

Case Study

Customer: Total SA - Alrode

Requirement: Depot Effluent Treatment

Year: 2003 with upgrade in 2009

Discharge Source: Storm Water



Solving Environmental Challenges
with World Class Technology

PROCON

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Total South Africa need to meet storm water discharge limits.

Procon provide monthly water sampling results to ensure the depot are meeting the storm water discharge standards on a regular basis.

Solution

Procon Environmental installed a 2m³/h Oily water separator to treat effluent from the terminal heavy vehicle workshop and vehicle wash applications.

Procon then upgraded the 2m³/h system to a 3,5m³/h oil separator in 2009 to deal with the large oily water flow.

		2005										
Analyses mg/l of monthly sampling	Acceptable Discharge Li	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Average	
pH	6-10pH	7.00	8.20	7.00	7.00	7.50	7.40	8.10	3.00	8.3	7.39	
Conductivity in mS/m at 25C	Less than 500mS/m	33.90	45.40	35.00	35.70	35.10	47.40	41.70	33.50	36	38.41	
TDS	Less than 1000mg/l	258.00	392.00	232.00	258.00	172.00	330.00	224.00	240.00	250	261.88	
Total Phosphate as P	Less than 50mg/l	2.30	2.40	0.60	1.40	0.60	1.00	0.30	<0.2	<0.2	0.96	
Iron as Fe	Less than 5mg/l	1.60	3.07	3.24	1.01	0.43	2.03	0.71	1.87	1.51	1.84	
Lead as Pb	Less than 5mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.71	<0.05	<0.05	0.08	
Suspended Solids as SS	Less than 2000mg/l	886.00	13.50	8.60	31.00	12.00	20.00	1.60	15.00	8.8	110.84	
Oil and Grease	Less than 50mg/l	550.00	5.00	3.60	4.00	<1	13.00	<1	<1	1.6	64.13	
Chemical Oxygen Demand as COD	Less than 5000mg/l	6057.00	115.00	154.00	95.00	61.00	296.00	93.00	21.00	12	771.33	
Biological Oxygen Demand as BOD ₅	1950.00	62.00	21.00	12.00	<10	66.00	<10	<10	10.8	234.64		
BTEX	Less than 20mg/l	14.35	2.75	5.76	1.40	1.05	2.90	0.70	2.73	0.77	3.75	
TAME	Less than 20mg/l	2.35	2.50	5.76	<0.1	<0.1	0.90	0.70	2.67	0.77	1.74	

		Total Alrode Depot 2009												
Analyses mg/l of monthly sampling	Acceptable Discharge Li	29-Jan	01-Feb	01-Mar	01-Apr	01-May	01-Jun	01-Jul	01-Aug	01-Sep	01-Oct	01-Nov	01-Dec	Average
pH	6-10pH	7.10	7.10	8.20	7.80	7.90	7.60	7.40	7.30	7.6	7.7	7.9	7.3	7.58
Conductivity in mS/m at 25C	Less than 500mS/m	35.80	35.40	34.90	51.50	36.20	36.60	25.80	28.70	28.7	72.1	28.5	22	36.58
TDS	Less than 1000mg/l	200	216	220	476	275	260	166.00	200.00	156	183	154	147	247.00
Total Phosphate as P	Less than 50mg/l	<0.2	<0.2	<0.2	0.20	<0.2	0.20	<0.2	0.20	<0.2	<0.2	<0.2	0.6	0.99
Iron as Fe	Less than 5mg/l	1.45	0.72	0.35	1.34	0.93	1.34	0.78	0.43	0.31	0.335	0.151	1.09	0.71
Lead as Pb	Less than 5mg/l	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.02	<0.02	<0.020	<0.020	<0.020	<0.020	0.00
Suspended Solids as SS	Less than 2000mg/l	0.80	5	2.30	17.30	6.40	19.20	6.00	12.70	11.3	5.3	3.2	35	10.50
Oil and Grease	Less than 50mg/l	4	5	18	<1	35	12	3.00	5.00	4	9.00	34	7	11.50
Chemical Oxygen Demand as COD	Less than 5000mg/l	46	258	23	409	81	281	80.00	50.00	12	12	20	40	112.83
BTEX	Less than 20mg/l	0.22	<0.01	<0.01	<0.01	<0.01	41.56	<0.01	<0.01	<0.01	<0.01	0.68	<0.01	3.53
TAME	Less than 20mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00

Procon Environmental

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