

Integral Laboratories (Pty) Ltd, No. 1 Zandwyk Park, Old Paarl Road (R101), Paarl, 7646

T0417

Tel: 021 871 1109

Fax: 086 635 8874

CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela WTW Raw
Lab Number	S52688

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	15.20	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	7.19	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	12.00	2013/05/27 04:40:29PM
Conductivity	*M4 - Electrical Conductivity	mS/m	5.72	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.25	2013/05/29 03:19:18PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	7.21	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	23.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	4.24	2013/05/27 12:53:08PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	Not Done	2013/05/29 01:29:31PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	Not Done	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	Not Done	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela WTW Final
Lab Number	S52689

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	14.20	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	18.60	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	1.00	2013/05/27 04:40:29PM
Conductivity	*M4 - Electrical Conductivity	mS/m	7.54	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.27	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.80	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	0.40	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	31.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	5.40	2013/05/27 12:53:08PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:29:31PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	No Growth	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Town Clinic
Lab Number	S52690

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	54.60	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	41.20	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	25.70	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	16.30	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.81	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.10	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	0.10	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	105.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	2.15	2013/05/27 12:53:08PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:29:31PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	7.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Township Clinic
Lab Number	S52691

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	51.40	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	41.90	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	2.00	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	25.60	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	0.14	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	15.10	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.99	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.05	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	<0.1	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	104.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	3.42	2013/05/27 12:53:08PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:29:31PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	No Growth	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela House 1316
Lab Number	S52692

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	85.80	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	59.40	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	40.10	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	26.30	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	15.00	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	1.45	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.02	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	0.10	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	162.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	0.97	2013/05/27 12:53:08PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	7.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Jinah Park
Lab Number	S52693

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	55.60	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	37.70	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	25.40	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	0.17	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	13.90	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.77	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.15	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	0.10	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	103.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	4.16	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	14.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Radium Reservoir
Lab Number	S52694

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	181.00	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	322.00	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	97.30	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	68.50	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	19.00	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	13.10	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	7.21	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	<0.1	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	613.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	9.79	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	29.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	6.00	2013/05/29 01:33:10PM

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Radium Clinic
Lab Number	S52695

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	144.00	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	294.00	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	5.00	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	94.40	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	67.20	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	20.00	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	11.50	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	7.12	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	<0.1	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	822.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	21.90	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	139.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	205.00	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Pienaar Clinic
Lab Number	S52696

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	50.20	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	44.90	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	27.40	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	0.14	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	10.20	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	1.19	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	8.14	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	0.20	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	109.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	2.42	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	No Growth	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Rapotokwana BH
Lab Number	S52697

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	141.00	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	105.00	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	49.80	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	3.65	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	42.20	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	15.00	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.81	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	7.80	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	360.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	5.28	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	169.00	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	201.00	2013/05/29 01:33:10PM

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Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela WTW BH
Lab Number	S52698

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Alkalinity - Total	*M7 - Total Alkalinity	mg/L as CaCO ₃	52.20	2013/05/24 11:49:33AM
Calcium Hardness	NSA	mg/L as CaCO ₃	42.70	2013/05/28 10:45:23AM
Colour	Spectroquant Pharo	Pt-Co-true	<1	2013/05/27 04:40:30PM
Conductivity	*M4 - Electrical Conductivity	mS/m	26.20	2013/05/27 08:45:30AM
Fluoride	Merck Test Kit	mg/L	<0.10	2013/05/27 08:32:11AM
Iron	ICP-AES (dissolved - value)	µg/L	10.00	2013/05/28 10:41:13AM
Manganese	ICP-AES (dissolved - value)	µg/L	<10	2013/05/28 08:22:49AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.66	2013/05/29 03:20:31PM
Odour	NSA		No Odour	2013/05/27 12:55:53PM
pH	*M6 - pH at 25°C	pH units	7.72	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Dissolved Solids	NSA	mg/L	106.00	2013/05/27 10:42:57AM
Turbidity	HACH Turbidity Meter	NTU	2.32	2013/05/27 12:54:21PM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:30:43PM
Heterotrophic Plate Count	Mpumamanzi Lab	cfu's/1ml	No Growth	2013/05/29 01:25:27PM
Total Coliforms	Mpumamanzi Lab	cfu's/100ml	No Growth	2013/05/29 01:33:10PM

Integral Laboratories (Pty) Ltd, No. 1 Zandwyk Park, Old Paarl Road (R101), Paarl, 7646

Tel: 021 871 1109

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela WTTW Raw Sewage
Lab Number	S52699

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Ammonia (NH ₄ -N)	*M1 - Ammonia	mg/L	64.20	2013/05/29 03:31:48PM
COD - Unfiltered	*M2 - COD	mg/L	811.00	2013/05/24 11:53:04AM
Conductivity	*M4 - Electrical Conductivity	mS/m	123.00	2013/05/27 08:45:30AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	1.72	2013/05/29 03:20:31PM
Orthophosphate (PO ₄)	Merck Test Kit	mg/L	43.30	2013/05/27 03:02:10PM
pH	*M6 - pH at 25°C	pH units	7.50	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Suspended Solids	*M8 - Suspended Solids	mg/L	300.00	2013/05/27 08:23:29AM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	Not Done	2013/05/29 01:30:43PM

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Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela WTTW Final Sewage
Lab Number	S52700

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Ammonia (NH ₄ -N)	*M1 - Ammonia	mg/L	7.39	2013/05/29 03:31:48PM
COD - Unfiltered	*M2 - COD	mg/L	57.00	2013/05/24 11:53:04AM
Conductivity	*M4 - Electrical Conductivity	mS/m	74.10	2013/05/27 08:45:30AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	14.60	2013/05/29 03:20:31PM
Orthophosphate (PO ₄)	Merck Test Kit	mg/L	24.40	2013/05/27 03:02:10PM
pH	*M6 - pH at 25°C	pH units	6.88	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Suspended Solids	*M8 - Suspended Solids	mg/L	12.00	2013/05/27 08:23:29AM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	2 420.00	2013/05/29 01:30:43PM

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Pienaar Raw Sewage
Lab Number	S52701

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Ammonia (NH ₄ -N)	*M1 - Ammonia	mg/L	28.10	2013/05/29 03:31:48PM
COD - Unfiltered	*M2 - COD	mg/L	426.00	2013/05/24 11:53:04AM
Conductivity	*M4 - Electrical Conductivity	mS/m	96.70	2013/05/27 08:45:30AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	0.66	2013/05/29 03:20:31PM
Orthophosphate (PO ₄)	Merck Test Kit	mg/L	29.40	2013/05/27 03:02:10PM
pH	*M6 - pH at 25°C	pH units	7.56	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Suspended Solids	*M8 - Suspended Solids	mg/L	244.00	2013/05/27 08:23:29AM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	Not Done	2013/05/29 01:30:43PM

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Radium Raw Sewage
Lab Number	S52702

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Ammonia (NH ₄ -N)	*M1 - Ammonia	mg/L	314.00	2013/05/29 03:31:48PM
COD - Unfiltered	*M2 - COD	mg/L	1 966.00	2013/05/24 11:53:04AM
Conductivity	*M4 - Electrical Conductivity	mS/m	480.00	2013/05/27 08:45:30AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	2.06	2013/05/29 03:20:31PM
Orthophosphate (PO ₄)	Merck Test Kit	mg/L	64.90	2013/05/27 03:02:10PM
pH	*M6 - pH at 25°C	pH units	7.86	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Suspended Solids	*M8 - Suspended Solids	mg/L	552.00	2013/05/27 08:23:29AM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	Not Done	2013/05/29 01:30:43PM

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Sample Description	Bela Bela Radium Final Sewage
Lab Number	S52703

Parameters	Method	Unit	Results	Date
Chemical Parameters				
Ammonia (NH ₄ -N)	*M1 - Ammonia	mg/L	18.20	2013/05/29 03:31:48PM
COD - Unfiltered	*M2 - COD	mg/L	43.00	2013/05/24 11:53:04AM
Conductivity	*M4 - Electrical Conductivity	mS/m	127.00	2013/05/27 08:45:30AM
Nitrate (NO ₃ -N)	*M5 - Nitrate	mg/L	1.78	2013/05/29 03:20:31PM
Orthophosphate (PO ₄)	Merck Test Kit	mg/L	11.90	2013/05/27 03:02:10PM
pH	*M6 - pH at 25°C	pH units	7.74	2013/05/24 11:51:21AM
Residual chlorine	Mpumamanzi Lab	mg/L	Not Done	2013/05/29 11:59:29AM
Total Suspended Solids	*M8 - Suspended Solids	mg/L	178.00	2013/05/27 08:23:29AM
Microbiological Parameters				
E. Coli	Mpumamanzi Lab	cfu's/100ml	2 420.00	2013/05/29 01:30:43PM

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CERTIFICATE OF ANALYSIS

Company	Bela Bela Municipality	Service Request Number	SR22161
Customer Address	Private Bag X 1609, Bela Bela, Limpopo, Bela Bela, Limpopo, South Africa, 0480	Date of Certificate:	29/5/2013
Contact Person	Archie Magana		
Date of Sampling	21/5/2013		
Date of Reveal at Lab	23/5/2013		

Authorised By:



N Africa



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(Signature/s authorised signatories)

All results have been reviewed and authorised by a technical signatory

1. Sampling is outside the laboratory's scope of accreditation, where applicable free and total chlorine results are supplied by the sampling officer.
2. This report shall not be reproduced except in full, without written approval from the laboratory.
3. Results reflected on this report relate only to the items as received and analysed.
4. Uncertainty of measurement for accredited analysis will be provided on request
5. Reports can be emailed, but the laboratory will not be responsible for changes to emailed reports.
6. Parameters indicated by an * are accredited.
7. Parameters indicated by ** are outsourced.
8. ICP results reported as 'Dissolved' - sample has been filtered using a 0.45 µm filter.
9. The following abbreviations are applicable:
 - NS - Not Settling
 - ND -Not Detected
 - NG - No Growth
10. Where applicable, limits reflected are based on SANS 241-2011 and General Effluent Standards.
11. Time stamps reflect time of analysis completion and final capturing of analytical results.

Certificate Number: SR22161

Ammended: Y/N