - Wildebeeste	123	05HG072	11.00	2.790	11.00	1	1.80	L	19.800	19.800	39.600	Box
Merriman - Wildebeeste	124	05HG073	11.00	9. 352	11.00	1	1.80	L	19.800	19.800	39.600	Box
Merriman - Wildebeeste	125	05HG074	11.00	52 34	11.00	1	1.20	L	13.200	13.200	26.400	Box
Merriman - Wildebeeste	126	05JG093	17.00	94.399	11.00	1	2.80	L	30.800	30.800	61.600	Box
Merriman - Wildebeeste	127	05HG075	11.50	94.802	11.00	1	1.90	L	20.900	20.900	41.800	Box
Merriman - Wildebeeste	128	05JG094	1 00	95.549	11.00	2	2.70	L	29.700	29.700	118.800	Box
Merriman - Wildebeeste	129	05JG095	11.00	96.428	11.00	3	3.00	L	33.000	33.000	198.000	Box
Merriman - Wildebeeste	130	05JG096	\$1.00	96.759	11.00	2	2.90	Ļ	31.900	31.900	127.600	Box_
Merriman - Wildebeeste	131	05JG077	11.00	96.938	11.00	5	3.00	_	33.000	33.000	330.000	Box
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Wildebeeste - Brakpoort	132	PJU 198	11.00	97.516	11.00	1	2.80	L	30.800	30.800	61.600	Box
Wildebeeste - Brakpoort	133	Os Vaura	11.00	97.960	11.00	1	1.90	L	20.900	20.900	41.800	Box
Wildebeeste - Brakpoort	134	(5HC 077	11.00	98.434	11.00	1	1.80	L	19.800	19.800	39.600	Box
Wildebeeste - Brakpoort	35	05HG078	11.00	99.388	11.00	1	1.90	L	20.900	20.900	41.800	Box
Wildebeeste - Brakpoort	136	55JG099	11.00	100.162	11.00	2	2.50	L	27.500	27.500	110.000	Box
Wildebeeste - Brakpoort	137	05HG079	11.00	101.007	11.00	1	1.80	Ĺ	19.800	19.800	39.600	Box
Wildebeeste - Brakpoort	138	05HG080	11.00	101.420	11.00	1	1.80	L	19.800	19.800	39.600	Box
Wildebeeste - Brakpoort	139	05HG081	11.00	101.701	11.00	1	1.80		19.800	19.800	39.600	Box
Wildebeeste - Brakpoort	140	05HG082	11.00	102.173	11.00	1	1.80	L	19.800	19.800	39.600	Box
Wildebeeste - Brakpoort	141	05HG083	11.00	103.422	11.00	1	1.20		13.200	13.200	26.400	Box
Wildebeeste - Brakpoort	142	05JG100	11.00	104.328	11.00	3	3.60	L	39.600	39.600	237.600	Box

Wildebeeste - Brakpoort	143	05JG101	11.00	104.740	11.00	2	2.80	30.800	30.800	123.200	Box
Wildebeeste - Brakpoort	144	05JG102	11.00	105.054	11.00	2		29.700	29.700	118.800	Box
Wildebeeste - Brakpoort	145	05JG103	11.00	105.799	11.00	2	2.70	29.700	29.700	118.800	Box
Wildebeeste - Brakpoort	146	05HG084	11.00	106.706	11.00	1	1.60	17.600	17.600	35.200	Box
Brakpoort - Fortrug	147	05JG104	11.00	107.008	11.00	1	2 90	31.900	31.900	63.800	Box
Brakpoort - Fortrug	148	05HG085	11.00	107.532	11.00		1.50	20.900	20.900	41.800	Box
Brakpoort - Fortrug	149	05HG086	11.00	107.895	11.00		1.80	19.800	19.800	39.600	Box
Brakpoort - Fortrug	150	05HG087	11.00	108.016	11.00	1	1.10	12.100	12.100	24.200	Box
Brakpoort - Fortrug	151	05JG105	11.00	108.852	11.00	2		28.600	28.600	114.400	Box
Brakpoort - Fortrug	152	05JG106	11.00	109.340	11.00	2	2.80	30.800	30.800	123.200	Box
Brakpoort - Fortrug	153	05JG107	11.00	109.859	11.00	2	3.60	39.600	39.600	158.400	Box
Brakpoort - Fortrug	154	05JG108	11.00	110.233	11 00	2		39.600	39.600	158.400	Box
Brakpoort - Fortrug	155	05JG109	11.00	110.417	11.00	2		39.600	39.600	158.400	Box
Brakpoort - Fortrug	156	05HG088	11.00	110.927	1, 90	1	1.80	19.800	19.800	39.600	Box
Brakpoort - Fortrug	157	05JG110	11.00	111.422	1.00	2		39.600	39.600	158.400	Box
Brakpoort - Fortrug	158	05JG111	11.00	111.96	11.00	2		29.700	29.700	118.800	Box
Brakpoort - Fortrug	159	05JG114	11.00	113.3. 2	11.00	3		49.500	49.500	297.000	Box
Brakpoort - Fortrug	160	05JG114	11.00	13.339	11.00	1	5.50	60.500	60.500	121.000	Box
	1		3								
Fortrug - Hutchinson	161	05JG115	11-00	112 997	11.00	2		37.400	37.400	149.600	Box
Fortrug - Hutchinson	162	05JG116	1.00	14.365	11.00	1	3.60	39.600	39.600	79.200	Box
Fortrug - Hutchinson	163	05HG090	11.00	114.625	11.00	1	1.80	19.800	19.800	39.600	Box
Fortrug - Hutchinson	164	05HG091	1,00	114.928	11.00	1	1.20	13.200	13.200	26.400	Вох
Fortrug - Hutchinson	165	05HG092	11.00	115.687	11.00	1	1.20	13.200	13.200	26.400	Box
Fortrug - Hutchinson	166	05HG093	11.00	116.721	11.00	1	1.20	13.200	13.200	26.400	Box
Fortrug - Hutchinson	167	05JG1/19	11.00	117.493	11.00	2		40.700	40.700	162.800	Box
Fortrug - Hutchinson	168	05JG12°	11.00	118.429	11.00	1	3.70	40.700	40.700	81.400	Box
Fortrug - Hutchinson	169	ებენ 121	11.00	119.007	11.00	1	3.70	40.700	40.700	81.400	Box
Fortrug - Hutchinson	170	OS VATEZ	11.00	119.875	11.00	1		40.700	40.700	81.400	Box
Fortrug - Hutchinson	1,1	5JC 23	11.00	120.373	11.00	1	3.60	39.600	39.600	79.200	Box
Fortrug - Hutchinson		05HG094	11.00	120.950	11.00	1	1.00	20.900	20.900	41.800	Box
Fortrug - Hutchinson	173	05JG124	11.00	121.553	11.00	2		40.700	40.700	162.800	Box
Fortrug - Hutchinson	174	05JG125	11.00	122.127	11.00	2		40.700	40.700	162.800	Box
Fortrug - Hutchinson	175	05JG126	11.00	122.529	11.00	2		39.600	39.600	158.400	Box
Fortrug - Hutchinson	176	05HG095	11.00	123.054	11.00		1.20	13.200	13.200	26.400	Box
Fortrug - Hutchinson	177	05JG127	11.00	123.500	11.00	3		40.700	40.700	244.200	Box
Fortrug - Hutchinson	178_		11.00	123.730	11.00	1	0.40	4.400	4.400	8.800	Pipe
Fortrug - Hutchinson	179		11.00	123.959	11.00	1	0.40	4.400	4.400	8.800	Pipe

Fortrug - Hutchinson	180	1	11.00	124.187	11.00	1	0.40	- 1	4.400	4.400	8.800	Pipe
Fortrug - Hutchinson		05JG128	11.00	124.416	11.00	1	2.70		29.700	29.700	59.400	Вох
Fortrug - Hutchinson	182	05JG129	11.00	124.883	11.00	2	3.70	\	40.700	40.700	162.800	Box
Fortrug - Hutchinson	183	05JG130	11.00	125.332	11.00	2	3,60	1	39.600	39.600	158.400	Box
Fortrug - Hutchinson	184	05JG131	11.00	125.734	11.00	2	3.70	V	40.700	40.700	162.800	Box
Fortrug - Hutchinson	185	05JG132	11.00	126.097	11.00	2	3.70		40.700	40.700	162.800	Box
Fortrug - Hutchinson	186	05JG133	11.00	126.350	11.00	2	60	• [39.600	39.600	158.400	Вох
Fortrug - Hutchinson	187	05JG134	11.00	127.105	11.00	•	3.60	ſ	39.600	39.600	79.200	Box
Fortrug - Hutchinson	188		11.00	127.856	11.00		0.20	Γ	2.200	2.200	4.400	Pipe
Fortrug - Hutchinson	189	05HG096	11.00	128.235	11.00	1	1.20		13.200	13.200	26.400	Box
Fortrug - Hutchinson	190	05BG008	11.00	129.138	11.00	1	6.00	Γ	66.000	66.000	132.000	Box
Fortrug - Hutchinson	191	05JG135	11.00	129.731	11.00		2.70	$\Box \Box$	29.700	29.700	59.400	Box
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Hutchinson - Eggoklip	192	05JG136	11.00	130.565	11.00	2	2.10	Т	23.100	23.100	92.400	Box
Hutchinson - Eggoklip	193	05JG137	11.00	130.753	11.00	2	3.00		33.000	33.000	132.000	Box
Hutchinson - Eggoklip	194	05JG138	11.00	131.277	11 90	2	2.80		30.800	30.800	123.200	Box
Hutchinson - Eggoklip	195	05JG139	11.00	131.782	1.00	1	2.70		29.700	29.700	59.400	Box
Hutchinson - Eggoklip	196	05HG097	11.00	132.2 5	11.00	1	1.80		19.800	19.800	39.600	Box
Hutchinson - Eggoklip	197	05HG098	11.00	132.526	11.00	1	1.80		19.800	19.800	39.600	Box
Hutchinson - Eggoklip	198	05JG140	11.00	132.914	11.00	1	2.60		28.600	28.600	57.200	Box
Hutchinson - Eggoklip	199	05JG141	11.00	133.440	11.00	11	2.70		29.700	29.700	59.400	Вох
Hutchinson - Eggoklip	200	05HG099	11.00	152 582	11.00	1	1.10	L	12.100	12.100	24.200	Box
Hutchinson - Eggoklip	201	05JG142			11.00	1	2.60	L	28.600	28.600	57.200	Box
Hutchinson - Eggoklip	202	05HG100	11 00	135.125	11.00	1	1.80	L	19.800	19.800	39.600	Box
Hutchinson - Eggoklip	203	05JG143	1, 00	135.421	11.00	1	2.70	L	29.700	29.700	59.400	Box
Hutchinson - Eggoklip	204	05HG101	1.00	136.074	11.00	1	1.20	L	13.200	13.200	26.400	Box
Hutchinson - Eggoklip	205	05JG144	11.00	136.438	11.00	2	2.70	L	29.700	29.700	118.800	Box
Hutchinson - Eggoklip	206	05JG1,5	11.00	136.505	11.00	1	2.70	L	29.700	29.700	59.400	Box
Hutchinson - Eggoklip	207	05JG1-0	11.00	136.839	11.00	1	2.70	L	29.700	29.700	59.400	Box
Hutchinson - Eggoklip	208	CoJG 47	11.00	137.472	11.00	1	2.70	L	29.700	29.700	59.400	Box
Hutchinson - Eggoklip	209	16 16 140	11.00	137.728	11.00	1	2.80	L	30.800	30.800	61.600	Box
Hutchinson - Eggoklip		(5JC 149	11.00	138.206	11.00	1	2.60	L	28.600	28.600	57.200	Box
Hutchinson - Eggoklip	211	05JG150	11.00	139.441	11.00	3	2.70		29.700	29.700	178.200	Box
Hutchinson - Eggoklip	212	05HG102	11.00	140.198	11.00	1	1.20	L	13.200	13.200	26.400	Box
Hutchinson - Eggoklip	213	05HG103	11.00	140.435	11.00	1	1.20	L	13.200	13.200	26.400	Box
Hutchinson - Eggoklip	214	05HG104	11.00	140.882	11.00	1	1.30	L	14.300	14.300	28.600	Box
Hutchinson - Eggoklip	215	05HG105	11.00	141.381	11.00	1	1.80		19.800	19.800	39.600	Box
Hutchinson - Eggoklip		05HG106	11.00	142.086	11.00	1	1.80	L	19.800	19.800	39.600	Box
Hutchinson - Eggoklip	217	05HG107	11.00	142.494	11.00	1	1.80	Ĺ	19.800	19.800	39.600	Box
Hutchinson - Eggoklip	218	05HG108	11.00	142.509	11.00	1	1.80	L	19.800	19.800	39.600	Box

Hutchinson - Eggoklip	219	05JG151	11.00	142.913	11.00	1	2.70	29.700	29.700	59.400	Box
Hutchinson - Eggoklip	220	05HG109	11.00	143.232	11.00	1	1.60	17.600	17.600	35.200	Box
Hutchinson - Eggoklip	221	05JG152	11.00	143.509	11.00	2		30.800	30.800	123.200	Box
Hutchinson - Eggoklip	222	05HG110	11.00	144.000	11.00	1	1.70	18.700	18.700	37.400	Box
Hutchinson - Eggoklip	223	05JG153	11.00	144.866	11.00	1	2.40	26.400	26.400	52.800	Box
Hutchinson - Eggoklip	224	05JG154	11.00	145.401	11.00	8		39 80C	39 600	533.500	Box
Hutchinson - Eggoklip	225	05HG111	11.00	145.968	11.00	1	30	14.300	14.300	28.600	Box
Hutchinson - Eggoklip	226	05JG155	11.00	146.467	11.00	•	2.60	30.800	30.800	123.200	Box
Hutchinson - Eggoklip	227	05JG156	11.00	146.734	11.00		2.90	31.900	31.900	63.800	Box
Hutchinson - Eggoklip	228	05JG157	11.00	147.166	11.00	3		39.600	39.600	237.600	Box
Hutchinson - Eggoklip	229	05JG158	11.00	148.998	11.00	1		25.300	25.300	50.600	Box
Hutchinson - Eggoklip	230	05JG159	11.00	149.116	11.00		2 = 2	29.700	29.700	118.800	Box
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Eggoklip - Biesiespoort	231	05JG160	11.00	149.432	11 00	2	2.70	29.700	29.700	118.800	Box
Eggoklip - Biesiespoort	232	05JG161	11.00	149.763	11.00	3	2.80	30.800	30.800	184.800	Box
Eggoklip - Biesiespoort	233	05JG162	11.00	149.988	11.00	3	2.80	30.800	30.800	184.800	Box
Eggoklip - Biesiespoort	234	05JG163	11.00	150.153	1.00	4	2.80	30.800	30.800	246.400	Box
Eggoklip - Biesiespoort	235	05JG164	11.00	150.7 4	11.00	2		30.800	30.800	123.200	Box
Eggoklip - Biesiespoort	236	05JG165	11.00	151.4.6	11.00	2	2.70	29.700	29.700	118.800	Box
Eggoklip - Biesiespoort	237	05JG166	11.00	51.742	11.00	3	2.70	29.700	29.700	178.200	Box
Eggoklip - Biesiespoort	238	05JG167	11.00	152.019	11.00	3	2.70	29.700	29.700	178.200	Box
Eggoklip - Biesiespoort	239	05JG168	11.00	153 378	11.00	1	2.70	29.700	29.700	59.400	Box
Eggoklip - Biesiespoort	240	05JG169	11.00		11.00	1	2.70	29.700	29.700	59.400	Box
Eggoklip - Biesiespoort	241	05JG170	11 50	154.290	11.00	1	3.80	41.800	41.800	83.600	Box
Eggoklip - Biesiespoort	242	05JG171	1, 00	154.873	11.00	1	2.70	29.700	29.700	59.400	Box
Biesiespoort - Stapelia	243	05JG172	11.00	155.384	11.00	1		30.800	30.800	61.600	Box
Biesiespoort - Stapelia	244	05JG1/3	11.00	155.536	11.00	1	2.70	29.700	29.700	59.400	Box
Biesiespoort - Stapelia	245	05JG1.	11.00	158.724	11.00	3		35.200	35.200	211.200	Box
Biesiespoort - Stapelia	246	75JG 75	11.00	159.391	11.00	3		30.800	30.800	184.800	Box
Biesiespoort - Stapelia	247	05 170	11.00	160.018	11.00	2		29.700	29.700	118.800	Box
Biesiespoort - Stapelia	243	0 5JC 177	11.00	160.081	11.00	1	2.60	28.600	28.600	57.200	Box
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Stapelie - Hazel	249	1669	11.00	160.282	11.00	2	2.00	22.000	22.000	88.000	Box
Stapelie - Hazel		05JG178	11.00	160.743	11.00	2		33.000	33.000	132.000	Box
Stapelie - Hazel	251	05JG179	11.00	160.804	11.00	1	3.70	40.700	40.700	81.400	Box
Stapelie - Hazel	252	1666	11.00	161.304	11.00	2		6.600	6.600	26.400	Pipe
Stapelie - Hazel	253	05JG180	11.00	161.477	11.00	1	2.70	29.700	29.700	59.400	Box
Stapelie - Hazel	254		11.00	161.762	11.00	2		4.400	4.400	17.600	Pipe
Stapelie - Hazel	255	05JG181	11.00	162.659	11.00	3	2.70	29.700	29.700	178.200	Box

Stapelie - Hazel	256	05JG182	11.00	162.761	11.00	1	2.10	1	23.100	23.100	46.200	Box
Stapelie - Hazel	257	05JG183	11.00	163.112	11.00	1	2.70		29.700	29.700	59.400	Box
Stapelie - Hazel	258	05JG184	11.00	163.909	11.00	1	2.80	/-	30.800	30.800	61.600	Box
Stapelie - Hazel	259	05HG112	11.00	164.480	11.00	1	1.80	-	19.800	19.800	39.600	Box
	260	05JG185	11.00	165.022	11.00	3	2.70	\vdash	29.700	29.700	178.200	Box
Stapelie - Hazel	261	05HG113	11.00	165.640	11.00	1	1.80	—	19.800	19.800	39.600	Box
Stapelie - Hazel		05JG186	11.00	165.937	11.00	- 1	1.80	H	30.800	30.800	61.600	Box
Stapelie - Hazel	263	05JG187	11.00	166.052	11.00		3.60	\vdash	39.600	39.600	158.400	Box
Stapelie - Hazel	264	05JG188	11.00	166.268	11.00		3.10		34.100	34.100	68.200	Box
Stapelie - Hazel			11.00		11.00	2		-	30.800	30.800	123.200	Box
Stapelie - Hazel		05JG189		166.847		1		-		19.800	39.600	Box
Stapelie - Hazel		05HG114	11.00	167.151	11.00			\vdash	19.800			Box
Stapelie - Hazel		05JG190	11.00	167.798	11.00	7	2.80		30.800	30.800	61.600	Box
Stapelie - Hazel		05JG191	11.00	167.996	11.00		2.60	\vdash	28.600	28.600	114.400	
Stapelie - Hazel	269	05HG115	11.00	168.380	11,00	1	1.80	\vdash	19.800	19.800	39.600	Box
Stapelie - Hazel	270	05HG116	11.00	168.696	11.00	1	1.80	_	19.800	19.800	39.600	Box
Stapelie - Hazel	271	05JG192	11.00	168.951	11.00	1	2.70	<u> </u>	29.700	29.700	59.400	Box
Stapelie - Hazel	272	05BG010	11.00	170.026	1.00	2	1.22	_	13.409	13.409	53.636	Box
Stapelie - Hazel	273	05JG193	11.00	170.2	11.00	2	2.70		29.700	29.700	118.800	Box
Stapelie - Hazel	274	05JG194	11.00	170.5	11.00	1	2.80	Ь	30.800	30.800	61.600	Box
Stapelie - Hazel	275	05HG117	11.00	170.998		2	1.80		19.800	19.800	79.200	Box
Stapelie - Hazel	276	05JG195	11.00	171.332	11.00	1	2.80	\perp	30.800	30.800	61.600	Box
Stapelie - Hazel	277	05HG118	11,00	1,74 921	11.00	2	1.50		16.500	16.500	66.000	Box
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Hazel - Three Sisters	278	05JG196	11.00	172.631	11.00	2	2.70		29.700	29.700	118.800	Box
Hazel - Three Sisters	279	05HG119	1,00	172.971	11.00	2	1.70		18.700	18.700	74.800	Box
Hazel - Three Sisters	280	05JG197	11.00	173.997	11.00	2	2.80	L	30.800	30.800	123.200	Box
Hazel - Three Sisters	281	05JG198	11.00	174.865	11.00	1	2.70		29.700	29.700	59.400	Box
Hazel - Three Sisters	282	05JG1/9	11.00	175.113	11.00	1	2.70		29.700	29.700	59.400	Box
Hazel - Three Sisters	283	05JG2\°	11.00	175.367	11.00	2	2.80		30.800	30.800	123.200	Box
Hazel - Three Sisters	284	PSJG 101	11.00	176.578	11.00	1	2.60		28.600	28.600	57.200	Box
Hazel - Three Sisters	285	No TO LUL	11.00	177.244	11.00	1	2.70		29.700	29.700	59.400	Box
Hazel - Three Sisters	285	05JC 203	11.00	177.643	11.00	1	3.60		39.600	39.600	79.200	Box
Hazel - Three Sisters		05JG204	11.00	178.098	11.00	1	2.70		29.700	29.700	59.400	Box
Hazel - Three Sisters	288	05HG120	11.00	179.002	11.00	1	1.90		20.900	20.900	41.800	Box
Hazel - Three Sisters	289	05HG121	11.00	179.243	11.00	1	1.90		20.900	20.900	41.800	Box
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Three Sisters - Travalia	290	05JG205	11.00	179.879	11.00	2	2.70		29.700	29.700	118.800	Box
Three Sisters - Travalia	291	05JG206	11.00	182.286	11.00	2	5.60		61.600	61.600	246.400	Box
Three Sisters - Travalia	292	05JG207	11.00	182.542	11.00	2	5.70		62.700	62.700	250.800	Box
Three Sisters - Travalia	293	05JG208	11.00	183.124	11.00	1	2.80		30.800	30.800	61.600	Box

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Three Sisters - Travalia	294	05JG209	11.00	183.320	11.00	1	2.80		30.800	30.800	61.600	Box
Three Sisters - Travalia	295	05JG210	11.00	183.799	11.00	1	2.70	4	29.700	29.700	59.400	Box
Three Sisters - Travalia	296	05JG211	11.00	184.402	11.00	1	2.80	N	30.800	30.800	61.600	Box
Three Sisters - Travalia	297	05JG212	11.00	185.026	11.00	1	2.80		30.800	30.800	61.600	Box
Three Sisters - Travalia	298	05JG213	11.00	185.627	11.00	1	2.80		30.800	30.800	61.600	Box
Three Sisters - Travalia	299	05JG214	11.00	186.096	11.00	1	2.70		29.700	29.700	59.400	Box
Travelia - Kromrivier	300	05JG215	11.00	186.576	11.00		3.00		33.000	33.000	132.000	Box
Travelia - Kromrivier	301	05JG216	11.00	186.794	11.00		3.00		33.000	33.000	132.000	Box
Travelia - Kromrivier	302	05JG217	11.00	187.260	11.00	2			29.700	29.700	118.800	Box
Travelia - Kromrivier	303	05JG218	11.00	187.915	11.00	3	3.00		33.000	33.000	198.000	Вох
Travelia - Kromrivier	304	05HG122	11.00	188.359	11.00	1	1.80		19.800	19.800	39.600	Box
Travelia - Kromrivier	305	05HG123	11.00	188.753	11.00	1	1.80		19.800	19.800	39.600	Box
Travelia - Kromrivier	306	05HG124	11.00	189.447	11.70	1	1.80		19.800	19.800	39.600	Вох
Travelia - Kromrivier	307	05HG125	11.00	189.720	11 00	1	1.80		19.800	19.800	39.600	Box
Travelia - Kromrivier	308	05JG219	11.00	190.340	11 70	1	2.60		28.600	28.600	57.200	Box
Travelia - Kromrivier	309	05JG220	11.00	190.941	1.00	2	2.70		29.700	29.700	118.800	Box
Travelia - Kromrivier	310	05JG221	11.00	191.374	11.00	2	2.60		28.600	28.600	114.400	Box
Travelia - Kromrivier	311	05JG222	11.00	191.9-3	11.00	2	2.70		29.700	29.700	118.800	Box
Travelia - Kromrivier	312	05JG223	11.00	192.941	11.00	1	2.60		28.600	28.600	57.200	Box
Kromrivier - Ganna	313	05JG224	11.00	195 127	11.00	2	3.50		38.500	38.500	154.000	Box
Kromrivier - Ganna	314	05JG225	1.00	95.151	11.00	1	3.50		38.500	38.500	77.000	Box
Kromrivier - Ganna	315	05JG226	11 0	195.261	11.00	1	2.60		28.600	28.600	57.200	Box
Kromrivier - Ganna	316	05JG227	11 90	195.372	11.00	1	2.60		28.600	28.600	57.200	Box
Kromrivier - Ganna	317	05HG127	11.00	195.993	11.00	1	1.90		20.900	20.900	41.800	Box
Kromrivier - Ganna		05JG228	11.00	196.681	11.00	1	2.60		28.600	28.600	57.200	Box
Kromrivier - Ganna		05JG229	11.00	196.854	11.00	4	2.60		28.600	28.600	228.800	Box
Kromrivier - Ganna	320	05JG23°	11.00	197.083	11.00	1	2.70		29.700	29.700	59.400	Box
Kromrivier - Ganna	321	ഗHU 128	11.00	197.269	11.00	2	2.70		29.700	29.700	118.800	Box
Kromrivier - Ganna	322	10 V/201	11.00	197.633	11.00	1	2.70		29.700	29.700	59.400	Box
Kromrivier - Ganna	32	05JG332	11.00	198.173	11.00	1	2.70		29.700	29.700	59.400	Box
Kromrivier - Ganna		05JG233	11.00	199.275	11.00	2	2.70		29.700	29.700	118.800	Box
Kromrivier - Ganna	325	05JG234	11.00	199.749	11.00	2	2.70		29.700	29.700	118.800	Box
Kromrivier - Ganna	326	05HG129	11.00	199.939	11.00	1	1.90		20.900	20.900	41.800	Box
Kromrivier - Ganna	327	05JG235	11.00	200.754	11.00	1	2.70		29.700	29.700	59.400	Box
Ganna - Nelspoort	328	05HG130	11.00	201.440	11.00	1	1.80	T	19.800	19.800	39.600	Box
Ganna - Nelspoort	329		11.00	202.026	11.00	5		Ī	83.820	83.820	838.200	Box
Ganna - Nelspoort		05HG131	11.00		11.00	1	-	ı	18.700	18.700	37.400	Box
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Ganna - Nelspoort	331	05JG236	11.00	203.262	11.00	1	2.60	28.600	28.600	57.200	Вох
		05JG237	11.00	203.202	11.00	1	2.60	28.600	28.600	57.200	Box
Ganna - Nelspoort		05JG237	11.00	204.049	11.00	1	2.70	29.700	29.700	59.400	Box
Ganna - Nelspoort	334		11.00	204.332	11.00	3		30.800	30.800	184.800	Box
Ganna - Nelspoort		05JG239			11.00			3.300	3.300	6.600	Pipe
Ganna - Nelspoort	335	05110400	11.00	204.890			0.30		20.900	41.800	Box
Ganna - Nelspoort		05HG132	11.00	205.116	11.00		1.90	20.900			Box
Ganna - Nelspoort		05JG240	11.00	205.284	11.00		70	51.700	51.700	103.400	
Ganna - Nelspoort		05HG133	11.00	205.424	11.00		1.50	20.900	20.900	41.800	Box
Ganna - Nelspoort		05JG241	11.00	205.619	11.00		2.90	31.900	31.900	63.800	Box
Ganna - Nelspoort	340	05HG134	11.00	205.913	11.00			18.700	18.700	37.400	Box
Ganna - Nelspoort	341	05JG242	11.00	206.245	11.00			29.700	29.700	59.400	Box
Ganna - Nelspoort	342	05JG243	11.00	206.522	11.00		2.70	29.700	29.700	59.400	Box
Ganna - Nelspoort	343		11.00	207.024	11.00			110.000	110.000	440.000	Box
Ganna - Nelspoort	344	05HG135	11.00	207.592	1100	1	1.20	13.200	13.200	26.400	Box
Ganna - Nelspoort	345	05JG245	11.00	207.986	11 00	1	3.60	39.600	39.600	79.200	Box
Nelspoort - Juk	346	05HG136	11.00	208.489	1.00		1.80	19.800	19.800	39.600	Box
Nelspoort - Juk	347	05JG246	11.00	209.0	11.00			26.400	26.400	105.600	Box
Nelspoort - Juk	348	05JG247	11.00	209.5	11.00			28.600	28.600	114.400	Box
Nelspoort - Juk	349	05HG137	11.00	210.147	11.00	1	1.50	16.500	16.500	33.000	Box
Nelspoort - Juk	350	05JG248	11.00	211.389	11.00			28.600	28.600	114.400	Box
Nelspoort - Juk	351	05JG249	11.00	211102	11.00		2.90	31.900	31.900	63.800	Box
Nelspoort - Juk	352	05JG250	1.00	11.132	11.00		2.80	30.800	30.800	61.600	Box
Nelspoort - Juk	353	05JG251	11.0	211.582	11.00		2.70	29.700	29.700	59.400	Box
Nelspoort - Juk	354	05JG252	1, 90	212.692	11.00	1	2.90	31.900	31.900	63.800	Box
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Juk - Riem	355	05HG138	11.00	213.995	11.00	2	2.70	29.700	29.700	118.800	Box
Juk - Riem		05JG233	11.00	214.182	11.00	2	3.60	39.600	39.600	158.400	Box
Juk - Riem		05JG25*	11.00	214.431	11.00	2	3.70	40.700	40.700	162.800	Box
Juk - Riem	358	0 JG 155	11.00	215.074	11.00			29.700	29.700	118.800	Box
Juk - Riem	359	105 70 200	11.00	215.192	11.00			30.800	30.800	123.200	Box
Juk - Riem	361	05/0230 05/0357	11.00	215.943	11.00	2		39.600	39.600	158.400	Box
Juk - Riem	531	05JG258	11.00	216.413	11.00	1	2.80	30.800	30.800	61.600	Box
Juk - Riem		03JG259	11.00	216.501	11.00	1	3.00	33.000	33.000	66.000	Box
Juk - Riem	363		11.00	216.717	11.00	4		64.900	64.900	519.200	Вох
Juk - Riem	364		11.00	217.007	11.00		1.80	19.800	19.800	39.600	Box
Juk - Riem	365		11.00	217.081	11.00		1.90	20.900	20.900	41.800	Box
Juk - Riem	366		11.00	217.210	11.00		1.80	19.800	19.800	39.600	Box
Juk - Riem		05HG142	11.00	217.812	11.00	1	1.90	20.900	20.900	41.800	Box
Out Mon	- 307	00010172	11.00	217.012	11.50	<u> </u>	1.00		_3.000		
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Riem - Ysterrante	368	T	11.00	218.272	11.00	1	0.40	ı	4.400	4.400	8.800	Pipe
Riem - Ysterrante		05HG143	11.00	218.386	11.00	2	1.90		20.900	20.900	83.600	Box
Riem - Ysterrante		05HG144	11.00	219.424	11.00	2	1.80	1	19.800	19.800	79.200	Box
Riem - Ysterrante		05JG260	11.00	219.840	11.00		3.50	\	38.500	38.500	154.000	Box
Riem - Ysterrante		05JG261	11.00	220.031	11.00	1	3.00	\ -	33.000	33.000	66.000	Box
Riem - Ysterrante		05HG145	11.00	220.181	11.00	1	1.80	*	19.800	19.800	39.600	Box
Riem - Ysterrante		05JG262	11.00	220.450	11.00	1	00)	33.000	33.000	66.000	Box
Riem - Ysterrante		05HG146	11.00	220.676	11.00	4	2.60		22.000	22.000	44.000	Box
Riem - Ysterrante		05JG263	11.00	220.910	11.00		3.00		33.000	33.000	66.000	Box
Riem - Ysterrante	377	05HG147	11.00	221.196	11.00	1		ı	19.800	19.800	39.600	Box
Riem - Ysterrante	378	05HG148	11.00	221.601	11.00			┢	20.900	20.900	83.600	Box
Riem - Ysterrante		05JG264	11.00	222.034	11.00		3.60	r	39.600	39.600	79.200	Box
Riem - Ysterrante	380	05HG149	11.00	222.507	11,00	1	2.00		22.000	22.000	44.000	Box
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Yaterrante - Renosterkop	381	05HG150	11.00	222.813	11.00	1	1.20		13.200	13.200	26.400	Box
Yaterrante - Renosterkop	382	05JG265	11.00	223.061	11 90	1	3.70	Γ	40.700	40.700	81.400	Box
Yaterrante - Renosterkop	383	05HG151	11.00	223.283	1.00	1	1.00	Γ	11.000	11.000	22.000	Box
Yaterrante - Renosterkop		05JG266	11.00	223.4 5	11.00	1	2.50	Γ	27.500	27.500	55.000	Box
Yaterrante - Renosterkop	385	05HG152	11.00	223.5.2	11.00	1	1.10		12.100	12.100	24.200	Box
Yaterrante - Renosterkop	386	05HG153	11.00	223.978	11.00	1	1.80		19.800	19.800	39.600	Box
Yaterrante - Renosterkop	387	05JG267	11.00	221.240	11.00	1	3.60		39.600	39.600	79.200	Box
Yaterrante - Renosterkop	388	05HG154	11.00	22 \ 529	11.00	1	1.20		13.200	13.200	26.400	Box
Yaterrante - Renosterkop	389	05HG155		. 24.927	11.00	1	1.20		13.200	13.200	26.400	Box
Yaterrante - Renosterkop	390	05JG268	11.00	225.347	11.00	3	3.90		42.900	42.900	257.400	Box
Yaterrante - Renosterkop	391	05JG269	1, 00	225.836	11.00	1	2.70		29.700	29.700	59.400	Box
Yaterrante - Renosterkop		05JG270	11.00	226.107	11.00	4	2.70		29.700	29.700	237.600	Box _
Yaterrante - Renosterkop	393	05JG271	1.00	226.829	11.00	3	2.70	L	29.700	29.700	178.200	Box
Yaterrante - Renosterkop		05JG272	11.00	227.341	11.00	6	3.50	L	38.500	38.500	462.000	Box
Yaterrante - Renosterkop	395	05HG177	11.00	227.495	11.00	1	1.80		19.800	19.800	39.600	Box
Renosterkop - Lemoen	396	95. 12101	11.00	228.193	11.00	2	2.50		27.500	27.500	110.000	Box
Renosterkop - Lemoen	357	65JG373	11.00	229.636	11.00	2	2.80	Ĺ	30.800	30.800	123.200	Box
Renosterkop - Lemoen	J38	05JG274	11.00	231.367	11.00	4	2.40		26.400	26.400	211.200	Вох
Renosterkop - Lemoen		03HG158	11.00	233.416	11.00	1	1.80	L	19.800	19.800	39.600	Box
Renosterkop - Lemoen		05BG016	11.00	235.490	11.00	4	6.09		66.990	66.990	535.920	Box
Renosterkop - Lemoen		05JG275	11.00	235.817	11.00		2.70	L	29.700	29.700	59.400	Box
Renosterkop - Lemoen		05JG276	11.00	237.446	11.00	4	2.60	L	28.600	28.600	228.800	Box
Renosterkop - Lemoen		05JG277	11.00	237.824	11.00	3	5.50		60.500	60.500	363.000	Box
Renosterkop - Lemoen	404	05JG278	11.00	238.183	11.00	5	3.20		35.200	35.200	352.000	Box

Emmon - Beaufort West													
Lemoen - Beaufort West	Lemoen - Beaufort West	405	05JG279	11.00	239.593	11.00	2	3.60		39.600	39.600	158.400	Box
Lemoen - Beaufort West 408 05,10280 11.00 244.803 11.00 1 2.70 29.700 29.700 59.400 80x Lemoen - Beaufort West 409 05,10282 11.00 246.253 11.00 1 3.55 36.00 39.600 79.200 80x Lemoen - Beaufort West 409 05,10282 11.00 247.732 11.00 2 2.80 36.00 39.600 179.200 80x Lemoen - Beaufort West 409 05,10283 11.00 248.309 11.00 2 6.60 28.600 114.400 80x Lemoen - Beaufort West 410 058,003 11.00 249.804 11.00 1 6.60 38.00 38.800 127.800 80x Lemoen - Beaufort West 410 058,003 11.00 250.288 11.00 3.800 39.600 79.200 80x Lemoen - Beaufort West 411 05,10285 11.00 251.037 11.00 1 2.70 29.700 29.700 59.400 80x Lemoen - Beaufort West 411 05,10285 11.00 251.037 11.00 1 1.80 18.800 19.800 39.600 80x Lemoen - Beaufort West 411 05,10285 11.00 254.263 11.00 2 5.90 64.900 29.700 59.400 80x Lemoen - Beaufort West 411 05,10285 11.00 254.263 11.00 1 1.80 18.800 19.800 39.600 80x Lemoen - Beaufort West 412 0586079 11.00 254.438 11.00 2 5.90 64.900 64.900 259.800 80x Lemoen - Beaufort West 413 0586021 11.00 254.438 11.00 1 5.80 63.800 64.900 259.800 80x Lemoen - Beaufort West 413 0586021 11.00 254.560 7.00 1 5.80 63.800 68.000 66.000 224.000 80x Lemoen - Beaufort West 413 0586022 11.00 254.594 10.00 1 5.80 63.800 63.800 127.600 80x Lemoen - Beaufort West 413 0586022 11.00 254.594 10.00 1 5.80 63.800 63.800 127.600 80x Lemoen - Beaufort West 414 0586023 11.00 255.944 10.00 1 5.80 63.800 63.800 127.600 80x Lemoen - Beaufort West 414 0586023 11.00 256.594 10.00 1 5.80 63.800 63.800 127.600 80x Lemoen - Beaufort West 414 0586023 11.00 256.679 11.00 1 2.80 66.000 66.000 66.000 66.000 80x Lemoen - Beaufort West 414 05.10286 11.00 256.679 11.00 1 2.60 26.600 66.000 66.000 66.000 80x Lemoen - Beaufort West 414 05.10286 11.00 256.679 11.00 1 2.60 26.600 28.600 57.200 80x 127.600		406	05BG017	11.00	241.260	11.00	1	6.00	1	66.000	66.000	132.000	Box
Lemoen - Beaufort West	Lemoen - Beaufort West	407	05HG159	11.00	243.903	11.00	1		V	12.100	12.100	24.200	Box
Lemoen - Beaufort West	Lemoen - Beaufort West	408	05JG280	11.00	244.803	11.00	1	2,70	١Т	29.700	29.700	59.400	Box
Lemoen - Beaufort West	Lemoen - Beaufort West	408	05JG281	11.00	246.253	11.00	1		V	39.600	39.600	79.200	Box
Lemoen - Beaufort West	Lemoen - Beaufort West	409	05JG282	11.00	247.732	11.00	2		1	30.800	30.800	123.200	Box
Lemoen - Beaufort West	Lemoen - Beaufort West	409	05JG283	11.00	248.309		2						
Lemoen - Beaufort West	Lemoen - Beaufort West	410	05BG018	11.00	249.864								
Lemoen - Beaufort West	Lemoen - Beaufort West			11.00				3.60	L				
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Lemoen - Beaufort West 415 05JG287 11.00 257.56 11.00 1 2.60 28.600 28.600 57.200 Box 47.300 47.300 94.600 Box 47.300 94.600 Box 47.300 47.300 94.600 Box 47.300 Pox 47.300 Po						1,00			L				
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Britsville - Die Put Die Put - Oloff Oloff - Joen Joen - Deelfontein Deelfontein - Plaatfontein Plaatfontein - Sterkaar Sterkaar - Laken Laken - Merriman Merriman - Wildebeeste Wildebeeste - Brakpoort Brakpoort - Fortrug Fortrug - Hutchinson Hutchinson - Eggoklip Eggoklip - Biesiespoort Biesiespoort - Stapelia Stapelie - Hazel													
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Laken - Merriman Merriman - Wildebeeste Wildebeeste - Brakpoort Brakpoort - Fortrug Fortrug - Hutchinson Hutchinson - Eggoklip Eggoklip - Biesiespoort Biesiespoort - Stapelia Stapelie - Hazel									 				
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Biesiespoort - Stapelia Stapelie - Hazel													
Stapelie - Hazel													
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mazei - i nree Sisters	Hazel - Three Sisters		<u> </u>	I									

Three Sisters - Travalia	
Travelia - Kromrivier	
Kromrivier - Ganna	
Ganna - Nelspoort	
Nelspoort - Juk	
Juk - Riem	
Riem - Ysterrante	
Yaterrante - Renosterkop	
Renosterkop - Lemoen	
Lemoen - Beaufort West	

Total Area = $\frac{41190.116}{m^2}$ m² = $\frac{0.041190 \text{ km}^2}{m^2}$