

A.L. ABBOTT AND ASSOCIATES (PTY) LTD

(Reg. No. 1982/004379/07)

Consulting Analytical & Industrial Chemists
Specialists in Water & Waste Water Treatment
Telephone (021)448 6340/1
After Hours (021)712 0940
Telefax (021)448 6342
e-Mail Address :
info@alabbott.co.za



Doc.No. 5.10/1 Rev.3

No. 1, Vine Park
Vine Road
7925
P.O. Box 483
WOODSTOCK, CAPE
7915

Certificate of Analysis

KLK LANDBOU LIMITED

ANALYSIS

WATER SAMPLE

DATE SAMPLED : 2017/09/04
DATE RECEIVED : 2017/09/04
DATE ANALYSIS
COMMENCED : 2017/09/04

OUR REF. : 2017/09/04/20275
REPORT NO. : 4109

	Sample Number	20275	
Mthd ALA No.	Analyses	Results	General Limit (Full)
19	pH (at 25 °C)	6.61	5.5-9.5
9	Conductivity (mS/m) (at 25 °C)	495	70.0 Above Intake - 150 Max
2	Chemical Oxygen Demand (mg/l)	4645	75.0 After Removal of Algae
2	Chemical Oxygen Demand (Filtered) (mg/l)	4365	75.0
95	Ammonia Nitrogen (mg/l as N)	165	6.0
100	Nitrate & Nitrite Nitrogen (mg/l as N)	<0.20	15.0
Calc	Nitrate Nitrogen (mg/l as N)	<0.20	N/A
99	Nitrite Nitrogen (mg/l as N)	<0.20	15.0 (sum of NO2 & NO3-N)
6A	Total Suspended Solids (mg/l)	640	25
101	Ortho Phosphate (mg/l as P)	4.4	10.0
18	Oil & Grease (mg/l)	40.0	2.5

Sampler : Unknown

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OUR REF. : 2017/09/04/20275
REPORT NO. : 4109



JOSE DA SILVA (Cert.Sci.Nat.)
TECHNICAL MANAGER
13 September 2017

TO: KLK Landbou Limited
Calvinia Ramskop Abattoir
Posbus 74
Calvinia
8190

Att: Jolandi Visagie <jolandi@klk.co.za>

Sampler: Unknown

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Doc.No. 5.10/1 Rev.4

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KLK LANDBOU LIMITED

ANALYSIS

WATER SAMPLE

DATE SAMPLED : 2018/02/02

DATE RECEIVED : 2018/02/02

DATE ANALYSIS

COMMENCED : 2018/02/02

OUR REF. : 2018/02/02/3527

REPORT NO. : 901

	Sample Number	3527	
Mthd ALA No.	Analyses	Results	General Limit (Full)
19	pH (at 25 °C)	6.82	5.5-9.5
9	Conductivity (mS/m) (at 25 °C)	510	70.0 Above Intake - 150 Max
2	Chemical Oxygen Demand (mg/l)	2521	75.0 After Removal of Algae
2	Chemical Oxygen Demand (Filtered) (mg/l)	1474	75.0
95	Ammonia Nitrogen (mg/l as N)	157	6.0
100	Nitrate & Nitrite Nitrogen (mg/l as N)	0.40	15.0
Calc	Nitrate Nitrogen (mg/l as N)	<0.20	N/A
99	Nitrite Nitrogen (mg/l as N)	<0.20	15.0 (sum of NO2 & NO3-N)
6A	Total Suspended Solids (mg/l)	775	25
101	Ortho Phosphate (mg/l as P)	19.7	10.0
18	Oil & Grease (mg/l)	88.0	2.5

JOSE DA SILVA (Cert.Sci.Nat.)
TECHNICAL MANAGER
15 February 2018

Att: MARYKE@KLK.CO.ZA COIS@KLK.CO.ZA

Sampler : Unknown

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ANALYSIS

RAMSKOP ABATTOIR

DATE SAMPLED : 2018/04/24

DATE RECEIVED : 2018/04/24

DATE ANALYSIS

COMMENCED : 2018/04/24

OUR REF. : 2018/04/24/12016

REPORT NO. : 2960

	Sample Number	12016	
Mthd ALA No.	Analyses	Results	General Limit (Full)
19	pH (at 25 °C)	9.57	5.5-9.5
9	Conductivity (mS/m) (at 25 °C)	814	70.0 Above Intake - 150 Max
2	Chemical Oxygen Demand (mg/l)	2083	75.0 After Removal of Algae
2	Chemical Oxygen Demand (Filtered) (mg/l)	1621	75.0
95	Ammonia Nitrogen (mg/l as N)	1.9	6.0
100	Nitrate & Nitrite Nitrogen (mg/l as N)	<0.20	15.0
Calc	Nitrate Nitrogen (mg/l as N)	<0.20	N/A
99	Nitrite Nitrogen (mg/l as N)	<0.20	15.0 (sum of NO2 & NO3-N)
6A	Total Suspended Solids (mg/l)	1210	25
101	Ortho Phosphate (mg/l as P)	5.3	10.0
18	Oil & Grease (mg/l)	250	2.5

N. VAN BINSBERGEN (Pr.Sci.Nat.)
DIRECTOR
15 May 2018

Att: Francois Nel <cois@klk.co.za>

MARYKE@KLK.CO.ZA

Sampler : Unknown

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RAMSKOP ABATTOIR

DATE SAMPLED : 2018/05/24

DATE RECEIVED : 2018/05/24

DATE ANALYSIS

COMMENCED : 2018/05/24

OUR REF. : 2018/05/24/14979

REPORT NO. : 3720

	Sample Number	14979	
Mthd ALA No.	Analyses	Results	General Limit (Full)
19	pH (at 25 °C)	8.15	5.5-9.5
9	Conductivity (mS/m) (at 25 °C)	255	70.0 Above Intake - 150 Max
2	Chemical Oxygen Demand (mg/l)	1576	75.0 After Removal of Algae
2	Chemical Oxygen Demand (Filtered) (mg/l)	1062	75.0
95	Ammonia Nitrogen (mg/l as N)	67.4	6.0
100	Nitrate & Nitrite Nitrogen (mg/l as N)	0.44	15.0
Calc	Nitrate Nitrogen (mg/l as N)	0.24	N/A
99	Nitrite Nitrogen (mg/l as N)	<0.20	15.0 (sum of NO2 & NO3-N)
6A	Total Suspended Solids (mg/l)	336	25
101	Ortho Phosphate (mg/l as P)	4.1	10.0
18	Oil & Grease (mg/l)	30.0	2.5

N. VAN BINSBERGEN (Pr.Sci.Nat.)
DIRECTOR
31 May 2018

TO: Francois Nel <cois@klk.co.za>

MARYKE@KLK.CO.ZA

Sampler : Unknown

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Doc.No. 5.10/1 Rev.4

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KLK LANDBOU LIMITED

ANALYSIS

RAMSKOP ABATTOIR

DATE SAMPLED : 2018/07/04

DATE RECEIVED : 2018/07/04

DATE ANALYSIS

COMMENCED : 2018/07/04

OUR REF. : 2018/07/04/18762

REPORT NO. : 4608

	Sample Number	18762	
Mthd ALA No.	Analyses	Results	General Limit (Full)
19	pH (at 25 °C)	10.06	5.5-9.5
9	Conductivity (mS/m) (at 25 °C)	370	70.0 Above Intake - 150 Max
2	Chemical Oxygen Demand (mg/l)	1652	75.0 After Removal of Algae
2	Chemical Oxygen Demand (Filtered) (mg/l)	1614	75.0
95	Ammonia Nitrogen (mg/l as N)	10.0	6.0
100	Nitrate & Nitrite Nitrogen (mg/l as N)	0.30	15.0
Calc	Nitrate Nitrogen (mg/l as N)	<0.20	N/A
99	Nitrite Nitrogen (mg/l as N)	<0.20	15.0 (sum of NO ₂ & NO ₃ -N)
6A	Total Suspended Solids (mg/l)	610	25
101	Ortho Phosphate (mg/l as P)	2.3	10.0
18	Oil & Grease (mg/l)	8.0	2.5

JOSE DA SILVA (Cert.Sci.Nat.)
TECHNICAL MANAGER
12 July 2018

Att: Maryke Louw <Maryke@klk.co.za>

Francois Nel <cois@klk.co.za>

Sampler: CUSTOMER

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