

January 2025

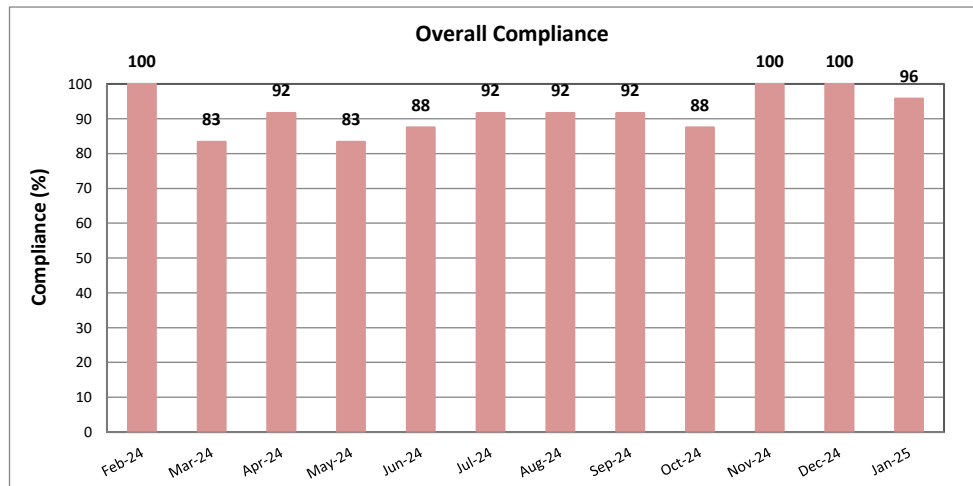
Swartkops Electrical Effluent Plant

Uitenhage

Site Information

Date of Sampling	07/01/2025
Sampling Point Identification	32°58.078'S 27°53,824'E
Depot	Swartkops Electrical Effluent Plant
Region	Uitenhage
Treatment Technology	Not available/Unknown
Design Information	None
Design/Current Capacity	Not available/Unknown
Maintenance	Not available/Unknown
Flow Meter	None
Responsible Authority	Nelson Mandela Bay Metropolitan Municipality
Discharge Point	Municipal sewer

Compliance History



Findings

Site Visit Photo

Overall Compliance	96%		
Non-compliant Parameters	Iron		
Plant Operational	Yes	Partial	No
Maintenance	Yes	Partial	None
Site Neatness	Yes	Partial	No
Access	Easy	Difficult	

Recommendation(s)



Parameter	Temperature		pH Value		EC		COD		TSS		Chloride		Sulphate		Soap,Oil&Grease		Phosphate		Ammonia	
Month	44°C		6.0 - 12.0		500 mS/m		10000 mg/l		1000 mg/l		1000 mg/l		1500 mg/l		450 mg/l		mg/l		mg/l	
February 2024	25.2	C	6.8	C	63	C	492	C	23	C	133	C	14	C	1	C	9	-	0	-
March 2024	27.0	C	5.0	N	93	C	42632	N	29022	N	151	C	22	C	7273	N	8	-	3	-
April 2024	23.4	C	4.7	N	38	C	1897	C	28	C	59	C	15	C	48	C	2	-	0	-
May 2024	18.8	C	4.7	N	44	C	3400	C	32	C	93	C	19	C	779	N	5	-	0	-
June 2024	15.1	C	6.9	C	86	C	31333	N	431	C	82	C	14	C	61549	N	2	-	0	-
July 2024	16.2	C	5.3	N	90	C	735	C	25	C	160	C	0	C	270	C	7	-	53	-
August 2024	17.2	C	6.0	C	88	C	472	C	16	C	104	C	3	C	4	C	3	-	0	-
September 2024	20.8	C	6.5	C	53	C	1783	C	33	C	32	C	29	C	148	C	0	-	0	-
October 2024	26.7	C	4.9	N	88	C	4392	C	53	C	106	C	3	C	76	C	3	-	0	-
November 2024	23.0	C	6.9	C	103	C	362	C	18	C	84	C	32	C	22	C	0	-	0	-
December 2024	30.8	C	6.3	C	97	C	1340	C	179	C	92	C	0	C	15	C	1	-	0	-
January 2025	28.9	C	7.0	C	87	C	177	C	135	C	82	C	5	C	4	C	1	-	1	-
Parameter	Arsenic		Boron		Cadmium		Chromium		Cobalt		Copper		Iron		Lead		Manganese		Mercury	
Month	5 mg/l		5 mg/l		5 mg/l		20 mg/l		5 mg/l		20 mg/l		5 mg/l		5 mg/l		5 mg/l		5 mg/l	
February 2024	0.0	C	0.4	C	0.0	C	0.0	C	0.0	C	0.0	C	4.9	C	0.0	C	3.1	C	0.0	C
March 2024	0.0	C	0.0	C	0.0	C	0.0	C	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.0	C
April 2024	0.0	C	0.1	C	0.0	C	0.0	C	0.0	C	0.0	C	10.0	N	0.0	C	2.6	C	0.0	C
May 2024	0.0	C	0.3	C	0.0	C	0.0	C	0.0	C	0.0	C	30.0	N	0.0	C	5.2	N	0.0	C
June 2024	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.0	C	8.2	N	0.0	C	3.5	C	0.0	C
July 2024	0.0	C	0.1	C	0.0	C	0.0	C	0.0	C	0.0	C	11.0	N	0.0	C	4.7	C	0.0	C
August 2024	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.0	C	17.0	N	0.0	C	6.6	N	0.0	C
September 2024	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.0	C	24.0	N	0.0	C	7.6	N	0.0	C
October 2024	0.0	C	0.1	C	0.0	C	0.0	C	0.0	C	0.0	C	21.0	N	0.0	C	8.0	N	0.0	C
November 2024	0.0	C	0.4	C	0.0	C	0.0	C	0.0	C	0.0	C	2.1	C	0.0	C	1.5	C	0.0	C
December 2024	0.0	C	0.3	C	0.0	C	0.0	C	0.0	C	0.0	C	2.6	C	0.0	C	2.9	C	0.0	C
January 2025	0.0	C	0.7	C	0.0	C	0.0	C	0.0	C	0.0	C	13.0	N	0.0	C	4.5	C	0.0	C

C = Compliant

N = Non-compliant

NS = No Sample Received

NA = Unable to Analyse

Parameter	Molybdenum		Nickel		Selenium		Silver		Sodium		Titanium		Zinc	
Month	5 mg/l		20 mg/l		5 mg/l		20 mg/l		mg/l		20 mg/l		20 mg/l	
February 2024	0.2	C	0.0	C	0.0	C	0.0	C	171	-	0.0	C	0.1	C
March 2024	0.0	C	0.0	C	0.0	C	0.0	C	286	-	0.0	C	0.0	C
April 2024	0.2	C	0.0	C	0.0	C	0.0	C	61.0	-	0.0	C	0.4	C
May 2024	1.2	C	0.0	C	0.0	C	0.0	C	112	-	0.0	C	0.4	C
June 2024	0.1	C	0.0	C	0.0	C	0.0	C	70.0	-	0.0	C	0.1	C
July 2024	0.1	C	0.0	C	0.0	C	0.0	C	67.0	-	0.0	C	0.1	C
August 2024	0.1	C	0.0	C	0.0	C	0.0	C	76.0	-	0.0	C	0.1	C
September 2024	0.1	C	0.0	C	0.0	C	0.0	C	72.0	-	0.0	C	0.0	C
October 2024	0.1	C	0.0	C	0.0	C	0.0	C	70.0	-	0.0	C	0.3	C
November 2024	0.0	C	0.0	C	0.0	C	0.0	C	74.0	-	0.0	C	0.1	C
December 2024	0.0	C	0.0	C	0.0	C	0.0	C	76.0	-	0.0	C	0.0	C
January 2025	0.1	C	0.0	C	0.0	C	0.0	C	62.0	-	0.0	C	0.4	C

C

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CERTIFICATE OF ANALYSES

CONFIDENTIAL

Identification	UTH Swartkops Electrical Effluent Plant	Report/Lab number	0042/25
Customer	Transnet Engineering	Date Sampled	07/01/2025
Contact Person	Mmalaka Phejane	Date Received	14/01/2025
Contact number	012 391 1320	Date Started-Completed In-house	14-17/01/2025
Email Address	Mmalaka.Phejane@transnet.net	Sub Completed	03/02/2025
Physical Address	160 Lynette Street, Kilner Park, Pretoria	Date of Report	04/02/2025

A N S	Determinants	Unit	Method	Sample ID
				0042-01
N	Temperature	°C	-	28.9
A	pH Value at 25°C	-	LA001	7.0
A	Conductivity	mS/m	LA003	87
A	Chemical Oxygen Demand	mg/l	LA013	177
N	Total Suspended Solids	mg/l	LA006	135
A	Chloride - Cl	mg/l	LA029	82
A	Sulphate - SO ₄	mg/l	LA030	<5
S	Oil & Grease	mg/l	-	3.6
A	Ortho-Phosphate - P	mg/l	LA028	<1.0
A	Ammonia - NH ₃ as N	mg/l	LA033	1.0
S	Arsenic - As	mg/l	-	0.005
S	Boron - B	mg/l	-	0.745
S	Cadmium - Cd	mg/l	-	<0.001
S	Chromium - Cr	mg/l	-	<0.025
S	Cobalt - Co	mg/l	-	<0.025
S	Copper - Cu	mg/l	-	0.022
S	Iron - Fe	mg/l	-	13
S	Lead - Pb	mg/l	-	0.006
S	Manganese - Mn	mg/l	-	4.49
S	Mercury - Hg	mg/l	-	<0.001
S	Molybdenum - Mo	mg/l	-	0.069
S	Nickel - Ni	mg/l	-	<0.025
S	Selenium - Se	mg/l	-	<0.001

NA - No Analysis done due to incompatible sample matrix; **A** – SANAS Accredited Method, **N** – Method Not Accredited – Results marked “N” in this report are not included in the SANAS Schedule of Accreditation for this laboratory; **S** – indicates Subcontracted Test - Results marked “Subcontracted Test” in this report are not included in the SANAS Schedule of Accreditation for this laboratory. Results only apply to the samples as received and tested.

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R Lax
Technical Signatory

CERTIFICATE OF ANALYSES

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A N S	Determinants	Unit	Method	Sample ID
				0042-01
S	Silver - Ag	mg/l	-	<0.025
S	Sodium - Na	mg/l	-	62
S	Titanium - Ti	mg/l	-	<0.03
S	Zinc - Zn	mg/l	-	0.365
End of Certificate				

Comments (sample damages/leakages, also state if this report replaces any other report (ammended) :

NA - No Analysis done due to incompatible sample matrix; **A** – SANAS Accredited Method, **N** – Method Not Accredited – Results marked “N” in this report are not included in the SANAS Schedule of Accreditation for this laboratory; **S** – indicates Subcontracted Test - Results marked “Subcontracted Test” in this report are not included in the SANAS Schedule of Accreditation for this laboratory. Results only apply to the samples as received and tested.

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