Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 08-01-14 to 10-01-14

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	6.7	3.4	510	15	1.0	15	24	7.1	830	23000	30000	16.7
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 10205 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 76.0 % VS_{out} = 65.0 % VSR = 41.4 %
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of_____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: Barbara Pierson Date: 9-10-14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 09/03/2014 16:04
Project: Bi-Monthly Biosolids
Project Number: Nutrient & Metals
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1419078-01 | Client Sample Name: 142437 WWTP Biosolids, 8/14/2014 1:50:00PM, B. Pierson, T.Nguyen, L. Rios, A. Avidano

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	7.63	7.63	pH Units	0.05	0.05	EPA-9040		pH1:3	1
pH Measurement Temperature	23.9	23.9	C	0.1	0.1	EPA-9040			1
Nitrate as N	2.4	0.40	mg/kg	1.0	0.26	EPA-300.0	ND	J	2
Total Kjeldahl Nitrogen	53000	8800	mg/kg	400	160	EPA-351.2	ND	A01	3
Ammonia as N	30000	5000	mg/kg	500	250	EPA-350.1	ND	A01	4
Total Phosphorus	30000	5000	mg/kg	200	86	EPA-365.4	ND	A01	5
Solids	100	16.7	%	0.05	0.05	SM-2540G			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	08/21/14	08/21/14 14:30	DIW	MANUAL	1	BXH2107
2	EPA-300.0	08/26/14	08/27/14 13:25	TMS	IC1	1	BXH2493
3	EPA-351.2	08/28/14	08/29/14 10:43	JP1	SC-1	10	BXH2776
4	EPA-350.1	08/27/14	08/28/14 08:47	JP1	SC-1	50	BXH2631
5	EPA-365.4	08/28/14	08/28/14 16:27	JP1	SC-1	20	BXH2777
6	SM-2540G	08/22/14	08/22/14 11:05	RAC	MANUAL	1	BXH2495

Org-N = TKN - Ammonia
53,000 - 30,000 = 23,000

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 09/03/2014 16:04
Project: Bi-Monthly Biosolids
Project Number: Nutrient & Metals
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1419078-01 | Client Sample Name: 142437 WWTP Biosolids, 8/14/2014 1:50:00PM, B. Pierson, T.Nguyen, L. Rios, A. Avidano

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	6.7	1.1	mg/kg	1.0	0.40	EPA-6010B	ND		1
Cadmium	3.4	0.56	mg/kg	0.50	0.052	EPA-6010B	ND		1
Chromium	77	13	mg/kg	0.50	0.050	EPA-6010B	ND		2
Copper	510	84	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	15	2.5	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.0	0.17	mg/kg	0.16	0.036	EPA-7471A	ND		3
Molybdenum	15	2.5	mg/kg	2.5	0.050	EPA-6010B	ND		1
Nickel	24	3.9	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	7.1	1.2	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	830	140	mg/kg	2.5	0.087	EPA-6010B	0.30		1
Boron	18	3.0	mg/kg	5.0	0.50	EPA-6010B	ND	J	2
Potassium	1100	180	mg/kg	50	5.0	EPA-6010B	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/20/14	08/23/14 01:43	JRG	PE-OP1	0.943	BXH1875
2	EPA-6010B	08/20/14	08/21/14 16:24	ARD	PE-OP1	0.943	BXH1875
3	EPA-7471A	08/22/14	08/25/14 10:38	MEV	CETAC1	0.992	BXH2149

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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 06-01-14 to 08-01-14

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	24	2.6	430	17	1.6	14	24	<1.0	850	36300	9700	16.3
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 3160 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 80.0 % VS_{out} = 60.0 % VSR = 64.0%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: _____ Date: 9-10-14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 07/17/2014 16:09
Project: Biosolids
Project Number: BiMonthly Nutrients & Metal of Biosolids
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1414442-01 | Client Sample Name: 142085 WWTP Biosolids, 6/26/2014 3:00:00PM, Jessie Mosqueda

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	7.80	7.80	pH Units	0.05	0.05	EPA-9040		pH1:3	1
pH Measurement Temperature	24.3	24.3	C	0.1	0.1	EPA-9040			1
Nitrate as N	8.1	1.3	mg/kg	1.0	0.26	EPA-300.0	ND		2
Total Kjeldahl Nitrogen	46000	7600	mg/kg	400	160	EPA-351.2	ND		3
Ammonia as N	9700	1600	mg/kg	200	100	EPA-350.1	ND	A01	4
Total Phosphorus	32000	5200	mg/kg	200	86	EPA-365.4	ND	A01	5
Solids	100	16.3	%	0.05	0.05	SM-2540G			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	07/02/14	07/02/14 12:30	DIW	MANUAL	1	BXG0227
2	EPA-300.0	07/08/14	07/09/14 16:10	OLH	IC5	1	BXG0641
3	EPA-351.2	07/09/14	07/10/14 12:50	JP1	SC-1	10	BXG0736
4	EPA-350.1	07/09/14	07/10/14 15:59	JP1	SC-1	19.608	BXG0708
5	EPA-365.4	07/09/14	07/10/14 09:22	JP1	SC-1	20	BXG0738
6	SM-2540G	07/07/14	07/07/14 14:30	RAC	MANUAL	1	BXG0503

Total Organic N = TKN - Ammonia
46000 - 9700 = 36300
6/26/14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 07/17/2014 16:09
Project: Biosolids
Project Number: BiMonthly Nutrients & Metal of Biosolids
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1414442-01 | Client Sample Name: 142085 WWTP Biosolids, 6/26/2014 3:00:00PM, Jessie Mosqueda

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	24	3.8	mg/kg	1.0	0.40	EPA-6010B	ND		1
Cadmium	2.6	0.42	mg/kg	0.50	0.052	EPA-6010B	ND	J	1
Chromium	79	13	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	430	70	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	17	2.8	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.6	0.27	mg/kg	0.16	0.036	EPA-7471A	ND		2
Molybdenum	14	2.3	mg/kg	2.5	0.050	EPA-6010B	0.059	J	1
Nickel	24	4.0	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	ND	ND	mg/kg	1.0	0.98	EPA-6010B	ND		3
Silver	2.4	0.39	mg/kg	0.50	0.067	EPA-6010B	ND	J	1
Zinc	850	140	mg/kg	2.5	0.087	EPA-6010B	0.37		1
Boron	21	3.4	mg/kg	5.0	0.50	EPA-6010B	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	07/02/14	07/03/14 10:27	ARD	PE-OP1	0.990	BXG0231
2	EPA-7471A	07/02/14	07/07/14 11:21	MEV	CETAC1	1.008	BXG0272
3	EPA-6010B	07/02/14	07/07/14 11:05	ARD	PE-OP1	0.990	BXG0231

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 07/17/2014 16:09
Project: Biosolids
Project Number: BiMonthly Nutrients & Metal of Biosolids
Project Manager: Barbara Pierson

EPA Method 1664

BCL Sample ID: 1414442-01 | Client Sample Name: 142085 WWTP Biosolids, 6/26/2014 3:00:00PM, Jessie Mosqueda

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	12000	2000	mg/kg	100	40	EPA-1664A HEM	ND	A09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664A HEM	07/02/14	07/02/14 09:00	JAK	MAN-SV	2	BXG0202

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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 04-01-14 to 06-01-14

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	6.0	3.0	560	24	1.5	14	31	8.2	1100	44000	11000	16.0
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 662 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 80.0 % VS_{out} = 60.0 % VSR = 62.5%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: _____ Date: 9-10-14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 05/02/2014 15:32
Project: Bi-Monthly Biosolids
Project Number: Metals and Nutrients
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1408674-01 | Client Sample Name: WWTP Biosolids/COW Lab ID 141301, 4/14/2014 1:25:00PM, Michael Crane

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	7.97	7.97	pH Units	0.05	0.05	EPA-9040		pH1:1	1
pH Measurement Temperature	18.9	18.9	C	0.1	0.1	EPA-9040			1
Nitrate as N	4.0	0.64	mg/kg	1.0	0.26	EPA-300.0	0.51	J	2
Nitrite as N	ND	ND	mg/kg	0.50	0.10	EPA-353.2	ND		3
Total Kjeldahl Nitrogen	55000	8700	mg/kg	400	160	EPA-351.2	ND	A01	4
Ammonia as N	11000	1800	mg/kg	200	100	EPA-350.1	ND	A01	5
Total Phosphorus	31000	4900	mg/kg	200	86	EPA-365.4	ND	A01	6
Solids	100	16.0	%	0.05	0.05	SM-2540G			7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	04/23/14	04/24/14 08:52	DIW	MANUAL	1	BXD1983
2	EPA-300.0	04/23/14	04/23/14 23:26	OLH	IC5	1	BXD1933
3	EPA-353.2	04/24/14	04/24/14 12:42	TDC	KONE-1	1	BXD1848
4	EPA-351.2	04/22/14	04/23/14 11:14	JP1	SC-1	10	BXD1793
5	EPA-350.1	04/24/14	04/24/14 17:13	JP1	SC-1	19.157	BXD2046
6	EPA-365.4	04/22/14	04/23/14 09:22	JP1	SC-1	20	BXD1797
7	SM-2540G	04/23/14	04/23/14 16:50	RAC	MANUAL	1	BXD1990

4/14/14

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 05/02/2014 15:32
Project: Bi-Monthly Biosolids
Project Number: Metals and Nutrients
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1408674-01 | Client Sample Name: WWTP Biosolids/COW Lab ID 141301, 4/14/2014 1:25:00PM, Michael Crane

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	6.0	0.97	mg/kg	1.0	0.40	EPA-6010B	ND	J	1
Cadmium	3.0	0.48	mg/kg	0.50	0.052	EPA-6010B	ND	J	1
Chromium	98	16	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	560	89	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	24	3.8	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.5	0.24	mg/kg	0.16	0.025	EPA-7471A	ND		2
Molybdenum	14	2.2	mg/kg	2.5	0.050	EPA-6010B	ND	J	1
Nickel	31	5.0	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	8.2	1.3	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	1100	180	mg/kg	2.5	0.087	EPA-6010B	0.30		1
Boron	21	3.3	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1300	210	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	04/22/14	04/23/14 11:54	ARD	PE-OP1	0.980	BXD1814
2	EPA-7471A	04/23/14	04/24/14 10:11	MEV	CETAC1	0.977	BXD1989

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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 01-01-14 to 03-01-14

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	6.9	2.5	450	16	1.2	11	22	<1.0	930	41000	11000	15.9
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 39809 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 75.0 % VS_{out} = 59.0 % VSR = 52.1%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: Barbara J. Pierson Date: 9-10-14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 03/07/2014 17:16
Project: Bi-Monthly Biosolids
Project Number: Metals & Nutrients
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1403946-01 | Client Sample Name: WWTP Biosolids, 2/18/2014 10:10:00AM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	7.99	7.99	pH Units	0.05	0.05	EPA-9040		pH1:3	1
pH Measurement Temperature	21.4	21.4	C	0.1	0.1	EPA-9040			1
Nitrate as N	6.3	1.0	mg/kg	1.0	0.26	EPA-300.0	ND		2
Nitrite as N	0.83	0.13	mg/kg	0.50	0.10	EPA-353.2	ND	J	3
Total Kjeldahl Nitrogen	52000	8300	mg/kg	400	160	EPA-351.2	ND	A01	4
Ammonia as N	11000	1700	mg/kg	200	100	EPA-350.1	ND	A01	5
Total Phosphorus	32000	5000	mg/kg	200	86	EPA-365.4	ND	A01	6
Solids	100	15.9	%	0.05	0.05	SM-2540G			7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	02/24/14	02/24/14 10:30	DIW	MANUAL	1	BXB1715
2	EPA-300.0	02/24/14	02/24/14 21:18	OLH	IC2	1	BXB1677
3	EPA-353.2	02/26/14	02/26/14 13:08	TDC	KONE-1	1	BXB1657
4	EPA-351.2	02/26/14	02/27/14 11:11	JP1	SC-1	10	BXB1918
5	EPA-350.1	02/24/14	02/25/14 11:20	JP1	SC-1	19.342	BXB1704
6	EPA-365.4	02/26/14	02/27/14 08:59	JP1	SC-1	20	BXB1922
7	SM-2540G	02/27/14	02/27/14 22:25	RAC	MANUAL	1	BXB2075

2/18/14

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 03/07/2014 17:16
Project: Bi-Monthly Biosolids
Project Number: Metals & Nutrients
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1403946-01 | Client Sample Name: WWTP Biosolids, 2/18/2014 10:10:00AM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	6.9	1.1	mg/kg	1.0	0.40	EPA-6010B	ND		1
Cadmium	2.5	0.40	mg/kg	0.50	0.052	EPA-6010B	ND	J	1
Chromium	77	12	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	450	72	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	16	2.6	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.2	0.18	mg/kg	0.16	0.025	EPA-7471A	ND		2
Molybdenum	11	1.7	mg/kg	2.5	0.050	EPA-6010B	0.099	J	1
Nickel	22	3.5	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	ND	ND	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	930	150	mg/kg	2.5	0.087	EPA-6010B	0.23		1
Boron	18	2.9	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1100	170	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/14	03/03/14 10:10	ARD	PE-OP1	0.943	BXB2176
2	EPA-7471A	02/25/14	02/26/14 11:16	MEV	CETAC1	0.992	BXB1777

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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 11-01-13 to 01-01-14

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	<1.0	3.3	430	13	1.1	11	20	11	810	45700	9300	17.1
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 9603 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 82.5 % VS_{out} = 61.0 % VSR = 66.8%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: _____ Date: 9-10-14

of Watsonville
0 Clearwater Lane
Watsonville, CA 95077

Reported: 01/07/2014 9:27
Project: Bi-Monthly Biosolids
Project Number: Metals & Nutrients
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1327680-01 | Client Sample Name: WWTP Biosolids, 12/17/2013 10:45:00AM, Client

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	8.11	8.11	pH Units	0.05	0.05	EPA-9040		pH1:3	1
pH Measurement Temperature	20.0	20.0	C	0.1	0.1	EPA-9040			1
Nitrate as N	4.8	0.83	mg/kg	1.0	0.26	EPA-300.0	ND	J	2
Nitrite as N	ND	ND	mg/kg	0.50	0.10	EPA-353.2	ND		3
Total Kjeldahl Nitrogen	55000	9400	mg/kg	800	320	EPA-351.2	ND	A01	4
Ammonia as N	9300	1600	mg/kg	200	100	EPA-350.1	130	A01	5
Total Phosphorus	35000	5900	mg/kg	200	86	EPA-365.4	ND	A01	6
Solids	100	17.1	%	0.05	0.05	SM-2540G			7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	12/27/13	12/27/13 08:30	RT1	MANUAL	1	BWL1991
2	EPA-300.0	12/26/13	12/27/13 09:34	LD1	IC2	1	BWL1940
3	EPA-353.2	12/29/13	12/30/13 10:22	TDC	KONE-1	1	BWL1973
4	EPA-351.2	12/31/13	01/02/14 15:59	sdu	sc-1	20	BWL1726
5	EPA-350.1	12/26/13	12/27/13 09:24	sdu	sc-1	20	BWL1926
6	EPA-365.4	12/31/13	01/02/14 13:05	sdu	sc-1	20	BWL1727
7	SM-2540G	12/26/13	12/26/13 17:05	RAC	MANUAL	1	BWL1987

Total Organic N = TKN - ammonia
55000 - 9300 = 45,700

12/17/13

of Watsonville
Clearwater Lane
Watsonville, CA 95077

Reported: 01/07/2014 9:27
Project: Bi-Monthly Biosolids
Project Number: Metals & Nutrients
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1327680-01 | Client Sample Name: WWTP Biosolids, 12/17/2013 10:45:00AM, Client

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	ND	ND	mg/kg	1.0	0.40	EPA-6010B	ND		1
Cadmium	3.3	0.56	mg/kg	0.50	0.052	EPA-6010B	ND		1
Chromium	73	13	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	430	74	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	13	2.3	mg/kg	2.5	0.28	EPA-6010B	ND	J	1
Mercury	1.1	0.18	mg/kg	0.16	0.025	EPA-7471A	ND		2
Molybdenum	11	2.0	mg/kg	2.5	0.050	EPA-6010B	ND	J	1
Nickel	20	3.3	mg/kg	0.50	0.16	EPA-6010B	ND		1
Selenium	11	2.0	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	810	140	mg/kg	2.5	0.087	EPA-6010B	0.32		1
Boron	17	2.9	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1000	180	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	12/27/13	12/31/13 09:41	ARD	PE-OP1	0.971	BWL1992
2	EPA-7471A	12/20/13	12/23/13 11:27	MEV	CETAC1	1.008	BWL1598

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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 9-01-13 to 11-01-13

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	3.0	3.0	420	15	1.1	11	27	9.5	730	43000	10000	17.2
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 143,172 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 75.0 % VS_{out} = 57.0 % VSR = 55.8%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: Barbara J Pierson Date: 9-10-14

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 11/07/2013 23:53
Project: Bi-Monthly Biosolids
Project Number: Bi-Monthly Metals & Nutrients
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1323059-01 | **Client Sample Name:** WWTP Biosolids, 10/14/2013 8:25:00AM, Erskine McClain

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	8.58	8.58	pH Units	0.05	0.05	EPA-9040		pH1:1	1
pH Measurement Temperature	21.6	21.6	C	0.1	0.1	EPA-9040			1
Nitrate as N	4.2	0.73	mg/kg	1.0	0.26	EPA-300.0	0.28	J	2
Nitrite as N	0.36	0.062	mg/kg	0.50	0.013	EPA-353.2	0.044	J	3
Total Kjeldahl Nitrogen	53000	9100	mg/kg	400	150	EPA-351.2	ND	A01	4
Ammonia as N	10000	1800	mg/kg	200	100	EPA-350.1	ND	A01	5
Total Phosphorus	31000	5300	mg/kg	200	66	EPA-365.4	ND	A01	6
Solids	100	17.2	%	0.05	0.05	SM-2540G			7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	10/25/13	10/25/13 09:30	DIW	MANUAL	1	BWJ2044
2	EPA-300.0	11/04/13	11/04/13 20:59	LD1	IC5	1	BWK0205
3	EPA-353.2	10/30/13	10/31/13 11:19	TDC	KONE-1	1	BWJ2388
4	EPA-351.2	10/31/13	11/01/13 12:09	sdu	sc-1	10	BWJ2481
5	EPA-350.1	11/01/13	11/04/13 10:18	sdu	sc-1	19.608	BWK0007
6	EPA-365.4	10/31/13	11/01/13 10:11	sdu	sc-1	20	BWJ2485
7	SM-2540G	10/25/13	10/25/13 14:55	RAC	MANUAL	1	BWJ2097

10/14/13

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

City of Watsonville 500 Clearwater Lane Watsonville, CA 95077	**Reported:** 11/07/2013 23:53 Project: Bi-Monthly Biosolids Project Number: Bi-Monthly Metals & Nutrients Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1323059-01 | **Client Sample Name:** WWTP Biosolids, 10/14/2013 8:25:00AM, Erskine McClain

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	3.0	0.52	mg/kg	1.0	0.40	EPA-6010B	ND	J	1
Cadmium	3.0	0.51	mg/kg	0.50	0.052	EPA-6010B	ND		1
Chromium	82	14	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	420	72	mg/kg	1.0	0.050	EPA-6010B	0.14		1
Lead	15	2.6	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.1	0.19	mg/kg	0.16	0.025	EPA-7471A	ND		2
Molybdenum	11	1.9	mg/kg	2.5	0.050	EPA-6010B	ND	J	1
Nickel	27	4.7	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	9.5	1.6	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	730	130	mg/kg	2.5	0.087	EPA-6010B	0.26		1
Boron	18	3.1	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1200	200	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	10/24/13	10/25/13 09:36	ARD	PE-OP1	0.971	BWJ1921
2	EPA-7471A	10/24/13	10/25/13 14:37	MEV	CETAC1	1.025	BWJ1957

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Notice and Necessary Information

To be completed by Preparers of Class B Biosolids

Facility Name: City of Watsonville Wastewater Treatment Plant Monitoring Period: 7-01-13 to 9-1-13

1. Pollutant and Nitrogen concentrations (report results on 100% dry weight basis.)

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_4-N	% solids
Result	3.6	2.7	450	14	1.8	9.6	20	8.9	770	42000	10000	16.7
Table 3	41	39	1500	300	17	NA	420	100	2800	NA	NA	NA
Table 1	75	85	4300	840	57	75	420	100	7500	NA	NA	NA

Sampling date(s):

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

___ anaerobic digestion for _____ to _____days at ____ to ____ degrees F / C (range for past month)
Class B: time (days) ≥35 to 55 (temp, degrees C) for 15 days or 20 (temp, degrees C) for 60 days
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 120 - 4(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
_X_ fecal coliform: geometric mean of seven samples = 16648 mpn/g (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

_X_ Option 1: % VS_{in} = 76.1 % VS_{out} = 61.5 % VSR = 50.0%
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days(anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids =_____Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
Option 9/10: Applier will inject/incorporate within ____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Barbara Pierson, Laboratory Manager

Phone: (831)768-3179 E-mail: bpierson@ci.watsonville.ca.us

Signature: Barbara P Date: 9-10-14

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 09/04/2013 11:52
Project: Bi-Monthly Biosolids
Project Number: Bi-Monthly Metals & Nutrients
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1317821-01 | Client Sample Name: WWTP Biosolids, 8/14/2013 12:00:00AM, E.McClaine

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	7.56	7.56	pH Units	0.05	0.05	EPA-9040		pH1:1	1
pH Measurement Temperature	25.0	25.0	C	0.1	0.1	EPA-9040			1
Nitrate as N	2.0	0.34	mg/kg	1.0	0.26	EPA-300.0	ND	J	2
Nitrite as N	0.26	0.044	mg/kg	0.50	0.013	EPA-353.2	ND	J	3
Total Kjeldahl Nitrogen	52000	8600	mg/kg	400	150	EPA-351.2	ND	A01	4
Ammonia as N	10000	1700	mg/kg	200	100	EPA-350.1	ND	A01	5
Total Phosphorus	34000	5600	mg/kg	200	66	EPA-365.4	ND	A01	6
Solids	100	16.7	%	0.05	0.05	SM-2540G			7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9040	08/23/13	08/23/13 10:30	DIW	MANUAL	1	BWH2039
2	EPA-300.0	08/27/13	08/28/13 03:10	LD1	IC2	1	BWH2161
3	EPA-353.2	08/29/13	08/29/13 13:30	TDC	KONE-1	1	BWH2186
4	EPA-351.2	08/26/13	08/28/13 01:55	SDU	SC-1	10	BWH2083
5	EPA-350.1	08/23/13	08/27/13 11:24	TDC	SC-1	19.231	BWH1954
6	EPA-365.4	08/26/13	08/27/13 23:52	SDU	SC-1	20	BWH2084
7	SM-2540G	08/27/13	08/27/13 20:30	RAC	MANUAL	1	BWH2304

8/14/13

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 09/04/2013 11:52
Project: Bi-Monthly Biosolids
Project Number: Bi-Monthly Metals & Nutrients
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1317821-01 | Client Sample Name: WWTP Biosolids, 8/14/2013 12:00:00AM, E.McClaine

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	3.6	0.60	mg/kg	1.0	0.40	EPA-6010B	ND	J	1
Cadmium	2.7	0.45	mg/kg	0.50	0.052	EPA-6010B	ND	J	1
Chromium	71	12	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	450	75	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	14	2.3	mg/kg	2.5	0.28	EPA-6010B	ND	J	1
Mercury	1.8	0.30	mg/kg	0.16	0.025	EPA-7471A	0.037		2
Molybdenum	9.6	1.6	mg/kg	2.5	0.050	EPA-6010B	0.077	J	1
Nickel	20	3.3	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	8.9	1.5	mg/kg	1.0	0.98	EPA-6010B	ND		1
Zinc	770	130	mg/kg	2.5	0.087	EPA-6010B	0.096		1
Boron	15	2.6	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1200	210	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/27/13	08/28/13 09:58	ARD	PE-OP2	0.935	BWH2255
2	EPA-7471A	08/26/13	08/27/13 10:22	MEV	CETAC1	0.992	BWH2097

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City of Watsonville Utilities Laboratory

Pathogen Reduction Supporting Data
Fecal Coliform Monitoring

MPN/gram (dry weight)

Date Analyzed	8/26/2013	10/28/2013	12/16/2013	2/18/2014	4/28/2014	6/30/2014	8/25/2014
Date Sampled	8/26/2013	10/28/2013	12/16/2013	2/18/2014	4/28/2014	6/30/2014	8/25/2014
Sample							
1	641,711	54,054	7,507	23,809	28	999	27
2	3,299	224,215	8,043	14,106	33.7	44.7	2,205
3	4,316	207,469	664	1,139	73.5	26.6	62,035
4	26	296,496	44,335	25,180	92.2	5,449	360,000
5	55,319	473,684	6,977	297,397	45,454	983	22,124
6	504,587	67,510	6,340	608,365	210,970	4,787,000	53,254
7	53,254	51,724	95,808	90,909	909	103,400	7,303
Geometric Mean*	**16,639**	**143,172**	**9,603**	**39,809**	**662**	**3,160**	**10,205**

* To meet Class B Standards, samples must have <2,000,000 MPN/gram fecal coliform. All samples are well below this criteria.

Samples collected from 7 discrete locations on the drying bed at the Wastewater Treatment Facility
Sample analyzed on the same day they were collected by Utilities Department Laboratory Analyst

DENALI_002719

City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Organochlorine Pesticides and PCB's (EPA Method 8080)

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	ND	mg/kg	0.0025	0.00013	EPA-8080	ND	A10	1
alpha-BHC	ND	ND	mg/kg	0.0025	0.00070	EPA-8080	ND	A10	1
beta-BHC	ND	ND	mg/kg	0.0025	0.0019	EPA-8080	ND	A10	1
delta-BHC	ND	ND	mg/kg	0.0025	0.00038	EPA-8080	ND	A10	1
gamma-BHC (Lindane)	ND	ND	mg/kg	0.0025	0.0012	EPA-8080	ND	A10	1
Chlordane (Technical)	ND	ND	mg/kg	0.25	0.075	EPA-8080	ND	A10	1
4,4'-DDD	ND	ND	mg/kg	0.0025	0.00032	EPA-8080	ND	A10	1
4,4'-DDE	ND	ND	mg/kg	0.0025	0.00022	EPA-8080	ND	A10	1
4,4'-DDT	ND	ND	mg/kg	0.0025	0.00016	EPA-8080	ND	A10	1
Dieldrin	ND	ND	mg/kg	0.0025	0.00016	EPA-8080	ND	A10	1
Endosulfan I	ND	ND	mg/kg	0.0025	0.00043	EPA-8080	ND	A10	1
Endosulfan II	ND	ND	mg/kg	0.0025	0.00033	EPA-8080	ND	A10	1
Endosulfan sulfate	ND	ND	mg/kg	0.0025	0.00065	EPA-8080	ND	A10	1
Endrin	ND	ND	mg/kg	0.0025	0.00018	EPA-8080	ND	A10	1
Endrin aldehyde	ND	ND	mg/kg	0.0025	0.00030	EPA-8080	ND	A10	1
Heptachlor	ND	ND	mg/kg	0.0025	0.0013	EPA-8080	ND	A10	1
Heptachlor epoxide	ND	ND	mg/kg	0.0025	0.00075	EPA-8080	ND	A10	1
Methoxychlor	ND	ND	mg/kg	0.0025	0.00065	EPA-8080	ND	A10	1
Toxaphene	ND	ND	mg/kg	0.25	0.037	EPA-8080	ND	A10	1
PCB-1016	ND	ND	mg/kg	0.050	0.014	EPA-8080	ND	A10	1
PCB-1221	ND	ND	mg/kg	0.050	0.019	EPA-8080	ND	A10	1
PCB-1232	ND	ND	mg/kg	0.050	0.012	EPA-8080	ND	A10	1
PCB-1242	ND	ND	mg/kg	0.050	0.020	EPA-8080	ND	A10	1
PCB-1248	ND	ND	mg/kg	0.050	0.013	EPA-8080	ND	A10	1
PCB-1254	ND	ND	mg/kg	0.050	0.016	EPA-8080	ND	A10	1
PCB-1260	ND	ND	mg/kg	0.050	0.0080	EPA-8080	ND	A10	1
Total PCB's (Summation)	ND	ND	mg/kg	0.050	0.025	EPA-8080	ND	A10	1
TCMX (Surrogate)	96.8	96.8	%	20 - 140 (LCL - UCL)		EPA-8080			1
Decachlorobiphenyl (Surrogate)	79.0	79.0	%	20 - 140 (LCL - UCL)		EPA-8080			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8080	06/10/14	06/11/14 19:38	VH1	GC-14	5.017	BXF0942

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ND	mg/kg	0.0050	0.0013	EPA-8260B	ND		1
Bromodichloromethane	ND	ND	mg/kg	0.0050	0.00084	EPA-8260B	ND		1
Bromoform	ND	ND	mg/kg	0.0050	0.0015	EPA-8260B	ND		1
Bromomethane	ND	ND	mg/kg	0.0050	0.0016	EPA-8260B	ND		1
Chlorobenzene	ND	ND	mg/kg	0.0050	0.0013	EPA-8260B	ND		1
Chloroethane	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
Chloroform	ND	ND	mg/kg	0.0050	0.00063	EPA-8260B	ND		1
Chloromethane	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
Dibromochloromethane	ND	ND	mg/kg	0.0050	0.00099	EPA-8260B	ND		1
1,2-Dichlorobenzene	ND	ND	mg/kg	0.0050	0.00081	EPA-8260B	ND		1
1,3-Dichlorobenzene	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
1,4-Dichlorobenzene	ND	ND	mg/kg	0.0050	0.0015	EPA-8260B	ND		1
1,1-Dichloroethane	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ND	mg/kg	0.0050	0.00085	EPA-8260B	ND		1
1,1-Dichloroethene	ND	ND	mg/kg	0.0050	0.0012	EPA-8260B	ND		1
trans-1,2-Dichloroethene	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
1,2-Dichloropropane	ND	ND	mg/kg	0.0050	0.00081	EPA-8260B	ND		1
cis-1,3-Dichloropropene	ND	ND	mg/kg	0.0050	0.0011	EPA-8260B	ND		1
trans-1,3-Dichloropropene	ND	ND	mg/kg	0.0050	0.0012	EPA-8260B	ND		1
Total 1,3-Dichloropropene	ND	ND	mg/kg	0.010	0.0020	EPA-8260B	ND		1
Ethylbenzene	ND	ND	mg/kg	0.0050	0.0015	EPA-8260B	ND		1
Methylene chloride	ND	ND	mg/kg	0.010	0.0024	EPA-8260B	ND		1
Naphthalene	ND	ND	mg/kg	0.0050	0.0014	EPA-8260B	ND		1
1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	0.0050	0.0011	EPA-8260B	ND		1
Tetrachloroethene	ND	ND	mg/kg	0.0050	0.0013	EPA-8260B	ND		1
Toluene	ND	ND	mg/kg	0.0050	0.0012	EPA-8260B	ND		1
1,1,1-Trichloroethane	ND	ND	mg/kg	0.0050	0.0011	EPA-8260B	ND		1
1,1,2-Trichloroethane	ND	ND	mg/kg	0.0050	0.00077	EPA-8260B	ND		1
Trichloroethene	ND	ND	mg/kg	0.0050	0.0011	EPA-8260B	ND		1
Vinyl chloride	ND	ND	mg/kg	0.0050	0.0016	EPA-8260B	ND		1
Total Trihalomethanes	ND	ND	mg/kg	0.020	0.0032	EPA-8260B	ND		1
Acrolein	ND	ND	mg/kg	0.050	0.0073	EPA-8260B	ND		1

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acrylonitrile	ND	ND	mg/kg	0.020	0.0047	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.1	98.1	%	70 - 121 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	93.7	93.7	%	81 - 117 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	90.0	90.0	%	74 - 121 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/05/14	06/11/14 04:27	ADC	MS-V2	1	BXF0495

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Acenaphthylene	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Anthracene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Benzidine	ND	ND	mg/kg	15	1.1	EPA-8270C	ND	A10	1
Benzo[a]anthracene	ND	ND	mg/kg	0.50	0.060	EPA-8270C	ND	A10	1
Benzo[b]fluoranthene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Benzo[k]fluoranthene	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Benzo[a]pyrene	ND	ND	mg/kg	0.50	0.075	EPA-8270C	ND	A10	1
Benzo[g,h,i]perylene	ND	ND	mg/kg	0.50	0.28	EPA-8270C	ND	A10	1
Benzyl butyl phthalate	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1
bis(2-Chloroethoxy)methane	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
bis(2-Chloroethyl) ether	ND	ND	mg/kg	0.50	0.080	EPA-8270C	ND	A10	1
bis(2-Chloroisopropyl)ether	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1
bis(2-Ethylhexyl)phthalate	ND	ND	mg/kg	1.0	0.22	EPA-8270C	ND	A10	1
4-Bromophenyl phenyl ether	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
4-Chlorophenyl phenyl ether	ND	ND	mg/kg	0.50	0.075	EPA-8270C	ND	A10	1
Chrysene	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
Dibenzo[a,h]anthracene	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
3,3-Dichlorobenzidine	ND	ND	mg/kg	1.0	0.034	EPA-8270C	ND	A10	1
Diethyl phthalate	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Dimethyl phthalate	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1
Di-n-butyl phthalate	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
2,4-Dinitrotoluene	ND	ND	mg/kg	0.50	0.11	EPA-8270C	ND	A10	1
2,6-Dinitrotoluene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Di-n-octyl phthalate	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
1,2-Diphenylhydrazine	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Fluoranthene	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
Fluorene	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Hexachlorobenzene	ND	ND	mg/kg	0.50	0.080	EPA-8270C	ND	A10	1
Hexachlorobutadiene	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
Hexachlorocyclopentadiene	ND	ND	mg/kg	0.50	0.095	EPA-8270C	ND	A10	1
Hexachloroethane	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1

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City of Watsonville
500 Clearwater Lane
Watsonville, CA 95077

Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 1412401-01 | **Client Sample Name:** 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Indeno[1,2,3-cd]pyrene	ND	ND	mg/kg	0.50	0.36	EPA-8270C	ND	A10	1
Isophorone	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
Naphthalene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Nitrobenzene	ND	ND	mg/kg	0.50	0.075	EPA-8270C	ND	A10	1
N-Nitrosodimethylamine	ND	ND	mg/kg	0.50	0.18	EPA-8270C	ND	A10	1
N-Nitrosodi-N-propylamine	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1
N-Nitrosodiphenylamine	ND	ND	mg/kg	0.50	0.10	EPA-8270C	ND	A10	1
Phenanthrene	ND	ND	mg/kg	0.50	0.090	EPA-8270C	ND	A10	1
Pyrene	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
4-Chloro-3-methylphenol	ND	ND	mg/kg	1.0	0.11	EPA-8270C	ND	A10	1
2-Chlorophenol	ND	ND	mg/kg	0.50	0.080	EPA-8270C	ND	A10	1
2,4-Dichlorophenol	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
2,4-Dimethylphenol	ND	ND	mg/kg	0.50	0.18	EPA-8270C	ND	A10	1
4,6-Dinitro-2-methylphenol	ND	ND	mg/kg	2.5	0.060	EPA-8270C	ND	A10	1
2,4-Dinitrophenol	ND	ND	mg/kg	2.5	0.038	EPA-8270C	ND	A10	1
2-Methylphenol	ND	ND	mg/kg	0.50	0.085	EPA-8270C	ND	A10	1
3- & 4-Methylphenol	ND	ND	mg/kg	1.0	0.16	EPA-8270C	ND	A10	1
2-Nitrophenol	ND	ND	mg/kg	0.50	0.080	EPA-8270C	ND	A10	1
4-Nitrophenol	ND	ND	mg/kg	1.0	0.090	EPA-8270C	ND	A10	1
Pentachlorophenol	ND	ND	mg/kg	1.0	0.065	EPA-8270C	ND	A10	1
Phenol	16	2.7	mg/kg	0.50	0.080	EPA-8270C	ND	A10	1
2,4,5-Trichlorophenol	ND	ND	mg/kg	1.0	0.090	EPA-8270C	ND	A10	1
2,4,6-Trichlorophenol	ND	ND	mg/kg	1.0	0.085	EPA-8270C	ND	A10	1
2,6-Dichlorophenol	ND	ND	mg/kg	2.5	1.2	EPA-8270C	ND	A10	1
2-Fluorophenol (Surrogate)	56.4	56.4	%	28 - 144 (LCL - UCL)		EPA-8270C		A10	1
Phenol-d5 (Surrogate)	56.2	56.2	%	36 - 136 (LCL - UCL)		EPA-8270C		A10	1
Nitrobenzene-d5 (Surrogate)	38.1	38.1	%	31 - 135 (LCL - UCL)		EPA-8270C		A10	1
2-Fluorobiphenyl (Surrogate)	20.9	20.9	%	20 - 140 (LCL - UCL)		EPA-8270C		A10	1
2,4,6-Tribromophenol (Surrogate)	51.0	51.0	%	20 - 150 (LCL - UCL)		EPA-8270C		A10	1
p-Terphenyl-d14 (Surrogate)	34.9	34.9	%	30 - 150 (LCL - UCL)		EPA-8270C		A10	1

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City of Watsonville 500 Clearwater Lane Watsonville, CA 95077	**Reported:** 06/23/2014 15:49 Project: Biosolids Project Number: Priority Pollutants NPDES Permit Project Manager: Barbara Pierson

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1412401-01	**Client Sample Name:**	141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C	06/10/14	06/17/14 18:29	VH1	MS-B2	5.017	BXF1335

City of Watsonville 500 Clearwater Lane Watsonville, CA 95077	**Reported:** 06/23/2014 15:49 Project: Biosolids Project Number: Priority Pollutants NPDES Permit Project Manager: Barbara Pierson

EPA Method 1664

BCL Sample ID: 1412401-01 | **Client Sample Name:** 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	9600	1600	mg/kg	70	28	EPA-1664A HEM	ND	A09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664A HEM	06/06/14	06/06/14 13:00	JAK	MAN-SV	1.408	BXF0652

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City of Watsonville
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Reported: 06/23/2014 15:49
Project: Biosolids
Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Chemical Analysis

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Cyanide	2.9	0.48	mg/kg	0.50	0.37	EPA-9012	ND	J	1
pH	7.73	7.73	pH Units	0.05	0.05	EPA-9040		pH1:1	2
pH Measurement Temperature	25.4	25.4	C	0.1	0.1	EPA-9040			2
Nitrate as N	ND	ND	mg/kg	1.0	0.26	EPA-300.0	ND		3
Ammonia as N	10000	1700	mg/kg	96	48	EPA-350.1	ND	A01	4
Total Phosphorus	33000	5600	mg/kg	200	86	EPA-365.4	ND	A01	5
Solids	100	16.9	%	0.05	0.05	SM-2540G			6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-9012	06/12/14	06/13/14 08:02	TDC	KONE-1	0.909	BXF1030
2	EPA-9040	06/09/14	06/09/14 12:30	DIW	MANUAL	1	BXF0708
3	EPA-300.0	06/05/14	06/07/14 06:20	LD1	IC2	1	BXF0465
4	EPA-350.1	06/12/14	06/12/14 14:25	JP1	SC-1	9.615	BXF0774
5	EPA-365.4	06/10/14	06/11/14 09:13	JP1	SC-1	20	BXF0778
6	SM-2540G	06/06/14	06/06/14 18:50	RAC	MANUAL	1	BXF0704

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Reported: 06/23/2014 15:49
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Project Number: Priority Pollutants NPDES Permit
Project Manager: Barbara Pierson

Total Concentrations (TTLC)

BCL Sample ID: 1412401-01 | Client Sample Name: 141834 WWTP Biosolids, 5/30/2014 3:00:00PM, Greg Furtado

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	19	3.1	mg/kg	1.0	0.40	EPA-6010B	ND		1
Cadmium	2.3	0.39	mg/kg	0.50	0.052	EPA-6010B	ND	J	1
Chromium	76	13	mg/kg	0.50	0.050	EPA-6010B	ND		1
Copper	420	71	mg/kg	1.0	0.050	EPA-6010B	ND		1
Lead	16	2.6	mg/kg	2.5	0.28	EPA-6010B	ND		1
Mercury	1.4	0.23	mg/kg	0.16	0.025	EPA-7471A	ND		2
Molybdenum	13	2.3	mg/kg	2.5	0.050	EPA-6010B	ND	J	1
Nickel	21	3.6	mg/kg	0.50	0.15	EPA-6010B	ND		1
Selenium	11	1.9	mg/kg	1.0	0.98	EPA-6010B	ND		1
Silver	2.5	0.42	mg/kg	0.50	0.067	EPA-6010B	ND	J	1
Zinc	780	130	mg/kg	2.5	0.087	EPA-6010B	0.42		1
Boron	16	2.8	mg/kg	5.0	0.50	EPA-6010B	ND	J	1
Potassium	1100	180	mg/kg	50	5.0	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/05/14	06/06/14 11:00	ARD	PE-OP1	0.990	BXF0453
2	EPA-7471A	06/09/14	06/10/14 16:34	MEV	CETAC1	1.025	BXF0653

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