March 2025

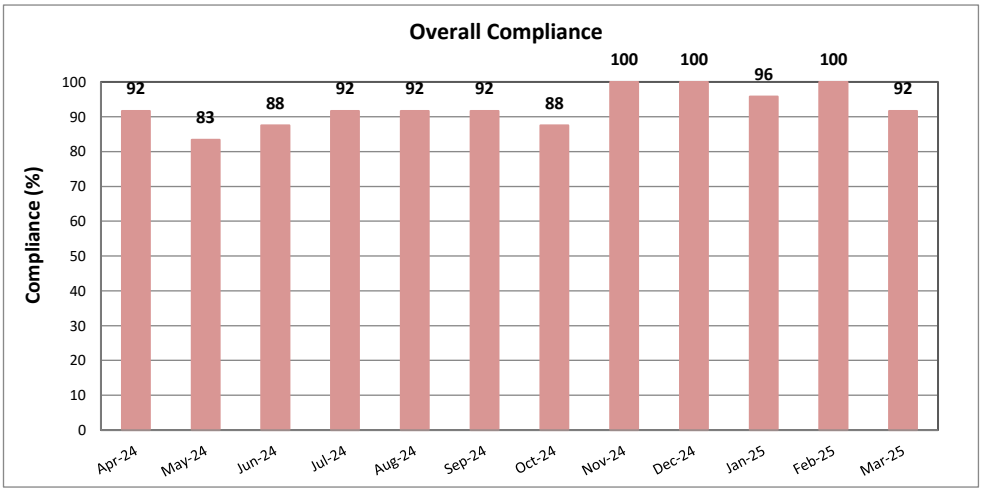
Swartkops Electrical Effluent Plant

Uitenhage

Site Information

Date of Sampling	05/03/2025
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

Overall Compliance		92%	
Non-compliant Parameters	COD	TSS	
Plant Operational	Yes	Partial	No
Maintenance	Yes	Partial	None
Site Neatness	Yes	Partial	No
Access	Easy	Difficult	

Recommendation(s)

Site Visit Photo

Compliance Summary

March 2025

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	
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	-
February 2025	27.4	C	6.8	C	77	C	259	C	28	C	71	C	40	C	0	C	1	-	0	-
March 2025	24.7	C	6.5	C	74	C	22980	N	3863	N	74	C	29	C	190	C	2	-	0	-

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	
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
February 2025	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.0	C	1.2	C	0.0	C	1.3	C	0.0	C
March 2025	0.0	C	0.2	C	0.0	C	0.0	C	0.0	C	0.1	C	0.3	C	0.0	C	1.8	C	0.0	C

C = Compliant N = Non-compliant NS = No Sample Received NA = Unable to Analyse

Compliance Summary

March 2025

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	
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
February 2025	0.0	C	0.0	C	0.0	C	0.0	C	61.0	-	0.0	C	0.0	C
March 2025	0.1	C	0.0	C	0.0	C	0.0	C	57.0	-	0.0	C	0.1	C

C = Compliant N = Non-compliant NS = No Sample Received NA = Unable to Analyse

CERTIFICATE OF ANALYSES

CONFIDENTIAL

Identification	UTH Swartkops Electrical Effluent Plant	Report/Lab number	0450/25
Customer	Transnet Engineering	Date Sampled	05/03/2025
Contact Person	Mmalaka Phejane	Date Received	11/03/2025
Contact number	012 391 1320	Date Started-Completed In-house	12-18/03/2025
Email Address	Mmalaka.Phejane@transnet.net	Sub Completed	27/03/2025
Physical Address	160 Lynette Street, Kilner Park, Pretoria	Date of Report	28/03/2025

ANS	Determinants	Unit	Method	Sample ID
				0450-01
N	Temperature	°C	-	24.7
A	pH Value at 25°C	-	LA001	6.5
A	Conductivity	mS/m	LA003	74
A	Chemical Oxygen Demand	mg/l	LA013	22980
N	Total Suspended Solids	mg/l	LA006	3863
A	Chloride - Cl	mg/l	LA029	74
A	Sulphate - SO_4	mg/l	LA030	29
S	Oil & Grease	mg/l	-	190
A	Ortho-Phosphate - P	mg/l	LA028	2.4
A	Ammonia - NH_3 as N	mg/l	LA033	<0.5
S	Arsenic - As	mg/l	-	0.003
S	Boron - B	mg/l	-	0.192
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	-	0.105
S	Iron - Fe	mg/l	-	0.307
S	Lead - Pb	mg/l	-	0.002
S	Manganese - Mn	mg/l	-	1.80
S	Mercury - Hg	mg/l	-	<0.001
S	Molybdenum - Mo	mg/l	-	0.051
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.

Uncertainty of Measurement data (for methods included in the SANAS Schedule of Accreditation) is available on request, as are dates of analysis for each parameter tested. The report shall not be reproduced except in full without approval of the laboratory. Sampling dates and sample identification are given from information provided by the customer.

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Technical Signatory

CERTIFICATE OF ANALYSES

CONFIDENTIAL

ANS	Determinants	Unit	Method	Sample ID
				0450-01
S	Silver - Ag	mg/l	-	<0.025
S	Sodium - Na	mg/l	-	57
S	Titanium - Ti	mg/l	-	<0.03
S	Zinc - Zn	mg/l	-	0.063
End of Certficate				

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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