Appendix C - 5

Summary of Nonradiological Monitoring Data

Shipping Water Samples to Off-site Laboratories for Analysis

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Table C - 5.1
West Valley Demonstration Project State Pollutant Discharge Elimination System (SPDES) Sampling Program

Outfall	Parameter	Daily Maximum* Limit	Sample Frequency
001 (Process and Storm Wastewater)	Flow	Monitor	2 per discharge
	Aluminum, total	14.0 mg/L	2 per discharge
	Ammonia (NH_3)	Monitor	2 per discharge
	Arsenic, dissolved	0.15 mg/L	2 per discharge
	BOD-5	10.0 mg/L	2 per discharge
	Iron, total	Monitor	2 per discharge
	Zinc, total recoverable	0.48 mg/L	2 per discharge
	Suspended solids	45.0 mg/L	2 per discharge
	Cyanide, amenable to chlorination	0.022 mg/L	2 per discharge
	Settleable solids	0.30 mL/L	2 per discharge
	pH (range)	6.5 - 8.5	2 per discharge
	Oil and grease	15.0 mg/L	2 per discharge
	Sulfate	Monitor	2 per discharge
	Sulfide, dissolved	0.4 mg/L	2 per discharge
	Manganese, total	2.0 mg/L	2 per discharge
	Nitrate	Monitor	2 per discharge
	Nitrite	0.1 mg/L	2 per discharge
	Chromium, total recoverable	0.3 mg/L	2 per discharge
	Chromium, hexavalent, total recoverable	0.011 mg/L	2 per discharge
	Cadmium, total recoverable	0.002 mg/L	2 per discharge
	Copper, total recoverable	0.030 mg/L	2 per discharge
	Copper, dissolved	Monitor	2 per discharge
	Lead, total recoverable	0.006 mg/L	2 per discharge
	Nickel, total recoverable	0.14 mg/L	2 per discharge
	Dichlorodifluoromethane	0.01 mg/L	2 per discharge
	Trichlorofluoromethane	0.01 mg/L	2 per discharge
	3,3-dichlorobenzidine	0.01 mg/L	2 per discharge
	Tributyl phosphate	32 mg/L	2 per discharge
	Vanadium, total recoverable	0.014 mg/L	2 per discharge
	Cobalt, total recoverable	0.005 mg/L	2 per discharge
	Selenium, total recoverable	0.004 mg/L	2 per discharge
	Hexachlorobenzene	0.02 mg/L	2 per discharge
	Alpha - BHC	0.00001 mg/L	2 per discharge
	Heptachlor	0.00001 mg/L	2 per discharge
	Surfactant (as LAS)	0.4 mg/L	2 per discharge
	Xylene	0.05 mg/L	2 per discharge
	2-butanone	0.5 mg/L	2 per discharge
	Total Dissolved Solids	Monitor	2 per discharge
	Barium	0.5 mg/L	annual
	Antimony	1.0 mg/L	annual
	Chloroform	0.3 mg/L	annual
	Bis(2-ethylhexyl)phthalate	1.6 mg/L	semiannual
	4-Dodecene	0.6 mg/L	semiannual
	Titanium	0.65 mg/L	semiannual

** Daily average limitations are also identified in the permit but require only monitoring for every parameter except aluminum, total (daily average limit - 7.0 mg/L); solids, suspended (daily average limit - 30.0 mg/L); BOD-5 for the sum of outfalls 001, 007, and 008 (daily average limit - 5.0 mg.L); and ammonia for the sum of outfalls 001 and 007 (daily average limit - 1.49 mg/L).*

Table C - 5.1 *(concluded)*
West Valley Demonstration Project State Pollutant Discharge Elimination System (SPDES) Sampling Program

Outfall	Parameter	Daily Maximum* Limit	Sample Frequency
007 (Sanitary and Utility Wastewater)	Flow	Monitor	3 per month
	Ammonia (as NH_3)	Monitor	3 per month
	BOD-5	10 mg/L	3 per month
	Iron, total	Monitor	3 per month
	Solids, suspended	45.0 mg/L	3 per month
	Solids, settleable	0.3 mL/L	weekly
	pH (range)	6.5 - 8.5	weekly
	Nitrite (as N)	0.1 mg/L	3 per month
	Oil and grease	15 mg/L	3 per month
	Chlorine, total residual	0.1 mg/L	weekly
	Chloroform	0.20 mg/L	annual
008 (French Drain Wastewater)	Flow	Monitor	3 per month
	BOD-5	5.0 mg/L	3 per month
	Iron, total	Monitor	3 per month
	pH (range)	6.5 - 8.5	3 per month
	Cadmium, total recoverable	0.002 mg/L	3 per month
	Lead, total recoverable	0.006 mg/L	3 per month
	Silver, total	0.008 mg/L	annual
	Zinc, total	0.100 mg/L	annual
	Arsenic	0.17 mg/L	annual
	Chromium	0.13 mg/L	annual
Sum of Outfalls 001, 007, and 008	Iron, total	0.30 mg/L	3 per month
	BOD-5	Monitor	3 per month
Sum of Outfalls 001 and 007	Ammonia (NH_3)	2.1 mg/L	3 per month
Pseudo-monitoring point (116)	Solids, total dissolved	500 mg/L	2 per discharge

** Daily average limitations are also identified in the permit but require only monitoring for every parameter except aluminum, total (daily average limit - 7.0 mg/L); solids, suspended (daily average limit - 30.0 mg/L); BOD-5 for the sum of outfalls 001, 007, and 008 (daily average limit - 5.0 mg.L); and ammonia for the sum of outfalls 001 and 007 (daily average limit - 1.49 mg/L).*

Table C - 5.2
West Valley Demonstration Project 1997 SPDES Noncompliance Episodes

Date	Outfall	Parameters	Limit	Value	Comments
Apr 24	116	TDS	500 mg/L	551 mg/L	Changes in Frank's Creek background concentration during 001 discharge event.
Sep 26	008	BOD_5	5.0 mg/L	9.3 mg/L	Algae dislodged from discharge pipe and/or non-homogeneity of seed and sample within dilution bottle.
Dec 05	001	NO_2-N	0.1 mg/L	0.2 mg/L	Backflushing of anthracite filter with nitric acid solution resulted in excessive levels of nitrates that disrupted the natural nitrification cycle; nitrification was also hindered by cold weather.
Dec 09	001	NO_2-N	0.1 mg/L	0.2 mg/L	Backflushing of anthracite filter with nitric acid solution resulted in excessive levels of nitrates that disrupted the natural nitrification cycle; nitrification was also hindered by cold weather.
Dec 09	008	BOD_5	5.0 mg/L	5.9 mg/L	Algae dislodged from discharge pipe and/or non-homogeneity of seed and sample within dilution bottle.

Table C - 5.3A

1997 SPDES Results for Outfall 001 (WNSP001)
Water Quality

	Ammonia (mg/L)		**BOD-5 day**[a] (mg/L)		**Cyanide**[a] (mg/L)		**Discharge Rate** (MGD)	
Permit Limit	Monitor		10.0 mg/L daily maximum		0.022 mg/L daily maximum		Monitor	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	0.715	0.720	<2.0	<2.0	<0.010	<0.010	0.350	0.409
March	1.20	1.20	<2.0	<2.0	<0.010	<0.010	0.327	0.531
April	0.57	0.61	<2.0	<2.0	<0.010	<0.010	0.355	0.480
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	<0.18	0.31	<2.0	<2.0	<0.010	<0.010	0.318	0.841
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	0.13	0.15	8.3	9.8	<0.010	<0.010	0.285	0.642
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	<0.05	<0.05	3.2	3.4	<0.010	<0.010	0.386	0.570

	Nitrate (mg/L)		**Nitrite** (mg/L)		**Oil & Grease**[a] (mg/L)	
Permit Limit	Monitor		0.1 mg/L daily maximum		15.0 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	1.45	1.50	0.06	0.07	<1.3	1.5
March	1.85	1.90	<0.05	<0.05	<1.7	2.3
April	1.90	2.00	0.06	0.06	<2.6	4.1
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	1.25	1.30	<0.05	<0.05	<5.0	<5.0
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	3.65	4.10	0.1	0.1	<5.0	<5.0
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	5.80	6.20	0.2	0.2	<5.0	<5.0

NA = Not applicable. No discharge this month.
a = No results exceed the permit limits.

Table C - 5.3A (concluded)

1997 SPDES Results for Outfall 001 (WNSP001)
Water Quality

	pH[a] (standard units)		**Solids**[a] Settleable (mL/L)		**Solids** Total Dissolved (mg/L)		**Solids**[a] Total Suspended (mg/L)	
Permit Limit	6.5 to 8.5		0.30 mL/L daily maximum		Monitor		30.0 mg/L daily average; 45.0 mg/L daily maximum	
Month	**Min**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	7.3	7.6	< 0.1	< 0.1	863	917	5.5	6.0
March	6.9	7.1	< 0.1	< 0.1	705	708	< 2.4	2.8
April	7.0	7.1	< 0.1	< 0.1	625	640	< 2.5	3.0
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	7.1	7.7	< 0.1	< 0.1	580	590	10.3	16.0
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	6.9	7.6	< 0.1	< 0.1	634	642	12.9	17.0
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	7.7	7.9	< 0.1	< 0.1	696	707	5.7	5.8

	Sulfate (mg/L)		**Sulfide**[a] Dissolved (mg/L)		**Surfactants as LAS**[a] (mg/L)	
Permit Limit	Monitor		0.4 mg/L daily maximum		0.4 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	56	57	< 0.2	< 0.2	< 0.1	< 0.1
March	56	58	< 0.2	< 0.2	< 0.1	< 0.1
April	47	47	< 0.2	< 0.2	< 0.025	< 0.025
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	58	60	< 0.2	0.2	< 0.10	< 0.10
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	68	73	< 0.2	< 0.2	< 0.018	< 0.025
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	70	77	< 0.2	< 0.2	< 0.1	< 0.1

NA = Not applicable. No discharge this month.
[a] No results exceeded the permit limits.

Table C - 5.3B

1997 SPDES Results for Outfall 001 (WNSP001)
Metals

	Aluminum[a] (mg/L)		**Arsenic**[a] Dissolved (mg/L)		**Cadmium**[a] Total Recoverable (mg/L)		**Cobalt**[a] Total Recoverable (mg/L)	
Permit Limit	7.0 mg/L daily average; 14.0 mg/L daily maximum		0.15 mg/L daily maximum		0.002 mg/L daily maximum		0.005 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	0.410	0.453	< 0.003	< 0.003	< 0.001	< 0.001	< 0.004	< 0.004
March	< 0.200	< 0.200	< 0.003	0.003	< 0.001	< 0.001	< 0.004	< 0.004
April	0.49	0.60	< 0.003	< 0.003	< 0.001	< 0.001	< 0.004	< 0.004
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	0.440	0.590	< 0.003	< 0.003	< 0.001	< 0.001	< 0.004	< 0.004
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.230	0.260	< 0.003	< 0.003	< 0.001	< 0.001	< 0.004	< 0.004
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	0.370	0.410	< 0.003	< 0.003	< 0.001	< 0.001	< 0.004	< 0.004

	Chromium [a] Total Recoverable (mg/L)		**Chromium IV** Total Recoverable (mg/L)		**Copper** Dissolved (mg/L)	
Permit Limit	0.3 mg/L daily maximum		0.011 mg/L daily maximum		Monitor	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	< 0.005	< 0.005	< 0.010	< 0.010	< 0.010	< 0.010
March	< 0.005	< 0.005	< 0.011	0.012	< 0.010	< 0.010
April	< 0.01	< 0.010	< 0.020	0.029	< 0.010	< 0.010
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

NA = Not applicable. No discharge this month.
[a] *No results exceeded the permit limits.*

Table C - 5.3B (concluded)
1997 SPDES Results for Outfall 001 (WNSP001)
Metals

	Copper[a] Total Recoverable (mg/L)		**Iron** Total (mg/L)		**Lead[a]** Total Recoverable (mg/L)		**Manganese[a]** Total (mg/L)	
Permit Limit	0.030 mg/L daily maximum		Monitor		0.006 mg/L daily maximum		2.0 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	< 0.011	0.012	0.148	0.163	< 0.002	< 0.002	0.015	0.018
March	< 0.010	< 0.010	0.421	0.773	< 0.002	< 0.002	0.032	0.033
April	< 0.010	< 0.010	0.450	0.670	< 0.002	0.002	0.06	0.07
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	< 0.010	< 0.010	0.285	0.450	< 0.002	0.002	< 0.018	0.026
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.010	< 0.010	0.077	0.100	< 0.002	< 0.002	0.012	0.012
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	< 0.010	< 0.010	0.175	0.200	< 0.002	< 0.002	0.022	0.023

	Nickel[a] Total Recoverable (mg/L)		**Selenium[a]** Total Recoverable (mg/L)		**Vanadium[a]** Total Recoverable (mg/L)		**Zinc[a]** Total Recoverable (mg/L)	
Permit Limit	0.14 mg/L daily maximum		0.004 mg/L daily maximum		0.014 mg/L daily maximum		0.48 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	< 0.040	< 0.040	< 0.003	< 0.003	< 0.010	< 0.010	0.068	0.110
March	< 0.040	< 0.040	< 0.003	< 0.003	< 0.010	< 0.010	< 0.013	0.016
April	< 0.020	< 0.020	< 0.003	< 0.003	< 0.010	< 0.010	< 0.010	< 0.010
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	< 0.040	< 0.040	< 0.003	< 0.003	< 0.010	< 0.010	< 0.010	< 0.010
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.040	< 0.040	< 0.003	< 0.003	< 0.010	< 0.010	< 0.010	< 0.010
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	< 0.040	< 0.040	< 0.003	< 0.003	< 0.010	< 0.010	< 0.010	< 0.010

NA = Not applicable. No discharge this month.
[a] No results exceeded the permit limits.

Table C - 5.3C

1997 SPDES Results for Outfall 001 (WNSP001)
Organics

VOLATILES

	2-Butanone[a] (mg/L)		Dichlorodifluoromethane[a] (mg/L)		Trichlorofluoromethane[a] (mg/L)		Xylene[a] (mg/L)	
Permit Limit	0.5 mg/L daily maximum		0.01 mg/L daily maximum		0.01 mg/L daily maximum		0.05 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
March	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
April	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	< 0.010	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

SEMIVOLATILES

	Alpha-BHC[a] (mg/L)		3,3'-Dichlorobenzidine[a] (mg/L)		Hexachlorobenzene[a] (mg/L)	
Permit Limit	0.00001 mg/L daily maximum		0.01 mg/L daily maximum		0.02 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February	< 0.00001	< 0.00001	< 0.009	<0.009	< 0.010	< 0.010
March	< 0.00001	< 0.00001	< 0.009	<0.009	< 0.010	< 0.010
April	< 0.000005	< 0.000005	< 0.010	<0.010	< 0.010	< 0.010
May	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
June	< 0.000009	< 0.000009	< 0.010	< 0.010	< 0.010	< 0.010
July	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
October	< 0.000009	< 0.000009	< 0.0099	< 0.0099	< 0.010	< 0.010
November	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December	< 0.000009	< 0.000009	< 0.0099	< 0.0099	< 0.010	< 0.010

NA = Not applicable. No discharge this month.

[a] *No results exceeded the permit limit.*

Table C - 5.3C (concluded)

1997 SPDES Results for Outfall 001 (WNSP001)
Organics

***SEMIVOLATILES** (concluded)*

	Heptachlor[a] (mg/L)		**Tri-n-butyl-phosphate[a]** (mg/L)	
Permit Limit	0.00001 mg/L daily maximum		32 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**
January	*NA*	*NA*	*NA*	*NA*
February	<0.00001	<0.00001	<0.010	<0.010
March	<0.00001	<0.00001	<0.010	<0.010
April	<0.000005	<0.000005	<0.010	<0.010
May	*NA*	*NA*	*NA*	*NA*
June	<0.000009	<0.000009	<0.010	<0.010
July	*NA*	*NA*	*NA*	*NA*
August	*NA*	*NA*	*NA*	*NA*
September	*NA*	*NA*	*NA*	*NA*
October	<0.000009	<0.000009	<0.010	<0.010
November	*NA*	*NA*	*NA*	*NA*
December	<0.000009	<0.000009	<0.010	<0.010

NA = Not applicable. No discharge this month.
[a] *No results exceeded the permit limit.*

Table C - 5.4

1997 SPDES Results for Outfall 007 (WNSP007)
Water Quality and Iron

	Ammonia (mg/L)		**BOD-5 day**[a] (mg/L)		**Chlorine**[a] Total Residue (mg/L)		**Discharge Rate** Total (MGD)		**Iron** (mg/L)	
Permit Limit	Monitor		10 mg/L daily maximum		0.1 mg/L daily maximum		Monitor		Monitor	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	< 0.066	0.078	< 2.2	2.6	0.02	0.02	0.013	0.016	< 0.050	0.090
February	0.060	0.069	< 2.2	2.5	0.02	0.03	0.018	0.023	0.125	0.188
March	< 0.055	0.066	< 2.1	2.3	0.02	0.02	0.022	0.028	0.114	0.170
April	< 0.055	0.062	2.6	3.5	0.03	0.04	0.026	0.035	0.093	0.125
May	0.377	0.850	< 2.0	2.0	0.03	0.04	0.015	0.024	< 0.037	0.050
June	< 0.127	0.280	< 2.1	2.2	0.02	0.03	0.009	0.025	0.034	0.038
July	0.477	0.850	< 2.0	<2.0	0.03	0.06	0.019	0.024	< 0.038	0.046
August	< 0.187	0.260	< 2.0	<2.0	0.02	0.02	0.018	0.022	< 0.030	< 0.030
September	0.120	0.140	< 3.5	5.5	0.03	0.04	0.011	0.018	< 0.080	0.180
October	0.200	0.220	< 2.3	2.7	0.03	0.04	0.010	0.019	< 0.098	0.210
November	0.173	0.190	< 2.0	2.0	0.02	0.02	0.010	0.012	< 0.049	0.087
December	0.310	0.520	< 2.6	3.1	0.02	0.02	0.021	0.051	0.052	0.062

	Nitrite[a] (mg/L)		**Oil & Grease**[a] (mg/L)		**pH**[a] (standard units)		**Solids**[a] Settleable (mL/L)		**Solids**[a] Total Suspended (mg/L)	
Permit Limit	0.1 mg/L daily maximum		15 mg/L daily maximum		6.5 to 8.5		0.3 mL/L daily maximum		30.0 mg/L daily average 45.0 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Min**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	< 0.050	< 0.050	< 1.2	1.5	7.7	8.3	< 0.1	< 0.1	< 2.0	< 2.0
February	< 0.05	< 0.050	< 1.2	1.6	7.5	8.1	< 0.1	< 0.1	< 7.1	11.7
March	< 0.05	< 0.050	< 1.6	2.9	7.5	7.9	< 0.1	< 0.1	< 2.6	3.8
April	< 0.038	< 0.050	< 1.1	1.2	7.5	7.8	< 0.1	< 0.1	< 2.8	3.5
May	< 0.01	< 0.010	< 1.0	1.0	7.6	8.0	< 0.1	< 0.1	< 1.7	< 2.0
June	< 0.02	< 0.050	< 5.2	5.5	7.4	8.0	< 0.1	< 0.1	< 3.8	6.0
July	< 0.05	< 0.050	< 5.0	< 5.0	7.6	7.8	< 0.1	< 0.1	< 8.3	22.0
August	< 0.050	< 0.050	< 5.0	< 5.0	7.7	7.9	< 0.1	< 0.1	< 2.2	2.5
September	< 0.04	< 0.050	< 5.0	< 5.0	7.5	7.7	< 0.1	< 0.1	< 2.2	3.5
October	< 0.024	< 0.050	< 5.0	< 5.0	7.5	7.8	< 0.1	< 0.1	< 1.6	< 2.0
November	< 0.05	< 0.050	< 5.0	< 5.0	7.9	8.1	< 0.1	< 0.1	< 2.0	2.0
December	< 0.05	< 0.050	< 5.1	5.3	7.6	8.0	< 0.1	< 0.1	< 2.0	2.0

[a] *No results exceeded the permit limit.*

Table C - 5.5

1997 SPDES Results for Outfall 008 (WNSP008)
Water Quality

	BOD-5 day (mg/L)		**Discharge Rate** (GPD)		**pH**[a] (standard units)	
Permit Limit	5.0 mg/L daily maximum		Monitor		6.5 to 8.5	
Month	**Avg**	**Max**	**Avg**	**Max**	**Min**	**Max**
January	< 2.0	< 2.0	1562	2078	6.8	7.6
February	< 2.0	< 2.0	2574	3224	6.7	7.2
March	< 2.0	< 2.0	2726	3047	6.6	7.2
April	< 2.0	< 2.0	2001	2522	6.7	7.3
May	< 2.0	< 2.0	1924	1986	6.7	7.2
June	< 2.0	< 2.0	2542	3363	6.5	6.9
July	< 2.0	< 2.0	1403	1714	6.8	7.3
August	< 2.0	< 2.0	1471	1666	6.6	7.2
September	< 4.4	9.3	1525	1917	6.5	7.2
October	< 2.0	< 2.0	1340	1996	6.6	7.1
November	< 2.0	< 2.0	1956	2474	6.7	7.1
December	< 3.3	5.9	2154	2441	6.8	7.0

Metals

	Cadmium[a] Total Recoverable (mg/L)		**Iron** Total (mg/L)		**Lead** [a] Total Recoverable (mg/L)	
Permit Limit	0.002 mg/L daily maximum		Monitor		0.006 mg/L daily maximum	
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**	**Max**
January	< 0.001	< 0.001	< 0.075	0.110	< 0.002	< 0.002
February	< 0.001	0.001	0.064	0.086	< 0.002	< 0.002
March	< 0.001	< 0.001	< 0.098	0.226	< 0.002	< 0.002
April	< 0.001	< 0.001	< 0.030	< 0.030	< 0.002	< 0.002
May	< 0.001	< 0.001	< 0.032	0.035	< 0.003	0.005
June	< 0.001	< 0.001	< 0.032	0.037	< 0.002	0.002
July	< 0.001	< 0.001	< 0.036	0.043	< 0.002	0.003
August	< 0.001	< 0.001	< 0.033	0.040	< 0.002	< 0.002
September	< 0.001	< 0.001	< 0.033	0.035	< 0.003	0.005
October	< 0.001	< 0.001	< 0.030	< 0.030	< 0.002	< 0.002
November	< 0.001	< 0.001	< 0.063	0.130	< 0.002	< 0.002
December	< 0.001	< 0.001	< 0.049	0.063	< 0.003	0.004

[a] *No results exceeded the permit limits.*

Table C - 5.6

1997 SPDES Results for Sums of Outfalls 001, 007, and 008
Water Quality

	Ammonia* [a] Flow-Weighted Average (mg/L)		**BOD-5 day** [a] (mg/L)		**Iron**[a] Flow-Weighted Average (mg/L)
Permit Limit	1.49 mg/L daily average; 2.1 mg/L daily maximum		5.0 mg/L daily average		0.30 mg/L daily average
Month	**Avg**	**Max**	**Avg**	**Max**	**Avg**
January	< 0.066	0.078	< 2.2	< 2.5	0.00
February	0.475	0.692	< 2.0	< 2.0	0.00
March	< 0.757	< 1.100	< 2.0	< 2.0	0.00
April	< 0.218	< 0.539	< 2.5	< 3.4	0.00
May	0.377	0.850	< 2.0	< 2.0	0.00
June	< 0.167	0.280	< 2.1	< 2.2	0.00
July	0.477	0.850	< 2.0	< 2.0	0.00
August	< 0.187	0.260	< 2.0	< 2.0	0.00
September	0.120	0.140	< 3.6	5.9	0.00
October	0.158	0.220	< 4.5	< 9.6	0.00
November	0.173	0.190	< 2.0	< 2.0	0.00
December	0.170	0.210	< 2.9	< 3.1	0.00

1997 SPDES Results for Outfall 116
Water Quality

	Total Dissolved Solids (mg/L)	
Permit Limit	500 mg/L daily maximum	
Month	**Avg**	**Max**
January	*NA*	*NA*
February	379	462
March	335	360
April	482	551
May	*NA*	*NA*
June	337	360
July	*NA*	*NA*
August	*NA*	*NA*
September	*NA*	*NA*
October	348	364
November	*NA*	*NA*
December	351	444

NA = Not applicable. No discharge this month.
** = Sum of outfalls 001 and 007 only*
[a] *No results exceeded the permit limits.*

Table C - 5.7

1997 Annual/Semiannual SPDES Results for Outfall 001 (WNSP001)

Water Quality

Measured Annually:	**Chloroform[a]** (mg/L)
Permit Limit	0.3 mg/L daily maximum
Monitoring period	**Max**
2/1/96 - 1/31/97	< 0.002

Metals

Measured annually or semiannually:	**Antimony[a]** Total (mg/L)	**Barium[a]** Total (mg/L)	**Titanium[a]** Total (mg/L)
Permit Limit	1.0 mg/L daily maximum	0.5 mg/L daily maximum	0.65 mg/L daily maximum
Monitoring Period	**Max**	**Max**	**Max**
2/1/96 - 1/31/97	< 0.060	< 0.050	*NA*
8/1/96 - 1/31/97	*NA*	*NA*	< 0.050
2/1/97 - 7/31/97	*NA*	*NA*	< 0.050

Organics

Measured semiannually:	**bis (2-Ethylhexyl) phthlate[a]** (mg/L)	**Dodecene, 4[a]** (mg/L)
Permit Limit	1.6 mg/L daily maximum	0.6 mg/L daily maximum
Monitoring period	**Max**	**Max**
8/1/96 - 1/31/97	< 0.010	< 0.06
2/1/96 - 1/31/97	< 0.010	< 0.06

NA - Not analyzed during this monitoring period.
[a] No results exceeded the permit limits.

Table C - 5.8

1997 Annual SPDES Results for Outfall 007 (WNSP007) and Outfall 008 (WNSP008)

Outfall 007

Water Quality

Measured annually:	**Chloroform**[a] (mg/L)
Permit Limit	0.20 mg/L daily maximum
Monitoring Period	**Max**
2/1/96 - 1/31/97	0.045

Outfall 008

Water Quality

Measured annually:	**Arsenic**[a] Total (mg/L)	**Chromium**[a] Total (mg/L)	**Silver**[a] Total (mg/L)	**Zinc** Total (mg/L)
Permit Limit	0.17 mg/L daily maximum	0.13 mg/L daily maximum	0.008 mg/L daily maximum	0.100 mg/L daily maximum
Monitoring Period	**Max**	**Max**	**Max**	**Max**
2/1/96 - 1/31/97	< 0.003	< 0.010	< 0.003	0.257

[a] *No results exceeded the permit limits.*

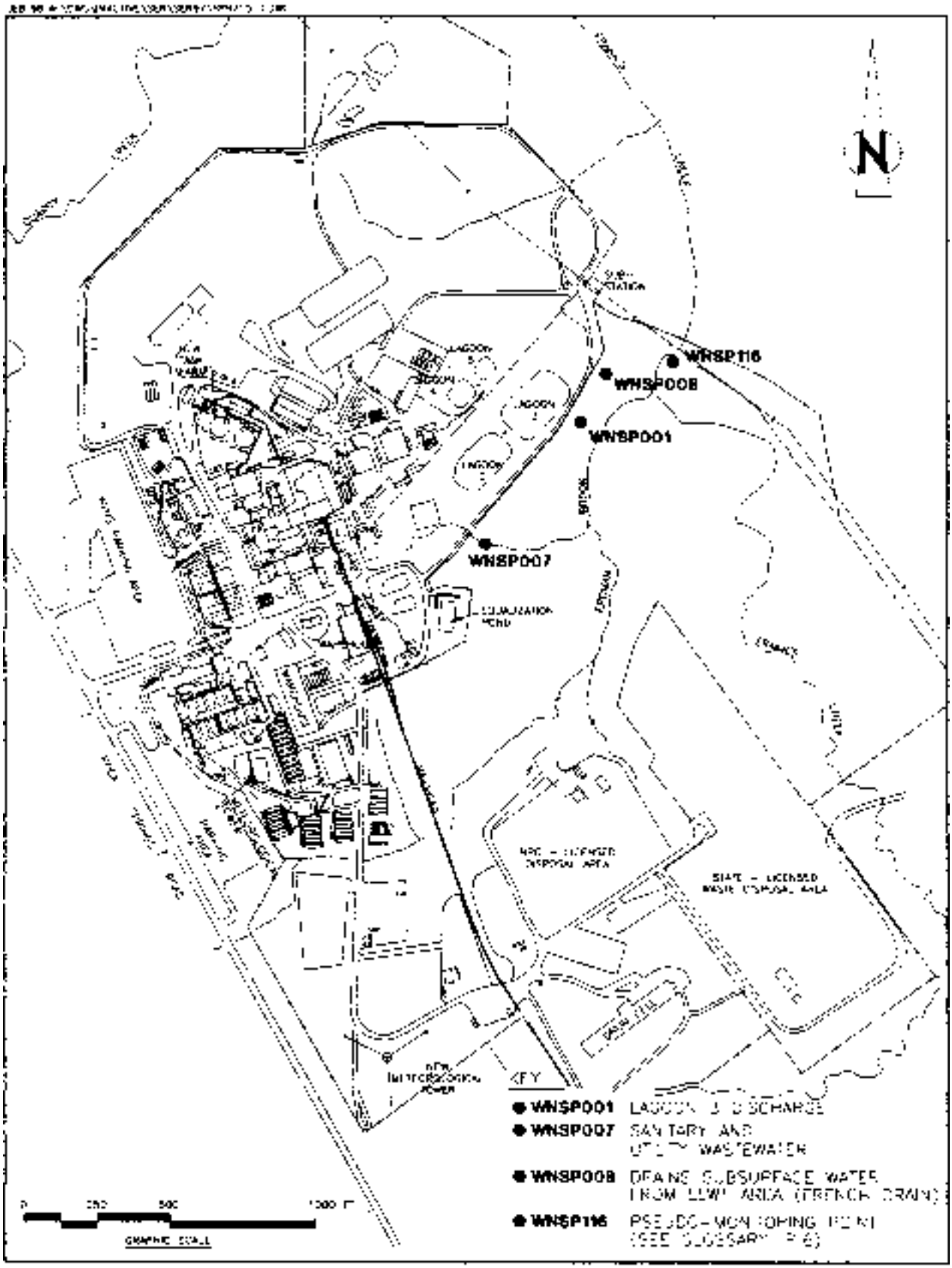

Figure C-5.1. SPDES Monitoring Points.