

ANALYTICAL RESULTS

For

RHINO ECO SYSTEMS

Prepared by: Maxxam Analytics
Date: September 15, 1999

PROJECT#: COMPOSITE

RESULTS OF CHEMICAL ANALYSES IN LIQUID

Maxxam Job No.	9910893	9911488
Maxxam ID	282746	286164
Sampling Date	1999/08/11	1999/08/19
Parameter	Units	MANHOLE MANHOLE
Oil & Grease	mg/L	7
Total suspended solids (TSS)	mg/L	5.7
BOD5	mg/L	3
		1
		<1
		0.8

Review of Analytical Results

Sink A

Sampling ports of interest were Tap 1 and Tap 3. A significant reduction was noted from the initial port (Tap 1) to the second (Tap 3) located after the Rhino unit.

Total Suspended Solids

Tap 1 Results	Tap 3 Results	Reduction Value
77 400 mg/L	11 200 mg/L	66 200 mg/L
24 300 mg/L	7 500 mg/L	16 800 mg/L
58 600 mg/L	N/A (no sample)	

Biological Oxygen Demand

Tap 1 Results	Tap 3 Results	Reduction Value
3120 mg/L	1140 mg/L	1980 mg/L
6600 mg/L	1300 mg/L	5300 mg/L
1600 mg/L	N/A (no sample)	

Oil and Grease

Tap 1 Results	Tap 3 Results	Reduction Value
13 900 mg/L	1370 mg/L	12 530 mg/L
4240 mg /L	186 mg/L	4054 mg/L
18.2 mg/L	N/A (no sample)	

Note: Some variability in results can be expected because this is not a constant flow system.

Sink B and C

Results for Sink B and C were inconclusive because of the sampling port locations. The sampling port 2 for the grease dump and water should have another sampling port after Rhino C to get a more accurate result of the Rhino's efficiency. Sink B for the wash-up should also incorporate a valve after the tub and directly after the Rhino B to insure the Rhino's performance before joining the flow of the Rhino C. at the sample location 4.

Tap 4 is the junction when both the flow from sink A, B, and C all meet after being sent through the White pump.

Tap 5 is the final effluent that has gone through the Rhinos as well as the Greasonator before exiting into the drain.

Result Review for Final Effluent

In order to get a more representative result for the final effluent and the amount of reduction in BOD, TSS and Oil and Grease a separate initial sample from Sink B would be required. The values at the Tap 5 will be bias high because the value for sink B is not available. However, by taking the initial values from both Sink A (Tap 1) and Sink C (Tap 2) we can see that even with the unknown added load of effluent the results show a reduction in the overall initial values.

Total Suspended Solids

Tap 1 Results	Tap 2 Results	Total Tap 1+ Tap2	Tap 5 Result
74 000 mg/L	730 mg /L	74 730 mg/L	8200 mg/L
24 300 mg/L	4400 mg/L	28 700 mg/L	15 300 mg/L
58 600 mg/L	68 600 mg/L	127 200 mg/L	90 800 mg/L

BOD

Tap 1 Results	Tap 2 Results	Total Tap 1 + Tap 2	Tap 5 Results
3120 mg/L	690 mg/L	3810 mg/L	7200 mg/L
6600 mg/L	4400 mg/L	11 000 mg/ L	2500 mg/L *
1600 mg/L	4200 mg/L	5800 mg/L	6100 mg/L *

Oil and Grease

Tap 1 Results	Tap 2 Results	Total Tap 1 + Tap 2	Tap 5 Results
13 900 mg/L	510 mg/L	14 410 mg/L	1100 mg /L
4240 mg/L	42.3 mg/L	4282.3 mg/L	5580 mg/L *
18.2 mg/ L	925 mg/L	943.2 mg/L	221 mg/L

Manhole Results

Results fall below the Sewer use Bylaw limits. Note the sewer appeared to be very clean during sewer-use 24 hr composite testing. Levels are very low for a food producer and confirmation of the sanitary sewer is recommended.

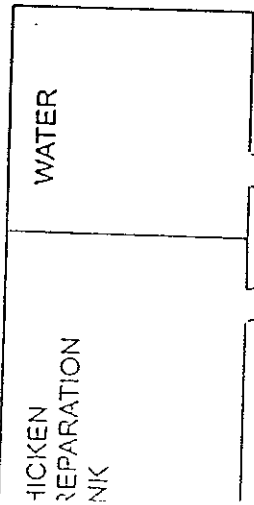
STUART HAMILTON

Analysis for Rhino Ecosystems Inc.
KFC/ Keele St

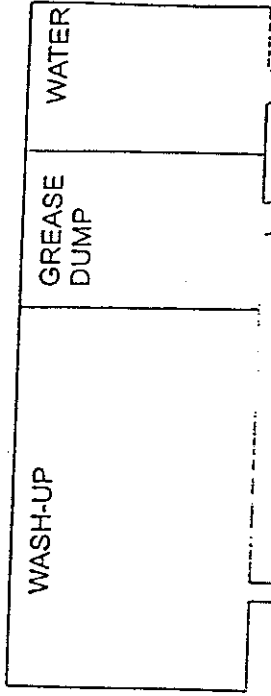
Tues and Thurs (commencing August 3/99) 8 - 9 pm

- A. SAMPLE TAP #1 There should be chicken drippings and fat into SINK A (Chicken Preparation Sink)
- B. SAMPLE TAP #2 There should be grease and soap and water from cleaning of deep fryers in SINK ~~A~~ B
(GREASE DUMP *)
- C. SAMPLE TAP #3 Refuse from Sink A will have been intercepted in Rhino A
- D. SAMPLE TAP #4 The combined flow (with wet waste now intercepted) from RHINO A,B,C goes through the white force pump
- E. SAMPLE TAP #5 The grease Has been skimmed off in the Greasonator and clearer waste water emerges

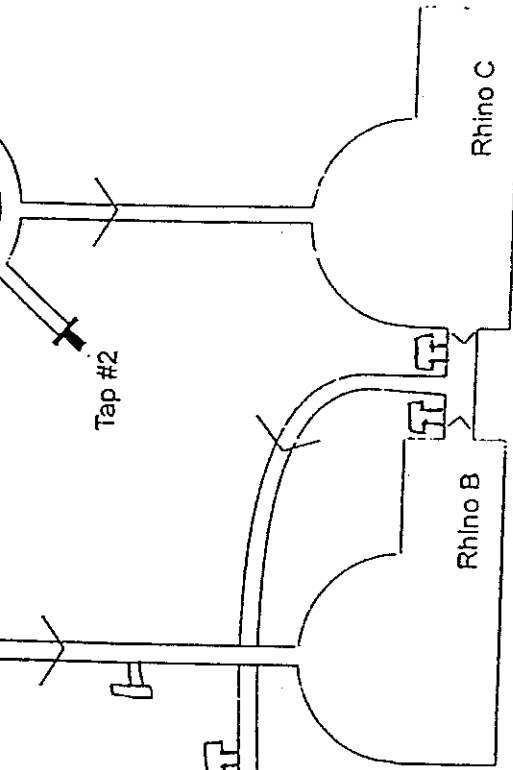
Sink (A)



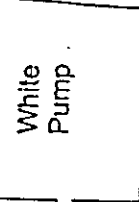
Sink (B)



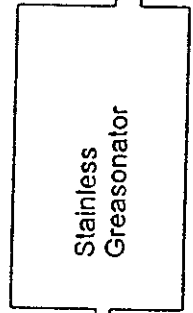
Sink (C)



Tap #3



Tap #4



Tap #5

Drain



#1

Rhino A

Rhino B

Rhino C