

Diagrams of MBC

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IV. Metro Biosolids Center (MBC) Data

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- B. Digester and Digested Sludge Data Summary
- C. Gas Production
- D. Chemical usage
- E. Graphs of chemical usage
- F. Facilities Out-of-service Report (2006)
- G. Solids Handling Annual Report
- H. Results of "Title 22" Sludge Hazardous Waste Tests

A. Return Stream Data Summary

This section presents the results of analyses of the Metro Biosolids Center (MBC) return stream (MBC_COMBCN) for 2006. This return stream is continuously sampled by a flow proportioned, autosampler connected to the return stream lines at MBC. Each 24-hour¹ composite is collected and analyzed for pH, BOD, TSS, TVSS, TS, and TVS daily. An aliquot is preserved and added to a monthly (calendar month) composite for analysis of trace metals.

The data is presented in tables of monthly averages and select parameters' monthly averages are graphed. Tables of daily values for select parameters (such as TSS, Flow, etc.) along with graphs are also provided.

¹ approximately midnight to midnight each day.

City of San Diego
Metropolitan Wastewater Department

Metro Biosolids Center

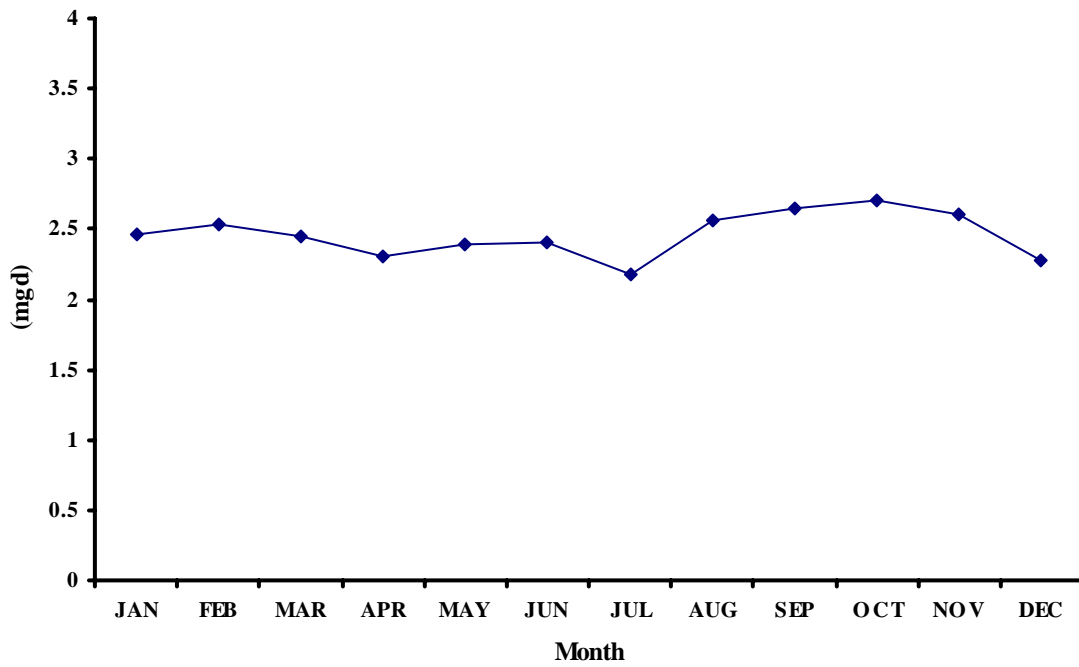
Monthly Averages of Daily Analyses

From 01-JAN-2006 to 31-DEC-2006

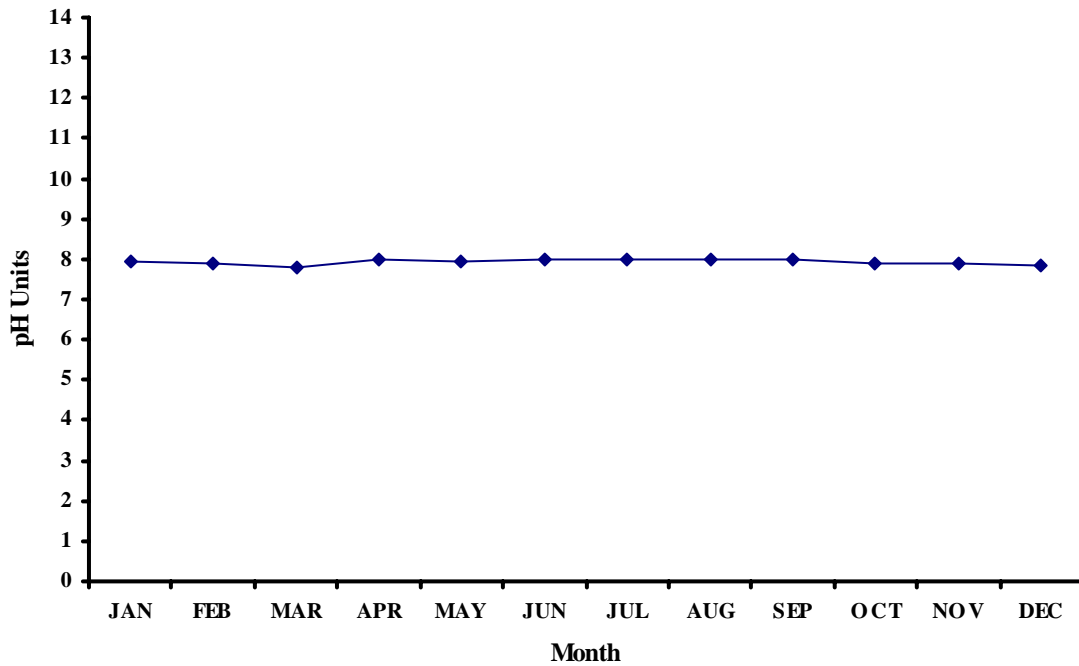
	FLOW	PH	BOD	TSS	VSS	TS	TVS	TSS Mass Emmissions (lbs/Day)
	MGD	pH Units	mg/L	mg/L	mg/L	Wt%	Wt%	
JANUARY -2006	2.46	7.92	384	1370	914	0.29	40	28107
FEBRUARY -2006	2.53	7.89	196	421	311	0.23	34	8883
MARCH -2006	2.45	7.81	249	763	579	0.26	37	15590
APRIL -2006	2.30	8.01	251	880	595	0.27	42	16880
MAY -2006	2.39	7.93	410	1320	929	0.35	47	26311
JUNE -2006	2.40	7.98	327	902	618	0.30	47	18054
JULY -2006	2.18	7.98	312	910	626	0.29	48	16545
AUGUST -2006	2.56	7.98	266	630	447	0.26	46	13451
SEPTEMBER-2006	2.65	7.98	363	1100	756	0.30	47	24311
OCTOBER -2006	2.70	7.90	409	929	658	0.33	43	20919
NOVEMBER -2006	2.61	7.89	391	1390	963	0.33	43	30257
DECEMBER -2006	2.28	7.85	424	2330	1320	0.37	39	44305
Average	2.46	7.93	332	1079	726	0.30	43	21968

'Average' = Annual average of Monthly Averages.

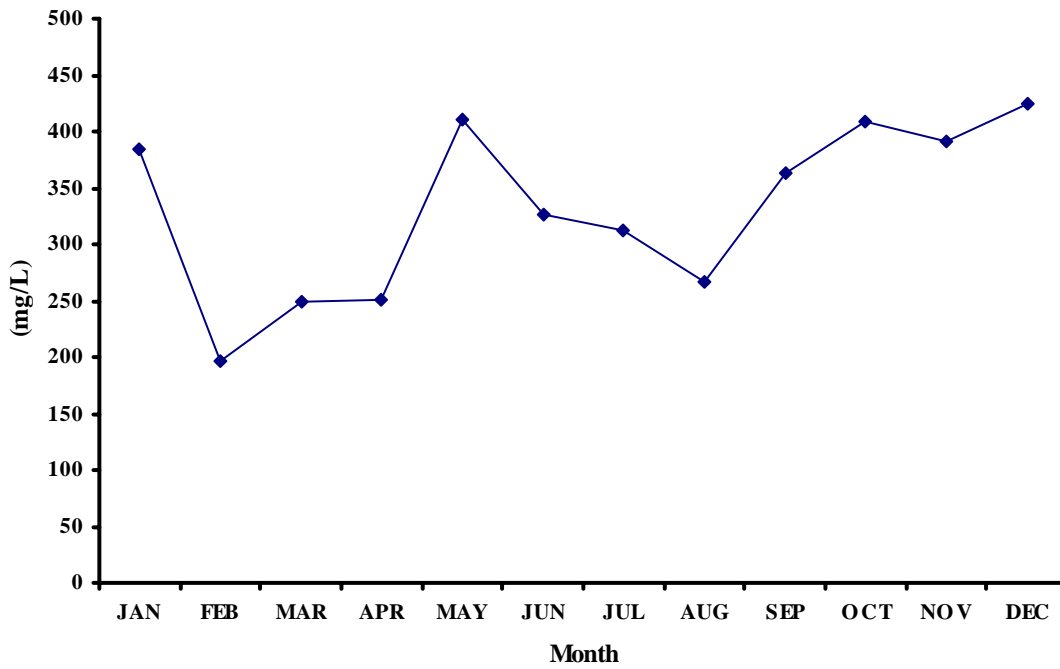
**MBC Combined Centrate
2006 Monthly Averages - Flow (mgd)**



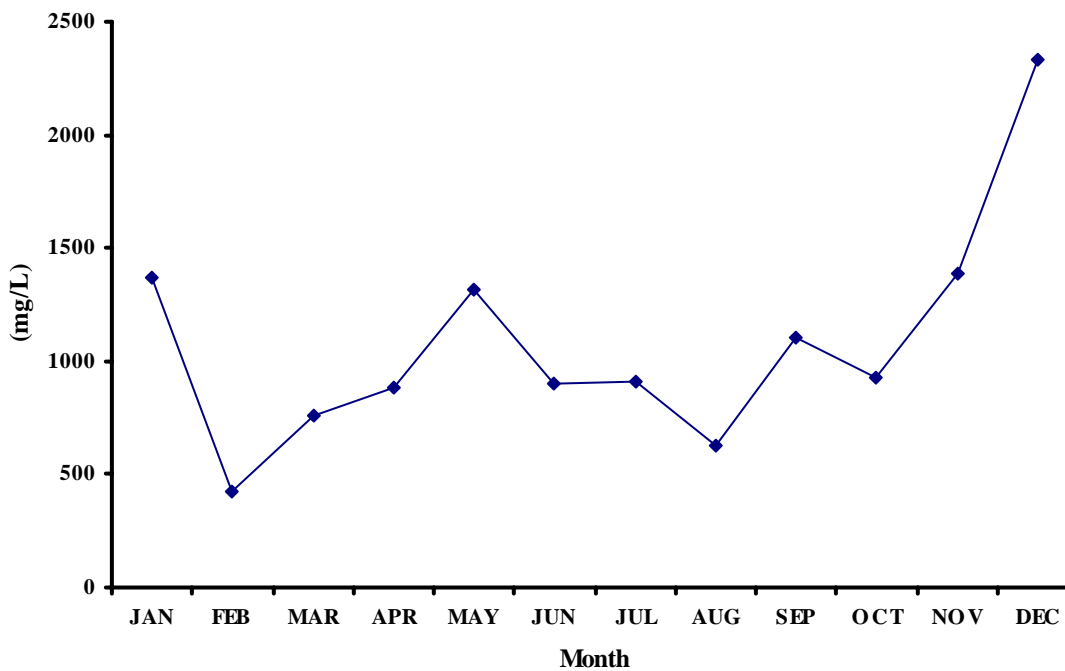
**MBC Combined Centrate
2006 Monthly Averages - pH**



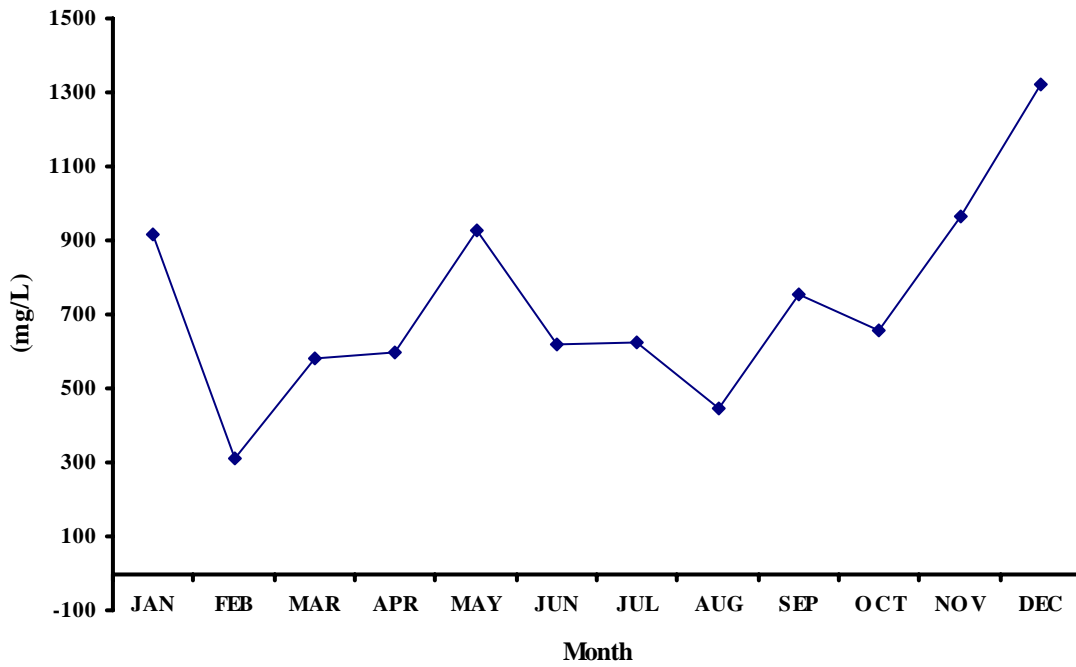
**MBC Combined Centrate
2006 Monthly Averages - BOD (mg/L)**



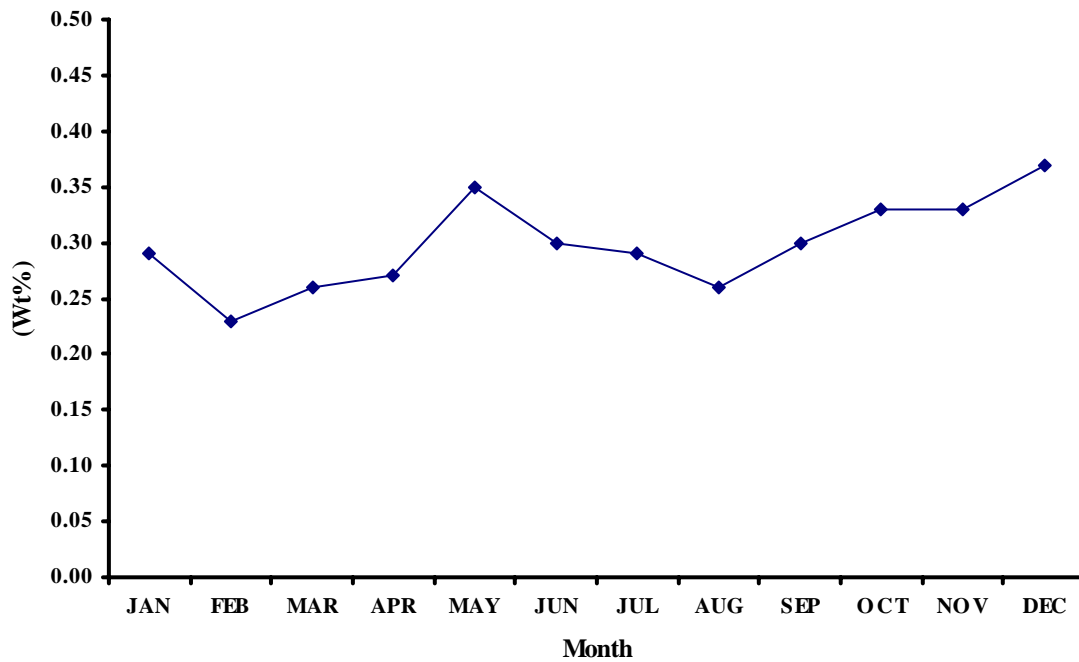
**MBC Combined Centrate
2006 Monthly Averages - TSS (mg/L)**



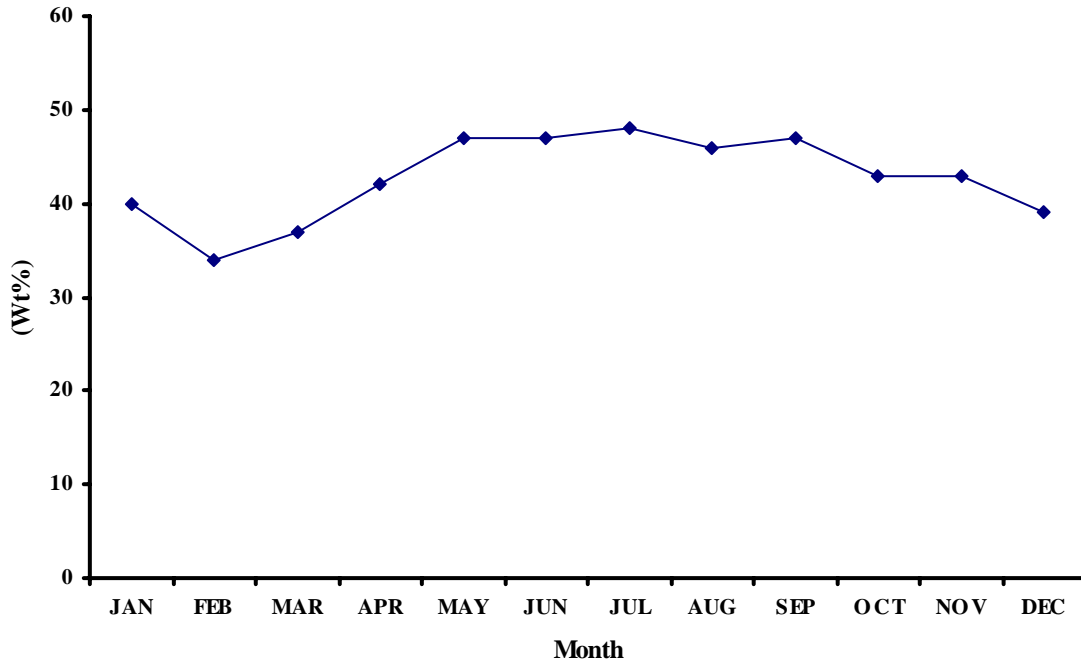
**MBC Combined Centrate
2006 Monthly Averages - VSS (mg/L)**



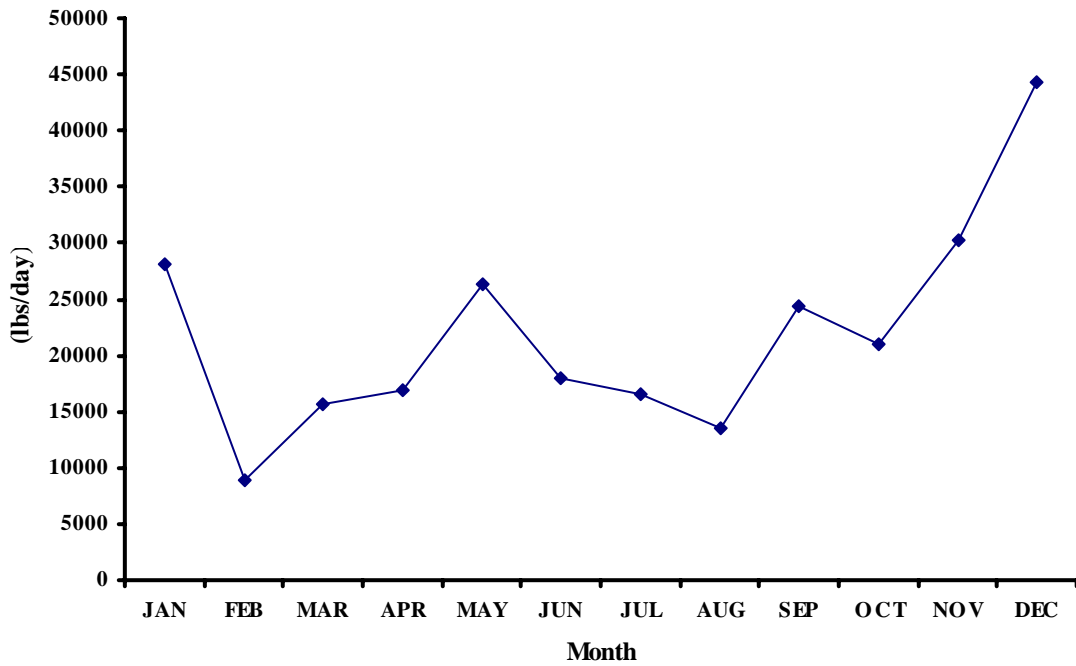
**MBC Combined Centrate
2006 Monthly Averages - Percent TS**



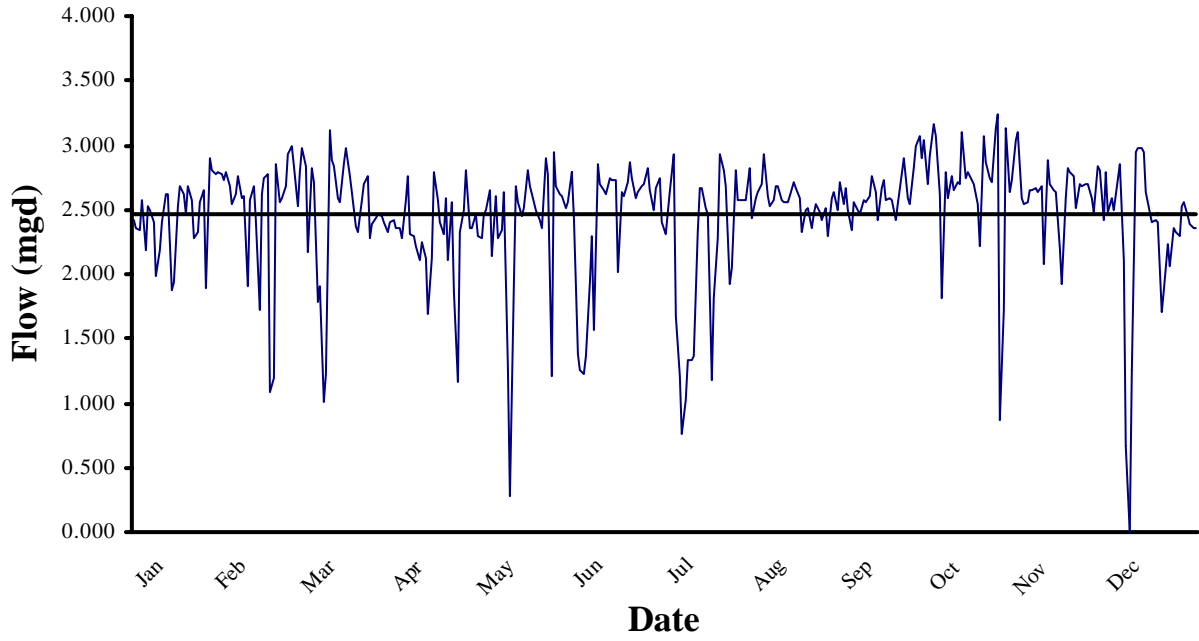
**MBC Combined Centrate
2006 Monthly Averages - Percent TVS**



**MBC Combined Centrate
2006 Monthly Averages - TSS Mass Emission (lbs/day)**



2006 MBC Return Stream Flow (mgd)



Metro Biosolids Center
2006 MBC Return Stream Daily Flows (mgd)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.422	2.735	2.831	2.362	2.460	2.438	2.405	2.439	2.548	2.911	2.588	2.475
2	2.363	2.792	2.171	2.362	2.501	1.383	2.303	2.585	2.664	3.162	2.544	2.595
3	2.341	2.690	2.828	2.278	2.647	1.254	2.486	2.634	2.496	3.067	2.563	2.499
4	2.579	2.540	2.710	2.569	2.135	1.224	2.636	2.695	2.339	2.614	2.644	2.735
5	2.182	2.624	1.780	2.756	2.601	1.369	2.929	2.933	2.555	1.821	2.658	2.848
6	2.531	2.760	1.902	2.313	2.282	1.933	1.672	2.601	2.491	2.798	2.667	2.103
7	2.495	2.591	1.000	2.295	2.344	2.302	1.202	2.522	2.467	2.594	2.639	0.671
8	2.408	2.600	1.224	2.221	2.638	1.559	0.761	2.569	2.579	2.759	2.677	0.000
9	1.979	1.901	3.121	2.112	1.307	2.846	1.027	2.684	2.566	2.654	2.078	1.250
10	2.183	2.577	2.882	2.248	0.275	2.703	1.341	2.690	2.606	2.713	2.882	2.941
11	2.410	2.677	2.840	2.119	1.936	2.647	1.327	2.567	2.764	2.692	2.696	2.978
12	2.628	2.424	2.591	1.684	2.679	2.619	1.357	2.556	2.633	3.096	2.645	2.976
13	2.618	1.720	2.552	2.117	2.552	2.750	2.330	2.559	2.418	2.752	2.631	2.943
14	1.877	2.624	2.854	2.791	2.454	2.727	2.672	2.603	2.662	2.790	2.203	2.638
15	1.943	2.749	2.984	2.579	2.513	2.726	2.661	2.719	2.735	2.723	1.925	2.480
16	2.525	2.781	2.764	2.402	2.809	2.013	2.512	2.665	2.572	2.690	2.592	2.402
17	2.683	1.091	2.638	2.302	2.677	2.641	2.464	2.581	2.583	2.550	2.821	2.413
18	2.617	1.197	2.377	2.597	2.552	2.598	1.185	2.327	2.567	2.216	2.796	2.399
19	2.457	2.852	2.328	2.109	2.495	2.717	1.812	2.493	2.418	3.071	2.754	1.703
20	2.683	2.556	2.574	2.554	2.423	2.865	2.287	2.516	2.545	2.866	2.509	1.881
21	2.568	2.584	2.698	1.856	2.361	2.751	2.930	2.354	2.768	2.742	2.692	2.239
22	2.286	2.687	2.767	1.158	2.896	2.587	2.804	2.465	2.904	2.712	2.688	2.065
23	2.330	2.934	2.272	2.327	2.769	2.629	2.678	2.537	2.586	3.133	2.705	2.349
24	2.558	2.999	2.381	2.492	1.207	2.686	1.924	2.481	2.536	3.245	2.692	2.327
25	2.652	2.843	2.436	2.800	2.945	2.692	2.039	2.425	2.815	0.871	2.582	2.287
26	1.887	2.534	2.461	2.357	2.679	2.829	2.806	2.519	2.987	1.723	2.476	2.526
27	2.902	2.793	2.457	2.350	2.627	2.653	2.568	2.294	3.077	3.136	2.841	2.555
28	2.802	2.975	2.398	2.460	2.608	2.489	2.573	2.582	2.892	2.632	2.799	2.453
29	2.777		2.326	2.299	2.509	2.668	2.580	2.639	3.042	2.731	2.417	2.380
30	2.789		2.403	2.274	2.565	2.737	2.573	2.499	2.702	3.037	2.783	2.361
31	2.776		2.414		2.789		2.818	2.716		3.099		2.354
Avg	2.460	2.530	2.451	2.305	2.395	2.401	2.183	2.563	2.651	2.697	2.606	2.285
Min	1.877	1.091	1.000	1.158	0.275	1.224	0.761	2.294	2.339	0.871	1.925	0.000
Max	2.902	2.999	3.121	2.800	2.945	2.865	2.930	2.933	3.077	3.245	2.882	2.978

POINT LOMA WASTEWATER TREATMENT PLANT
METRO BIOSOLIDS CENTER
ANNUAL SUMMARY OF CENTRATE COMPOSITES
Trace Metals

From: 01-JAN-2006 to: 31-DEC-2006

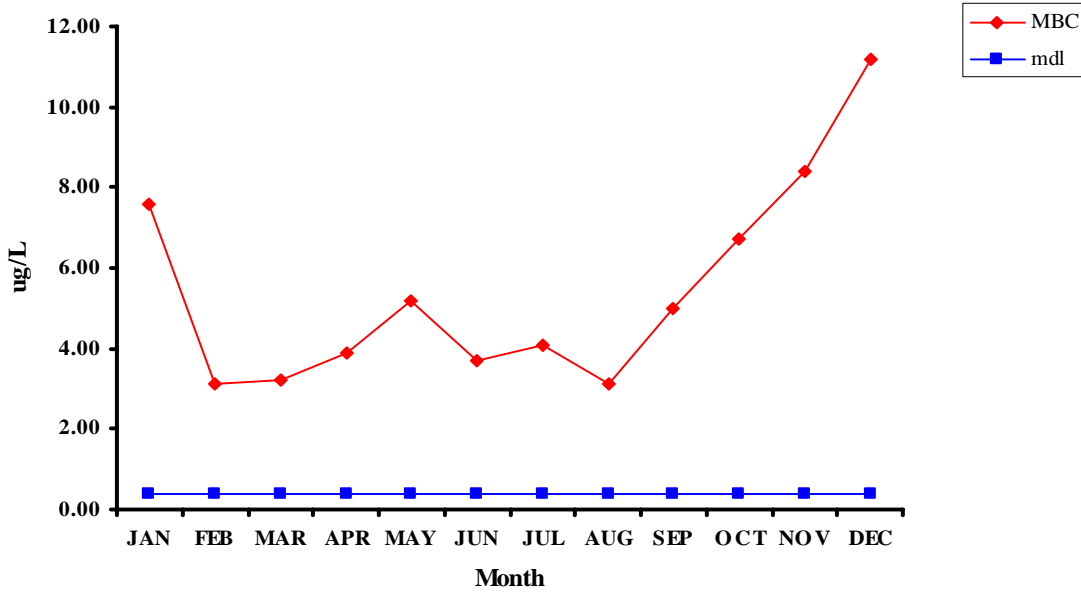
Source:			MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN
Date:			31-JAN-2006	28-FEB-2006	31-MAR-2006	30-APR-2006	31-MAY-2006	30-JUN-2006
Sample ID:			P329985ts	P333128	P336176	P340220	P343567	P346983
=====	=====	=====	=====	=====	=====	=====	=====	=====
Aluminum	47	UG/L	631	1710	2200	3530	8040	3520
Antimony	2.9	UG/L	ND	ND	1.2	2.7	<1.0	1.2
Arsenic	.4	UG/L	7.6	3.1	3.2	3.9	5.2	3.7
Barium	.039	UG/L	90	143	178	286	509	268
Beryllium	.04	UG/L	ND	ND	ND	ND	0.12	0.21
Cadmium	.53	UG/L	ND	1.0	0.4	0.9	1.8	1.0
Chromium	1.2	UG/L	5	8	13	19	37	15
Cobalt	.85	UG/L	3.2	2.6	5.2	4.5	5.9	4.7
Copper	.63	UG/L	88	388	316	402	758	417
Iron	37	UG/L	9300	20100	30100	38400	83800	44700
Lead	2	UG/L	ND	4	7	10	17	10
Manganese	.24	UG/L	168	364	455	416	923	907
Mercury	.09	UG/L	1.59	0.25	0.32	0.63	1.29	0.39
Molybdenum	.89	UG/L	3.6	6.5	7.5	8.6	15.0	5.1
Nickel	.53	UG/L	17	27	26	27	42	37
Selenium	.28	UG/L	6.51	3.04	3.82	3.75	5.37	4.55
Silver	.4	UG/L	1	ND	ND	ND	12	1
Thallium	3.9	UG/L	ND	ND	ND	5	ND	ND
Vanadium	.64	UG/L	15.5	17.2	22.1	22.2	48.8	23.4
Zinc	.55	UG/L	91	192	303	657	960	469

Source:			MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN	MBC_COMBCN
Date:			31-JUL-2006	31-AUG-2006	30-SEP-2006	31-OCT-2006	30-NOV-2006	31-DEC-2006
Sample ID:			P351413ts	P354949	P357893	P361404	P364926	P368379
=====	=====	=====	=====	=====	=====	=====	=====	=====
Aluminum	47	UG/L	4630	2720	5230	7270	7170	10500
Antimony	2.9	UG/L	1.9	ND	ND	ND	8.7	5.4
Arsenic	.4	UG/L	4.1	3.1	5.0	6.7	8.4	11.2
Barium	.039	UG/L	316	200	392	473	431	606
Beryllium	.04	UG/L	0.09	0.08	0.21	0.23	0.22	0.43
Cadmium	.53	UG/L	1.2	0.6	1.5	2.2	2.2	1.8
Chromium	1.2	UG/L	31	21	52	67	82	87
Cobalt	.85	UG/L	7.2	4.8	7.3	5.2	7.8	10.0
Copper	.63	UG/L	480	277	536	719	594	823
Iron	37	UG/L	48200	31100	65200	105000	92000	126000
Lead	2	UG/L	13	8	16	16	20	37
Manganese	.24	UG/L	745	467	669	930	947	769
Mercury	.09	UG/L	0.51	0.33	0.85	0.77	0.80	1.51
Molybdenum	.89	UG/L	12.5	8.6	14.7	19.6	21.5	23.8
Nickel	.53	UG/L	52	37	78	83	104	92
Selenium	.28	UG/L	4.74	2.95	4.75	5.93	6.45	8.53
Silver	.4	UG/L	8	2	8	10	26	45
Thallium	3.9	UG/L	5	3	3	ND	ND	ND
Vanadium	.64	UG/L	23.6	7.8	14.9	16.7	25.1	57.6
Zinc	.55	UG/L	572	328	705	992	931	1240

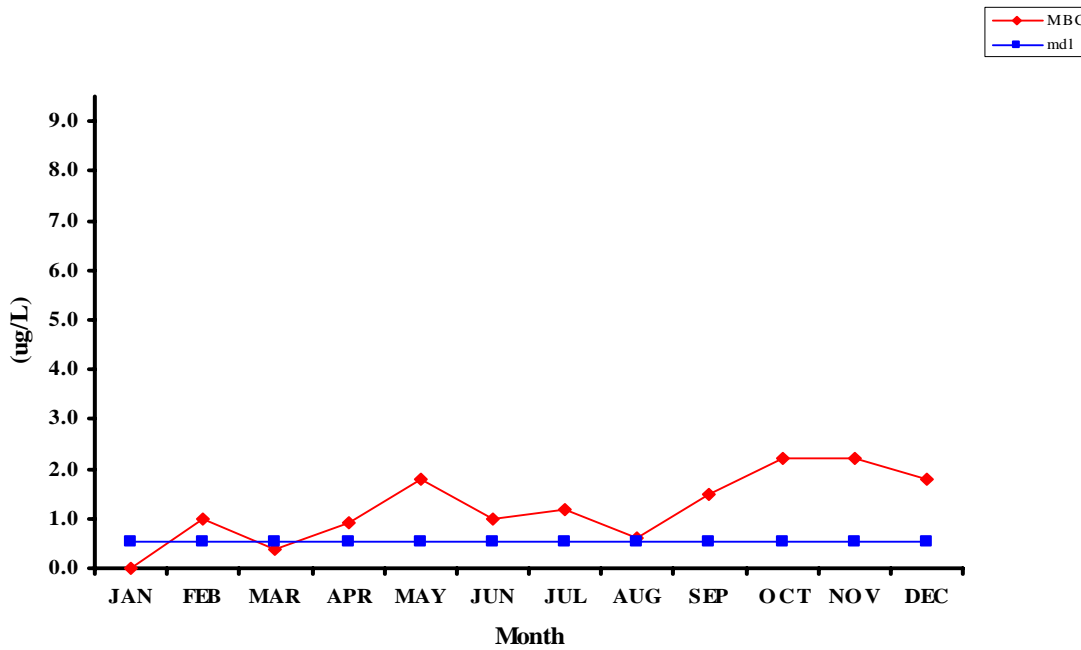
ND= Not Detected
NA= Not Analyzed
NS= Not Sampled
NR= Not Required

MBC_COMBCN= Metro Biosolids Center Combined Sludge Centrate.

Arsenic 2006 Monthly Averages

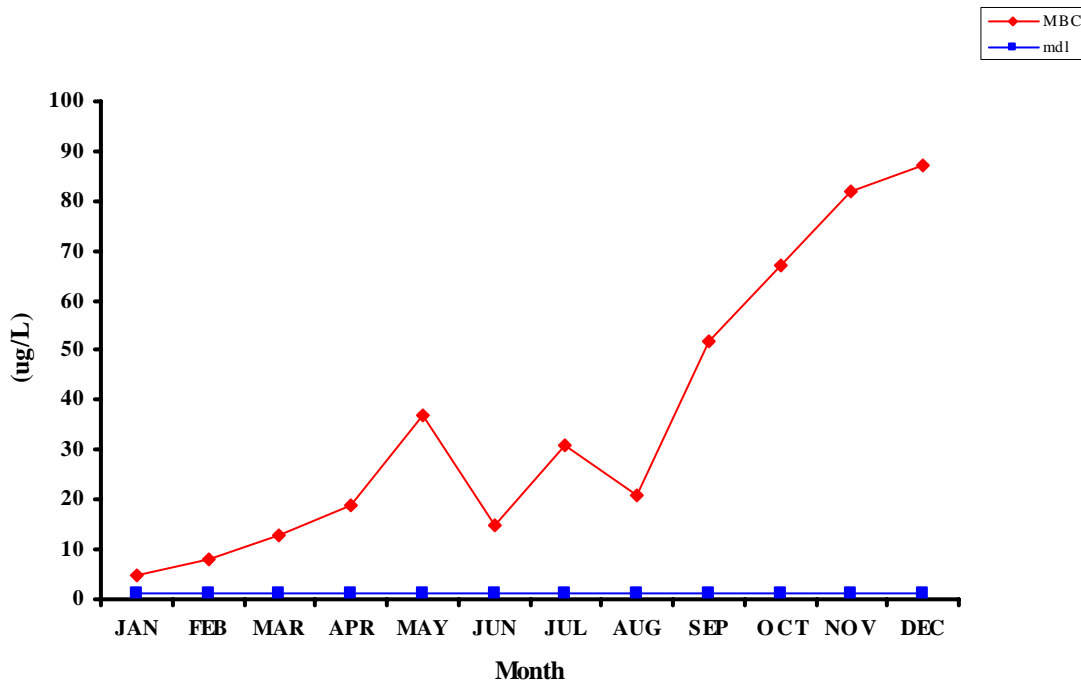


Cadmium 2006 Monthly Averages

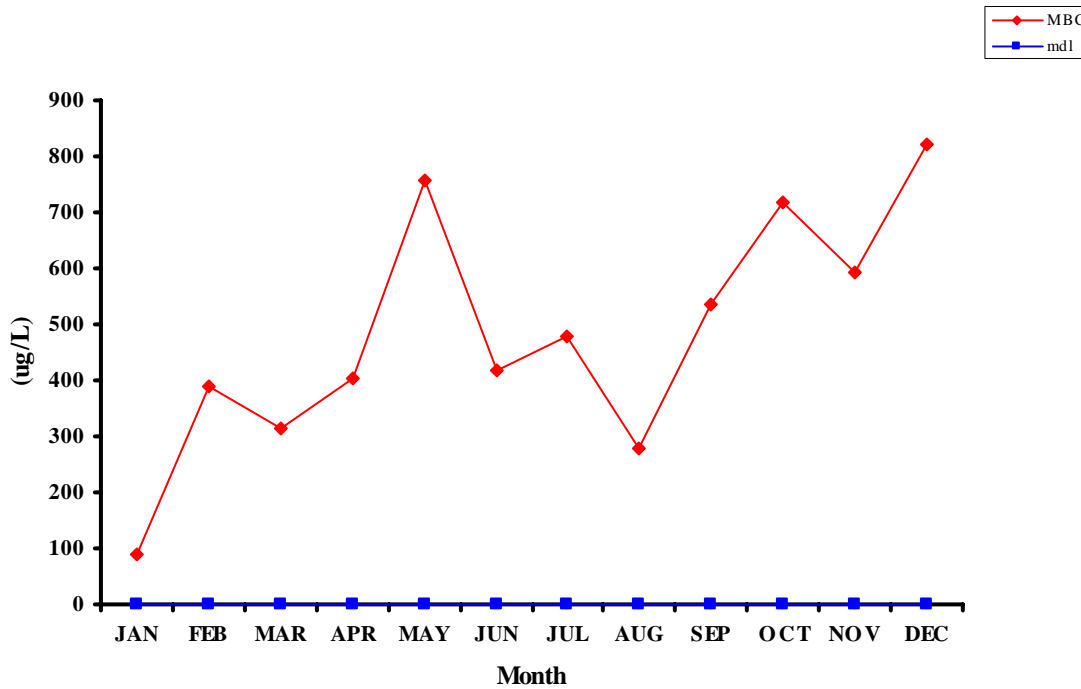


MBC = Metro Biosolids Center Combined Sludge Centrate.

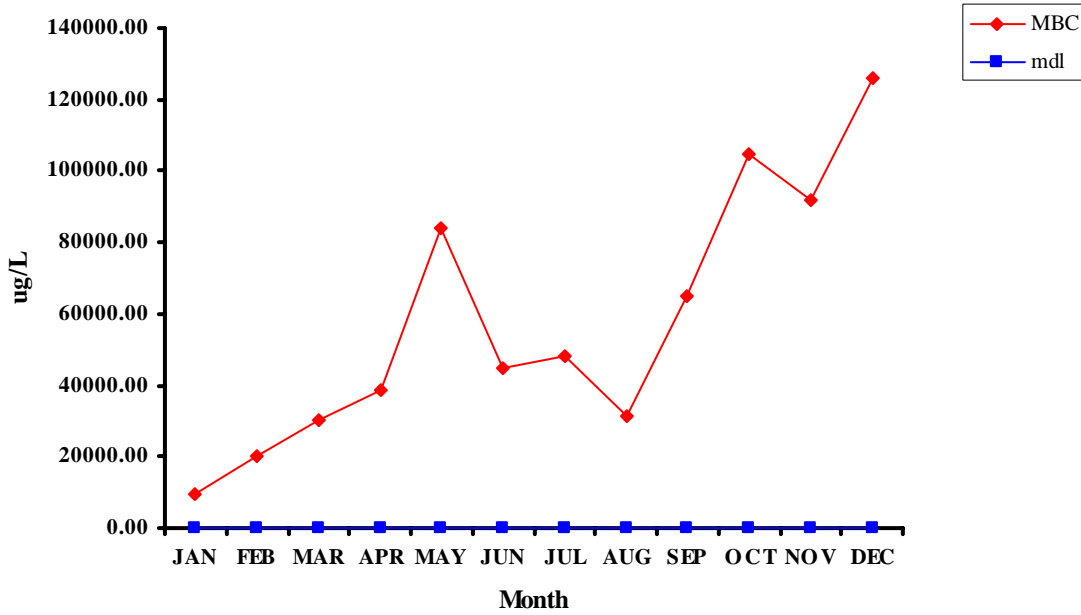
Chromium 2006 Monthly Averages



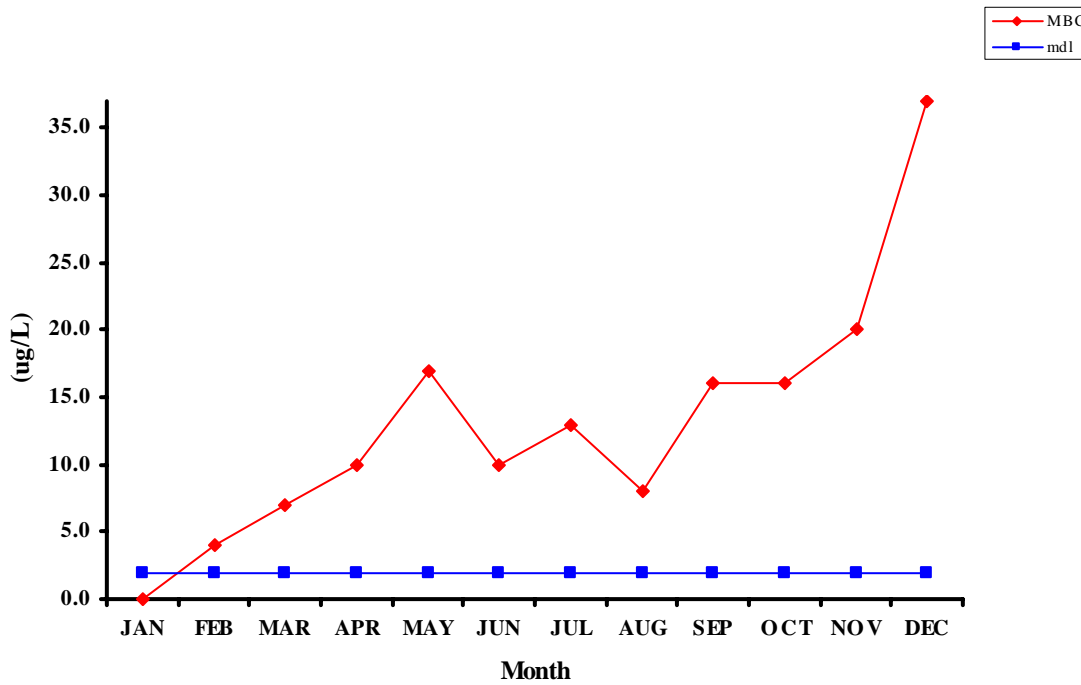
Copper 2006 Monthly Averages



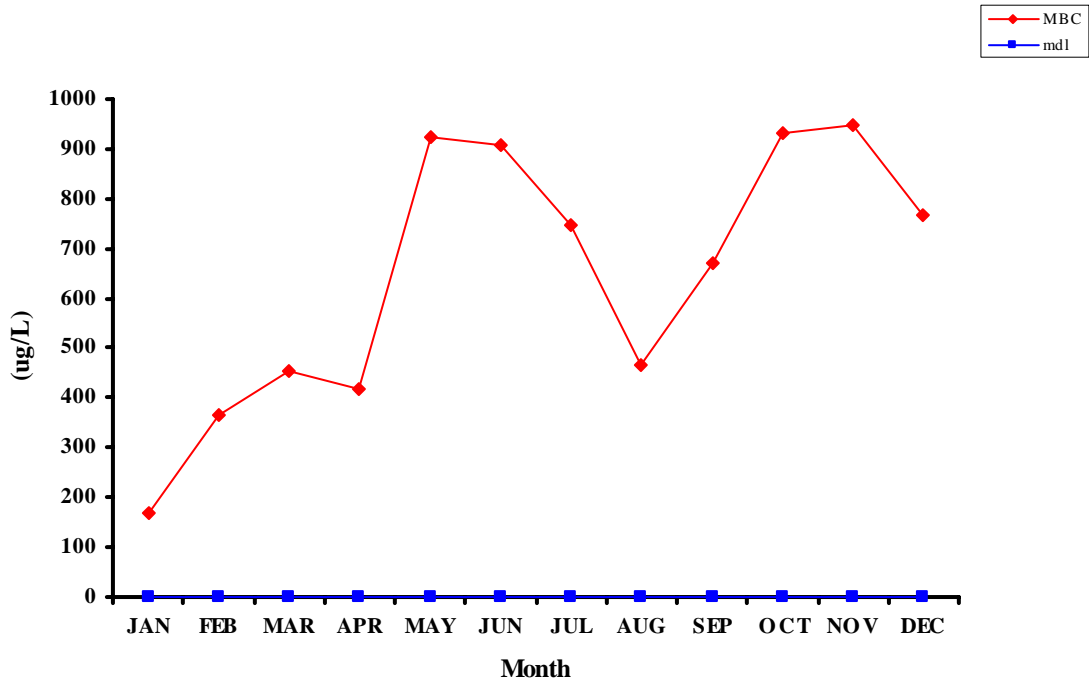
Iron 2006 Monthly Averages



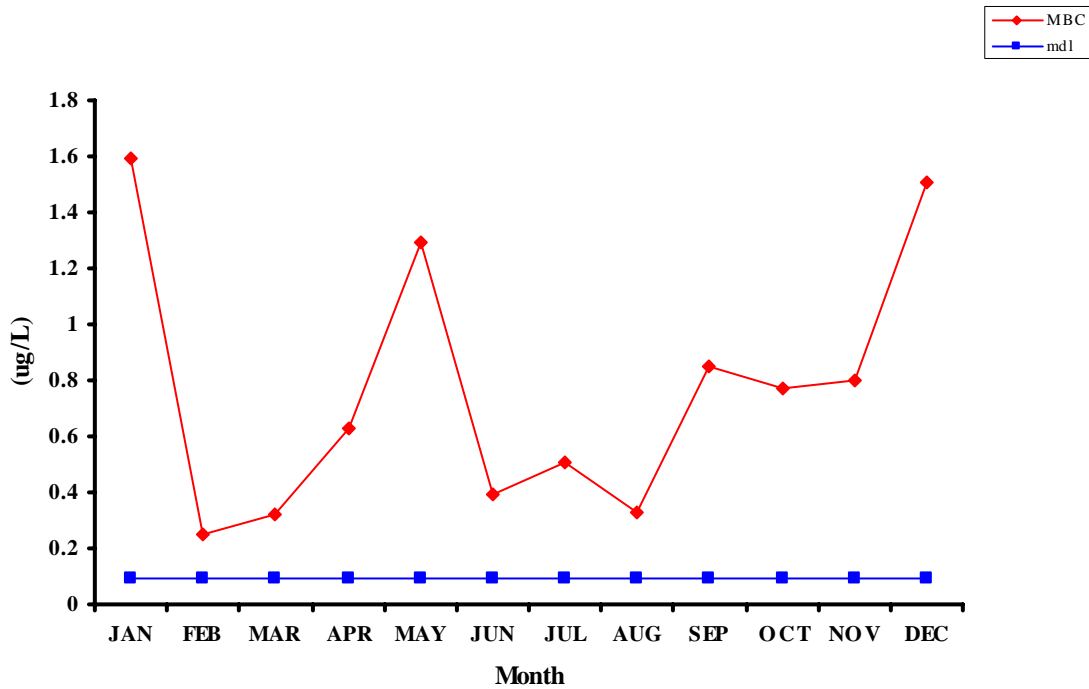
Lead 2006 Monthly Averages



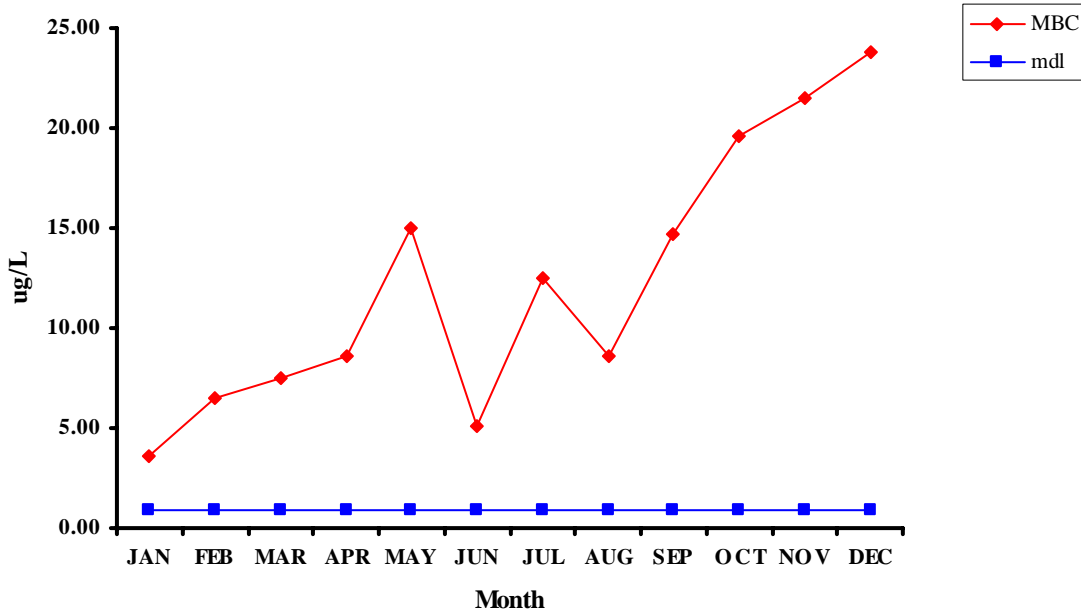
Manganese 2006 Monthly Averages



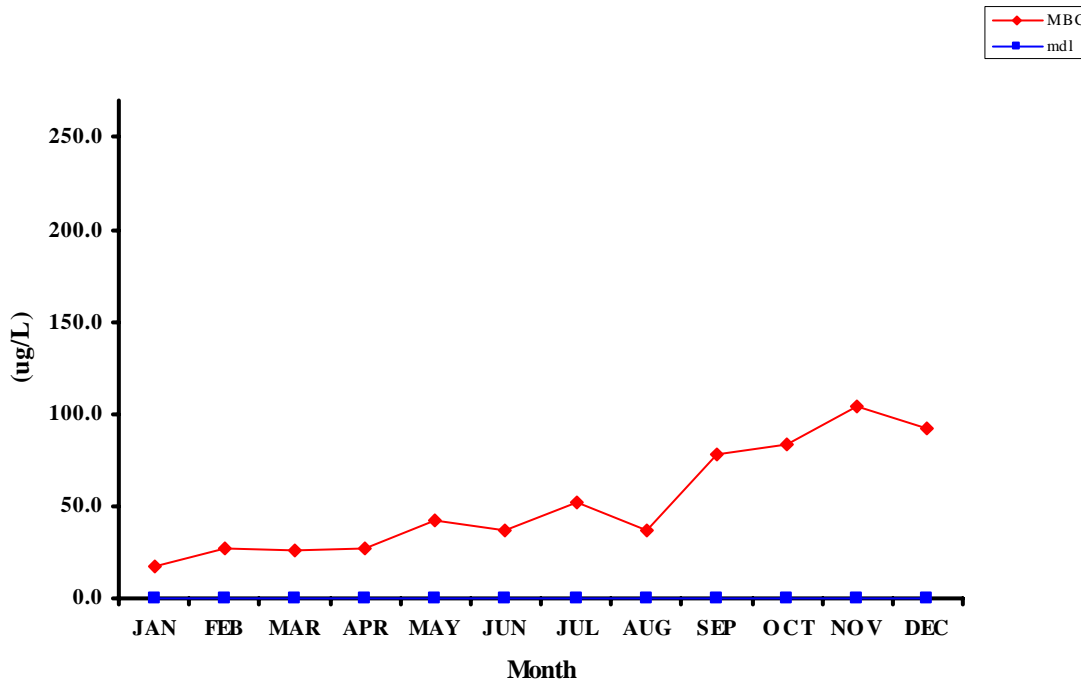
Mercury 2006 Monthly Averages



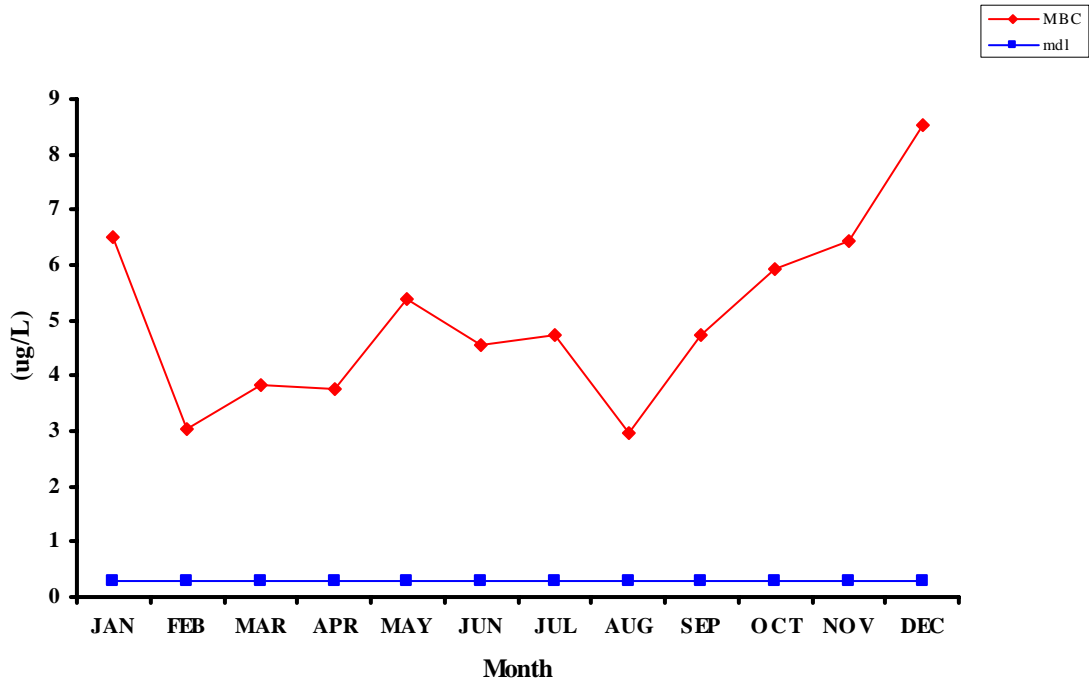
Molybdeum 2006 Monthly Averages



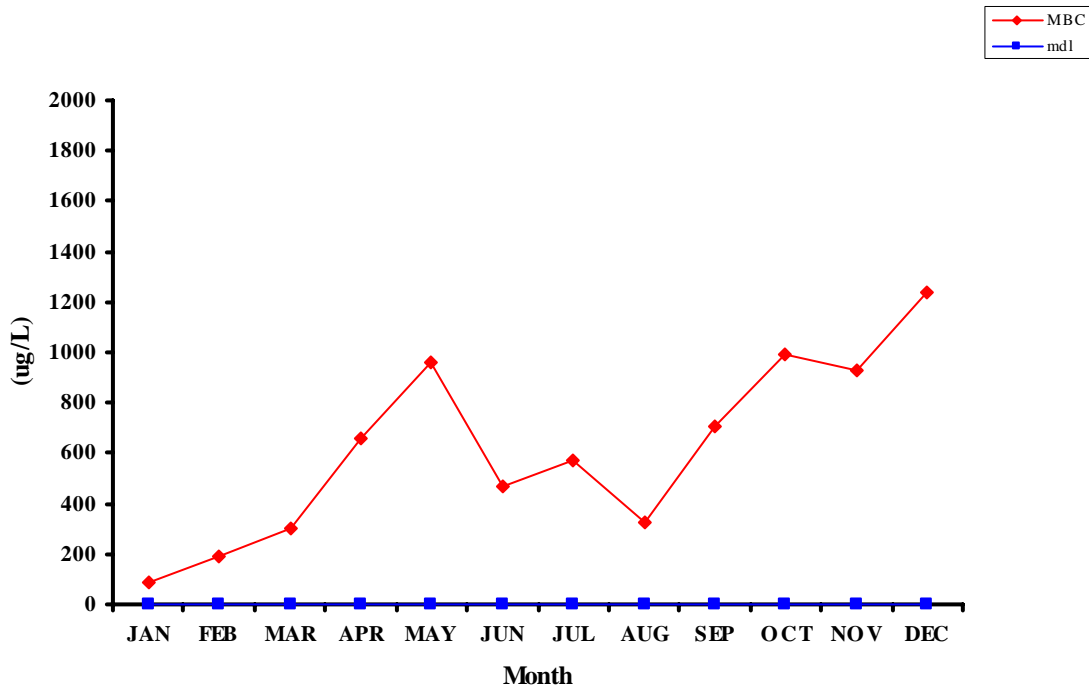
Nickel 2006 Monthly Averages



Selenium 2006 Monthly Averages



Zinc 2006 Monthly Averages



B. MBC Digester and Digested Sludge Data Summary

Metro Biosolids Center Annual Report Digesters -2006

Digester 1

	pH	Total Solids (%)	Volatile Solids (%)	Alkalinity (mg/L)	Volatile Acids (mg/L)	Methane (%)	Carbon Dioxide (%)	H2S ppm
JANUARY -2006	7.28	2.5	65.0	3050	97	60.2	39.8	22
FEBRUARY -2006	7.23	2.3	67.8	2780	104	60.2	39.8	21
MARCH -2006	7.23	2.1	68.8	2650	92	60.2	39.8	22
APRIL -2006	7.25	2.0	66.9	2340	81	60.4	39.6	17
MAY -2006	7.20	2.0	67.5	1980	75	59.8	40.2	15
JUNE -2006	7.15	1.9	67.1	1920	76	60.0	40.1	14
JULY -2006	7.15	2.2	65.8	2240	87	61.2	38.8	19
AUGUST -2006	7.19	2.3	66.0	2390	94	60.7	39.3	24
SEPTEMBER-2006	7.18	2.5	66.7	2460	86	60.0	40.0	26
OCTOBER -2006	7.14	2.3	69.6	2370	83	60.5	39.5	18
NOVEMBER -2006	7.08	2.2	70.4	2410	94	60.9	39.2	22
DECEMBER -2006	7.12	2.2	67.9	2540	91	60.6	39.4	19
Average:	7.18	2.2	67.5	2428	88	60.4	39.6	20

Digester 2

	pH	Total Solids (%)	Volatile Solids (%)	Alkalinity (mg/L)	Volatile Acids (mg/L)	Methane (%)	Carbon Dioxide (%)	H2S ppm
JANUARY -2006								
FEBRUARY -2006								
MARCH -2006								
APRIL -2006								
MAY -2006								
JUNE -2006								
JULY -2006								
AUGUST -2006								
SEPTEMBER-2006								
OCTOBER -2006								
NOVEMBER -2006								
DECEMBER -2006								
	*	*	*	*	*	*	*	*

Digester 3

	pH	Total Solids (%)	Volatile Solids (%)	Alkalinity (mg/L)	Volatile Acids (mg/L)	Methane (%)	Carbon Dioxide (%)	H2S ppm
JANUARY -2006								
FEBRUARY -2006								
MARCH -2006								
APRIL -2006								
MAY -2006								
JUNE -2006								
JULY -2006								
AUGUST -2006								
SEPTEMBER-2006								
OCTOBER -2006								
NOVEMBER -2006								
DECEMBER -2006								
	*	*	*	*	*	*	*	*

C. Gas Production

Metro Biosolids Center
Gas Report - 2006

Daily Monthly Averages

GAS PRODUCTION (x1000 Cu. Ft.)				GAS CONSUMPTION (x1000 Cu. Ft.)			
Month	DIG 1	DIG 2	DIG 3	Total Gas Production	GAS FLARES	GAS COGENERATION	Total Gas Consumption
01	203,572.4			203,572.4	2,996	335,025	338,021
02	227,600.5			227,600.5	3,406	348,491	351,897
03	216,038.8			216,038.8	1,828	326,122	327,949
04	200,149.1			200,149.1	952	300,965	301,917
05	196,883.0			196,883.0	2,250	292,099	294,349
06	199,278.0			199,278.0	2,364	287,842	290,206
07	177,275.3			177,275.3	1,955	261,365	263,320
08	255,747.6			255,747.6	1,921	354,503	356,425
09	254,559.5			254,559.5	946	364,850	365,796
10	233,555.2			233,555.2	2,885	337,142	340,028
11	249,943.3			249,943.3	2,977	349,263	352,240
12	204,822.4			204,822.4	2,374	310,269	312,643
avg	218,285.4			218,285.4	2,238	322,328	324,566

Monthly Totals - 2006

GAS PRODUCTION (x1000 Cu. Ft.)				GAS CONSUMPTION (x1000 Cu. Ft.)			
Month	DIG 1	DIG 2	DIG 3	Total Gas Production	Gas Flares	Gas Cogeneration	Total Gas Consumption
01	6,310,744.0			6,310,744.0	92,880	10,385,768	10,478,648
02	6,372,813.0			6,372,813.0	95,370	9,757,740	9,853,110
03	6,697,203.0			6,697,203.0	56,659	10,109,775	10,166,434
04	6,004,472.0			6,004,472.0	28,551	9,028,948	9,057,499
05	6,103,374.0			6,103,374.0	69,758	9,055,061	9,124,819
06	5,978,341.0			5,978,341.0	70,931	8,635,250	8,706,181
07	5,495,534.0			5,495,534.0	60,605	8,102,320	8,162,925
08	7,928,176.0			7,928,176.0	59,566	10,989,605	11,049,171
09	7,636,785.0			7,636,785.0	28,389	10,945,491	10,973,880
10	7,240,211.0			7,240,211.0	89,448	10,451,411	10,540,859
11	7,498,300.0			7,498,300.0	89,321	10,477,880	10,567,201
12	6,349,494.0			6,349,494.0	73,607	9,618,341	9,691,948
avg	6,634,620.6			6,634,620.6	67,924	9,796,466	9,864,390
sum	79,615,447.0			79,615,447.0	815,085	117,557,590	118,372,675

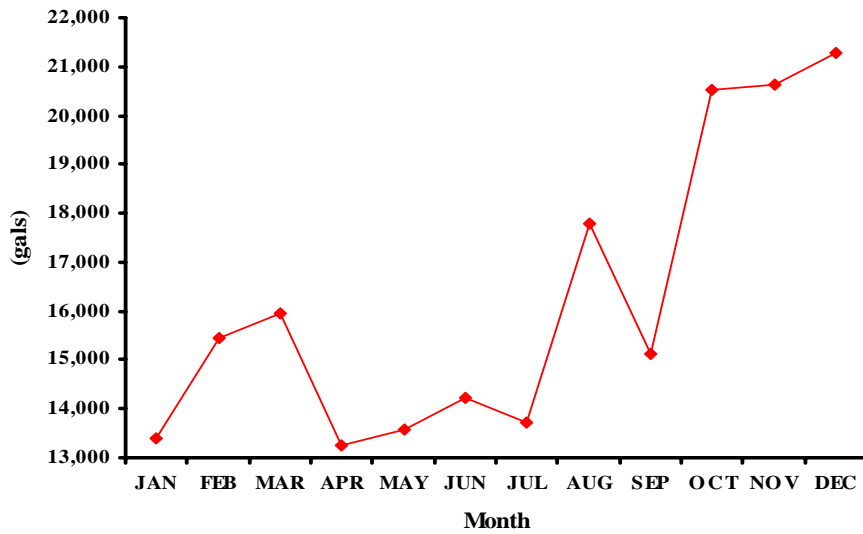
D. Chemical Usage

Metro Biosolids Center - Monthly Chemical Usage Report - 2006

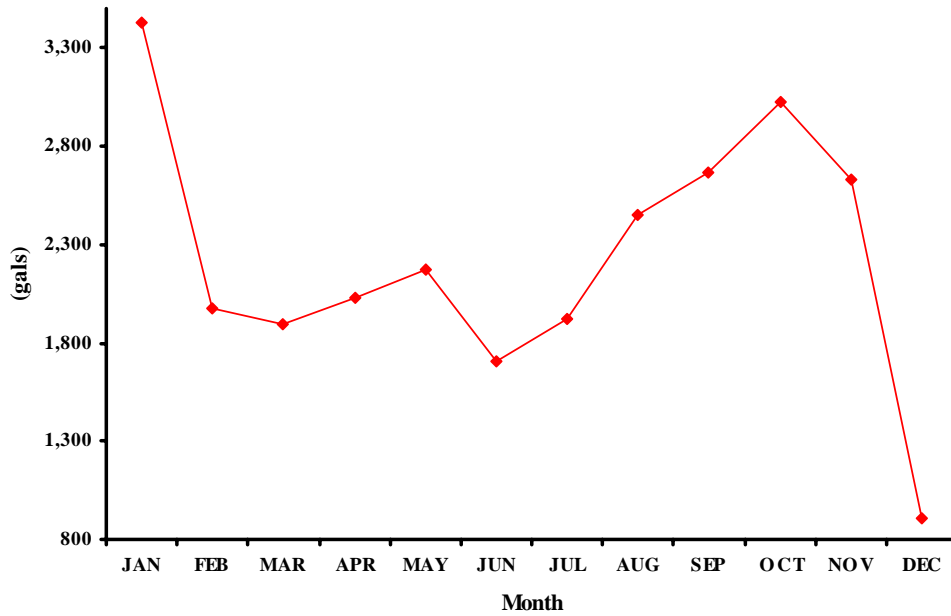
MON	Polymer Gallons	Ferric Chloride Gallons	Ferrous Chloride Gallons	Sodium Hydroxide Gallons	Hypochlorite Gallons	Sulfuric Acid Gallons
01	149,456	13,395	8,195	3,429	4,702	0
02	143,862	15,458	8,781	1,974	3,593	0
03	158,344	15,949	9,050	1,891	4,116	0
04	143,969	13,258	8,601	2,030	4,183	0
05	148,247	13,560	8,250	2,169	4,382	0
06	143,895	14,239	6,701	1,703	4,974	0
07	139,924	13,722	8,332	1,922	6,013	0
08	146,440	17,793	10,146	2,453	5,662	0
09	147,314	15,129	10,786	2,668	5,261	0
10	188,541	20,540	12,430	3,028	6,810	0
11	148,799	20,650	8,851	2,630	5,114	0
12	163,786	21,268	9,414	911	3,088	0
avg	151,882	16,247	9,128	2,234	4,825	0
sum	1,822,579	194,960	109,536	26,808	57,898	0

E. Graphs of Monthly Chemical Usage

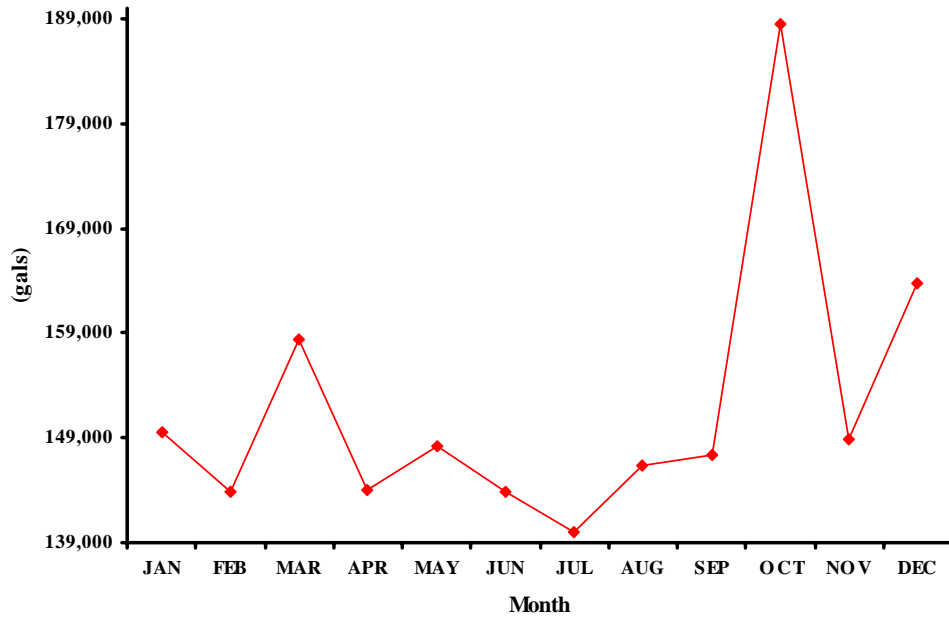
2006 Ferric Chloride Usage at MBC



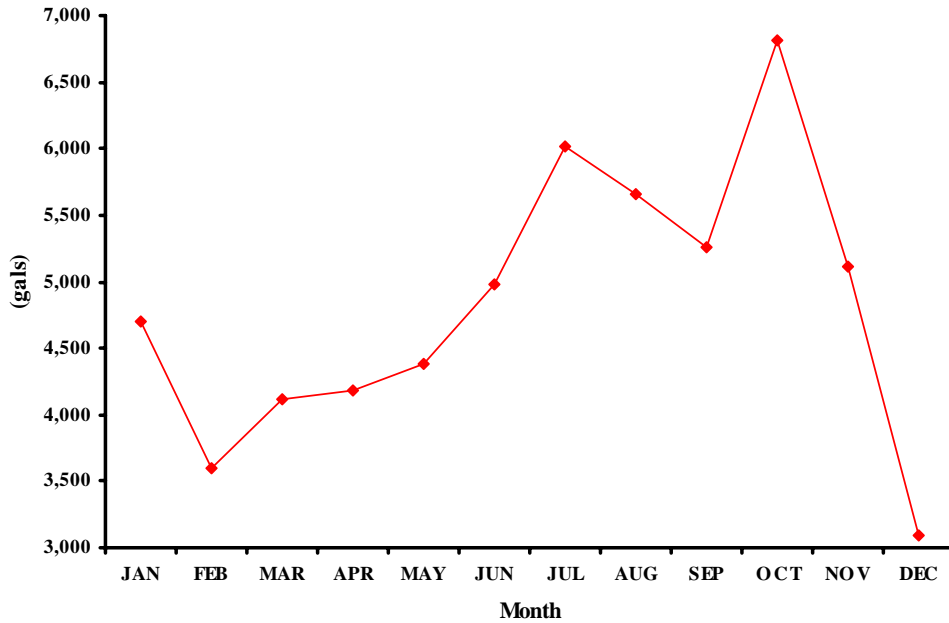
2006 Caustic Usage at MBC



2006 Polymer Usage at MBC



2006 Sodium Hypochlorite Usage at MBC



F. Facilities Out-of-service Report (2006)

FACILITY: Metropolitan Biosolids Center

FACILITIES THAT WERE OUT OF SERVICE IN 2006 BY DATE

ASSET_NAME	ENTRY_DATE	ACT_COMP_DATE	WO_DESC
Dewatering Centrifuge 1MB76DC1	02/16/06	03/01/06	Area 76. Lubricate Dewatering Centrifuge main drive motor bearings.
Dewatering Centrifuge 1MB76DC1	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel
Dewatering Centrifuge 1MB76DC1	04/05/06	04/10/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 1MB76DC1	04/18/06	05/22/06	Test oil after oil change.
Dewatering Centrifuge 1MB76DC1	06/16/06	07/05/06	Area 76 Dewatering Centrifuge 1 (Back Drive) Conduct Rotor Bar Analysis on the motor at full load. Spectral and waveform analysis of this unit indicates a high level of 2xRBPF (rotor bar passing frequency) with 2Fl sidebands. Please return to RMG to PERF.
Dewatering Centrifuge 1 MB76DC1	07/3/06	08/16/06	Conduct follow up vibration test on this unit.
Dewatering Centrifuge 1 MB76DC1	07/29/06	08/09/06	AREA 76. Dewatering Centrifuge 1 Local Control Panel. Install new mother board circuit card inside back drive variable frequency. Set all drive parameters to match existing back drives.
Dewatering Centrifuge 1 MB76DC1	08/01/06	08/09/06	Troubleshoot failed accelerator and make repairs.
Dewatering Centrifuge 1 MB76DC1	09/05/06	09/11/06	Whenever cake pump #1 is on you get a high hopper level even when there is nothing in the hopper, please trouble shoot and repair.

Dewatering Centrifuge 1 MB76DC1	10/20/06	10/20/06	MBC -- Dewater Centrifuge (Drive) -- Clean and inspect the centrifuge for excessive material built up and damage. Recheck unit once inspection is complete. Machinery is in advanced stages of failure. Failure is imminent if use is prolonged.
Dewatering Centrifuge 1 MB76DC1	10/20/06	11/21/06	Retest vibration levels after DC PM cleaning.
Dewatering Centrifuge 1 MB76DC1	12/14/06		Please check cause of Alarm and verify that alarm is valid or needs removed from alarm list: Bearing 1 vibration Z axis.
Dewatering Centrifuge 2 MB76DC2	02/09/06	02/08/06	Centrate diverter valve 76-HV-1568 will not open causing sludge to flow on floor instead of diverted to centrate line...same problem as with other centrifuge Centrate diverter valves.
Dewatering Centrifuge 2 MB76DC2	03/10/06	03/24/06	DC 2 has been dripping water for months from 2nd floor down the bin to the cake pump. Can't find the source.
Dewatering Centrifuge 2 MB76DC2	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 2 MB76DC2	05/24/06	07/13/06	Conduct follow up vibration test on this unit.
Dewatering Centrifuge 2 MB76DC2	06/05/06	06/06/06	Area 76. Dewatering Centrifuge Temperature Sensor 2566 in bad quality. Investigate and correct problem.
Dewatering Centrifuge 2 MB76DC2	06/09/06	06/12/06	Troubleshoot data link failure and make repairs.
Dewatering Centrifuge 2 MB76DC2	07/11/06	07/11/06	Please open and inspect feed zone for blockage. Clean as required.

Dewatering Centrifuge 2 MB76DC2	08/17/06	08/23/06	Centrifuge 2, Graphic 2367...Feed pump 76P52 shows 61% speed on point 76ST0252 --but--on the faceplate of the pump shows 44% on point M76FC2511 these should match or be within 5% of each other.
Dewatering Centrifuge 2 MB76DC2	10/13/06	10/17/06	Clean poly line check valve.
Dewatering Centrifuge 2 MB76DC2	10/23/06	10/23/06	Polymer injection valves #1560, 1565, 1566, and 1542 are in travel. Please trouble cause. (DC is currently running).
Dewatering Centrifuge 2 MB76DC2	11/13/06	11/13/06	AREA 76. DC #2 Data Link failure. Investigate and correct problem.
Dewatering Centrifuge 2 MB76DC2	11/17/06	11/20/06	Fan on back drive is not turning, Please trouble shoot.
Dewatering Centrifuge 3 MB76DC3	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 3 MB76DC3	07/03/06	07/06/06	Centrifuge will not start...low oil flow alarm keeps tripping out unit even with oil pump in hand.
Dewatering Centrifuge 3 MB76DC3	09/06/206	09/08/06	Centrate Diverter Valve is struck in open position. Cannot control from DCS. Please exercise valve three times to insure free movement. Test from DCS and return to service. If valve will not respond, leave valve in open position to allow DC operation.
Dewatering Centrifuge 3 MB76DC3	09/11/06	10/17/06	Please check electrical control to Actuator to determine why valve will not work in Auto or at hand station.
Dewatering Centrifuge 3 MB76DC3	10/03/06	10/04/06	Open valve by hand and place control selector in hand only, and attach "Do NO Operate" tag.
Dewatering Centrifuge 3 MB76DC3	10/10/06	10/10/06	Troubleshoot and repair grease leak.

Dewatering Centrifuge 3 MB76DC3	10/13/06	10/14/06	Clean poly line check valve.
Dewatering Centrifuge 3 MB76DC3	10/20/06	10/20/06	MBC -- Dewater Centrifuge (Drive) -- Clean and inspect the centrifuge for excessive material built up and damage. Vibration levels have exceeded the alert/fault level of the centrifuge in the 1 times turn speed band.
Dewatering Centrifuge 3 MB76DC3	10/20/06	11/21/06	Please recheck vibration level after cleaning of DC monthly PM.
Dewatering Centrifuge 3 MB76DC3	12/04/06	12/07/06	Centrifuge #3 started screaming and black smoke came out of unit.
Dewatering Centrifuge 3 MB76DC3	12/04/06		DC #3 flush water valve stays open when the DCS indicates that it is closed.
Dewatering Centrifuge 3 MB76DC3	12/04/06		DC #3 flush water valve stays open when the DCS indicates that it is closed.
Dewatering Centrifuge 3 MB76DC3	12/05/06	12/7/06	Weld 3 tiles on conveyor.
Dewatering Centrifuge 3 MB76DC3	12/26/06	01/03/07	Install new conveyor into DC #3, Transfer feed tube assembly from DC #4 for use in DC#3.
Dewatering Centrifuge 3 MB76DC3	12/27/06		Centrifuge #3, Feed tube assembly failed, Please replace all damaged accelerator, and feed tube assembly.
Dewatering Centrifuge 4 MB76DC4	01/4/06	01/04/06	DC #4 back drive fan not operating, need tech to repair.
Dewatering Centrifuge 4 MB76DC4	01/12/06	01/12/06	Please remove all guards and belts So RMG can test main drive motor for high vibration. After test please install all belts and guards.
Dewatering Centrifuge 4 MB76DC4	02/02/06	02/07/06	MBC -- Dewatering Centrifuge #4 (Main Drive Motor). Remove unit from service immediately. Replace motor bearings. Continued use could result in catastrophic

			failure of the motor. Vibration levels have exceeded the warning/alert level of the motor.
Dewatering Centrifuge 4 MB76DC4	02/02/06	02/07/06	Remove and replace motor bearings.
Dewatering Centrifuge 4 MB76DC4	02/07/06	02/15/06	Conduct vibration test on motor after bearing change with belts disconnected.
Dewatering Centrifuge 4 MB76DC4	02/11/06	02/15/06	Assist RMG with vibration test. After unload test is complete, install belts for load test of motor.
Dewatering Centrifuge 4 MB76DC4	02/14/06	02/14/06	Troubleshoot high motor temperature alarm and make repairs.
Dewatering Centrifuge 4 MB76DC4	02/27/06	03/01/06	Confine Space Entry: Diverter Gate is struck in open position. Power jet rails gate slides. Test and return to service.
Dewatering Centrifuge 4 MB76DC4	03/01/06	03/01/06	Please check electrical controls and Motor for Diverter Gate #4. PT's have cleaned inside track of gate and need to test unit. Unit will not operate.
Dewatering Centrifuge 4 MB76DC4	3/15/06	03/15/06	Unit is tripping on High torque and will not reset from DCS. Please reset controls at LCP.
Dewatering Centrifuge 4 MB76DC4	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 4 MB76DC4	05/24/06	07/13/06	Conduct follow up vibration test on this unit.
Dewatering Centrifuge 4 MB76DC4	06/29/06	6/29/06	Need tech to investigate and repair the centrate sample tube, piping is almost plugged. This tube is used for sampling during the Polymer trials.
Dewatering Centrifuge 4 MB76DC4	08/23/06	8/24/06	Area 76. Dewatering Centrifuge 4. Replace faulty VFD. Perform operational testing.

Dewatering Centrifuge 4 MB76DC4	09/05/06	09/11/06	DC#4 trips out on back drive malfunction when DC transitions from start up to main motor drive. This is due to the power outage on 9-1-06.
Dewatering Centrifuge 4 MB76DC4	09/11/06	09/18/06	Install new CPU into DC#4. Test old CPU which was swapped from DC#7 to verify it may be reused. Program new CPU as required.
Dewatering Centrifuge 4 MB76DC4	09/14/06	09/15/06	Assist I & C tech to remove old Bonitron unit with new unit.
Dewatering Centrifuge 4 MB76DC4	10/02/06		SMP 194 - 24 Month Centrifuge PM - Alfa Laval.
Dewatering Centrifuge 4 MB76DC4	10/2/06	10/12/06	PT Assist SMP 194 - 24 Month Centrifuge PM - Alfa Laval.
Dewatering Centrifuge 4 MB76DC4	10/13/06	10/16/06	Clean poly line check valve.
Dewatering Centrifuge 4 MB76DC4	12/14/06	12/18/06	Remove conveyor and prep for shipment.
Dewatering Centrifuge 4 MB76DC4	12/19/06	01/19/07	Install spare conveyor, collect serial number on spare conveyor for entry in to asset notes. Install conveyor bearing kit.
Dewatering Centrifuge 5 MB76DC5	02/02/06	02/01/06	On DC #5 liquid is leaking out of the top lid, possible bolts need to be tightened down.
Dewatering Centrifuge 5 MB76DC5	02/24/06	02/24/06	Area 76. Dewatering Centrifuge #5 will not start. Please investigate and correct the problem.
Dewatering Centrifuge 5 MB76DC5	04/06/06	04/05/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 5 MB76DC5	04/17/06	04/13/06	Unit indicating high stator temp. @ 120 degrees and high amps. Please check motor bearings for drag.
Dewatering Centrifuge 5	04/14/06	04/13/06	Troubleshoot unit for high motor temp, inspect unit for bowl contact

MB76DC5			or other causes, and make repairs.
Dewatering Centrifuge 5 MB76DC5	05/11/06	05/09/06	Change conveyor on Centrifuge.
Dewatering Centrifuge 5 MB76DC5	07/5/06	06/16/06	Area 76 Dewatering Centrifuge # 5. Back drive problematic. Conduct phase test on the sheave bearing to determine the exact cause of the high vibration in this unit. Spectral and waveform analysis of this unit indicates possible mechanical looseness type B (Fasteners).
Dewatering Centrifuge 5 MB76DC5	07/18/06	07/18/06	System Status on DC is in Analog Alarm. Please clear alarm from control panel.
Dewatering Centrifuge 5 MB76DC5	07/19/06	07/18/06	System Status on DC is in Analog Alarm. Please clear alarm from control panel.
Dewatering Centrifuge 5 MB76DC5	08/10/06	08/07/06	Need tech to investigate the Motorized Damper 76-MD-1910 (Inlet vent to Bin 3 below DC 5). Valve is showing in travel but shows close at the hand station. Unable to open the valve by the DCS or at the hand station.
Dewatering Centrifuge 5 MB76DC5	10/20/06	10/13/06	Clean poly line check valve.
Dewatering Centrifuge 5 MB76DC5	10/26/06	10/26/06	Dewatering Centrifuge #5 centrate diverter valve # 76-MV-1598 did not open when centrifuge was in centrate mode. Same problem as other Centrifuges.
Dewatering Centrifuge 5 MB76DC5	10/27/06	10/26/06	Dewatering Centrifuge #5 centrate diverter valve # 76-MV-1598 did not open when centrifuge was in centrate mode. Valve indicates closed when valve is actually open.
Dewatering Centrifuge 5 MB76DC5	11/07/06	11/2/06	DC #5 centrate gate not opening.(76MV1598)

Dewatering Centrifuge 5 MB76DC5	11/03/06	11/3/06	Install Octopus System.
Dewatering Centrifuge 5 MB76DC5	12/09/06	11/13/06	Troubleshoot and repair back drive VFD failure alarm (over voltage fault).
Dewatering Centrifuge 5 MB76DC5	12/11/06	12/11/06	Please flush centrate sample line on DC#5.
Dewatering Centrifuge 6 MB76DC6	1/10/06	01/11/06	Motor making noise. Wayne thinks it may need servicing.
Dewatering Centrifuge 6 MB76DC6	01/12/06	11/07/06	Vibration test on Centrifuge motor.
Dewatering Centrifuge 6 MB76DC6	01/12/06	01/13/06	Please remove safety belt guard (Cover) to allow electricians access to front motor bearing. Install belt cover after electricians complete greasing of bearing.
Dewatering Centrifuge 6 MB76DC6	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 6 MB76DC6	04/13/06	04/13/06	Diverter gate not operating from DCS. Please inspect knife gate.
Dewatering Centrifuge 6 MB76DC6	04/13/06	04/13/06	Check electrical controls to diverter slide gate. PT's were able to manually close valve with hand wheel. DCS will not open or close gate.
Dewatering Centrifuge 6 MB76DC6	04/15/06	04/19/06	Area 76. Dewatering Centrifuge 6. Replace and reprogram defective SOI process controller.
Dewatering Centrifuge 6 MB76DC6	06/06/06	06/06/06	Area 76. Centrifuge Bin 4 will not operate in automatic mode. Please investigate and correct problem.
Dewatering Centrifuge 6 MB76DC6	09/08/06	09/08/06	DCS is indicating Data link Alarm for Analog signal. Please trouble shoot and repair.
Dewatering Centrifuge 6 MB76DC6	10/13/06	10/18/06	Clean poly line check valve.

Dewatering Centrifuge 6 MB76DC6	11/03/06		Install Octopus System.
Dewatering Centrifuge 7 MB76DC7	01/19/06	01/19/06	Area 76. Dewatering Centrifuge 7 (Drive) Check the pitch line run out on the motor sheave. If the run out on the motor sheave is unacceptable consider replacing it.
Dewatering Centrifuge 7 MB76DC7	03/07/06	03/07/06	It was noticed that grease are present on the concrete foundation at pulley side of the centrifuge, which is not normal. Investigate and determine source of grease. Correct defects noted.
Dewatering Centrifuge 7 MB76DC7	04/06/06	04/05/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 7 MB76DC7	07/13/06	07/03/06	Area 76. Dewatering Centrifuge 7 (Drive). Check the belts/sheaves for proper tension, wear and alignment. Spectral, waveform and phase analysis of this unit indicates a possible pitch line run out on the motor sheave.
Dewatering Centrifuge 7 MB76DC7	07/19/06	07/17/06	Need Welder to tack the back of Tile base for addition support. Need six (6) welds applied to back of tiles.
Dewatering Centrifuge 7 MB76DC7	08/21/06	08/21/06	Centrifuge #7...the Centrator bypass valve shows open when it should be closed during operation...please verify it's position and fix valve to close while in Load making cake.
Dewatering Centrifuge 7 MB76DC7	09/05/06	08/22/06	Centrifuge #7...the Centrator bypass valve shows open when it should be closed during operation...please verify it's position and fix valve to close while in Load making cake.
Dewatering Centrifuge 7 MB76DC7	09/14/06	09/05/06	Diverter gate will not go to centrator mode. Stuck in solids.
Dewatering Centrifuge 7 MB76DC7	09/06/06	09/06/06	CPU has lost of memory displayed. Please change CPU from DC#4 and install on DC#7, Test and return to service.

Dewatering Centrifuge 7 MB76DC7	10/05/06	10/05/06	Clear degas box drain line.
Dewatering Centrifuge 7 MB76DC7	10/14/06	10/13/06	Clean poly line check valve.
Dewatering Centrifuge 7 MB76DC7	10/20/06	10/20/06	Conduct Motor Current Analysis on the motor at full load.
Dewatering Centrifuge 7 MB76DC7	12/04/06	12/04/06	Dewatering Centrifuge #7 will not stay running, Shut off on high torque with no load in it. Feed pump will not start with out maintenance jump start.
Dewatering Centrifuge 7 MB76DC7	12/11/06	12/04/06	Dewatering Centrifuge #7 will not stay running, Shut off on high torque with no load in it. Feed pump will not start with out maintenance jump start.
Dewatering Centrifuge 8 MB76DC8	02/11/06	02/13/06	Classroom training on the Mechanical operation on Dewatering/Thickening Centrifuges.
Dewatering Centrifuge 8 MB76DC8	03/13/06	03/13/06	Centrifuge tripped out on High torque. Operations did wet CIP. Please check lubricating system and grease to verify they are at proper levels. Fill or grease as required.
Dewatering Centrifuge 8 MB76DC8	03/17/06	05/09/06	Overhaul spare rotating assembly and prepare for service.
Dewatering Centrifuge 8 MB76DC8	03/20/06	03/27/06	Area 76. Dewatering Centrifuge 8. Back drive VFD keeps tripping out. Investigate and correct problem.
Dewatering Centrifuge 8 MB76DC8	03/21/06	03/27/06	Remove back drive belt for electrician to troubleshoot tripping problem.
Dewatering Centrifuge 8 MB76DC8	04/05/06	04/24/06	Weld 3 tiles on conveyor.

Dewatering Centrifuge 8 MB76DC8	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Dewatering Centrifuge 8 MB76DC8	04/27/06	10/09/06	Please ship a Feed Zone line to Houston. Tx. the stock # 9759. This work order will be to capture cost related to repairs.
Dewatering Centrifuge 8 MB76DC8	5/08/06	05/17/06	Alfa Laval rep on site to assist in spare rotating assembly overhaul.
Dewatering Centrifuge 8 MB76DC8	08/10/06	08/16/06	Replace feed zone liner.
Dewatering Centrifuge 8 MB76DC8	08/28/06	09/07/06	Unclog degassing box drain of MB76DC8.
Dewatering Centrifuge 8 MB76DC8	10/13/06	10/18/06	Clean poly line check valve.
Dewatering Centrifuge 8 MB76DC8	11/03/06		Install Octopus System.
Dewatering Centrifuge 8 MB76DC8	11/03/06	03/23/07	Install Octopus System.
Dewatering Centrifuge 8 MB76DC8	11/03/06	01/25/07	Fabricate test port spool for Octopus System as per drawing. All necessary parts will be provided.
Dewatering Centrifuge 8 MB76DC8	11/08/06	03/01/07	Weld back drive gear box cover.
Dewatering Centrifuge 8 MB76DC8	11/08/06		Assist welder in removal of back drive gear box cover, and provide fire watch.
Dewatering Centrifuge 8 MB76DC8	11/13/06	11/14/06	Troubleshoot and repair back drive VFD failure alarm (over voltage fault).
Dewatering Centrifuge 8 MB76DC8	12/05/06	12/06/06	Troubleshoot and repair or replace back drive motor fan.
Dewatering Centrifuge 8 MB76DC8	12/14/06		Please check cause of Alarm and verify that alarm is valid or needs removed from alarm list: Bearing 1

			vibration Z axis.
Dewatering Centrifuge 8 MB76DC8	12/18/06	12/18/06	Centrifuge #8 failed on back drive malfunction and will not reset. Please trouble shoot.
Thickening Centrifuge 1 MB76TC1	03/02/06	03/14/06	AREA 76. Lubricate thickening centrifuge main drive motor bearings.
Thickening Centrifuge 1 MB76TC1	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel
Thickening Centrifuge 1 MB76TC1	05/11/06	05/11/06	Please grease conveyor bearing after CIP.
Thickening Centrifuge 1 MB76TC1	10/02/06	09/28/06	A loud metallic banging noise coming from 76-TC-1. Immediately shut unit down. As unit spun down, the noise stopped. Please disregard similar WR for 76-TC-2.
Thickening Centrifuge 1 MB76TC1	10/13/06	10/13/06	Troubleshoot and repair plugged poly check valve.
Thickening Centrifuge 1 MB76TC1	11/13/06		Troubleshoot and repair centrifuge power supply and programmable logic controller.
Thickening Centrifuge 1 MB76TC1	12/14/06		Please check the following alarms. Verify if alarms are valid or need to be removed from alarm list. Bearing 1 Vibration Y axis, Bearing 2 vibration X axis, Bearing 2 vibration Z axis.
Thickening Centrifuge 2 MB76TC2	03/02/06	03/14/06	AREA 76. Lubricate thickening centrifuge main drive motor rearings.
Thickening Centrifuge 2 MB76TC2	03/21/06	03/22/06	Centrifuge is making squeaking noise, maybe the belts.
Thickening Centrifuge 2 MB76TC2	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel
Thickening Centrifuge 2 MB76TC2	05/11/06	05/11/06	Please grease conveyor bearing after CIP.

Thickening Centrifuge 2 MB76TC2	05/12/06	05/13/06	Troubleshoot for low oil flow, possible clogged filter or strainers.
Thickening Centrifuge 2 MB76TC2	06/05/06	06/05/06	TC #2 went out on high torque similar to when TC 3 went out...north City pumping polymer in their secondary. Please see if any damage has occurred to the unit.
Thickening Centrifuge 2 MB76TC2	11/22/06	11/27/06	Please clean check valve on TC to clear any clogged polymer from line.
Thickening Centrifuge 2 MB76TC2	12/13/06	12/13/06	TC #2 flush valve M76MV0102 does not close in auto. The valve has to be manually closed after opening in auto mode.
Thickening Centrifuge 3 MB76TC3	03/02/06	03/14/06	Area 76. Lubricate Thickening Centrifuge 3 Main Drive Motor Bearings.
Thickening Centrifuge 3 MB76TC3	04/05/06	04/11/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Thickening Centrifuge 3 MB76TC3	04/21/06	04/26/06	Bearing oil PSI is at 58. I normally see this number in the mid twenties. Date on filter is 1-10-06. We have been using this as our primary TC for the past 4 weeks.
Thickening Centrifuge 3 MB76TC3	05/11/06	05/11/06	Please grease conveyor bearing after CIP.
Thickening Centrifuge 3 MB76TC3	05/18/06		Area 76 Thickening Centrifuge – Non-Drive end Bearing Oil Return. Immediately drain, clean and thoroughly flush the oil reservoir and then refill with the manufacturer's recommended oil. Oil is contaminated with large ferrous particles and large non-ferrous particles.
Thickening Centrifuge 3 MB76TC3	05/18/06		TC #3 is plugged with primary sludge from NCWRP. Conducted five CIP's on Friday and its still plugged.

Thickening Centrifuge 4 MB76TC4	03/02/06	03/09/06	Area 76. Lubricate Thickening Centrifuge 4 main drive motor Bearings.
Thickening Centrifuge 4 MB76TC4	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Thickening Centrifuge 5 MB76TC5	3/2/2006	03/09/06	Area 76. Lubricate Thickening Centrifuge 5 Main Drive Motor Bearings.
Thickening Centrifuge 5 MB76TC5	04/05/06	04/06/06	Install Lock Out Tag Out covers on DC and TC main motor start button on main control panel.
Thickening Centrifuge 5 MB76TC5	09/22/06		Area 76. Install new Symax PLC power supply. Download program and perform operational testing.
Grit Separator 1 MB76GSR1	03/01/06	03/06/06	Remove old valves on tea cups and install new valves, test for proper operations.
Grit Separator 1 MB76GSR1	05/05/06	02/22/07	Manufacture support brackets for air valve on Tea Cup, RDM is familiar with job. The valve has a circumference of 23in. and a rise to center on 27in. The dome is bolt-bolt 26 1/2" x 4 1/8".
Grit Separator 1 MB76GSR1	07/25/06	07/25/06	Investigate Discharge Valve (76MV1103, Teacup 1 upper discharge line valve.) Valve is sticking when going from close to open, DCS sends an open signal but the valve stops a short distance from opening.
Grit Separator 1 MB76GSR1	07/27/06	07/28/06	Troubleshoot and repair frozen valve.
Grit Separator 1 MB76GSR1	08/14/06	08/15/06	Grit Tea Cup #1 has high pressure, maybe plugged.
Grit Separator 2 MB76GSR2	03/01/06	03/06/06	Remove old valves on tea cups and install new valves, test for proper operations.
Grit Separator 2 MB76GSR2	05/05/06	02/22/07	Manufacture support brackets for air valve on Tea Cup, RDM is familiar with job. The valve has a circumference of 23in. and a rise to center on 27in. The dome is bolt-bolt 26 1/2" x 4 1/8".

Grit Separator 2 MB76GSR2	07/20/06	09/25/06	Weld new half coupling on lid of tea cup, the lid is in the shop, and PTS has half coupling.
Grit Separator 2 MB76GSR2	10/05/06	10/06/06	Replace dome cover on unit and test for proper operation.
Grit Separator 2 MB76GSR2	10/25/06	10/27/06	Investigate and repair the main flush water solenoid, unit clicks but does not open to allow water to flow.
Grit Separator 2 MB76GSR2	10/25/06	10/27/06	Assist electrical staff in troubleshooting and repair of solenoid valve.
Grit Separator 2 MB76GSR2	10/26/06	11/02/06	Install vibration dampener between top of tea cup and air release valve.
Grit Separator 3 MB76GSR3	01/03/06	01/04/06	Back Wash solenoid is not opening valve and allowing rinse of conveyor. Please check or replace solenoid.
Grit Separator 3 MB76GSR3	04/21/06	05/02/06	Small leak at the top of the unit. Repair as needed.
Grit Separator 3 MB76GSR3	05/02/06	05/02/06	Provide fire watch for welder.
Grit Separator 3 MB76GSR3	05/05/06	02/22/07	Manufacture support brackets for air valve on Tea Cup, RDM is familiar with job. The valve has a circumference of 23in. and a rise to center on 27in. The dome is bolt-bolt 26 1/2" x 4 1/8".
Grit Separator 3 MB76GSR3	10/09/06		Remove air relief valve off top of tea cup, and provide fire watch for welding repairs.
Grit Separator 3 MB76GSR3	10/09/06	02/26/07	Weld new 2" half coupling on tea cup top dome in place. PTS has parts in office.
Flare 1 MB80GFL01	02/23/06	02/23/06	Flare test failed. Flare # 1 locked into local control and would not start. Flare #2 did not start in Auto.
Flare 1 MB80GFL01	03/01/06	03/06/06	Area 80 Flare System. Replace existing incandescent pilot indication lamps on local control panels with LED type lamps.
Flare 1 MB80GFL01	03/06/06	03/06/06	Inlet valves are in bad quality and Local control unit has no power.

			Follow-up to power outage.
Flare 1 MB80GFL01	04/21/06	05/08/06	Area 73/80. Flare Simulated Backup Power Test. Neal Electric completed supplying backup power from the A76 backup generator to the flares. Power from the generator is routed through the southeast MCC in Area 76, to the gallery.
Flare 1 MB80GFL01	07/03/06	07/05/06	Natural Gas line to firebox would not shut down when Flare completed cycle. Pilot light remained burning cause violation. Please check solenoid valve controlling gas line. Determine cause of failure.
Flare 2 MB80GFL02	02/28/06	02/28/06	Inspect inlet valve for any corrosion and connect internal heater wiring if required.
Flare 2 MB80GFL02	3/1/2006	03/06/06	Area 80 Flare System. Replace existing incandescent pilot indication lamps on local control panels with LED type lamps.

Flare 2 MB80GFL02	03/06/06	03/06/06	Area 80 Biogas Flare 2 fails to start due to flame failure. Investigate flare starting process and make necessary correction. Perform full operational testing to ensure proper reliability.
Flare 2 MB80GFL02	10/20/06	10/19/06	Area 80. Gas Flare system # 2 failed to start. Please investigate and correct problem.
Flare 2 MB80GFL02	11/02/06	11/02/06	Please check all PLC settings to assure that they match the 1725 and 1775 degree limits for APCD. Also check thermocouple controller to verify that it will respond to closing damper at set temperature limit.
Digester 1 MB80T11	2/21/06	02/21/06	Area 80. Investigate and correct Digester 1 temperature transducer (2105A) reading to the DCS. Local display reads properly but the DCS does not match.
Digester 1 MB80T11	03/10/06	03/21/06	Need tech to repair and free up the stuck valve on the Overflow lines from Digester #1. Valve 80-HV-0260 is the Digester #1 Bypass valve from the Overflow line to the Emergency Overflow line. The chain valve has sheared and is not turning the valve, the v
Digester 1 MB80T11	07/14/06	07/17/06	Temperature transmitter 80TT2105A & 2105B need to be calibrated to verify accuracy...these probes do not have asset # could we put them on a PM since there are permit issues connected to them.
Digester 1 MB80T11	10/17/06		Piping on Digester 1 from the ground level to the top of the Digester has faded and is peeling off. Need painter to repaint all piping (water lines, sludge lines, gas line, etc). Set up safety meeting with Gerard King and George Wendorf before work is to
Digester 2 MB80T12	02/22/06	02/23/06	Area 80. Digester 2 biosolids transfer valve (80MV1400) need power supply module card replaced.
Digester 2 MB80T12	02/28/06	03/01/06	Troubleshoot and repair frozen valve MB80MV1400.
Digester 2 MB80T12	09/11/06	09/11/06	Area 80. Digester 2. Reset master valve station 8002. All actuators related to

			master station are going in and out of travel mode.
Digester 3 MB80T13	01/11/06	01/06/06	Clean up caustic soda spill.
Biosolids Storage Tank MB80T21	01/31/06	01/31/06	Please calibrate Smar Level Transmitter on Biosolids storage tank.
Biosolids Storage Tank MB80T21	05/10/06	05/17/06	Inspect interior of expansion tank, clean if necessary, and remove in line blank flanges on tank, please check with operations prior to removal of in line blank flanges. Exercise Varec Isolation Valves and ensure free movement and proper operation.

Biosolids Storage Tank MB80T21	06/06/06	07/08/06	Please remove all pancake blanks from Emergency Overflow piping. See George Wendrof before start of work.
Biosolids Storage Tank MB80T21	10/12/06	02/14/07	Need tech to investigate and repair the Biogas Isolation valve to the tank, M80MV1420 (Digester Storage Tank Biogas Valve). Valve is frozen in the Open position and will not operate remotely or from the manual hand valve. At present the Biosolids Storage tank is not in service and the gas is isolated at hand valves on the condensation trap. Valve is located on the north side of the tank at ground level.
Biosolids Storage Tank MB80T21	10/12/06		Need tech to investigate and repair the Biogas Isolation valve to the tank, M80MV1420 (Digester Storage Tank Biogas Valve). Valve is frozen in the Open position and will not operate remotely or from the manual hand valve. At present the Biosolids Storage tank is not in service and the gas is isolated at hand valves on the condensation trap. Valve is located on the north side of the tank at ground level.
Biosolids Storage Tank MB80T21	12/18/06		Need tech to investigate and repair the reclaim make up water shut off system for the J-tubes on the Biosolids tank? Both J-tube shuts offs are not working.
Em. Biosolids Storage Tank MB80T22	05/09/06	05/17/06	Inspect interior of expansion tank, clean if necessary, and remove in line blank flanges on tank, please check with operations prior to removal of in line blank flanges.
Centrate Pump 1 MB94P01	07/10/06	07/08/06	Local control Panel #1 for DCS auto was tripped. #94UC2120 & 94USC2120 Fisher/Porter controllers.
Centrate Pump 2 MB94P02	04/26/06	07/27/06	Collect Scale Sample from pump, piping and check valve
Centrate Pump 2 MB94P02	10/03/06	10/05/06	High vibration and motor running hot. Check for scale buildup, and remove if necessary.

Centrate Pump 2MB94P02	10/05/06	10/05/06	Suction and discharge valves in bad quality. Check communications with DCS.
Centrate Pump 2 MB94P02	10/11/06	10/16/06	Repair seal water leak at pressure sensor.
Centrate Pump 2 MB94P02	10/20/06	0/25/06	Vibration levels have exceeded the alert/fault level of the pump in the lower frequency ranges and the warning/alert level of the motor in the high frequency ranges.
Centrate Pump 2 MB94P02	10/20/06	10/21/06	Retest vibration after pump cleaning
Centrate Pump 3 MB94P03	12/12/06	12/12/06	Investigate and repair seal water valve. Valve is staying open when pump is off.

DEWATERING CENTRIFUGES

Dewatering Centrifuge 1 MB76DW1	02/16/06-04/05/06-04/05/06-04/18/06-06/16/06-07/03/06 07/29/06-08/01/06-09/05/06-10/20/06-10/20/06-12/14/06
Dewatering Centrifuge 2 MB76DW2	02/09/06-03/10/06-04/05/06-05/24/06-06/05/06-06/09/06 07/11/06-08/17/06-10/13/06-10/23/06-11/13/06-11/17/06
Dewatering Centrifuge 3 MB76DW3	04/05/06-07/03/06-09-06/06-09/11/06-10/03/06-10/10/06 10/13/06-10/20/06-10/20/06-12/04/06-12/04/06-12/07/06 12/05/06-12/26/06-12/27/06
Dewatering Centrifuge 4 MB76DW4	01/04/06-01/12/06-02/02/06-02/02/06-02/07/06-02/11/06 02/14/06-02/27/06-03/01/06-03/15/06-04/05/06-05/24/06 06/29/06-08/23/06-09/05/06-09/11/06-09/14/06-10/02/06 10/02/06-10/13/06-12/14/06-12/19/06
Dewatering Centrifuge 5 MB76DW5	02/02/06-02/24/06-04/06/06-04/14/06-04/17/06-05-11-06 07/05/06-07/18/06-07/19/06-08/10/06-10/20/06-10/26/06 10/27/06-11/07/06-12/09/06-12/11/06-
Dewatering Centrifuge 6 MB76DW6	01/10/06-01/12/06-01/12/06-04/05/06-04/13/06-04/13/06 04/15/06-06/06/06-09/08/06-10/13/06-11/03/06-11/03/06 11/03/06
Dewatering Centrifuge 7 MB76DW7	01/19/06-03/07/06-04/06/06-07/13/06-11/07/06-07/19/06 08/21/06-09/05/06-09/06/06-09/14/06-10/05/06-10/14/06 10/20/06-12/04/06-12/11/06
Dewatering Centrifuge 8 MB76DW 8	02/11/06-03/13/06-03/17/06-03/20/06-03/21/06-04/05/06 04/05/06-04/27/06-05/08/06-08/10/06-08/28/06-10/13/06 11/03/06-11/03/06-11/08/06-11/08/06-12/08/06-12/14/06 12/18/06

THICKENING CENTRIFUGES

Thickening Centrifuge 1	03/02/06-04/05/06-05/11/06-10/02/06-10/13/06-11/13/06 12/14/06
Thickening Centrifuge 2 MB76TC2	03/02/06-30/21/06-04/05/06-05/11/06-05/12/06-06/05/06 08/08/06-11/022/06-12/13/06
Thickening Centrifuge 3	03/02/06-04/05/06-04/21/06-05/11/06-05/18/06-05/018/06
Thickening Centrifuge 4 MB76TC4	03/02/06-04/05/06-
Thickening Centrifuge 5 MB76TC5	03/02/06-04/05/06-09/22/06

GRIT SEPARATORS

Grit Separator 1 MB76GSR1	03/01/06-05/05/06-07/25/06-07/27/06-08/14/06
Grit Separator 2	03/01/06-05/05/06-07/20/06-10/05/06-10/25/06-10/25/06

MB76GSR2	10/26/06
Grit Separator 3 MB76GSR3	01/03/06-04/21/06-05/02/06-05/05/06-10/09/06-10/09/06

GAS FLARES

Gas Flare 1 MB80GF01	02/23/06-03/01/06-03/06/06-04/21/06-07/03/06-
Gas Flare 2 MB80GFL02	03/06/06-10/20/06-11/02/06

DIGESTERS

Digester 1 MB80T11	02/21/06-03/10/06-07/14/06-10/17/06
Digester 2 MB80T12	02/22/06-02/28/06-09/11/06
Digester 3 MB80T13	01/11/06-03/01/06

BIOSOLIDS STORAGE TANKS

Biosolids Storage Tank MB80T21	01/31/06-05/10/06-06/06/06-10/12/06-10/12/06-12/18/06
Em. Biosolids Storage Tank MB80T22	05/09/06

CENTRATE PUMPS

Centrate Pump 1 MB94P01	07/10/06
Centrate Pump 2 MB94P02	04/26/06-10/03/06-10/05/06-10/11/06-10/20/06
Centrate Pump 3 MB94P03	07/05/06-12/12/06

G. Solids Handling Annual Report

2006 Annual Biosolids Beneficial Use & Disposal Report

Facilities:

Sources of biosolids:

Biosolids treatment and processing:

Point Loma Wastewater Treatment Plant (PLWWTP)
1902 Gatchell Rd., San Diego, CA

Metro Biosolids Center (MBC)
5240 Convoy Street, San Diego, CA 92111

North City Water Reclamation Plant (NCWRP)
4949 Eastgate Mall, San Diego, CA 92121

Point Loma Wastewater Treatment Plant (PLWWTP)
1902 Gatchell Rd., San Diego, CA

The Point Loma Wastewater Treatment Plant (PLWWTP) and the North City Water Reclamation Plant produced and disposed of 118,026 wet tons/34,716 dry tons (31,516 dry metric tons) of digested sludge (biosolids) in 2006.

All digested sludge produced at the Pt. Loma WWTP were pumped to the Metro Biosolids Center (MBC) for dewatering by centrifuges. The biosolids were then hauled to a disposal site (Local Landfill) or beneficial use site. During this reporting period all of the raw sludge produced at the North City Water Reclamation Plant (NCWRP) was diverted to the Metro Biosolids Center for screening, thickening, dewatering, digestion and blended with the digested solids from the PLWWTP prior to dewatering. The MBC Monthly Biosolids Processing Reports include the biosolids processed from the PLWWTP and the NCWRP. Copies of the MBC Monthly Biosolids Processing Reports and the MBC Biosolids Beneficial Use and Disposal Monthly Summary Reports detailing daily biosolids processing and beneficial use/disposal are included as Enclosures 1 and 5. respectively.

All of the sludge/biosolids produced by the City of San Diego, Pt. Loma Wastewater Treatment Plant and North City Water Reclamation Plant were dewatered at the Metro Biosolids Center(MBC) and disposition is shown as summarized below.

Disposition	Wet tons (short)	Dry tons ¹	Dry metric tons
Disposal in sanitary landfill	2,225	654	593
Beneficial reuse as Alternative Daily Cover (ADC) at landfill	103,795	30,516	27,684
Land application in Arizona	12,005	3,529	3,202

All Biosolids produced by the City of San Diego were treated to Class B standards through Anaerobic Digestion for a minimum of 15 days at a temperature of 35 to 55 degrees Centigrade(Alternative 3, Process 3). Vector Attraction requirements were achieved by reducing the volatile solids content a minimum of 38 percent(Option 1).

¹ (based on 29.4% average TS)

Land Applier: Solid Solutions
Address: 12340 Seal Beach Blvd., Suite B-383, Seal Beach, CA 90740
Period: January 1, 2006 - December 31, 2006
Reuse method: Direct land application. Digested dewatered sludge from the MBC centrifuges were land applied directly to fields in Yuma County, AZ. The sludge was certified by the City of San Diego as meeting Class B pathogen and vector attraction reduction requirements of 40 CFR 503. Copies of the City of San Diego's certifications (which also serve as notification of nitrogen content) are included as Enclosure 2. Copies of Solid Solutions' certification statements are included as Enclosures 10 & 11.

The MBC provides two essential treatment processes, thickening and digestion of the raw solids from the NCWRP and dewatering of biosolids generated at the NCWRP and the PLWWTP. The digested biosolids from the PLWWTP are pumped to MBC in a 17 mile pipeline into one of the two storage tanks on site where it is blended with the digested biosolids from the NCWRP. Before these biosolids are sent to the dewatering process polymer and ferric chloride are added to condition the biosolids, which enhances the dewaterability of the biosolids and minimizes the potential of scale formation.

Eight dewatering centrifuges are used to separate the liquid and solids fractions of the conditioned biosolids. The liquid fraction, (centrate) is returned to the PLWWTP via the Rose Canyon Interceptor and the solids recovered, (cake), is pumped to one of the eight storage silos on site before it is loaded into trucks for disposal/beneficial use as ADC at Otay Landfill or beneficially used for land application in Yuma County, Arizona, Tables 1B and Table 1C.

The digested biosolids, centrate and dewatered cake are sampled on a daily basis to ensure regulatory compliance and to track plant process performance. Grab samples are collected daily on the incoming biosolids from the PLWWTP and the blended biosolids, which includes the digested biosolids from the NCWRP. The operations staff also collects a twenty-four hour composite sample from the centrate return stream from the dewatering process and from the blended centrate return stream that includes the centrate flow from the thickening and dewatering processes.

Daily grab samples of dewatered cake are collected from each individual dewatering centrifuge that are in operation during the 24 hour period, and a portion of each of these grab samples are combined to provide a daily composite of dewatered cake produced. All sampling at MBC is performed by Wastewater Plant Operators who are certified by the State of California and in conformance with established sampling techniques listed in Standard Methods.

Because the dewatered cake samples are a daily composite and the Land Applier's (Solid Solutions) samples are a monthly grab sample, the dry ton calculations may differ slightly.

In addition to the monthly analyses of 503 and California Title 22 analyses by our California certified laboratory, and in accordance with the Arizona Department of Environmental Quality (ADEQ), grab samples were delivered to an Arizona certified laboratory. Legend Technical Services of Arizona, Inc, 17631 North 25th Avenue, Phoenix, AZ 85023, ADHS#AZ0004 provided EPA Part 503 Table 3 Metals and Nitrogen analysis. See Enclosure 14.

Biosolids used for all uses in 2006 continued to meet all regulatory requirements. Concentration of pollutants were all well below the limits listed in California Title 22 Hazardous

Waste thresholds including TLC (Total Threshold Limit Concentration), STLC (Soluble Threshold Limit Concentration), and 40 CFR part 503.13 Table 3 "Limits for Land Application", the lower lead limit established by the California State Health and Safety Code 25157.8. It also met the A.C.C. (Arizona Administrative Code) R18-9-1005 Table 2. Monthly Average Pollutant Concentration limits.

Additional analyses, including the rest of the "priority pollutant list"², were performed during 2006 and the reports of these analyses are included in Enclosure 7.

Table 1.A. Landfill location used during 2006 is as follows:

Otay Landfill 1700 Maxwell Road Chula Vista, San Diego County, CA 91911	2,225 wet tons(654 dry tons/594 dry metric tons) based on 29.4% average solids) disposed of from January to December 2006 at this landfill.
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No biosolids were shipped to or disposed of at a surface disposal site.

No biosolids were disposed of or reused by any other method than those listed above.

² Includes volatile organic compounds, phenols, base/neutral organic compounds, organophosphorus pesticides, chlorinated pesticides and PCBs.

Table 1B. Biosolids Production for MBC

Table 1B. Annual biosolids Beneficial Use & Landfill Disposal Summary

2006 Month:	Otay Landfill Biosolids (wet Tons)	Otay Landfill Beneficial Use ¹ (wet Tons)	Otay Landfill Total (wet Tons)	Norris Farm Aztec, Yuma County, AZ Beneficial Use ² (wet Tons)	Cullison Farm Aztec, Yuma Beneficial Use ² (wet Tons)	Total (wet Tons)	%TS	Total Dry Tons	Total Biosolids (dry metric tons)
January		8,999.11	8,999.11	1,466.55	452.36	10,918.02	28.8	3,144.39	2,852.59
February	390.81	7,468.13	7,858.94	1,339.67		9,198.61	28.9	2,658.40	2,411.70
March	1,102.79	7,653.97	8,756.76	1,385.71		10,142.47	29.6	3,002.17	2,723.57
April	293.60	7,032.83	7,326.43	887.30	474.15	8,687.88	29.9	2,597.68	2,356.61
May	438.23	8,391.66	8,829.89	580.98	220.72	9,631.59	29.5	2,841.32	2,577.64
June		8,152.55	8,152.55	784.67		8,937.22	30.6	2,734.79	2,481.00
July		7,325.88	7,325.88	735.96		8,061.84	29.9	2,410.49	2,186.80
August		9,457.61	9,457.61	834.88		10,292.49	29.0	2,984.82	2,707.83
September		9,246.72	9,246.72	539.93		9,786.65	28.9	2,828.34	2,565.87
October		9,801.61	9,801.61	891.90		10,693.51	29.4	3,143.89	2,852.14
November		10,381.82	10,381.82	813.76		11,195.58	29.5	3,302.70	2,996.21
December		9,883.52	9,883.52	596.17		10,479.69	29.1	3,049.59	2,766.59
Total:	2,225.43	103,795.41	106,020.84	10,857.48	1,147.23	118,025.55		34,698.58	31,478.55
Monthly Average:	556.36	8,649.62	8,835.07	904.79	382.41	9,835.46	29.4	2,891.55	2,623.21

¹ beneficial use as Alternative Daily Cover.

² beneficial use in Land Application.

Table 1C. 2006 Biosolids Land Application

Table 1C. 2006 Biosolids Land Application

Month	%TS	Cullison , Yuma City, AZ		Norris, Yuma City, AZ		Total Monthly	Total Monthly	Total Metric
		wet tons	dry tons	wet tons	dry tons	wet tons	dry tons	dry tons
January	28.8	452.36	130.28	1,466.55	422.37	1,918.91	552.65	501.36
February	28.9		0.00	1,339.67	387.16	1,339.67	387.16	351.24
March	29.6		0.00	1,385.71	410.17	1,385.71	410.17	372.11
April	29.9	474.15	141.77	887.30	265.30	1,361.45	407.07	369.30
May	29.5	220.72	65.11	580.98	171.39	801.70	236.50	214.55
June	30.6		0.00	784.67	240.11	784.67	240.11	217.83
July	29.9		0.00	735.96	220.05	735.96	220.05	199.63
August	29.0		0.00	834.88	242.12	834.88	242.12	219.65
September	28.9		0.00	539.93	156.04	539.93	156.04	141.56
October	29.4		0.00	891.90	262.22	891.90	262.22	237.88
November	29.5		0.00	813.76	240.06	813.76	240.06	217.78
December	29.1		0.00	596.17	173.49	596.17	173.49	157.39
2006 Totals	Avg =29.4	1,147.23	337.16	10,857.48	3,190.47	12,004.71	3,527.64	3,200.27

Table 1D. Other Solids disposal (weights are gross wet weight)

2006 Month:	Copper Mountain Landfill Scum (Tons)	Otay Landfill Scum (Tons)	Miramar Landfill Grit (Tons)	Miramar Landfill Rags & Screenings (Tons)
January	35.99		135.22	555.22
February	36.49		158.32	591.62
March	47.31		167.02	606.16
April	15.63		175.93	562.81
May	34.57		196.51	592.90
June	21.50		203.00	623.05
July	33.52		187.32	617.79
August	23.70		135.14	674.40
September	24.81	6.07	154.60	567.66
October	13.14		170.05	518.81
November	26.62		178.52	543.58
December	30.74		151.95	492.17
Total:	344.02	6.07	2,013.58	6,946.17
Average:	28.67	6.07	167.80	578.85

- Solids Production for 2006

**Point Loma Annual Monitoring Report
Solids Report – TOTALS**

From 01-JAN-2006 to 31-DEC-2006

Month	Pt. Loma Raw sludge		Pt. Loma Digested Sludge		MBC Combined Centrate		MBC Dewatered Sludge	
	Gallons	Tons	Gallons	Tons	Gallons	Tons	Wet Tons	Dry Tons
01	30,939,540	4,967	29,929,021	2,702	76,249,057	936	10,918	3,147
02	28,412,343	4,567	28,597,618	2,573	70,828,371	668	9,199	2,660
03	31,718,776	4,883	31,725,173	2,814	75,966,963	808	10,143	3,001
04	30,030,470	4,643	30,044,299	2,600	69,144,272	777	8,688	2,593
05	32,580,970	5,015	34,223,761	2,746	74,233,302	1,079	9,632	2,837
06	31,153,747	4,637	31,153,802	2,628	72,033,675	885	8,937	2,738
07	29,343,078	4,728	29,343,079	2,557	67,659,998	826	8,062	2,409
08	29,738,526	4,836	29,738,526	2,626	79,450,214	866	10,293	2,983
09	30,173,610	4,850	30,173,610	2,724	79,515,983	1,001	9,787	2,825
10	31,562,391	4,851	31,562,391	2,854	83,602,419	1,149	10,694	3,142
11	27,326,950	4,264	27,326,950	2,461	78,187,878	1,071	11,196	3,308
12	28,080,714	4,375	28,080,714	2,459	70,828,236	1,077	10,480	3,050
avg	30,088,426	4,718	30,158,245	2,645	74,808,364	929	9,835	2,891
sum	361,061,115	56,616	361,898,944	31,744	897,700,368	11,143	118,026	34,693

**Solids Report - Daily Averages by Month
From 01-JAN-2006 to 31-DEC-2006**

Month	Pt. Loma Raw sludge			Pt. Loma Digested Sludge			MBC Combined Centrate			MBC Dewatered Sludge		
	Gallons	%TS	Tons	Gallons	%TS	Tons	Gallons	%TS	Tons	Wet Tons	%TS	Dry Tons
01	998,050	3.9	161	997,634	2.2	90	2,459,647	0.29	30.3	352	28.8	101.5
02	1,014,727	3.9	163	1,021,344	2.2	92	2,529,585	0.23	24.5	329	28.9	95.0
03	1,023,186	3.7	157	1,023,393	2.1	91	2,450,547	0.26	25.0	327	29.6	96.8
04	1,001,016	3.7	159	1,001,477	2.1	90	2,304,809	0.27	25.8	290	29.9	86.4
05	1,050,999	3.7	162	1,103,992	1.9	90	2,394,623	0.35	36.4	311	29.5	91.5
06	1,038,458	3.6	154	1,038,460	2.0	87	2,401,123	0.29	29.3	298	30.6	91.3
07	946,551	3.9	154	946,551	2.1	83	2,182,581	0.29	26.3	260	29.9	77.7
08	959,307	3.9	155	959,307	2.1	85	2,562,910	0.26	27.9	332	29.0	96.2
09	1,005,787	3.9	160	1,005,787	2.2	93	2,650,533	0.30	33.5	326	28.9	94.2
10	1,018,142	3.7	158	1,018,142	2.2	91	2,696,852	0.33	37.3	345	29.4	101.3
11	910,898	3.7	138	910,898	2.2	81	2,606,263	0.33	35.7	373	29.5	110.3
12	905,829	3.7	142	905,829	2.1	79	2,284,782	0.36	34.9	338	29.1	98.4
avg	989,413	3.8	155	994,401	2.1	88	2,460,354	0.30	30.6	323	29.4	95.1

Note: A ton is a "short ton" or 2000 lbs of dry solids.
Values for Wet Tons of dewatered sludge are based on calculated volumes from eight positive displacement cake pumps and are subject to inaccuracies. The mechanical condition of the cake pumps and the variability of sludge concentrations can effect the overall accuracies of these reported values.

Enclosure 7

Results of other analyses of dewatered biosolids for 2006.

Tables showing the analyses for metals (including priority pollutants), pH, total and volatile solids, pesticides & PCBs, and organic priority pollutant compounds of sewage biosolids samples taken in 2005.

POINT LOMA WASTEWATER TREATMENT PLANT
METRO BIOSOLIDS CENTER
ANNUAL DEWATERED SLUDGE COMPOSITES
Trace Metals

From: 01-JAN-2006 to: 31-DEC-2006

Source:		MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
Date:		31-JAN-2006	28-FEB-2006	31-MAR-2006	30-APR-2006	31-MAY-2006	30-JUN-2006
Sample ID:	MDL Units	P329983	P333025	P336177	P340221	P343565	P346984
pH	.08 PH	7.97	7.96	8.01	8.22	7.96	7.77
Total Solids	WT%	28.2	29.1	28.4	28.9	27.9	29.8
Total Volatile Solids	WT%	56.8	58.7	57.6	57.5	57.6	57.9
Total Kjeldahl Nitrogen	.04 WT%	NA	4.51	NA	NA	4.49	NA
Total Nitrogen	1.1 WT%	4.52	4.92	4.30	4.48	4.92	4.50
Sulfides-Total	2170 MG/KG	16900	15700	17400	17300	12400	11700
Sulfides-Reactive	11 MG/KG	13	ND	<11	ND	30	<11
Cyanides,Total	.1 MG/KG	NA	1.15	NA	NA	1.39	NA
Aluminum	1.32 MG/KG	8110	7650	8990	8630	8270	8480
Antimony	.451 MG/KG	4.5	4.0	4.4	4.4	4.3	4.4
Arsenic	.68 MG/KG	3.93	4.16	4.42	4.80	3.44	3.21
Barium	.0063 MG/KG	410	179	605	355	490	409
Beryllium	.0039 MG/KG	0.02	<0.00	0.02	0.11	0.15	0.68
Cadmium	.018 MG/KG	1.8	1.6	3.6	2.3	2.1	2.1
Chromium	.0831 MG/KG	41	49	52	52	45	50
Cobalt	.083 MG/KG	1.7	1.7	1.9	2.5	2.4	4.0
Copper	.055 MG/KG	671	670	725	573	646	701
Iron	2 MG/KG	95000	88900	90600	79900	91700	85500
Lead	.604 MG/KG	22	20	26	29	25	25
Manganese	.012 MG/KG	289	266	296	320	332	323
Mercury	.4 MG/KG	1.36	1.37	1.35	1.67	1.33	1.33
Molybdenum	.143 MG/KG	16	16	19	31	19	18
Nickel	.063 MG/KG	31	32	30	34	33	49
Selenium	.47 MG/KG	5.02	4.30	4.60	5.18	5.46	4.07
Silver	.06 MG/KG	16	17	18	22	27	34
Thallium	.771 MG/KG	ND	ND	ND	ND	ND	ND
Vanadium	.064 MG/KG	149	101	97	67	72	69
Zinc	.12 MG/KG	786	786	1050	1250	1130	1060

Source:		MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
Date:		31-JUL-2006	31-AUG-2006	30-SEP-2006	31-OCT-2006	30-NOV-2006	31-DEC-2006
Sample ID:	MDL Units	P351414	P354950	P358116	P361408	P364927	P368380
pH	.08 PH	7.93	7.88	7.83	7.73	7.89	8.00
Total Solids	WT%	28.7	27.9	27.9	28.5	27.6	28.2
Total Volatile Solids	WT%	57.9	56.9	56.8	57.1	55.0	55.8
Total Kjeldahl Nitrogen	.04 WT%	NA	4.40	NA	4.41	NA	NA
Total Nitrogen	1.1 WT%	4.47	3.89	4.52	5.86	4.49	4.51
Sulfides-Total	2170 MG/KG	10500	15700	15600	15300	16300	14300
Sulfides-Reactive	11 MG/KG	ND	15	13	11	ND	ND
Cyanides,Total	.1 MG/KG	NA	1.48	NA	1.43	NA	NA
Aluminum	1.32 MG/KG	8680	7910	7690	7550	7650	7310
Antimony	.451 MG/KG	3.9	4.5	3.8	4.7	4.8	5.9
Arsenic	.68 MG/KG	2.71	2.31	2.82	3.78	3.09	2.18
Barium	.0063 MG/KG	343	336	329	180	404	455
Beryllium	.0039 MG/KG	0.59	0.38	0.25	0.29	0.30	0.33
Cadmium	.018 MG/KG	2.1	2.1	2.6	1.9	1.9	1.8
Chromium	.0831 MG/KG	62	75	76	84	93	73
Cobalt	.083 MG/KG	3.9	3.2	4.6	5.3	4.4	3.2
Copper	.055 MG/KG	744	756	718	809	733	650
Iron	2 MG/KG	82700	88000	87000	102000	110000	105000
Lead	.604 MG/KG	27	25	27	28	24	21
Manganese	.012 MG/KG	342	337	322	350	367	347
Mercury	.4 MG/KG	1.50	1.77	1.60	1.41	1.30	1.34
Molybdenum	.143 MG/KG	20	20	20	21	19	14
Nickel	.063 MG/KG	59	68	88	101	102	60
Selenium	.47 MG/KG	5.67	5.48	5.27	4.52	3.84	4.36
Silver	.06 MG/KG	23	17	20	19	31	26
Thallium	.771 MG/KG	ND	ND	ND	ND	ND	ND
Vanadium	.064 MG/KG	48	32	25	26	35	61
Zinc	.12 MG/KG	1090	923	918	1080	1020	896

ND= Not Detected
NA= Not Analyzed
NS= Not Sampled
NR= Not Required

MBCDEWCN= Metro Biosolids Center Dewatered Centrifuged Sludge.

POINT LOMA WASTEWATER TREATMENT PLANT
 Quarterly Sludge Project
 Total Nitrogen Analysis

From 01-JAN-2006 to 31-DEC-2006

Date:		MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
Sample:	MDL Units	31-JAN-2006	28-FEB-2006	31-MAR-2006	30-APR-2006	31-MAY-2006	30-JUN-2006	31-JUL-2006
		P329983	P333025	P336177	P340221	P343565	P346984	P351414
Total Nitrogen 1.1 WT%		4.5	4.9	4.3	4.5	4.9	4.5	4.5

Date:		MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
Sample:	MDL Units	31-AUG-2006	30-SEP-2006	31-OCT-2006	30-NOV-2006	31-DEC-2006
		P354950	P358116	P361408	P364927	P368380
Total Nitrogen 1.1 WT%		3.9	4.5	5.9	4.5	4.5

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
 QUARTERLY SLUDGE PROJECT
 Radioactivity

From: 01-JAN-2006 to: 31-DEC-2006

Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
PLE	07-FEB-2006	P328031	0.7±1.3	38.3±5.2
PLE	09-MAY-2006	P337899	1.5±1.2	16.3±3.4
PLE	08-AUG-2006	P348595	1.5±1.0	13.3±3.6
PLE	03-OCT-2006	P355688	0.2±0.7	13.4±3.8
PLE	ANNUAL	AVERAGE	1.0±1.1	20.3±4.0

PLR	07-FEB-2006	P328036	2.0±1.6	10.6±3.0
PLR	09-MAY-2006	P337904	5.6±1.5	13.6±3.3
PLR	08-AUG-2006	P348600	2.7±1.7	20.6±4.1
PLR	03-OCT-2006	P355693	1.2±1.5	14.5±3.9
PLR	ANNUAL	AVERAGE	2.9±1.6	14.8±3.5

MBC_COMBCN	07-FEB-2006	P328046	4.3±2.0	22.7±3.5
MBC_COMBCN	09-MAY-2006	P337914	6.8±2.2	22.9±4.5
MBC_COMBCN	08-AUG-2006	P348610	3.8±2.7	5.2±4.3
MBC_COMBCN	03-OCT-2006	P355703	0.8±1.8	21.2±5.2
MBC_COMBCN	ANNUAL	AVERAGE	3.9±2.2	18.0±4.4

Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
MBCDEWCN	28-FEB-2006	P333025	5940±2770	2190±1590
MBCDEWCN	31-MAY-2006	P343565	4340±1465	1100±1020
MBCDEWCN	31-AUG-2006	P354950	5220±2555	3440±1610
MBCDEWCN	31-OCT-2006	P361408	3790±2360	1760±1430
AVERAGE			4823±2288	2123±1413

Units in picocuries per Liter (pCi/L)

ND= Not Detected
 NA= Not Analyzed
 NS= Not Sampled
 NR= Not Required

MBC_COMBCN = Combined Sludge Centrate
 MBC_NC_DSL = Combined North City Digested Sludge Line
 MBC_NC_RSL = Combined North City Raw Sludge Line

MBCDEWCN = Metro Biosolids Center Dewatered Centrifuged Sludge.

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SLUDGE - Chlorinated Pesticide Analysis
From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
			31-JAN-2006 P329983	28-FEB-2006 P333025	31-MAR-2006 P336177	30-APR-2006 P340221	31-MAY-2006 P343565
Aldrin	71000	NG/KG	ND	ND	ND	ND	ND
Dieldrin	35000	NG/KG	ND	ND	ND	ND	ND
BHC, Alpha isomer	28000	NG/KG	ND	ND	ND	ND	ND
BHC, Beta isomer	32000	NG/KG	ND	ND	ND	ND	ND
BHC, Gamma isomer	18000	NG/KG	ND	ND	ND	ND	ND
BHC, Delta isomer	28000	NG/KG	ND	ND	ND	ND	ND
p,p-DDD	18000	NG/KG	ND	ND	ND	ND	ND
p,p-DDE	28000	NG/KG	35500	ND	ND	ND	32000
p,p-DDT	35000	NG/KG	ND	ND	ND	ND	ND
o,p-DDD	28000	NG/KG	ND	ND	ND	ND	ND
o,p-DDE	52000	NG/KG	ND	ND	ND	ND	ND
o,p-DDT	71000	NG/KG	ND	ND	ND	ND	ND
Heptachlor	16000	NG/KG	ND	ND	ND	ND	ND
Heptachlor epoxide	28000	NG/KG	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	13000	NG/KG	37500	ND	ND	ND	ND
Gamma (trans) Chlordane	48000	NG/KG	64000	63500	ND	ND	73500
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA
Oxychlordane	28000	NG/KG	ND	ND	ND	ND	ND
Trans Nonachlor	18000	NG/KG	23500	37500	ND	ND	ND
Cis Nonachlor	52000	NG/KG	ND	ND	ND	ND	ND
Alpha Endosulfan	18000	NG/KG	ND	ND	ND	ND	ND
Beta Endosulfan	28000	NG/KG	ND	ND	ND	ND	ND
Endosulfan Sulfate	45000	NG/KG	ND	ND	ND	ND	ND
Endrin aldehyde	52000	NG/KG	ND	ND	ND	ND	ND
Toxaphene	130000	NG/KG	ND	ND	ND	ND	ND
Mirex	18000	NG/KG	ND	ND	ND	ND	ND
Methoxychlor	71000	NG/KG	ND	ND	ND	ND	ND
PCB 1016	260000	NG/KG	ND	ND	ND	ND	ND
PCB 1221	580000	NG/KG	ND	ND	ND	ND	ND
PCB 1232	220000	NG/KG	ND	ND	ND	ND	ND
PCB 1242		NG/KG	ND	ND	ND	ND	ND
PCB 1248	310000	NG/KG	ND	ND	ND	ND	ND
PCB 1254	130000	NG/KG	ND	ND	ND	ND	ND
PCB 1260	86000	NG/KG	ND	ND	ND	ND	ND
PCB 1262		NG/KG	ND	ND	ND	ND	ND
Aldrin + Dieldrin	71000	NG/KG	0	0	0	0	0
Hexachlorocyclohexanes	32000	NG/KG	0	0	0	0	0
DDT and derivatives	71000	NG/KG	35500	0	0	0	32000
Chlordane + related cmpds.	48000	NG/KG	101500	63500	0	0	73500
Polychlorinated biphenyls	580000	NG/KG	0	0	0	0	0
Chlorinated Hydrocarbons	580000	NG/KG	160500	101000	0	0	105500

nd= not detected
NA= not analyzed
NS= not sampled

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

POINT LOMA WASTEWATER TREATMENT PLANT
 ANNUAL SLUDGE - Chlorinated Pesticide Analysis
 From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
			30-JUN-2006 P346984	31-JUL-2006 P351414	31-AUG-2006 P354950	30-SEP-2006 P358116	31-OCT-2006 P361408
Aldrin	71000	NG/KG	ND	ND	ND	ND	ND
Dieldrin	35000	NG/KG	ND	ND	ND	ND	ND
BHC, Alpha isomer	28000	NG/KG	ND	ND	ND	ND	ND
BHC, Beta isomer	32000	NG/KG	ND	ND	ND	ND	ND
BHC, Gamma isomer	18000	NG/KG	ND	ND	ND	ND	ND
BHC, Delta isomer	28000	NG/KG	ND	ND	ND	ND	ND
p,p-DDD	18000	NG/KG	ND	ND	ND	ND	ND
p,p-DDE	28000	NG/KG	35000	32000	40000	37500	ND
p,p-DDT	35000	NG/KG	ND	ND	ND	ND	ND
o,p-DDD	28000	NG/KG	ND	ND	ND	ND	ND
o,p-DDE	52000	NG/KG	ND	ND	ND	ND	ND
o,p-DDT	71000	NG/KG	ND	ND	ND	ND	ND
Heptachlor	16000	NG/KG	ND	ND	ND	ND	ND
Heptachlor epoxide	28000	NG/KG	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	13000	NG/KG	36000	ND	ND	ND	ND
Gamma (trans) Chlordane	48000	NG/KG	ND	ND	ND	62500	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA
Oxychlordane	28000	NG/KG	ND	ND	ND	ND	ND
Trans Nonachlor	18000	NG/KG	ND	ND	ND	ND	ND
Cis Nonachlor	52000	NG/KG	ND	ND	ND	ND	ND
Alpha Endosulfan	18000	NG/KG	ND	ND	ND	ND	ND
Beta Endosulfan	28000	NG/KG	ND	ND	ND	ND	ND
Endosulfan Sulfate	45000	NG/KG	ND	ND	ND	ND	ND
Endrin aldehyde	52000	NG/KG	ND	ND	ND	ND	ND
Toxaphene	130000	NG/KG	ND	ND	ND	ND	ND
Mirex	18000	NG/KG	ND	ND	ND	ND	ND
Methoxychlor	71000	NG/KG	ND	ND	ND	ND	ND
PCB 1016	260000	NG/KG	ND	ND	ND	ND	ND
PCB 1221	580000	NG/KG	ND	ND	ND	ND	ND
PCB 1232	220000	NG/KG	ND	ND	ND	ND	ND
PCB 1242		NG/KG	ND	ND	ND	ND	ND
PCB 1248	310000	NG/KG	ND	ND	ND	ND	ND
PCB 1254	130000	NG/KG	ND	ND	ND	ND	ND
PCB 1260	86000	NG/KG	ND	ND	ND	ND	ND
PCB 1262		NG/KG	ND	ND	ND	ND	ND
=====							
Aldrin + Dieldrin	71000	NG/KG	0	0	0	0	0
Hexachlorocyclohexanes	32000	NG/KG	0	0	0	0	0
DDT and derivatives	71000	NG/KG	35000	32000	40000	37500	0
Chlordane + related cmpds.	48000	NG/KG	36000	0	0	62500	0
Polychlorinated biphenyls	580000	NG/KG	0	0	0	0	0
=====							
Chlorinated Hydrocarbons	580000	NG/KG	71000	32000	40000	100000	0

nd= not detected
 NA= not analyzed
 NS= not sampled

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SLUDGE - Chlorinated Pesticide Analysis
From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	Annual Average
			30-NOV-2006 P364927	31-DEC-2006 P368380	
Aldrin	71000	NG/KG	ND	ND	ND
Dieldrin	35000	NG/KG	ND	ND	ND
BHC, Alpha isomer	28000	NG/KG	ND	ND	ND
BHC, Beta isomer	32000	NG/KG	ND	ND	ND
BHC, Gamma isomer	18000	NG/KG	ND	ND	ND
BHC, Delta isomer	28000	NG/KG	ND	ND	ND
p,p-DDD	18000	NG/KG	ND	ND	ND
p,p-DDE	28000	NG/KG	<28000	<28000	17667
p,p-DDT	35000	NG/KG	ND	ND	ND
o,p-DDD	28000	NG/KG	ND	ND	ND
o,p-DDE	52000	NG/KG	ND	ND	ND
o,p-DDT	71000	NG/KG	ND	ND	ND
Heptachlor	16000	NG/KG	ND	ND	ND
Heptachlor epoxide	28000	NG/KG	ND	ND	ND
Alpha (cis) Chlordane	13000	NG/KG	ND	14000	7292
Gamma (trans) Chlordane	48000	NG/KG	<48000	130000	32792
Alpha Chlordene		NG/KG	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA
Oxychlordane	28000	NG/KG	ND	ND	ND
Trans Nonachlor	18000	NG/KG	39500	ND	8375
Cis Nonachlor	52000	NG/KG	ND	ND	ND
Alpha Endosulfan	18000	NG/KG	ND	ND	ND
Beta Endosulfan	28000	NG/KG	ND	ND	ND
Endosulfan Sulfate	45000	NG/KG	ND	ND	ND
Endrin aldehyde	52000	NG/KG	ND	ND	ND
Toxaphene	130000	NG/KG	ND	ND	ND
Mirex	18000	NG/KG	ND	ND	ND
Methoxychlor	71000	NG/KG	ND	ND	ND
PCB 1016	260000	NG/KG	ND	ND	ND
PCB 1221	580000	NG/KG	ND	ND	ND
PCB 1232	220000	NG/KG	ND	ND	ND
PCB 1242		NG/KG	ND	ND	ND
PCB 1248	310000	NG/KG	ND	ND	ND
PCB 1254	130000	NG/KG	ND	ND	ND
PCB 1260	86000	NG/KG	ND	ND	ND
PCB 1262		NG/KG	ND	ND	ND
=====					
Aldrin + Dieldrin	71000	NG/KG	0	0	0
Hexachlorocyclohexanes	32000	NG/KG	0	0	0
DDT and derivatives	71000	NG/KG	0	0	17667
Chlordane + related cmpds.	48000	NG/KG	0	144000	40083
Polychlorinated biphenyls	580000	NG/KG	0	0	0
=====					
Chlorinated Hydrocarbons	580000	NG/KG	39500	144000	66125

nd= not detected
NA= not analyzed
NS= not sampled

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

POINT LOMA WASTEWATER TREATMENT PLANT
 From 01-JAN-2006 To 31-DEC-2006
 ANNUAL SLUDGE PROJECT
 Tributyl Tin (Sludge)

			MBCDEWCN	MBCDEWCN
			31-MAY-2006	31-OCT-2006
			P343565	P361408
=====	=====	=====	=====	=====
Monobutyl Tin	4000	UG/KG	ND	ND
Tributyl tin	2600	UG/KG	ND	ND

nd= not detected
 NA= not analyzed
 NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
 Quarterly Sludge Project
 Herbicide Analysis
 From 01-JAN-2006 To 31-DEC-2006
 Sampling: AM Analysis: KD

Date:		MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
Sample:	MDL Units	28-FEB-2006	31-MAY-2006	31-AUG-2006	31-OCT-2006
		P333025	P343565	P354950	P361408
		=====	=====	=====	=====
2,4-dichlorophenoxyacetic acid	6.84 MG/KG	ND	ND	ND	ND
2,4,5-TP (Silvex)	6.33 MG/KG	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus Pesticides EPA Method 614/622 (with additions)

From 01-JAN-2006 To 31-DEC-2006

Sampling: AM

Analysis: TB

Analyte	MDL Units	PLE	PLE	PLR	PLR	MBC_COMBCN
		09-MAY-2006 P337899	03-OCT-2006 P355688	09-MAY-2006 P337904	03-OCT-2006 P355693	09-MAY-2006 P337914
Demeton O	.15 UG/L	ND	ND	ND	ND	ND
Demeton S	.08 UG/L	ND	ND	ND	ND	ND
Diazinon	.03 UG/L	ND	ND	0.2	ND	ND
Guthion	.15 UG/L	ND	ND	ND	ND	ND
Malathion	.03 UG/L	ND	ND	ND	ND	ND
Parathion	.03 UG/L	ND	ND	ND	ND	ND
Thiophosphorus Pesticides	.15 UG/L	0.0	0.0	0.0	0.0	0.0
Demeton -O, -S	.15 UG/L	0.0	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.3 UG/L	0.0	0.0	0.2	0.0	0.0
Tetraethylpyrophosphate	UG/L	NA	NA	NA	NA	NA
Dichlorvos	.05 UG/L	ND	ND	ND	ND	ND
Dibrom	.2 UG/L	ND	ND	ND	ND	ND
Ethoprop	.04 UG/L	ND	ND	ND	ND	ND
Phorate	.04 UG/L	ND	ND	ND	ND	ND
Sulfotepp	.04 UG/L	ND	ND	ND	ND	ND
Disulfoton	.02 UG/L	ND	ND	ND	ND	ND
Monocrotophos	UG/L	NA	NA	NA	NA	NA
Dimethoate	.04 UG/L	ND	ND	ND	ND	ND
Ronnel	.03 UG/L	ND	ND	ND	ND	ND
Trichloronate	.04 UG/L	ND	ND	ND	ND	ND
Merphos	.09 UG/L	ND	ND	ND	ND	ND
Dichlofenthion	.03 UG/L	ND	ND	ND	ND	ND
Tokuthion	.06 UG/L	ND	ND	ND	ND	ND
Stirophos	.03 UG/L	ND	ND	ND	ND	ND
Bolstar	.07 UG/L	ND	ND	ND	ND	ND
Fensulfothion	.07 UG/L	ND	ND	ND	ND	ND
EPN	.09 UG/L	ND	ND	ND	ND	ND
Coumaphos	.15 UG/L	ND	ND	ND	ND	ND
Mevinphos, e isomer	.05 UG/L	ND	ND	ND	ND	ND
Mevinphos, z isomer	.3 UG/L	ND	ND	ND	ND	ND
Chlorpyrifos	.03 UG/L	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus Pesticides EPA Method 614/622 (with additions)

From 01-JAN-2006 To 31-DEC-2006

Sampling: AM

Analysis: TB

Analyte	MDL Units	MBC_COMBCN	MBC_NC_DSL	MBC_NC_DSL	MBC_NC_RSL	MBC_NC_RSL
		03-OCT-2006 P355703	09-MAY-2006 P337969	03-OCT-2006 P355758	09-MAY-2006 P337967	03-OCT-2006 P355756
Demeton O	.15 UG/L	ND	ND	ND	ND	ND
Demeton S	.08 UG/L	ND	ND	ND	ND	ND
Diazinon	.03 UG/L	ND	ND	ND	ND	ND
Guthion	.15 UG/L	ND	ND	ND	ND	ND
Malathion	.03 UG/L	ND	ND	ND	ND	ND
Parathion	.03 UG/L	ND	ND	ND	ND	ND
Thiophosphorus Pesticides	.15 UG/L	0.0	0.0	0.0	0.0	0.0
Demeton -O, -S	.15 UG/L	0.0	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.3 UG/L	0.0	0.0	0.0	0.0	0.0
Tetraethylpyrophosphate	UG/L	NA	NA	NA	NA	NA
Dichlorvos	.05 UG/L	ND	ND	ND	ND	ND
Dibrom	.2 UG/L	ND	ND	ND	ND	ND
Ethoprop	.04 UG/L	ND	ND	ND	ND	ND
Phorate	.04 UG/L	ND	ND	ND	ND	ND
Sulfotepp	.04 UG/L	ND	ND	ND	ND	ND
Disulfoton	.02 UG/L	ND	ND	ND	ND	ND
Monocrotophos	UG/L	NA	NA	NA	NA	NA
Dimethoate	.04 UG/L	ND	ND	ND	ND	ND
Ronnel	.03 UG/L	ND	ND	ND	ND	ND
Trichloronate	.04 UG/L	ND	ND	ND	ND	ND
Merphos	.09 UG/L	ND	ND	ND	ND	ND
Dichlofenthion	.03 UG/L	ND	ND	ND	ND	ND
Tokuthion	.06 UG/L	ND	ND	ND	ND	ND
Stirophos	.03 UG/L	ND	ND	ND	ND	ND
Bolstar	.07 UG/L	ND	ND	ND	ND	ND
Fensulfothion	.07 UG/L	ND	ND	ND	ND	ND
EPN	.09 UG/L	ND	ND	ND	ND	ND
Coumaphos	.15 UG/L	ND	ND	ND	ND	ND
Mevinphos, e isomer	.05 UG/L	ND	ND	ND	ND	ND
Mevinphos, z isomer	.3 UG/L	ND	ND	ND	ND	ND
Chlorpyrifos	.03 UG/L	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus Pesticides EPA Method 614/622 (with additions)

From 01-JAN-2006 To 31-DEC-2006

Sampling: AM

Analysis: TB

Analyte	MDL Units	RAW COMP	RAW COMP	DIG COMP	DIG COMP
		09-MAY-2006 P337939	03-OCT-2006 P355728	09-MAY-2006 P337953	03-OCT-2006 P355742
Demeton O	.15 UG/L	ND	ND	ND	ND
Demeton S	.08 UG/L	ND	ND	ND	ND
Diazinon	.03 UG/L	ND	ND	ND	ND
Guthion	.15 UG/L	ND	ND	ND	ND
Malathion	.03 UG/L	ND	ND	ND	ND
Parathion	.03 UG/L	ND	ND	ND	ND
Thiophosphorus Pesticides	.15 UG/L	0.0	0.0	0.0	0.0
Demeton -O, -S	.15 UG/L	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.3 UG/L	0.0	0.0	0.0	0.0
Tetraethylpyrophosphate	UG/L	NA	NA	NA	NA
Dichlorvos	.05 UG/L	ND	ND	ND	ND
Dibrom	.2 UG/L	ND	ND	ND	ND
Ethoprop	.04 UG/L	ND	ND	ND	ND
Phorate	.04 UG/L	ND	ND	ND	ND
Sulfotepp	.04 UG/L	ND	ND	ND	ND
Disulfoton	.02 UG/L	ND	ND	ND	ND
Monocrotophos	UG/L	NA	NA	NA	NA
Dimethoate	.04 UG/L	ND	ND	ND	ND
Ronnel	.03 UG/L	ND	ND	ND	ND
Trichloronate	.04 UG/L	ND	ND	ND	ND
Merphos	.09 UG/L	ND	ND	ND	ND
Dichlofenthion	.03 UG/L	ND	ND	ND	ND
Tokuthion	.06 UG/L	ND	ND	ND	ND
Stirophos	.03 UG/L	ND	ND	ND	ND
Bolstar	.07 UG/L	ND	ND	ND	ND
Fensulfothion	.07 UG/L	ND	ND	ND	ND
EPN	.09 UG/L	ND	ND	ND	ND
Coumaphos	.15 UG/L	ND	ND	ND	ND
Mevinphos, e isomer	.05 UG/L	ND	ND	ND	ND
Mevinphos, z isomer	.3 UG/L	ND	ND	ND	ND
Chlorpyrifos	.03 UG/L	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
 Quarterly Sludge Project - Organophosphorus PesticidesEPA Method 614/622 (with additions)

From 01-JAN-2006 To 31-DEC-2006

Sampling: AM

Analysis: TB

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN
			31-MAY-2006 P343565	31-OCT-2006 P361408
Demeton O	67	UG/KG	ND	ND
Demeton S	27	UG/KG	ND	ND
Diazinon		UG/KG	ND	ND
Guthion	33	UG/KG	ND	ND
Malathion	20	UG/KG	ND	ND
Parathion	20	UG/KG	ND	ND
Tetraethylpyrophosphate		UG/KG	NA	ND
Dichlorvos	17	UG/KG	ND	ND
Dibrom		UG/KG	ND	ND
Ethoprop	27	UG/KG	ND	ND
Phorate	17	UG/KG	ND	ND
Sulfotepp	17	UG/KG	ND	ND
Disulfoton	20	UG/KG	ND	ND
Monocrotophos		UG/KG	NA	ND
Dimethoate	27	UG/KG	ND	ND
Ronnel	20	UG/KG	ND	ND
Trichloronate	20	UG/KG	ND	ND
Merphos	17	UG/KG	ND	ND
Dichlofenthion	20	UG/KG	ND	ND
Tokuthion	17	UG/KG	ND	ND
Stiropfos	20	UG/KG	ND	ND
Bolstar	50	UG/KG	ND	ND
Fensulfothion	100	UG/KG	ND	ND
EPN	33	UG/KG	ND	ND
Coumaphos	33	UG/KG	ND	ND
Mevinphos, e isomer	17	UG/KG	ND	ND
Mevinphos, z isomer	100	UG/KG	ND	ND
Chlorpyrifos		UG/KG	ND	ND
Thiophosphorus Pesticides	33	UG/KG	0.0	0.0
Demeton -O, -S	67	UG/KG	0.0	0.0
Total Organophosphorus Pesticides	100	UG/KG	0.0	0.0

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
From 01-JAN-2006 to 31-DEC-2006
ANNUAL SLUDGE
Base/Neutrals

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
			28-FEB-2006 P333025	31-MAY-2006 P343565	31-AUG-2006 P354950	31-OCT-2006 P361408
bis(2-chloroethyl) ether	330	UG/KG	ND	ND	ND	ND
1,3-dichlorobenzene	330	UG/KG	ND	ND	ND	ND
1,4-dichlorobenzene	330	UG/KG	ND	ND	764	460
1,2-dichlorobenzene	330	UG/KG	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	330	UG/KG	ND	ND	ND	ND
N-nitrosodi-n-propylamine	330	UG/KG	ND	ND	ND	ND
Nitrobenzene	330	UG/KG	ND	ND	ND	ND
Hexachloroethane	330	UG/KG	ND	ND	ND	ND
Isophorone	330	UG/KG	ND	ND	ND	ND
bis(2-chloroethoxy)methane	330	UG/KG	ND	ND	ND	ND
1,2,4-trichlorobenzene	330	UG/KG	ND	ND	ND	ND
Naphthalene	330	UG/KG	ND	ND	448	ND
Hexachlorobutadiene	330	UG/KG	ND	ND	ND	ND
Hexachlorocyclopentadiene	330	UG/KG	ND	ND	ND	ND
2-chloronaphthalene		UG/KG	ND	ND	ND	ND
Acenaphthylene	330	UG/KG	ND	ND	ND	ND
Dimethyl phthalate	330	UG/KG	ND	ND	ND	ND
2,6-dinitrotoluene	330	UG/KG	ND	ND	ND	ND
Acenaphthene	330	UG/KG	ND	ND	ND	ND
2,4-dinitrotoluene	330	UG/KG	ND	ND	ND	ND
Fluorene	330	UG/KG	ND	ND	ND	ND
4-chlorophenyl phenyl ether	330	UG/KG	ND	ND	ND	ND
Diethyl phthalate	330	UG/KG	ND	ND	ND	ND
N-nitrosodiphenylamine	330	UG/KG	ND	ND	ND	ND
4-bromophenyl phenyl ether	330	UG/KG	ND	ND	ND	ND
Hexachlorobenzene	330	UG/KG	ND	ND	ND	ND
Phenanthrene	330	UG/KG	ND	ND	659	ND
Anthracene	330	UG/KG	ND	ND	ND	ND
Di-n-butyl phthalate	330	UG/KG	ND	ND	ND	ND
N-nitrosodimethylamine	330	UG/KG	ND	ND	ND	ND
Fluoranthene	330	UG/KG	ND	ND	ND	ND
Pyrene	330	UG/KG	ND	ND	446	ND
Butyl benzyl phthalate	330	UG/KG	3000	ND	4410	ND
Chrysene	330	UG/KG	ND	ND	ND	ND
Benzo[A]anthracene	330	UG/KG	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	330	UG/KG	87800	*	112000	116000
Di-n-octyl phthalate	330	UG/KG	ND	ND	ND	ND
Benzo[K]fluoranthene	330	UG/KG	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	330	UG/KG	ND	ND	ND	ND
Benzo[A]pyrene	330	UG/KG	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	330	UG/KG	ND	ND	ND	ND
Dibenzo(A,H)anthracene	330	UG/KG	ND	ND	ND	ND
Benzo[G,H,I]perylene	330	UG/KG	ND	ND	ND	ND
1,2-diphenylhydrazine		UG/KG	ND	ND	ND	ND
=====						
PolyNuc. Aromatic Hydrocarbons	330	UG/KG	0	0	1105	0
Dichlorobenzenes	330	UG/KG	0	0	764	460
=====						
Base/Neutral Compounds	330	UG/KG	90800	0	118727	116460
Additional analytes determined;						
=====						
1-methylnaphthalene		UG/KG	ND	ND	ND	1780
2-methylnaphthalene		UG/KG	1320	ND	850	2830
2,6-dimethylnaphthalene		UG/KG	ND	ND	ND	2030
2,3,5-trimethylnaphthalene		UG/KG	200	ND	ND	ND
1-methylphenanthrene		UG/KG	ND	ND	ND	ND
Benzo[e]pyrene		UG/KG	ND	ND	ND	ND
Perylene	330	UG/KG	ND	ND	ND	ND
Biphenyl		UG/KG	ND	ND	ND	ND
Pyridine		UG/KG	ND	ND	ND	ND

*= Not reportable; Detectable concentration of Bis-(2-ethylhexyl) phthalate in method blank. Solvent contamination was confirmed and use of Fisher lot #060602 was discontinued.

nd= not detected, NA= not analyzed, NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SLUDGE
Phenolics

From 01-JAN-2006 to 31-DEC-2006

Analyte	MDL Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	Average
		28-FEB-2006 P333025	31-MAY-2006 P343565	31-AUG-2006 P354950	31-OCT-2006 P361408	
2,4,6-trichlorophenol	330 UG/KG	ND	ND	ND	ND	ND
2,4-dichlorophenol	330 UG/KG	ND	ND	ND	ND	ND
2,4-dimethylphenol	330 UG/KG	ND	ND	ND	ND	ND
2,4-dinitrophenol	330 UG/KG	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	800 UG/KG	ND	ND	ND	ND	ND
2-chlorophenol	330 UG/KG	ND	ND	ND	ND	ND
2-nitrophenol	330 UG/KG	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	330 UG/KG	ND	ND	ND	ND	ND
4-nitrophenol	800 UG/KG	ND	ND	ND	ND	ND
Pentachlorophenol	800 UG/KG	ND	ND	ND	ND	ND
Phenol	330 UG/KG	94100	155000	97400	162000	127125
Additional analytes determined;						
2-methylphenol	330 UG/KG	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)	330 UG/KG	ND	ND	ND	ND	ND
4-methylphenol(3-MP is unresolved)	330 UG/KG	6100	9290	6040	9800	7808
2,4,5-trichlorophenol	800 UG/KG	ND	ND	ND	ND	ND
Total Non-Chlorinated Phenols	800 UG/KG	100200	164290	103440	171800	134933
Total Chlorinated Phenols	800 UG/KG	0	0	0	0	0
Phenols	800 UG/KG	100200	164290	103440	171800	134933
Phenols average	800 UG/KG	8555	14091	8855	14727	11557

nd= not detected
NA= not analyzed
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SLUDGE Purgeables

From 01-JAN-2006 to 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
			31-JAN-2006 P329983	28-FEB-2006 P333025	31-MAR-2006 P336177	30-APR-2006 P340221	31-MAY-2006 P343565	30-JUN-2006 P346984
Chloromethane	25.8	UG/KG	ND	ND	ND	ND	ND	ND
1,2-dichlorobenzene	28.7	UG/KG	ND	<29	ND	ND	ND	ND
1,3-dichlorobenzene	16.1	UG/KG	ND	<16	ND	ND	ND	ND
1,4-dichlorobenzene		UG/KG	ND	412	502	256	410	282
Bromomethane	29.2	UG/KG	ND	ND	ND	ND	ND	ND
Vinyl chloride	26.2	UG/KG	ND	ND	ND	ND	ND	ND
Chloroethane	61	UG/KG	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	25.1	UG/KG	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	28	UG/KG	ND	ND	ND	ND	ND	ND
Methylene chloride	62.5	UG/KG	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	25.7	UG/KG	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	24.9	UG/KG	ND	ND	ND	ND	ND	ND
Chloroform	25.6	UG/KG	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	20.5	UG/KG	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	27.4	UG/KG	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	15.6	UG/KG	ND	ND	ND	ND	ND	ND
Bromodichloromethane	17	UG/KG	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	25.5	UG/KG	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	17	UG/KG	ND	ND	ND	ND	ND	ND
Trichloroethene	25.3	UG/KG	ND	ND	ND	ND	ND	ND
Benzene	26.5	UG/KG	ND	ND	ND	ND	ND	ND
Dibromochloromethane	24.2	UG/KG	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	35.1	UG/KG	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	21.5	UG/KG	ND	ND	ND	ND	ND	ND
2-chloroethylvinyl ether	53.6	UG/KG	ND	ND	ND	ND	ND	ND
Bromoform	26.1	UG/KG	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	64	UG/KG	ND	ND	ND	ND	ND	ND
Tetrachloroethene	21.5	UG/KG	ND	ND	ND	ND	ND	ND
Toluene	48	UG/KG	ND	<48	ND	ND	ND	ND
Chlorobenzene	31.1	UG/KG	ND	ND	ND	ND	ND	ND
Ethylbenzene	90.5	UG/KG	ND	ND	ND	ND	ND	ND
Acrylonitrile	275	UG/KG	ND	ND	ND	ND	ND	ND
Acrolein	70.9	UG/KG	ND	ND	ND	ND	ND	ND
Purgeable Compounds	90.5	UG/KG	0	412	502	256	410	282

Additional analytes determined:

Analyte	MDL	Units	31-JAN-2006 P329983	28-FEB-2006 P333025	31-MAR-2006 P336177	30-APR-2006 P340221	31-MAY-2006 P343565	30-JUN-2006 P346984
1,2-dibromoethane	17	UG/KG	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	17	UG/KG	ND	20	ND	ND	ND	ND
2-butanone		UG/KG	2130	6120	2350	5920	5660	6300
Dibromofluoromethane		UG/KG	257	787	923	861	990	859
2-nitropropane		UG/KG	ND	ND	ND	ND	ND	ND
Acetone	185	UG/KG	3410 *	4560	4120	5370	6330	6920
Allyl chloride	25	UG/KG	ND	ND	ND	ND	ND	ND
Benzyl chloride	38	UG/KG	ND	ND	ND	ND	ND	ND
Chloroprene	17	UG/KG	ND	ND	ND	ND	ND	ND
Carbon disulfide	34	UG/KG	ND	90	236	133	161	175
Isopropylbenzene	17	UG/KG	ND	<17	32	ND	ND	ND
Methyl Iodide	19	UG/KG	ND	ND	ND	ND	ND	ND
Methyl methacrylate	36	UG/KG	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone	24	UG/KG	ND	ND	ND	ND	ND	ND
meta,para xylenes	35	UG/KG	ND	69	134	<35	74	66
Methyl tert-butyl ether	34	UG/KG	ND	ND	ND	ND	ND	ND
ortho-xylene	23	UG/KG	ND	35	69	ND	38	32
Styrene	19	UG/KG	ND	ND	<19	ND	ND	ND

nd= not detected

NA= not analyzed

NS= not sampled

* = Acetone found in method blank at a concentration of 202 ug/Kg, therefore result does not meet quality control criteria.

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SLUDGE Purgeables

From 01-JAN-2006 to 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	Average
			31-AUG-2006 P354950	30-SEP-2006 P358116	30-NOV-2006 P364927	31-DEC-2006 P368380	
Chloromethane	25.8	UG/KG	ND	ND	ND	<26	0
1,2-dichlorobenzene	28.7	UG/KG	ND	ND	ND	ND	0
1,3-dichlorobenzene	16.1	UG/KG	ND	ND	ND	ND	0
1,4-dichlorobenzene		UG/KG	158	185	196	176	258
Bromomethane	29.2	UG/KG	ND	ND	ND	ND	ND
Vinyl chloride	26.2	UG/KG	ND	ND	ND	ND	ND
Chloroethane	61	UG/KG	ND	ND	ND	ND	ND
1,1-dichloroethene	25.1	UG/KG	ND	ND	ND	ND	ND
Trichlorofluoromethane	28	UG/KG	ND	ND	ND	ND	ND
Methylene chloride	62.5	UG/KG	ND	ND	ND	ND	ND
1,1-dichloroethane	25.7	UG/KG	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	24.9	UG/KG	ND	ND	ND	ND	ND
Chloroform	25.6	UG/KG	ND	ND	ND	ND	ND
1,2-dichloroethane	20.5	UG/KG	ND	ND	ND	ND	ND
1,1,1-trichloroethane	27.4	UG/KG	ND	ND	ND	ND	ND
Carbon tetrachloride	15.6	UG/KG	ND	ND	ND	ND	ND
Bromodichloromethane	17	UG/KG	ND	ND	ND	ND	ND
1,2-dichloropropane	25.5	UG/KG	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	17	UG/KG	ND	ND	ND	ND	ND
Trichloroethene	25.3	UG/KG	ND	ND	ND	ND	ND
Benzene	26.5	UG/KG	ND	ND	ND	ND	ND
Dibromochloromethane	24.2	UG/KG	ND	ND	ND	ND	ND
1,1,2-trichloroethane	35.1	UG/KG	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	21.5	UG/KG	ND	ND	ND	ND	ND
2-chloroethylvinyl ether	53.6	UG/KG	ND	ND	ND	ND	ND
Bromoform	26.1	UG/KG	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	64	UG/KG	ND	ND	ND	ND	ND
Tetrachloroethene	21.5	UG/KG	ND	ND	ND	ND	ND
Toluene	48	UG/KG	ND	ND	ND	ND	0
Chlorobenzene	31.1	UG/KG	ND	ND	ND	ND	ND
Ethylbenzene	90.5	UG/KG	ND	ND	ND	ND	ND
Acrylonitrile	275	UG/KG	ND	ND	ND	ND	ND
Acrolein	70.9	UG/KG	ND	ND	ND	ND	ND
Purgeable Compounds	90.5	UG/KG	158	185	196	176	258

Additional analytes determined;

1,2-dibromoethane	17	UG/KG	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	17	UG/KG	ND	ND	ND	ND	2
2-butanone		UG/KG	6230	4120	2350	4330	4551
Dibromofluoromethane		UG/KG	907	1070	991	967	861
2-nitropropane		UG/KG	ND	ND	ND	ND	ND
Acetone	185	UG/KG	6800	8110	5880	4230	5813
Allyl chloride	25	UG/KG	ND	ND	ND	ND	ND
Benzyl chloride	38	UG/KG	ND	ND	ND	ND	ND
Chloroprene	17	UG/KG	ND	ND	ND	ND	ND
Carbon disulfide	34	UG/KG	80	152	109	107	124
Isopropylbenzene	17	UG/KG	ND	ND	ND	ND	3
Methyl Iodide	19	UG/KG	ND	ND	ND	ND	ND
Methyl methacrylate	36	UG/KG	ND	ND	ND	ND	ND
4-methyl-2-pentanone	24	UG/KG	ND	ND	ND	ND	ND
meta,para xylenes	35	UG/KG	ND	42	40	ND	43
Methyl tert-butyl ether	34	UG/KG	ND	ND	ND	ND	ND
ortho-xylene	23	UG/KG	ND	ND	ND	ND	17
Styrene	19	UG/KG	ND	ND	ND	ND	0

nd= not detected
NA= not analyzed
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
 QUARTERLY SLUDGE - Dioxins analysis
 From 01-JAN-2006 to 31-DEC-2006

Analyte	MDL	Units	MBCDEWCN	MBCDEWCN
			31-MAY-2006 P343565	31-OCT-2006 P361408
2,3,7,8-tetra CDD	1.2	NG/KG	ND	ND
1,2,3,7,8-penta CDD	23	NG/KG	ND	ND
1,2,3,4,7,8_hexa_CDD	2.9	NG/KG	ND	ND
1,2,3,6,7,8-hexa CDD		NG/KG	23	24
1,2,3,7,8,9-hexa CDD	6.6	NG/KG	E7	ND
1,2,3,4,6,7,8-hepta CDD		NG/KG	240	300
octa CDD		NG/KG	1400	2350
2,3,7,8-tetra CDF		NG/KG	E2	4
1,2,3,7,8-penta CDF	2	NG/KG	ND	ND
2,3,4,7,8-penta CDF	2	NG/KG	ND	ND
1,2,3,4,7,8-hexa CDF	2.5	NG/KG	ND	ND
1,2,3,6,7,8-hexa CDF	2.4	NG/KG	ND	ND
1,2,3,7,8,9-hexa CDF	2.9	NG/KG	ND	ND
2,3,4,6,7,8-hexa CDF	2.6	NG/KG	ND	ND
1,2,3,4,6,7,8-hepta CDF		NG/KG	E28	53
1,2,3,4,7,8,9-hepta CDF	4.9	NG/KG	ND	ND
octa CDF		NG/KG	83	190

nd=not detected; NS=not sampled; NA=not analyzed

E=estimated value

H. Results of "Title 22" Sludge Hazardous Waste Tests

Title 22 CCR Summary Tables

Concentrations of Title 22 analytes (metals and organics) both on a wet weight and dry weight concentration basis for monthly composite of daily samples of sludge being hauled from the Metro Biosolids Center.

The tables list the TTLC (Total Threshold Limit Concentration) or STLC (Soluble Threshold Limit Concentration) limits in the left column for each analyte.

Definitions:

MBCDEWCN = Metro Biosolids Center dewatered sludge.

CALIFORNIA HAZARDOUS WASTE IDENTIFICATION TEST (TITLE 22)

METRO BIOSOLIDS CENTER (MBC)

METALS

WET WEIGHT Concentration (calculated)

ANALYTE	TTLC Wet wt mg/Kg	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
		Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ANTIMONY	500	1.27	1.17	1.26	1.28	1.19	1.30	1.11	1.26	1.06	1.35	1.32	1.66
ARSENIC	500	1.1	1.2	1.3	1.4	1.0	1.0	0.8	0.6	0.8	1.1	0.9	0.6
BARIIUM	10000	116	52	172	103	137	122	98	94	92	51	112	128
BERYLLIUM	75	< 0.001	< 0.001	0.005	0.033	0.042	0.2	0.2	0.1	0.1	0.1	0.1	0.1
CADMIUM	100	0.5	0.5	1.0	0.7	0.6	0.6	0.6	0.6	0.7	0.6	0.5	0.5
CHROMIUM(VI)	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM(total)	2500	12	14	15	15	13	15	18	21	21	24	26	21
COBALT	8000	0.5	0.5	0.6	0.7	0.7	1.2	1.1	0.9	1.3	1.5	1.2	0.9
COPPER	2500	189	195	206	166	180	209	214	211	200	230	202	183
LEAD	1000	6	6	7	8	7	7	8	7	8	8	7	6
MERCURY	20	0.38	0.40	0.38	0.48	0.37	0.40	0.43	0.49	0.45	0.40	0.36	0.38
MOLYBDENUM	3500	4.6	4.6	5.4	9.0	5.2	5.2	5.8	5.6	5.6	6.0	5.4	4.0
NICKEL	2000	9	9	9	10	9	15	17	19	25	29	28	17
SELENIUM	100	1.4	1.3	1.3	1.5	1.5	1.2	1.6	1.5	1.5	1.3	1.1	1.2
SILVER	500	5	5	5	6	8	10	6	5	5	5	9	7
THALLIUM	700	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.23	< 0.22	< 0.22	< 0.22	< 0.22	< 0.21	< 0.22
VANADIUM	2400	42	29	27	19	20	20	14	9	7	7	10	17
ZINC	5000	222	229	298	361	315	314	313	258	256	307	280	253
FLUORIDE	18000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFIDES-REACTIVE	NA	4	< 3	< 3	< 3	< 3	< 3	< 3	4	4	3	< 3	< 3
SULFIDES-TOTAL	NA	4766	4554	4942	5000	4827	3472	3014	4366	4338	4345	4485	4019
TOTAL SOLIDS (%)		28.2	29.1	28.4	28.9	27.9	29.8	28.7	27.9	27.9	28.4	27.6	28.2

DRY WEIGHT Concentration

ANALYTE	TTLC Wet wt mg/Kg	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
		Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ANTIMONY	500	4.5	4.0	4.4	4.4	4.3	4.4	3.9	4.5	3.8	4.7	4.8	5.9
ARSENIC	500	3.9	4.2	4.4	4.8	3.4	3.2	2.7	2.3	2.8	3.8	3.1	2.2
BARIIUM	10000	410	179	605	355	490	409	343	336	329	180	404	455
BERYLLIUM	75	< 0.004	< 0.004	0.02	0.1	0.1	0.675	0.59	0.38	0.25	0.29	0.3	0.33
CADMIUM	100	1.8	1.6	3.6	2.3	2.1	2.1	2.1	2.1	2.6	1.9	1.9	1.8
CHROMIUM(VI)	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM(total)	2500	40.8	49.1	51.9	51.6	45	50.2	61.6	75.4	75.9	83.7	93.1	73.1
COBALT	8000	1.7	1.7	1.94	2.5	2.4	4.0	3.9	3.2	4.6	5.3	4.4	3.2
COPPER	2500	671	670	725	573	646	701	744	756	717	809	733	650
LEAD	1000	22	20.2	25.6	28.9	24.6	25.1	26.5	24.7	27.1	27.8	23.8	21.1
MERCURY	20	1.4	1.4	1.4	1.7	1.3	1.3	1.5	1.8	1.6	1.41	1.3	1.3
MOLYBDENUM	3500	16.2	15.9	19	31.3	18.7	17.5	20.3	20.2	19.9	21.2	19.4	14.1
NICKEL	2000	30.5	31.7	30	34.3	32.6	49.3	58.8	68.4	88	101	102	59.6
SELENIUM	100	5.0	4.3	4.6	5.2	5.5	4.1	5.7	5.5	5.3	4.52	3.8	4.4
SILVER	500	16.2	16.5	17.8	22.4	27.3	34	22.6	17	19.5	18.6	31	26.2
THALLIUM	700	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771	< 0.771
VANADIUM	2400	148.5	101	96.5	67.3	71.9	68.6	47.9	32.2	24.5	25.7	35.1	60.8
ZINC	5000	786	786	1050	1250	1130	1055	1090	923	918	1080	1015	896
FLUORIDE	18000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFIDES-REACTIVE	NA	13	< 11	< 11	< 11	< 11.0	< 11	< 11	15	13	11.2	< 11	< 11
SULFIDES-TOTAL	NA	16900	15650	17400	17300	17300	11650	10500	15650	15550	15300	16250	14250

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

NA = Not Analyzed, NS = Not Sampled

* = The total concentration is less than 10 times the the STLC, therefore by definition this substance is below hazardous concentrations.

ORGANICS

WET WEIGHT Concentration (calculated)

ANALYTE	TTLc	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
	Wet wt mg/Kg	Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ALDRIN	1.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLORDANE	2.5	0.029	0.018	nd	nd	0.021	0.011	nd	nd	0.017	nd	0.020	0.045
DDT,DDE,DDD	1.0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,4-DCPAA	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DIELDRIN	8.0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ENDRIN	0.20	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
HEPTACHLOR	4.7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
KEPONE	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LINDANE	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
METHOXYCHLOR	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MIREX	21	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
PENTACHLOROPHENOL	17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
PCBs (TOTAL)	50	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOXAPHENE	5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROETHENE	2040	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,4,5-TCPPA	10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOTAL SOLIDS (%)		28.2	29.1	28.4	28.9	27.9	29.8	28.7	27.9	27.9	28.4	27.6	28.2
pH	>2-<12.5	7.97	7.96	8.01	8.22	7.96	7.77	7.93	7.88	7.83	7.72	7.89	8

DRY WEIGHT Concentration

ANALYTE	TTLc	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
	Wet wt mg/Kg	Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ALDRIN	1.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CHLORDANE	2.5	0.102	0.064	nd	nd	0.074	0.036	nd	nd	0.063	nd	0.073	0.158
DDT,DDE,DDD	1.0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,4-DCPAA	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
DIELDRIN	8.0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
ENDRIN	0.20	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
HEPTACHLOR	4.7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
KEPONE	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LINDANE	4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
METHOXYCHLOR	100	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MIREX	21	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
PENTACHLOROPHENOL	17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
PCBs (TOTAL)	50	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TOXAPHENE	5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TRICHLOROETHENE	2040	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,4,5-TCPPA	10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

TTLc = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

WASTE EXTRACTION TEST - METALS

ANALYTE	STLC	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
	Wet wt mg/L	Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ANTIMONY	15	*	*	*	*	*	*	*	*	*	*	*	*
ARSENIC	5.0	*	*	*	*	*	*	*	*	*	*	*	*
BARIUM	100	*	*	*	*	*	*	*	*	*	*	*	*
BERYLLIUM	0.75	*	*	*	*	*	*	*	*	*	*	*	*
CADMIUM	1.0	*	*	*	*	*	*	*	*	*	*	*	*
CHROMIUM(VI)	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM(total)	560	*	*	*	*	*	*	*	*	*	*	*	*
COBALT	80	*	*	*	*	*	*	*	*	*	*	*	*
COPPER	25	*	*	*	*	*	*	*	*	*	*	*	*
LEAD	5.0	*	*	*	*	*	*	*	*	*	*	*	*
MERCURY	0.2	*	*	*	*	*	*	*	*	*	*	*	*
MOLYBDENUM	350	*	*	*	*	*	*	*	*	*	*	*	*
NICKEL	20	*	*	*	*	*	*	*	*	*	*	*	*
SELENIUM	1.0	*	*	*	*	*	*	*	*	*	*	*	*
SILVER	5.0	*	*	*	*	*	*	*	*	*	*	*	*
THALLIUM	7.0	*	*	*	*	*	*	*	*	*	*	*	*
VANADIUM	24	*	*	*	*	*	*	*	*	*	*	*	*
ZINC	250	*	*	*	*	*	*	*	*	*	*	*	*

* = Since the total concentrations are less than 10 times the the STLC, this substance is below STLC limits by definition.

WASTE EXTRACTION TEST - ORGANICS

ANALYTE	STLC	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN	MBCDEWCN
	Wet wt mg/L	Jan-06 P329983	Feb-06 P333025	Mar-06 P336177	Apr-06 P340221	May-06 P343565	Jun-06 P346984	Jul-06 P351414	Aug-06 P354950	Sep-06 P358116	Oct-06 P361408	Nov-06 P364927	Dec-06 P368380
ALDRIN	0.14	*	*	*	*	*	*	*	*	*	*	*	*
CHLORDANE	0.25	*	*	*	*	*	*	*	*	*	*	*	*
DDT,DDE,DDD	0.1	*	*	*	*	*	*	*	*	*	*	*	*
2,4-DCPAA	10	*	*	*	*	*	*	*	*	*	*	*	*
DIELDRIN	0.8	*	*	*	*	*	*	*	*	*	*	*	*
ENDRIN	0.02	*	*	*	*	*	*	*	*	*	*	*	*
HEPTACHLOR	0.47	*	*	*	*	*	*	*	*	*	*	*	*
KEPONE	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LINDANE	0.4	*	*	*	*	*	*	*	*	*	*	*	*
METHOXYCHLOR	10	*	*	*	*	*	*	*	*	*	*	*	*
MIREX	2.1	*	*	*	*	*	*	*	*	*	*	*	*
PENTACHLOROPHENOL	1.7	*	*	*	*	*	*	*	*	*	*	*	*
PCBs (TOTAL)	5	*	*	*	*	*	*	*	*	*	*	*	*
TOXAPHENE	0.5	*	*	*	*	*	*	*	*	*	*	*	*
TRICHLOROETHENE	204	*	*	*	*	*	*	*	*	*	*	*	*
2,4,5-TCPPA	1	*	*	*	*	*	*	*	*	*	*	*	*

TTLc = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

NA = Not Analyzed, NS = Not Sampled

* = Since the total concentrations are less than 10 times the the STLC, this substance is below STLC limits by definition.