

### 2016 BIOSOLIDS MANAGEMENT COMPLIANCE REPORT

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OCSD's Pretreatment Program Annual Report FY 2015-2016 Solids Management Program, Chapter 9

### **APPENDIX C**

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### **APPENDIX E**

**Biosolids Program History** 

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### Introduction

The Orange County Sanitation District's (OCSD) Biosolids Program is responsible for the treatment and management of OCSD's biosolids. OCSD recognizes the importance of building strong relationships throughout its biosolids value chain, including with interested parties and regulators. OCSD practices continuous improvement in all areas of its Biosolids Program through our internal biosolids management system.

The following sections summarize OCSD's activities and performance for the compliance-reporting period of January 1 to December 31, 2016.

# **Organization and Function**

OCSD is a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.5 million people in central and northwest Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members appointed from 20 cities, two sanitary districts, two water districts and one representative from the Orange County Board of Supervisors. OCSD has two operating facilities (Fountain Valley and Huntington Beach) that treat wastewater from residential, commercial and industrial sources.

Operating under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110604, OCSD treated an average daily sewage influent flow of 182 million gallons per day (MGD), five percent less than the previous year. OCSD produced approximately 293,891 wet tons of biosolids (54,027 dry metric tons), which equates to an average of 805 wet tons per day of biosolids, including digester cleanings managed as biosolids. Typical biosolids production, excluding digester cleanings, averaged 780 tons per day.

# **Treatment Plants and Program Updates**

Reclamation Plant No. 1, located in the city of Fountain Valley, treated an average of 116 MGD of wastewater. Treatment Plant No. 2, located in the City of Huntington Beach, treated an average of 66 MGD of wastewater during the reporting period.

Notable changes and accomplishments for this year include:

- Plant No. 1's primary clarifiers 3-5 reached the end of their asset life and were removed from service. OCSD's Engineering Department is in the early stages of planning the replacement of these clarifiers.
- Plant No. 1 digesters 12 and 14 were cleaned. The rehabilitation capital improvement program project completed the cleaning portion of the project. Rehabilitation is anticipated to be complete in 2017. Plant No. 1 digester cleanings will be managed through routine maintenance contracts in the future.
- The rehabilitation of Plant No. 2 dissolved air flotation tanks (DAFTs) was completed. These DAFTs create thickened secondary sludges to feed the digesters.
- Plant No. 2 digesters H and E were cleaned.

 The local limits ordinance for OCSD's pretreatment program was updated to include molybdenum and selenium, which will further enhance OCSD's biosolids quality.

In 2015, about 20 MGD of influent sewage was diverted to Plant No. 1 from Plant No. 2 to support the Orange County Water District's (OCWD) Ground Water Replenishment System (GWRS) expansion. GWRS purifies OCSD's secondary treated water from Plant No. 1 to meet drinking water standards. Last year, OCSD provided GWRS an average of 121 MGD of secondary effluent to produce purified water for reuse.

During this reporting period, Reclamation Plant No. 1 produced 24,388 dry metric tons of biosolids, including 2,516 dry metric tons of digester cleanings (from digesters 12 and 14). These biosolids were anaerobically digested for an average of 18 days at 37 degrees Celsius (98 degrees Fahrenheit) resulting in an average volatile solids reduction of 60 percent over this reporting period with an average total solids of 18%. Under the established operational parameters, Plant No. 1 diverted a daily average of 58,154 cubic feet or 0.44 MGD of primary sludge from Plant No. 1 to Plant No. 2 via our inter-plant sludge line, along with about 2.05 MGD of Plant No. 1 biosolids belt-press dewatering filtrate.

Treatment Plant No. 2 produced 29,534 dry metric tons of biosolids, including 1,250 dry metric tons of digester cleanings (from digesters H and E). The process at Plant No. 2 is similar to Plant No. 1 in that the biosolids were anaerobically digested for an average of 21 days at 37 degrees Celsius (98 degrees Fahrenheit). Biosolids from Plant No. 2 had an average volatile solids reduction of 62 percent and an average total solids of 21%.

This year's solids production increased by 2% versus the previous year (763 average tons per day in 2015 and 780 tons per day in 2016) in part because 56% more primary sludge was diverted from Plant No. 1 to Plant No. 2 due to limited digestion capacity at Plant No. 1 and in support of the GWRS expansion.

Plants Nos. 1 and 2 processes provide compliance with the "Class B Pathogen Reduction" and "Vector Attraction Reduction" definition for "Class B" biosolids as defined in 40 CFR Part 503.32(b)(3) (PSRP 3) and 503.33(b)(1), respectively. In addition, Tule Ranch/AgTech's standard operating procedure includes incorporation within 6 hours which meets 40 CFR Part 503.33(b)(10) requirement if OCSD's treatment plant fails to meet the Vector Attraction Reduction standard.

### **Biosolids Production History**

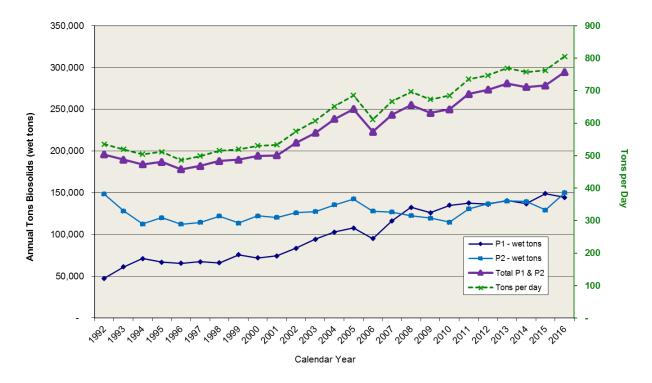


Figure 1: Biosolids Production History from January 1992 - December 2016

The Irvine Ranch Water District (IRWD) discharges its untreated solids (sludge) to OCSD. IRWD is currently constructing their own solids treatment facility and plans to cease sending their solids to OCSD by December 2017. This cessation is anticipated to reduce Plant No. 1's influent solids by ten to fifteen percent.

OCSD is replacing the belt filter presses with new dewatering centrifuge facilities, which are scheduled to start service in 2018 for Plant No. 1 and by 2020 for Plant No. 2. As a result, the total percent solids of digested biosolids is anticipated to increase from 18% (Plant No. 1) and 22% (Plant No. 2) to 28-30%, resulting in approximately one-third fewer wet-weight solids to manage. In addition, this project is also bringing pre-digestion thickening centrifuges to replace the dissolved air floatation thickening at Plant No. 1, and it is rehabilitating the Plant No. 1 truck loading facility.

# **Biosolids Management**

Biosolids produced at OCSD's two treatment facilities were managed by the contractors listed below in Table 1.

In 2016, OCSD started managing its biosolids at two new composting facilities. A twostep request for qualifications-bid process was completed and two new composting contractors, Nursery Products and Liberty Compost, were awarded the contracts in November 2016. Soon after the contract was awarded to Nursery Products, Synagro purchased Nursery Products. The contractors started hauling OCSD biosolids in December 2016.

# **Table 1- Biosolids Management Contractors**

# Tule Ranch / Ag-Tech

4324 E. Ashlan Ave. Fresno, CA 93726 Contact: Shaen Magan Phone: (559) 970-9432 Email: kurt@westexp.com

# Synagro – South Kern Compost Manufacturing Facility

P.O. Box 265 Taft, CA 93268

Contact: Chad Buechel Phone: (661) 765-2200 x223 Email: cbuechel@SYNAGRO.com

# Synagro - Arizona Soils

5615 S. 91st Avenue Tolleson, AZ 85353 Contact: Craig Geyer Phone: (623) 936-6328

Email: CGeyer@SYNAGRO.com

# Synagro - Nursery Products

PO Box 1439

Helendale, CA 92342 Contact: Chad Buechel Phone: (661) 378-2515

Email: cbuechel@SYNAGRO.com

# **Inland Empire Regional Composting Authority**

12645 6th Street

Rancho Cucamonga, CA 91739

Contact: Jeff Ziegenbein Phone: (909) 993-1981 Email: jziegenbein@ieua.org

# Orange County Waste and Recycling

# **Prima Deshecha Landfill**

32250 La Pata Ave.

San Juan Capistrano, CA 92675

Contact: Greg Dayak, Landfill Operations Superintendent

Phone: (949) 728-3050

Email: Greg.Dayak@ocwr.ocgov.com

### **Liberty Compost**

12421 Holloway Rd. Lost Hills, CA 93249 Contact: Patrick McCarthy Phone: (661) 797-2914

Email: patrickmccarthy@mccarthyfarms.com

These biosolids management contractors provide OCSD with diversification and reliability and are therefore important partners in OCSD's biosolids management program. Contractors submit their annual compliance reports directly to EPA, as applicable and in accordance with OCSD's NPDES permit requirements. For this reporting period, OCSD's biosolids were beneficially reused in the following areas:

Destination	Beneficial Reuse Method or	Biosolids Contractor and Site Name	Amount of I Manag (dry metri	jed <sup>1</sup>
	Product	and one Hame	Plant No. 1	Plant No. 2
V 0 1 17	Class B land	Tule Ranch	740	00.400
Yuma County, AZ	application	AgTech and Desert Ridge	718	26,183
Kern County, CA	Compost	Synagro South Kern Compost Manufacturing Facility	12,867	1,168
		Synagro		
La Paz County, AZ	Compost	Arizona Soils	6,077	0
San Bernardino		Synagro		
County, CA	Compost	Nursery Products	751	29
		Liberty Compost		
Kern County, CA	Compost	Liberty Compost	147	0
		Inland Empire Regional Composting		
San Bernardino		Authority		
County, CA	Compost	Inland Empire Regional Composting Facility	50	905
		Orange County Waste & Recycling		
Orange County, CA	Landfill	Prima Deshecha Landfill	1,260	0
Digester Cleaning To	tals			
		Synagro		
La Paz County, AZ	Compost	Arizona Soils	2,516	1,215
San Bernardino		Synagro		
County, CA	Compost	Nursery Products	0	35
			24,388	29,534
	Land	1	24,300	29,034
Compost	Application	Landfill	Total	53,922
49%	48%	3%		

# **Summary of Pollutants**

Since 1976, OCSD's Pretreatment Program has been effective in lowering the average mass of metals discharged to the marine environment by 98% and the total mass of metals in the influent sewage by 86%, thereby ensuring OCSD's biosolids can be recycled to farm fields with low metals concentrations. Furthermore, OCSD's influent wastewater meets drinking water standards for metals. Appendix B contains the biosolids chapter of OCSD's Pretreatment Program Annual Report (ocsd.com/SCAnnual (part 2, Chapter 9)).

Tables 1 through 3 in the compliance data section (Appendix A) compare the concentration limits of the pollutants listed in 40 CFR 503 to OCSD's average biosolids concentrations for each plant. The average concentrations of all pollutants in OCSD's biosolids are below the conservative *Table-1 Ceiling Limits* and *Table 3 Exceptional Quality Limits* found in 40 CFR Part 503.

In accordance with OCSD's NPDES permit, biosolids are also tested semi-annually for all pollutants listed under Section 307(a) of the Clean Water Act. Appendix C contains the summary of the priority pollutants analyzed in the plants' biosolids.

### **Determination of Hazardousness**

# Legal Definition

OCSD's 2012 Ocean Discharge NPDES permit requires OCSD to test its biosolids annually for hazardousness in accordance with 40 CFR Part 261. Hazardous waste is also defined under the provisions of California Code of Regulations, Title 22, Chapter 11, Article 5.

## **Determination**

OCSD's biosolids are tested at least annually for the determination of hazardousness. OCSD's produces biosolids with pollutant concentrations below the limits as referenced above. See OCSD's biosolids monitoring data in Appendix C, Summary of Priority Pollutants and Trace Constituents Analysis. As a result of this determination, OCSD's biosolids are non-hazardous.

# **Biosolids Management System**

OCSD continues to utilize its biosolids management system to effectively administer its biosolids program. One example of OCSD's continued commitment to our biosolids management system is our continued transparent communications. Three interested party newsletters were emailed and posted on OCSD's website, and OCSD continues to post the monthly regulatory data online. OCSD shared timely updates on our Biosolids Master Plan and the compost contract opportunity with our interested stakeholders and online throughout the year.

OCSD has also continued our strong contractor oversight program, including tracking and resolving 15 contractor issues and performing 11 contractor site inspections and 61 hauler inspections.

# **Goals and Targets**

OCSD's November 2013 Strategic Plan contained numerous agency-wide goals and levels of service targets. The December 2015 Plan update provided progress to date, including the completion of two of the six strategic goals. One goal, "Future Biosolids Management Options," is expected to be completed in 2017 as part of OCSD's Biosolids Master Plan. See <a href="https://www.ocsd.com/5yearstrategicplan">www.ocsd.com/5yearstrategicplan</a>) for more information.

# **Biosolids Program Policy**

Originally adopted in 1999 and amended in 2006 and 2013, OCSD's Resolution 13-03 (<a href="www.ocsd.com/policy">www.ocsd.com/policy</a>) established a policy that commits the agency to support biosolids beneficial reuse (organics recycling).

The resolution's commitments and OCSD's performance relative to these commitments are reported below. A similar discussion is included in the 2017 Biosolids Master Plan.

Та	ble 3 – Policy Performance
Policy Commitment	2016 Performance
Commit to sustainable biosolids program.	OCSD has demonstrated effective pretreatment, water and solids treatment operations, compliance, capital improvements, technology research and planning, and
Support the recycling of biosolids.	<ul> <li>biosolids contractor oversight programs.</li> <li>This year's accomplishments include:</li> <li>Recycling of 97% of OCSD's biosolids;</li> <li>OCSD started worked through a consulting contract to help us develop a comprehensive Biosolids Master Plan that will provide a long-term framework for a sustainable, costeffective biosolids management program. The Plan is expected to be complete in early 2017.</li> <li>Quarterly research meetings with sister agencies</li> </ul>
	to evaluate new technologies that could be considered by OCSD.
Strive to balance financial, environmental, and societal considerations when making biosolids decisions.	On a day-to-day basis, OCSD is weighing these considerations and looking out for issues that would alter the balance. For instance, allocating our biosolids to our diverse locations considers this "triple bottom line." The November 2016 compost service contract award will reduce composting costs up to \$27 per ton, while maintaining our high contractor performance and oversight standards.
Utilize a biosolids	OCSD continues to maintain our biosolids
management system to maintain a sustainable and	management system.

publicly supported biosolids program.	See the Biosolids Management System section above and the History Appendix (Appendix E).
Diversify portfolio of offsite biosolids management options with multiple biosolids contractors, markets, facilities, and maintaining fail-safe back-up capacity of at least 100% of its daily biosolids production.	See Table 2 for breakdown of our active biosolids management options. OCSD maintained more than 10 times (1000%) of our daily biosolids production in failsafe facility capacity. OCSD also maintained about 25% extra hauling capacity.
Research and implement ways to reduce the volume of biosolids at the treatment plants to minimize the need for offsite management.	OCSD's Research group actively seeks opportunities for process area improvements, including solids.  Supercritical Water Oxidation – OCSD's Board of Directors approved a vendor to determine the feasibility of this technology (www.scfi.eu).
	As mentioned in the "Treatment Plants and Program Updates" section above, OCSD's production of biosolids is anticipated to drop by about one-third once the dewatering centrifuges come online in the next few years.
	OCSD awarded a professional engineering services contract for developing a new Biosolids Master Plan. The Biosolids Master Plan will include evaluation and design of capital facilities, which may result in a reduced amount of biosolids hauled offsite.
Support continuing research of biosolids benefits and potential safety concerns.	OCSD continued to be part of the Northwest Biosolids library ( <a href="www.nwbiosolids.org">www.nwbiosolids.org</a> ). The library contains references to over 2,600 biosolids-related research articles references. Northwest Biosolids sends a monthly summary of research to its members, which OCSD shares internally in our monthly biosolids report. NBMA also has a free monthly e-Bulletin for non-members. In 2015, based on extensive research, the Northwest Biosolids association published a public-friendly risk brochure explaining how long it takes for workers and other "exposed populations" to to build up a dose-equivalent pharmaceuticals or personal care products from exposure to biosolids (most in the thousands to hundred-thousands of years).
Demonstrate the benefits of biosolids compost by using it at the District's facilities.	OCSD maintains compost piles at each plant. This compost is available to our employees and landscape contractor to demonstrate the benefits of compost.

OCSD encourage employees to share their compost use photos.
OCSD is establishing a compost demonstration area beside the final effluent sampling building as part of the landscaping part of the building's rehabilitation project.

Table 1: OCSD Biosolids Monitoring and Reporting for 2016, Plant No. 1
Table 2: OCSD Biosolids Monitoring and Reporting for 2016, Plant No. 2
Notice and Necessary Information Certification Forms, January – December 2016

	Tab	le 1	- 00	SD E	Bioso	olids	Mon	itorir	ng ar	nd Re	port	ing f	or 2016		
40 CFR 503 Analyses					Recl	amatio	n Plant	No. 1,	Founta	ain Vall	ey, CA			40 CFR 5	03 Criteria
40 Cl K 303 Allalyses														Constituent Dry Weight (mg/Kg)	
Constituent (mg/Kg) Dry	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean	Ceiling (Table 1)	Monthly Average (Table 3)
Arsenic (avg)	6.3	6.4	8.3	7.0	6.7	12	8.0	6.7	7.6	6.7	7.6	7.7	7.6	75	44
Arsenic (max)	6.7	6.7	11	7.3	7.6	12	8.6	7.0	8.6	6.8	7.6	8.2		75	41
Cadmium (avg)	1.6	<2.3	2.4	1.3	1.3	2.7	3.1	2.6	3.6	6.1	6.0	4.2	3.2	QF.	20
Cadmium (max)	1.8	2.3	2.9	1.5	1.3	2.7	3.4	2.9	4.0	6.8	7.6	8.2		85	39
Chromium (avg)	32	31	72	89	47	44	46	30	38	40	34	35	45	3000	N/A
Copper (avg)	390	440	450	480	410	450	490	400	520	490	440	420	450	4300	1500
Copper (max)	450	520	490	480	410	480	540	410	540	520	460	420		4300	1500
Lead (avg)	<11	<23	<11	14	<12	<25	<12	<13	<13	11	14	<12	13	840	200
Lead (max)	11	<23	12	14	<12	<25	<12	<13	12	12	17	<25		040	300
Mercury (avg)	0.62	0.87	0.60	0.64	1.7	1.3	0.82	0.53	0.94	0.87	0.82	1.0	0.89	57	17
Mercury (max)	0.70	1.0	0.61	0.65	1.9	1.5	0.88	0.55	0.96	0.95	0.95	1.3		57	17
Molybdenum (avg)	12	11	12	15	13	15	16	12	21	16	15	14	14	75	N1/A
Molybdenum (max)	14	13	13	15	13	16	17	12	25	17	16	14		75	N/A
Nickel (avg)	44	29	31	36	34	43	39	25	37	30	27	27	34	400	400
Nickel (max)	55	31	36	36	34	46	43	25	37	33	29	27	-	420	420
Selenium (avg)	9.7	9.8	9.1	10	4.4	9.3	8.0	9.3	8.8	8.1	8.6	5.4	8.4	100	400
Selenium (max)	10	14	9.7	11	5.1	12	8.2	12	12	9.9	11	6.7		100	100
Zinc (avg)	540	500	560	640	540	630	670	550	700	670	600	610	600	7500	2000
Zinc (max)	620	570	620	640	550	670	710	560	750	710	630	610		7500	2800
Organic Nitrogen (avg)	53,000	59,000	61,000	49,000	45,000	56,000	54,000	55,000	58,000	51,000	50,000	55,000	45,000	No	limit
Ammonia Nitrogen (avg)	6,200	6,000	6,200	6,600	6,400	6,200	6,400	6,300	6,600	6,200	6,400	6,500	6,300	No	limit
Process Assessment <sup>1</sup>	-,	, ,,,,,,,	, , , , , , , , , , , , , , , , , , , ,	,		,	,			,				Pathogen and requirements (C	vector reduction Class B, Option 1)
Digester Detention Time (days)	18	17	17	20	19	17	17	17	17	17	17	17	18	15 day	minimum
Digester Temperature (° F)	97	97	97	98	98	99	98	98	98	98	98	98	98	95 -	131 °F
Digester Temperature (°C)	36	36	36	37	37	37	37	37	37	37	37	37	37	35 -	55 °C
Volatile Solids Reduction (%)	62	63	61	59	58	54	60	61	62	62	62	60	60	38% n	ninimum
Biosolids Total Solids (%)	18	18	18	18	17	17	17	16	17	19	18	17	18		J/A
									!						
Quantity Generated	_												Total	Total Bioso	ids Managed
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec			
Synagro CA - compost (wet tons)	7,760	7,357	7,678	7,576	7,194	6,889	7,131	7,308	6,723	5,612	6,728	3,081	81,037		
Synagro CA - compost (dry metric tons)	1,267	1,201	1,253	1,237	1,109	1,062	1,100	1,061	1,037	967	1,098	475	12,867		
Synagro AZ - compost (wet tons)	3,886	3,672	3,760	3,535	3,735	3,171	2,824	3,306	2,983	2,400	2,542	2,488	38,303		
Synagro AZ - compost (dry metric															
tons)	634	600	614	577	576	489	435	480	460	414	415	384	6,077	WET TONS	143,714
Inland Empire Regional Composting (wet tons)	0	0	0	0	0	0	0	0	0	0	50	274	324		,
Inland Empire Regional Composting (dry metric tons)	0	0	0	0	0	0	0	0	0	0	8	42	50		
Tule Ranch AZ - land application (wet tons)	906	1,479	1,260	0	0	374	0	0	0	0	402	0	4,421		
Tule Ranch AZ - land application (dry metric tons)	148	241	206	0	0	58	0	0	0	0	66	0	718		

Quantity Generated													Total	Total Biosol	ids Managed
Qualitity Generated	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	Total Biosol	ius mariageu
OCWR CA Landfill (wet tons)	0	0	0	0	0	764	1,623	1,185	1,461	1,554	1,203	200	7,991		
OCWR CA Landfill (dry metric tons)	0	0	0	0	0	118	250	172	225	268	196	31	1,260		
Synagro - Nusery Products CA - compost (wet tons)	0	0	0	0	0	0	0	0	0	0	0	4,873	4,873		
Synagro - Nusery Products CA - compost (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	751	751		
Liberty Compost CA (wet tons)	0	0	0	0	0	0	0	0	0	0	0	955	955		
Liberty Compost CA (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	147	147	DRY	
Total Wet Tons	12,551	12,508	12,698	11,111	10,929	11,199	11,578	11,800	11,167	9,566	10,925	11,873	137,904	METRIC	24,493
Total Dry Metric Tons	2,049	2,042	2,073	1,814	1,685	1,727	1,785	1,712	1,722	1,648	1,784	1,831	21,872	TONS	
Digester Cleanings													Total		
Digester Oleanings					Dig 12	Dig 12	Dig 12	Dig 12		Dig 14	Dig 14	Dig 14	Total		
Total Solids(%)					45	54	55	49		41	52	47			
Synagro, AZ	0		0		050	000	704	777	0	4050	4.400	400	5.040		
(compost) (wet tons)	0	0	0	0	256 105	988 484	791 395	777 345	0	1050 395	1468 694	480 204	5,810 2,620		
Synagro, AZ (dry metric tons) Total Dry Metric Tons (Biosolids plus Digester Cleanings)	2,049	2,042	2,073	1,814	1,790	2,210	2,180	2,058	1,722	2,043	2,477	2,034	24,493		

	Ta	ble 2	2 - 00	CSD	Bios	olids	Mor	nitori	ng a	nd R	epor	ting	for 2010	6	
40 CFR 503 Analyses				Wa	stewat	er Trea	tment	Plant N	o. 2, H	untingt	on Bea	ch, CA	<u> </u>	40 CFR 50	03 Criteria
,														Constituent Dry	Weight (mg/Kg)
Constituent (mg/Kg) Dry	Jan	Feb	Mar	April	Mav	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean	Ceiling (Table 1)	Monthly Average (Table 3)
Arsenic (avg)	6.8	8.5	8.7	8.8	7.5	10	7.5	5.6	6.7	7.2	6.4	6.3	7.5	, ,	,
Arsenic (max)	6.8	9.5	10	9.1	8.1	11	8.3	5.7	7.2	7.6	6.4	6.6	7.0	75	41
Cadmium (avg)	2.3	2.9	3.1	2.2	2.0	3.1	3.5	3.6	4.5	6.1	6.7	5.2	3.8		
Cadmium (max)	2.5	3.3	3.4	2.4	2.2	3.4	3.6	3.8	5.1	9.1	7.6	5.3		85	39
Chromium (avg)	34	34	60	55	44	47	44	40	43	39	39	40	43	3000	N/A
Copper (avg)	410	450	490	520	460	460	510	480	510	490	530	490	480		-
Copper (max)	450	500	510	550	470	470	550	480	520	490	570	420	100	4300	1500
Lead (avg)	9.7	<18	12	15	11	<20	<10	12	14	13	15	13	13		
Lead (max)	11	<18	12	15	11	<20	<10	12	14	13	15	14		840	300
Mercury (avg)	0.65	1.1	0.85	0.91	0.94	1.2	0.94	0.72	1.2	0.52	0.88	0.82	0.89		
Mercury (max)	0.70	1.2	1.0	1.2	0.94	1.3	1.0	0.74	1.2	0.92	0.89	0.82	0.00	57	17
Molybdenum (avg)	11	13	14	16	15	16	17	15	17	16	15	15	15		21/2
Molybdenum (max)	12	14	14	16	15	16	18	15	18	16	16	16	-	75	N/A
Nickel (avg)	41	31	33	31	29	32	30	30	35	30	32	27	32		400
Nickel (max)	49	33	33	31	30	32	31	30	35	30	36	28	<u> </u>	420	420
Selenium (avg)	9.4	7.6	8.4	10	5.5	8.8	7.8	6.7	8.3	6.9	6.0	3.8	7.4		
Selenium (max)	11	12	8.9	11	6.2	10	8.0	8.4	8.4	6.9	8.5	4.6		100	100
Zinc (avg)	620	640	730	760	700	720	790	730	750	740	760	760	710	====	2000
Zinc (max)	680	710	740	790	700	740	840	730	790	740	830	820	-	7500	2800
Organic Nitrogen (avg)	44,000	45,000	45,000	44,000	41,000	44,000	52,000	50,000	45,000	45,000	42,000	41,000	39,000	No	limit
Ammonia Nitrogen (avg)	5,000	5,200	5,300	5,500	5,100	5,200	5,100	4,700	5,100	5,300	5,100	7,800	5,200	No	limit
Process Assessment <sup>1</sup>														Pathogen and v requirements (C	rector reduction lass B, Option 1)
Digester Detention Time (days)	20	20	20	20	21	24	22	21	21	20	21	20	21	15 day r	ninimum
Digester Temperature (° F)	96	97	98	98	98	99	98	99	98	98	98	96	98	95 - 1	31 °F
Digester Temperature (°C)	36	36	37	37	37	37	37	37	37	37	37	36	37	35 -	55 °C
Volatile Solids Reduction (%)	65	60	62	59	63	62	59	60	59	68	65	62	62	38% m	inimum
Biosolids Total Solids (%)	22	22	22	21	21	21	20	21	21	21	21	21	21	N	/A
Quantity Generated													Total	Total Biosol	ids Managed
quantity continuou	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	1010.	10141 210001	iao managoa
Synagro CA - compost (wet tons)	0	0	151	51	680	553	554	505	833	1,819	984	25	6,154		
Synagro CA - compost (dry metric to	0	0	30	10	129	105	100	96	159	347	187	5	1,168		
Synagro AZ - compost (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Synagro AZ - compost (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Inland Empire Regional Composting (wet tons)	0	0	0	0	0	0	0	619	1,065	1,045	1,000	1,022	4,750	WET TONS	150,177
Inland Empire Regional Composting (dry metric tons)	0	0	0	0	0	0	0	118	203	199	190	195	905		
Tule Ranch AZ - land application (wet tons)	11,468	10,199	11,732	11,702	12,243	11,810	11,209	11,961	10,826	10,388	10,325	12,545	136,407		
Tule Ranch AZ - land application (dry metric tons)	2,288	2,035	2,341	2,229	2,332	2,249	2,033	2,278	2,062	1,979	1,967	2,389	26,183		
OCWR CA Landfill (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		

	1														
Quantity Generated	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	Total Biosol	ds Managed
OCWR CA Landfill (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Synagro - Nusery Products CA - compost (wet tons)	0	0	0	0	0	0	0	0	0	0	0	151	151		
Synagro - Nusery Products CA - compost (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	29	29		
Liberty Compost CA (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Liberty Compost CA (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Wet Tons	11,468	10,199	11,883	11,752	12,923	12,362	11,763	13,085	12,723	13,252	12,309	13,743	28,285		
Total Dry Metric Tons	2,288	2,035	2,371	2,238	2,462	2,355	2,134	2,492	2,423	2,524	2,344	2,618	147,462	DRY METRIC	
Digester Cleanings					Di- II	Dia II	Di- II				Din E	Di- F	Total	TONS	29,534
Total Solids(%)	0	0	0	0	Dig H 47	Dig H 47	Dig H 47	0	0	0	<b>Dig E</b> 58	Dig E 58			
AZ Soils (Compost) (wet tons)	0	0	0	0	68	1334	387	0	0	0	87	772	2,649		
Synagro, AZ (dry metric tons)	0	0	0	0	29	569	165	0	0	0	46	406	1,215		
Nursery Products (Compost) (wet tons)	0	0	0	0	0	0	0	0	0	0	0	66	66		
Nursery Products, CA (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	35	35		
Total Dry Metric Tons (Biosolids plus Digester Cleanings)	2,288	2,035	2,371	2,238	2,491	2,923	2,299	2,492	2,423	2,524	2,390	3,058	29,534		

<sup>&</sup>lt;sup>1</sup> Reported values are averages





Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: January 1-31, 2016

**Pollutant and Nitrogen concentrations** (reported results may be averages) on 100% dry weight basis.

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	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	<b>Cr</b> (mg/kg)	% solids
Result Plant 1	6.3	1.6	390	<11	0.62	12	44	9.7	540	53,000	6,200	32	18
Result Plant 2	6.8	2.3	410	9.7	0.65	11	41	9.4	620	44,000	5,000	34	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR Part 503 and Arizona Administrative Code R18-9-1006€ have been met via anaerobic digestion under the following parameters:

	Mean Rea Time (d		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1**	18	20	97 - 98
Plant 2	20	22	96 - 100

### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR Part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona-certified laboratory to comply with Option 1.

Sampling date(s): 01/06/2016, 01/13/2016

		% Volat	ile Solids							
	In	In Out Reduction								
Plant 1	3.6	1.4	62							
Plant 2	3.8	1.4	65							

#### Certifications:

NPDES permit: 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.

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

> 2/6/2017 2/6/2017 2/6/2017

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James E. Colston

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Signed by: Colston, Jim

**Ronald Coss** 

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Signed by: rcoss@ocsd.com



# **Notice and Necessary Information – Addendum**

### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: January 1- 31, 2016

#### OCSD Plant 1\*\*

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	18	18		18	19	19		
Minimum Temperature (°F)	98	98	98	98		97	97	97		

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	20	21	19	20	20	20	20		20		20	20	20		20	21	21
Minimum Temperature (°F)	96	96	96	96	98	97	100		99		98	97	98		100	98	97

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> In March 2016, an error was discovered with the primary sludge flow meters at Plant 1 that had the potential to affect digester mean cell residence time when the flow exceeded a certain volume. The error is believed to have started in May 2012. Corrective actions have been implemented and primary flow values and digester detention times have been recalculated for all affected days in 2016. Per the calculations, compliance was maintained at all times thus far in 2016.

<sup>\*\*\*</sup> During annual reporting, an error was discovered with the rounding of some values that caused the reported result to be inaccurate by one digit. The affected values for Arsenic, Copper, Mercury and Selenium have been revised.





Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1-29, 2016

**Pollutant and Nitrogen concentrations** (reported results may be averages) on 100% dry weight basis.

	J	`		,	<b>3</b> ,	,	, ,						
	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	<b>Cr</b> (mg/kg)	% solids
Result Plant 1	6.4	<2.3	440	<23	0.87	11	29	9.8	500	59,000	6,000	31	18
Result Plant 2	8.5	2.9	450	<18	1.1	13	31	7.6	640	45,000	5,200	34	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR Part 503 and Arizona Administrative Code R18-9-1006(E) have been met via anaerobic Administrative Code R18-9-1010(A) have been met using data (may be digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1**	17	22	97 - 98
Plant 2	20	21	97 - 100

### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR Part 503 and Arizona averages) analyzed by an Arizona certified laboratory to comply with Option 1:

Sampling date(s): 02/03/2016, 02/10/2016

		% Volat	ile Solids
	In	Out	Reduction
Plant 1	3.6	1.4	63
Plant 2	3.2	1.3	60

### Certifications:

NPDES permit: 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.

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment

> 2/7/2017 2/6/2017 2/7/2017

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# **Notice and Necessary Information – Addendum**

### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1-29, 2016

#### OCSD Plant 1\*\*

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	17	17		17	17	17		
Minimum Temperature (°F)	98	97	97	98		97	97	97		

Shaded box represents Digester is Out of Service.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	20	20	19	19	19	19	20		20		20	19	19		19	20	20
Minimum Temperature (°F)	98	99	98	98	99	98	100		99		97	98	99		100	99	99

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> In March 2016, an error was discovered with the primary sludge flow meters at Plant 1 that had the potential to affect digester mean cell residence time when the flow exceeded a certain volume. The error is believed to have started in May 2012. Corrective actions have been implemented and primary flow values and digester detention times have been recalculated for all affected days in 2016. Per the calculations, compliance was maintained at all times thus far in 2016.

<sup>\*\*\*</sup> During annual reporting, an error was discovered with the rounding of some values that caused the reported result to be inaccurate by one digit. The affected values for Arsenic, Copper, Mercury, Molybdenum and Nickel have been revised.





Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: March 1-31, 2016

Мо

(mg/kg)

Hg

(mg/kg)

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

Pb

(mg/kg)

Cu

(mg/kg)

	out (3). 00/02/2010,00/00/2010													
<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids									
9.1	560	61,000	6,200	72	18									
8.4	730	45,000	5,300	60	22									
400	0.000	NI/A	NI/A	NI/A	NI/A									

Sampling date(s): 03/02/2016 03/09/2016

#### Result Plant 1 8.3 2.4 450 <11 0.60 12 31 Result Plant 2 8.7 3.1 490 12 0.85 14 33 Table 3 41 39 17 N/A 420 1,500 300 100 2,800 N/A N/A N/A N/A 75 85 57 75 420 7,500 N/A N/A Table 1 4,300 840 100 3,000 N/A

### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

Cd

(mg/kg)

As

(mg/kg)

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	20	97 - 98
Plant 2	20	22	98 - 100

#### **Vector Attraction Reduction**

Ni

(mg/kg)

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010 (A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

		% Volat	ile Solids				
	In Out Reduction						
Plant 1	3.6	1.4	61				
Plant 2	3.8	1.5	62				

#### Certifications:

NPDES permit: 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.

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

> 7/5/2016 7/12/2016 7/12/2016

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### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: March 1-31, 2016

#### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	16	17	17	17		16	17	17	242***	
Minimum Temperature (°F)	97	97	97	98		97	98	97	98	

Shaded box represents Digester is Out of Service.

#### OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	20	20	20	20	20	20	20		20		20	20	20		20	20	20
Minimum Temperature (°F)	99	99	99	98	100	98	100		99		99	99	99		100	99	99

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> In March 2016, an error was discovered with the primary sludge flow meters at Plant 1 that had the potential to affect digester mean cell residence time when the flow exceeded a certain volume. The error is believed to have started in May 2012. Corrective actions have been implemented and primary flow values and digester detention times have been recalculated for all affected days in 2016. Per the calculations, compliance was maintained at all times thus far in 2016.

<sup>\*\*\*</sup> Following cleaning and rehabilitation, digester 15 was filled with digested sludge and then placed in service on March 28, 2016.

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

Sampling date(s):	04/06/2016,04/13/2016

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	<b>Cr</b> (mg/kg)	% solids
Result Plant 1	7.0	1.3	480	14	0.64	15	36	10	640	49,000	6,600	89	18
Result Plant 2	8.8	2.2	520	15	0.91	16	31	10	760	44,000	5,500	55	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### **Class B Pathogen Reduction**

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	20	21	98
Plant 2	20	22	98 - 100

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

		% Volat	ile Solids								
	In	In Out Reduction									
Plant 1	3.6	1.5	59								
Plant 2	3.8	1.6	59								

#### Certifications:

**NPDES permit:** 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.

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8/3/2016 8/3/2016 7/28/2016

James Spears

James Spears
Operations Manager
Signed by: Spears, Jim

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## **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	18	18		17		18	24**	
Minimum Temperature (°F)	98	98	98	98		98		98	98	

Shaded box represents Digester is Out of Service.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	21	21	20	20	21	21	21		21		21	21	21		21	21	21
Minimum Temperature (°F)	100	100	99	99	99	98	100		99		99	98	98		100	99	100

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> Following cleaning and rehabilitation, digester 15 was filled with digested sludge and then placed in service on March 28, 2016.

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1-31, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.7	1.3	410	<12	1.7	13	34	4.4	540	45,000	6,400	47	17
Result Plant 2	7.5	2.0	460	11	0.94	15	29	5.5	700	41,000	5,100	44	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### **Class B Pathogen Reduction**

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	19	20	98 - 99
Plant 2	21	24	98 - 101

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

		% Volat	ile Solids								
	In	In Out Reduction									
Plant 1	3.6	1.5	58								
Plant 2	3.6	1.4	63								

#### Certifications:

**NPDES permit:** 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.

**503 Class B**: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

**Arizona Class B**: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

8/22/2016 8/23/2016 8/18/2016

James Spears Operations Manager

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Signed by: Coss, Ronald



### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1-31, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	18	18		19		17	18	47**
Minimum Temperature (°F)	98	98	98	98		99		98	99	99

Shaded box represents Digester is Out of Service.

#### OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	21	21	20	20	21		21		21		21	21	22	23	20	21	21
Minimum Temperature (°F)	99	100	98	99	99		100		99		99	98	98	100	100	99	101

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> Following cleaning and rehabilitation, digester 16 was filled with digested sludge and then placed in service on May 13, 2016.





Result
Result
Table

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1-30, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	U	,		,	J	•	3	,					
	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	Se (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
It Plant 1	12	2.7	450	<25	1.3	15	43	9.3	630	56,000	6,200	44	17
It Plant 2	10	3.1	460	<20	1.2	16	32	8.8	720	44,000	5,200	47	21
3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### **Class B Pathogen Reduction**

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-(E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	19	99
Plant 2	24	24	99 - 101

### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 -and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): <u>06/01/2016,06/08/2016</u>

		% Volati	ile Solids
	In	Out	Reduction
Plant 1	3.1	1.5	54
Plant 2	3.8	1.5	62

#### Certifications:

NPDES permit: 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.

**503 Class B**: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

**Arizona Class B**: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

9/28/2016

10/3/2016

10/2/2016

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Enviro Lab and OM Manager

Signed by: Coss, Ronald

X Ronald Coss



### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1- 30, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	16	17	17				16	18	18
Minimum Temperature (°F)	99	99	99	99				99	99	99

Shaded box represents Digester is Out of Service.

#### OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	23	23	21	22	22		23		23		22	22	22	23	22	22	23
Minimum Temperature (°F)	100	100	100	99	100		100		99		99	99	100	100	101	100	100

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	J	,	•	,	J	,	Ü	,					
	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	Se (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	8.0	3.1	490	<12	0.82	16	39	8.0	670	54,000	6,400	46	17
Result Plant 2	7.5	3.5	510	<10	0.94	17	30	7.8	790	52,000	5,100	44	20
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### **Class B Pathogen Reduction**

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	18	98 - 99
Plant 2	22	23	98 - 102

### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 07/06/2016,07/13/2016

		% Volati	ile Solids
	In	Out	Reduction
Plant 1	3.5	1.4	60
Plant 2	3.6	1.5	59

#### Certifications:

NPDES permit: 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.

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Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

9/26/2016

9/29/2016

9/26/2016

**James Spears** Operations Manager Signed by: Spears, Jim jspears@ocsd.com (714) 593-7081

James E. Colston

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Enviro Lab and OM Manager



### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	17	17				17	18	18
Minimum Temperature (°F)	98	98	98	98				99	98	98

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	22	22	21	21	22		22		22		22	22	22	22	21	22	22	
Minimum Temperature (°F)	99	101	99	101	102		100		99		100	99	98	100	100	100	100	

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: August 1-31, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	·	,	•	,	J	,	J	,					
	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	Se (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	<b>Cr</b> (mg/kg)	% solids
Result Plant 1	6.7	2.6	400	<13	0.53	12	25	9.3	550	55,000	6,300	30	16
Result Plant 2	5.6	3.6	480	12	0.72	15	30	6.7	730	50,000	4,700	40	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### **Class B Pathogen Reduction**

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	18	98
Plant 2	21	23	99 - 100

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 08/03/2016,08/10/2016,08/17/2016

		% Volatile Solids									
	In	In Out Reduction									
Plant 1	3.4	1.4	61								
Plant 2	3.6	1.5	60								

### Certifications:

**NPDES permit:** 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.

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**Arizona Class B**: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

10/17/2016

10/17/2016

James Spears Operations Manager

Signed by: Spears, Jim

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James E. Colston jcolston@ocsd.com Dir. of Environmental Services (714) 593-7... Signed by: Colston, Jim 10/17/2016

Ronald Coss rcoss@ocsd.com Enviro Lab and OM Manager (714)593-7508



### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: August 1- 31, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	17	17				17	18	18
Minimum Temperature (°F)	98	98	98	98				98	98	98

Shaded box represents Digester is Out of Service.

### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	21	21	20	21	21		21		21		21	21	21	21	21	21	21	
Minimum Temperature (°F)	99	100	99	100	100		100		99		99	99	99	100	100	100	100	

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: September 1- 30, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	•	`	•	•	Ü	•	Ü	,					
	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	Se (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	7.6	3.6	520	<13	0.94	21	37	8.8	700	58,000	6,600	38	17
Result Plant 2	6.7	4.5	510	14	1.2	17	35	8.3	750	45,000	5,100	43	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)					
	Min	Max	(All digesters)					
Plant 1	17	18	98					
Plant 2	21	21	98 - 101					

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 09/07/2016,09/14/2016

		% Volatile Solids									
	In	In Out Reduction									
Plant 1	3.3	1.3	62								
Plant 2	3.5	1.5	59								

### Certifications:

NPDES permit: 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.

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11/28/2016

11/29/2016

James Spears **Operations Manager** 

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James E. Colston

icolston@ocsd.com Dir. of Environmental Services (714) 593-7450

11/29/2016

Signed by: Colston, Jim

**Ronald Coss** 

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Enviro Lab and OM Manager (714)593-7508



# **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: September 1- 30, 2016

### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	16	16	17	17				16	17	17
Minimum Temperature (°F)	98	98	98	98				98	98	98

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	21	21	20	20	21		21		21		21	20	20	21	20	20	21	
Minimum Temperature (°F)	100	100	99	100	100		100		99		99	99	98	100	100	99	101	

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	<b>As</b> (mg/kg)	Cd (mg/kg)	<b>Cu</b> (mg/kg)	<b>Pb</b> (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.7	6.1	490	11	0.87	16	30	8.1	670	51,000	6,200	40	19
Result Plant 2	7.2	6.1	490	13	0.52	16	30	6.9	740	45,000	5,300	39	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	19	98
Plant 2	20	21	98 - 101

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 10/05/2016,10/12/2016

		% Volatile Solids									
	In	In Out Reduction									
Plant 1	3.3	1.3	62								
Plant 2	4.3	1.4	68								

### Certifications:

NPDES permit: 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.

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Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

12/27/2016

12/30/2016

12/21/2016

James Spears **Operations Manager** Signed by: Spears, Jim jspears@ocsd.com (714) 593-7081

James E. Colston

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Signed by: Colston, Jim

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# **Biosolids Notice and Necessary Information – Addendum**

#### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2016

#### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	16	16	17	17	20				17	17
Minimum Temperature (°F)	98	98	98	98	98				98	98

Shaded box represents Digester is Out of Service.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	21	21	20	20	20		20	24**	21		21	20	20	21	20	20	21	
Minimum Temperature (°F)	98	100	99	100	99		100	101	99		99	99	100	100	99	99	101	

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> Digester J was placed into service on October 20, 2016.



# **Biosolids Notice and Necessary Information**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: November 1-30, 2016

Pollutant and Nitrogen concentrations (reported results may be averages on 100% dry weight basis).

	<b>As</b> (mg/kg)	Cd (mg/kg)	<b>Cu</b> (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	7.6	6.0	440	14	0.82	15	27	8.6	600	50,000	6,400	34	18
Result Plant 2	6.4	6.7	530	15	0.88	15	32	6.0	760	42,000	5,100	39	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

#### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	19	98
Plant 2	21	23	98 - 101

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 11/02/2016,11/09/2016,11/10/2016

	% Volatile Solids In Out Reduction 3.3 1.3 62									
	In	Out	Reduction							
Plant 1	3.3	1.3	62							
Plant 2	3.9	1.4	65							

#### Certifications:

NPDES permit: 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.

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12/27/2016

1/4/2017

12/21/2016

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Signed by: Coss, Ronald



# **Biosolids Notice and Necessary Information – Addendum**

# **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: November 1- 30, 2016

#### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	16	16	17	17	18				17	17
Minimum Temperature (°F)	98	98	98	98	98				98	98

Shaded box represents Digester is Out of Service.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	21	20		20	21		20	21	22		21	21	21	21	20	21	21	
Minimum Temperature (°F)	98	98		99	98		100	101	99		98	98	98	100	98	98	99	

Shaded box represents Digester is Out of Service.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.



# **Biosolids Notice and Necessary Information**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2016

Pollutant and Nitrogen concentrations (reported results may be averages) on 100% dry weight basis.

	<b>As</b> (mg/kg)	Cd (mg/kg)	<b>Cu</b> (mg/kg)	Pb (mg/kg)	<b>Hg</b> (mg/kg)	<b>Mo</b> (mg/kg)	<b>Ni</b> (mg/kg)	<b>Se</b> (mg/kg)	<b>Zn</b> (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	<b>Cr</b> (mg/kg)	% solids
Result Plant 1	7.7	4.2	420	<12	1.0	14	27	5.4	610	55,000	6,500	35	17
Result Plant 2	6.3	5.2	490	13	0.82	15	27	3.8	760	41,000	7,800	40	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

#### Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006 (E) have been met via anaerobic digestion under the following parameters:

	Mean Re Time (		Mean minimum Temperature (°F)
	Min	Max	(All digesters)
Plant 1	17	19	98 - 99
Plant 2	20	22	96 - 101

#### **Vector Attraction Reduction**

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010(A) have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1.

Sampling date(s): 12/07/2016,12/14/2016,12/21/2016

	% Volatile Solids  In Out Reduction  3.0 1.2 60									
	In	Out	Reduction							
Plant 1	3.0	1.2	60							
Plant 2	3.5	1.4	62							

#### Certifications:

NPDES permit: 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.

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Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

1/24/2017

1/24/2017

1/18/2017

**James Spears Operations Manager** Signed by: Spears, Jim jspears@ocsd.com (714) 593-7081

Dir. of Environmental Services (714) 593-7450 Signed by: Colston, Jim

Ronald Coss

rcoss@ocsd.com Enviro Lab and OM Manager (714)593-7508

Signed by: Coss, Ronald



# **Biosolids Notice and Necessary Information – Addendum**

#### **Individual Digester Mean Cell Residence Times and Minimum Temperatures**

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2016

#### **OCSD Plant 1**

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	16	17	17	17**				17**	17**
Minimum Temperature (°F)	99	99	99	99	99				99	98

Shaded box represents Digester is Out of Service. \*MCRT based on a 15-Day Rolling Average.

#### **OCSD Plant 2**

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	
Minimum Mean Cell Residence Time (days)*	21	20		20	20		19	21	21		20	20	20	20	20	20	21	
Minimum Temperature (°F)	96	98		97	97		100	101	99		98	98	96	98	98	98	100	

Shaded box represents Digester is Out of Service.

<sup>\*</sup>MCRT based on a 15-Day Rolling Average.

<sup>\*\*</sup> On 11/3/2016, instrumentation staff discovered a flowmeter calibration error for digesters 11-16 that had occurred when the meter was rescaled on 5/19/2016. As a result, during that period, the reported digestion times were slightly less than actual digestion times. Since recalculation of digestion times would not negatively affect compliance determination, the data will not be corrected and re-reported.

# **APPENDIX B**

# **SOLIDS MANAGEMENT PROGRAM**

Introduction Biosolids Quality

#### **SOLIDS MANAGEMENT PROGRAM**

#### 9.1 INTRODUCTION

This section provides an overview of OCSD's Biosolids Program, focusing on the biosolids quality with respect to metals. Biosolids are nutrient-rich, treated organic matter recovered through the treatment of wastewater. These solids are considered a resource because of their nutrient and energy values, and they are recyclable in part because of their low metal content. The pretreatment program is a key element in ensuring the recyclability of OCSD's biosolids by minimizing the discharge of heavy metals and other undesirable constituents into the collection system and ultimately the treated solids, which are used to fertilize farms.

OCSD's annual biosolids compliance report was completed, submitted to regulators, and posted online in February. Visit OCSewers.com/503 to access the most recent document that contains Biosolids Program information, regulations, quantities, goals, and how and where biosolids are recycled.

# 9.2 BIOSOLIDS QUALITY

Biosolids quality plays an important role in ensuring the continued recyclability of OCSD's biosolids. OCSD's pretreatment program has been extremely effective in reducing and maintaining levels of pollutants (e.g., OCSD's influent sewage meets drinking water standards for the biosolids monitoring metals). The ceiling concentrations and EQ (exceptional quality) concentrations promulgated by the EPA's biosolids regulations (40 CFR 503) are presented in the figures as a reference. For FY 2015/16, OCSD biosolids met the EQ limits for all the regulated parameters.

TABLE 9.1	Trends in Trace Metal Content of Biosolids, Fiscal Years 2007-2016 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division

	-	Exceptional		Plant No. 1			Plant No. 2	
Metal	Fiscal Year	Quality Limits	Min.	Max.	Avg.	Min.	Max.	Avg.
Arsenic	-	41						
	2006-07		2.7	7.2	5.3	5.1	11	7.3
	2007-08		2.9	9.0	6.2	4.1	14	7.9
	2008-09		4.3	12	7.1	3.5	13	9.0
	2009-10		2.0	10.0	5.2	4.4	10.0	7.2
	2010-11		7.2	9.7	8.4	8.6	12	10.4
	2011-12		2.3	11	7.4	6.6	66	21.5
	2012-13		0	7.8	4.7	2	10	7
	2013-14		2.2	9.4	5.4	5.4	11	8.4
	2014-15		4.5	11.0	7.2	7.8	12	9.3
•	2015-16		3.8	12	8.0	6.2	12	9.2

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2007-2016 (Concentration in mg/kg, dry weight)
Orange County Sanitation District, Resource Protection Division

		Exceptional		Plant No. 1			Plant No. 2	
Metal	Fiscal Year	Quality Limits	Min.	Max.	Avg.	Min.	Max.	Avg.
Cadmium		39			•			
	2006-07		3.7	6.1	5	2	4	3.3
	2007-08		3.2	11	5.5	2.6	6.4	3.8
	2008-09		2.5	6.2	4.1	1.7	4.4	3.0
	2009-10		1.1	4.4	2.9	1.0	4.8	2.8
	2010-11		1.2	3.8	2.6	1.4	5.0	2.5
	2011-12		8.0	6	3.8	1.1	4.4	3.6
	2012-13		2.6	7.8	4.7	1.9	4.4	3.1
	2013-14		1.6	11	3.9	2.1	6	3.5
	2014-15		2.7	7.8	5.1	3.1	5.8	4.0
	2015-16		1.3	4.7	2.5	2.0	4.5	3.0
Chromium		**						
	2006-07		51	77	62	47	86	60
	2007-08		50	62	54	46	77	60
	2008-09		44	65	55	42	88	62.3
	2009-10		29	56	44	30	54	47
	2010-11		41	58	47	50	66	59
	2011-12		42	74	52	40	70	56
	2012-13		42	56	49	42	59	49
	2013-14		39	52	45	40	53	46
	2014-15		30	51	40	34	70	46
	2015-16		31	89	46	28	60	46
Copper		1,500						
	2006-07		600	800	686	540	620	576
	2007-08		500	650	570	460	630	538
	2008-09		500	590	560	500	540	523
	2009-10		420	620	543	370	560	497
	2010-11		520	600	567	500	720	574
	2011-12		430	670	518	380	720	522
	2012-13		480	640	538	500	640	538
	2013-14		460	540	508	470	540	503
	2014-15		320	570	468	320	560	469
	2015-16		380	560	460	340	570	479

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2007-2016 (Concentration in mg/kg, dry weight)
Orange County Sanitation District, Resource Protection Division

		Exceptional		Plant No. 1			Plant No. 2	
Metal	Fiscal Year	Quality Limits	Min.	Max.	Avg.	Min.	Max.	Avg.
Lead		300						
	2006-07		23	30	26	14	24	21
	2007-08		6	30	20	6	24	14
	2008-09		11	25	21	6	21	15
	2009-10		9	44	23	9	20	17
	2010-11		21	24	23	9	30	20
	2011-12		ND	24.5	9	ND	32	13
	2012-13		7.5	19	15	7.5	16.5	13.7
	2013-14		12.5	17.5	14	12.5	16.5	14.4
	2014-15		8.7	15	13	9	17	13
	2015-16		8.3	20	12	8	17	13
Mercury		17						
_	2006-07		1.1	2.4	1.6	1.3	2.5	1.7
	2007-08		1.1	4.2	1.9	1.3	2.6	1.6
	2008-09		1.0	1.9	1.4	1.0	2.6	1.4
	2009-10		1.0	3.2	1.4	0.9	1.6	1.3
	2010-11		0.8	2.2	1.3	0.8	2.3	1.2
	2011-12		0.8	1.4	1.2	0.8	2.6	1.3
	2012-13		0.7	4.1	1.5	0.8	3.8	1.4
	2013-14		0.8	1.2	1.0	0.7	2.8	1.4
	2014-15		1	1.5	1.08	1	1.5	1
,	2015-16		0.60	1.7	0.93	0.64	1.2	<u>1</u>
Molybdenum		**						
	2006-07		13	22	18	14	18	16
	2007-08		12	17	13	12	18	15
	2008-09		12	16	15	8	16	14
	2009-10		6	16	13	6	14	10
	2010-11		12	19	15	4.8	18	14
	2011-12		6.5	18	12.9	12	20	17
	2012-13		9.8	20	14.2	12	20	15
	2013-14		12	18	15	14	18	15
	2014-15		9.4	18	15	12	20	16
	2015-16		11	18	15	11	23	<u>16</u>

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2007-2016 (Concentration in mg/kg, dry weight)
Orange County Sanitation District, Resource Protection Division

		Exceptional		Plant No. 1			Piant No. 2	
Metal	Fiscal Year	Quality Limits	Min.	Max.	Avg.	Min.	Max.	Avg.
Nickel		420						
	2006-07		44	60	54	28	44	34
	2007-08		34	58	45	24	56	31
	2008-09		30	41	35	22	37	29
	2009-10		12	36	28	9	27	21
	2010-11		28	46	37	14	38	32
	2011-12		15	48	35	20	39	31
	2012-13		34	48	40	23	41	30
	2013-14		36	55	43	28	56	37
	2014-15		26	47	37	26	41	34
	2015-16		28	45	38	20	41	33
Selenium		100						
	2006-07		4.7	13	8.2	1.8	14	5.8
	2007-08		3.0	14	8	1.4	11	5.6
	2008-09		2.5	14.0	9.7	2.8	13	7.5
	2009-10		2.7	18	7.3	2.8	16	5.6
	2010-11		2.8	26	10.6	3.7	26	9.8
	2011-12		ND	26	9	ND	19	9
	2012-13		0	20	9	0	20	8
	2013-14		1.9	13	7.3	2.7	13	7.7
	2014-15		2.9	13.0	6.8	4	15.0	7
	2015-16		2.4	10	7.7	2.2	10	7
Silver		**						
	2006-07		28	36	31	ND	ND	ND
	2007-08		19	25	22	10	15	13
	2008-09		19	24	20.8	9.5	13	11.6
	2009-10		10	18	15	7.4	13	10
	2010-11		10	17	13	5.2	12	9.57
	2011-12		7	14	10	4	12	8.5
	2012-13		6.2	14	8.6	6.4	13	8.6
	2013-14		1.7	7.6	5.7	3.8	9.1	7.0
	2014-15		4.9	7.8	6.7	6	8.6	7
	2015-16		4.6	7.7	6.1	4.2	8.0	6

Trends in Trace Metal Content of Biosolids, Fiscal Years 2007-2016 (Concentration in mg/kg, dry weight)
Orange County Sanitation District, Resource Protection Division TABLE 9.1

		Exceptional		Plant No. 1			Plant No. 2	
Metal	Fiscal Year	Quality Limits	Min.	Max.	Avg.	Min.	Max.	Avg.
Zinc		2,800			F-V-1-	N .U-		
	2005-06		700	910	801	680	900	760
	2006-07		820	1100	900	720	930	790
	2007-08		740	890	806	680	790	716
	2008-09		720	870	785	700	800	749
	2009-10		560	810	741	520	790	710
	2010-11		630	740	696	700	830	740
	2011-12		560	880	709	560	910	749
	2012-13		640	860	723	680	880	768
	2013-14		590	730	671	620	750	700
	2014-15		420	720	620	465	740	669
	2015-16		500	770	617	520	890	733

<sup>\*\*</sup> No 40 CFR Part 503 Exceptional Quality Criteria.

ND = Non-detectable

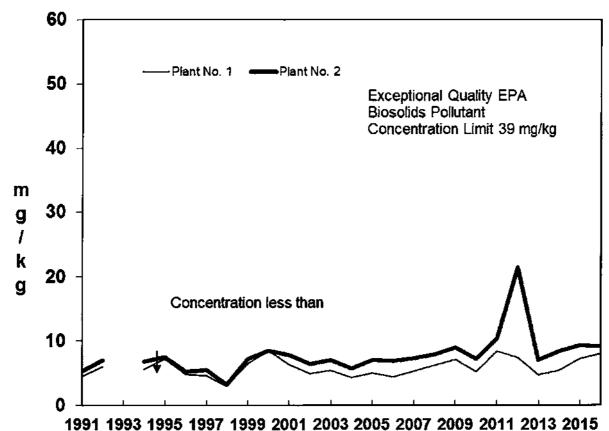


Figure 9-1 Trends in Concentrations of Arsenic in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

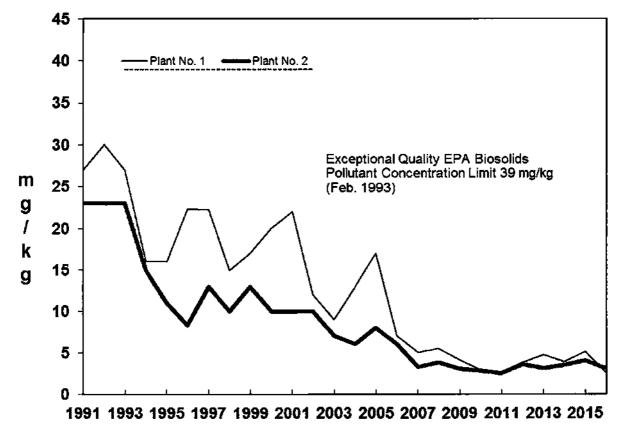


Figure 9-2 Trends in Concentrations of Cadmium in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

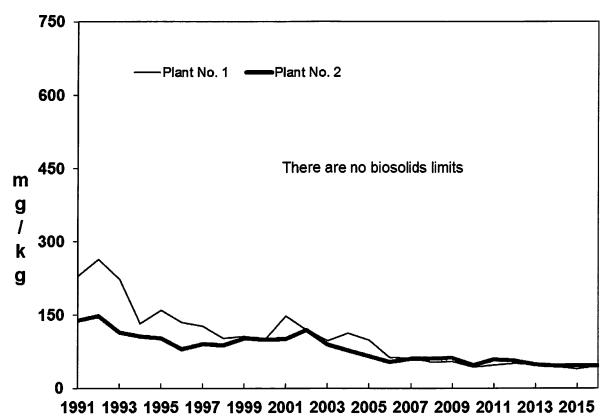


Figure 9-3 Trends in Concentrations of Chromium in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

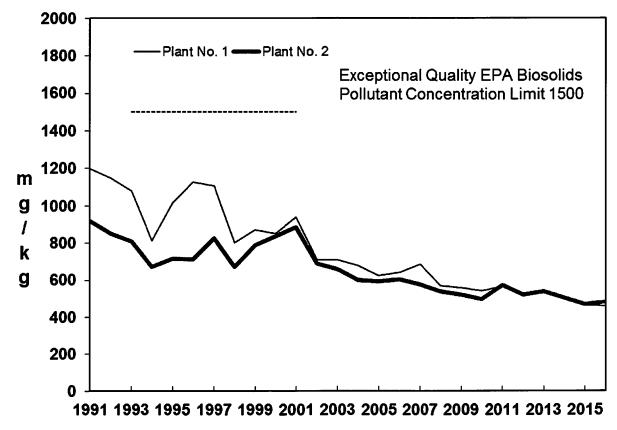


Figure 9-4 Trends in Concentrations of Copper in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

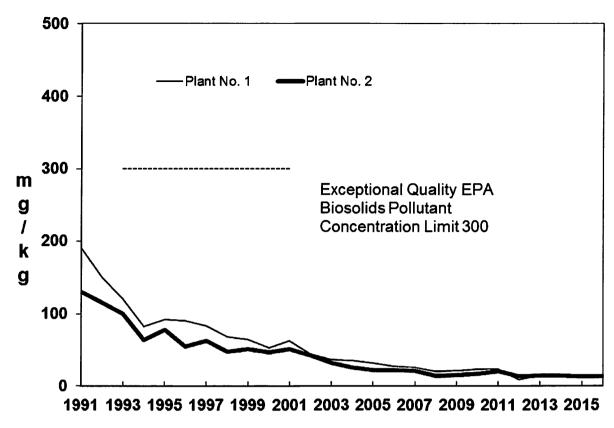


Figure 9-5 Trends in Concentrations of Lead in Biosolids, Fiscal Years 1991-2016 Orange County Sanitation District, Resource Protection Division

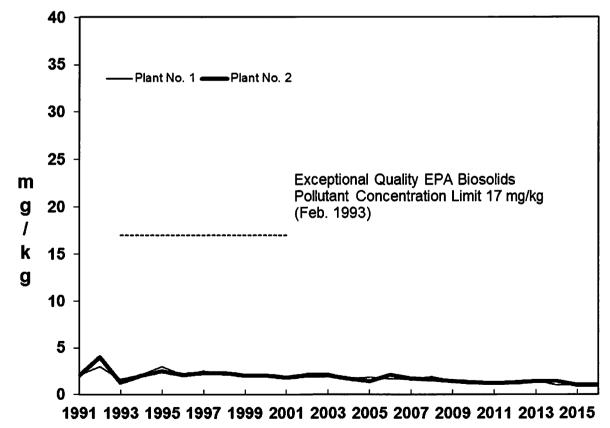


Figure 9-6 Trends in Concentrations of Mercury in Biosolids, Fiscal Years 1991-2016 Orange County Sanitation District

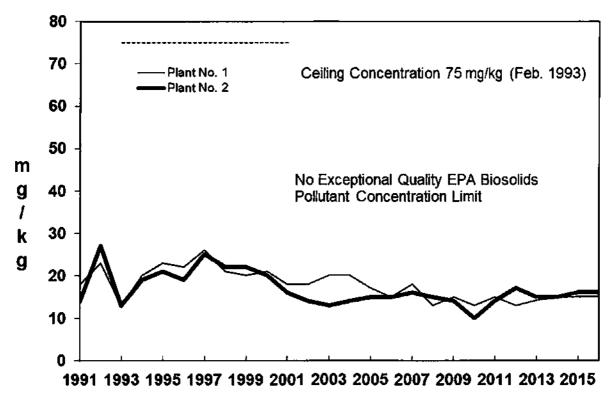


Figure 9-7 Trends in Concentrations of Molybdenum in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

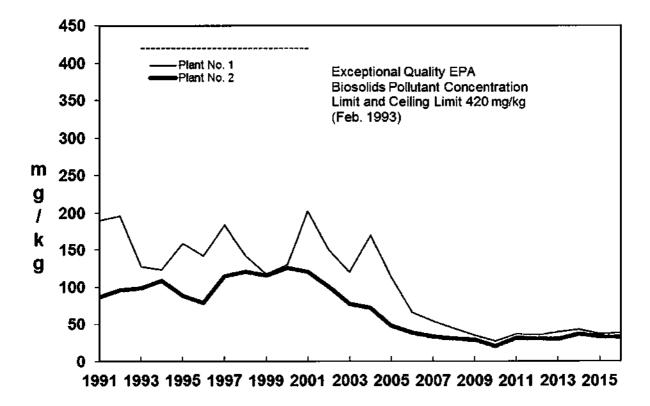


Figure 9-8 Trends in Concentrations of Nickel in Biosolids, Fiscal Years, 1991-2016
Orange County Sanitation District, Resource Protection Division

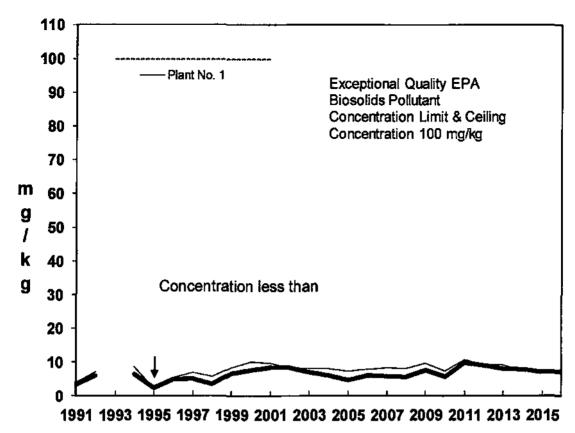


Figure 9-9 Trends in Concentrations of Selenium in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division

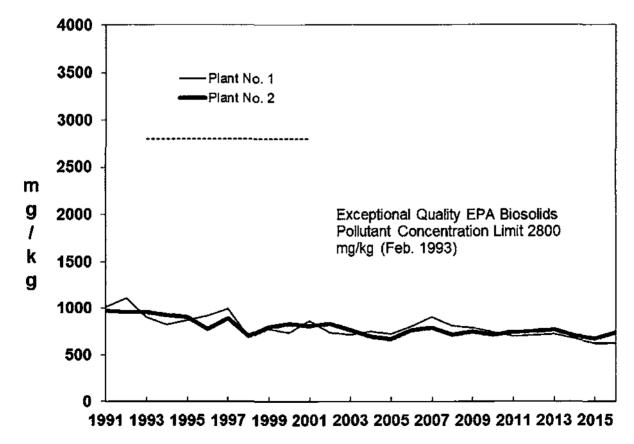
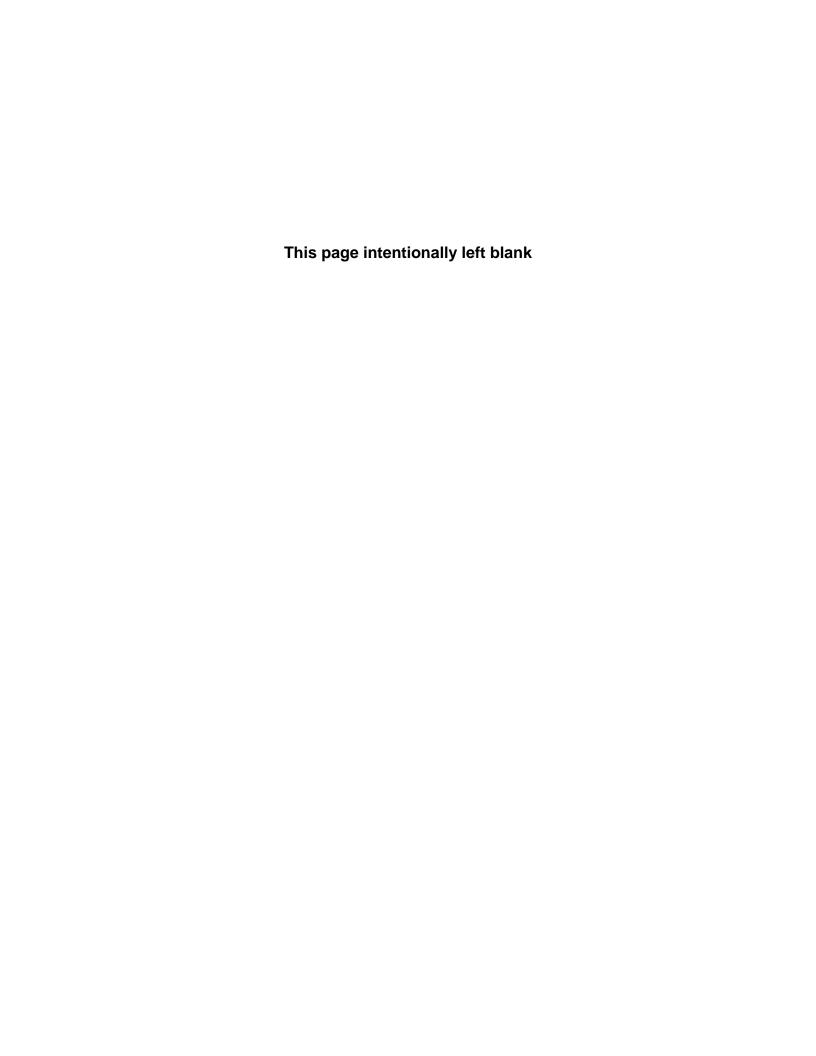


Figure 9-10 Trends in Concentrations of Zinc in Biosolids, Fiscal Years 1991-2016
Orange County Sanitation District, Resource Protection Division



# **APPENDIX C**

Summary of Priority Pollutants and Trace Constituents Analysis 2015 for Biosolids

	Matha	I India	Jan-2		Feb-20		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
General Chemistry														
Hexavalent Chromi														
Plant 1 Cake	EPA 7196A	mg/kg dry	ND	290					ND	150				
Plant 2 Cake	EPA 7196A	mg/kg dry	ND	220					ND	120				
Total Cyanide														
Plant 1 Cake	EPA 9014	mg/kg dry	ND	2.8					ND	2.9				
Plant 2 Cake	EPA 9014	mg/kg dry	3.3	2.2					ND	2.4				
Corrosivity														
Plant 1 Cake	EPA 9045C	-	NEG											
Plant 2 Cake	EPA 9045C	-	NEG											
Nitrate														
Plant 1 Cake	EPA 300.0	mg/kg dry	ND	6.3										
Plant 2 Cake	EPA 300.0	mg/kg dry	11	4.8										
Ammonia Nitrogen	2171000.0	mg/ng ary	1	1.0										
Plant 1 Cake	SM 4500 NH3	ma/ka dry	6150	1400	6000	1400	6150	1400	6550	1500	6400	1600	6200	1500
I latit I Cake	D 200 N 13	ilig/kg uly	0130	1400	0000	1400	0130	1400	0330	1300	0400	1000	0200	1300
Plant 2 Cake	SM 4500 NH3	ma/ka drv	5000	1100	5150	1100	5300	1100	5450	1200	5050	1200	5200	1300
. idin 2 dans	D													
Organic Nitrogen														
Plant 1 Cake	CALC	mg/kg dry	53350		59000		61350		49450		44600		55800	
Plant 2 Cake	CALC	mg/kg dry	44000		44850		45200		44050		40950		43800	
Organic Lead			1		1111111				1		14444		1000	
Plant 1 Cake	HML 939-M	mg/kg dry	ND	.05					ND	.06				
Plant 2 Cake	HML 939-M		ND	.1					ND	.048				
	HIVIL 939-IVI	mg/kg dry	ND	-1	<b></b>	ļ <b>-</b>			ND	.040	-		-	
pH	EDA 00450	.11 .20		1.4			I		7.40	1			I	
Plant 1 Cake	EPA 9045C	pH units	8	.1					7.48	.1				
Plant 2 Cake	EPA 9045C	pH units	7.92	.1					7.61	.1				
Sulfide														
Plant 1 Cake	EPA 9034	mg/kg dry	ND	230										
Plant 2 Cake	EPA 9034	mg/kg dry	250	180										
TKN														
Plant 1 Cake	EPA 351.2	mg/kg dry	59500	7100	65000	7200	67500	6900	56000	7400	51000	7800	62000	7700
Plant 2 Cake	EPA 351.2	mg/kg dry	49000	5700	50000	5600	50500	5700	49500	6000	46000	6100	49000	6300
Total Solids														
Plant 1 Cake	SM 2540G	%	18.5	.05	17.5	.05	18	.05	17.5	.05	17	.05	16.5	.05
Plant 2 Cake	SM 2540G	%	22	.05	22	.05	22	.05	20.5	.05	21	.05	20.5	.05
2 0 0	0 20 .00	,,,		1.00				1.00		1.00			20.0	
Trace Elements														
Fluoride														
Plant 1 Cake	EPA 300.0		25	00										
		mg/kg dry	35	29										
Plant 2 Cake	EPA 300.0	mg/kg dry	32	22										
Potassium														
Plant 1 Cake	EPA 6010B	mg/kg dry	1100	280										
Plant 2 Cake	EPA 6010B	mg/kg dry	900	440										
Mercury														
Plant 1 Cake	EPA 7471A	mg/kg dry	.615	.11	.865	.12	.595	.11	.64	.12	1.65	.13	1.3	.25
Plant 2 Cake	EPA 7471A	mg/kg dry	.645	.089	1.05	.09	.85	.091	.91	.096	.935	.098	1.15	.21
Antimony														
Plant 1 Cake	EPA 6010B	mg/kg dry	4.4	11					ND	12				
Plant 2 Cake	EPA 6010B	mg/kg dry	3.7	8.8					ND	9.5				
Arsenic	217700102	mg/ng ary	0.1	0.0					110	0.0				
Plant 1 Cake	EPA 6010B	mg/kg dry	6.25	1.7	6.4	3.4	8.25	1.7	7	1.8	6.65	1.9	12	3.7
Plant 2 Cake	EPA 6010B	mg/kg dry	6.75	1.4	8.45	2.7	8.65	1.4	8.75	1.5	7.45	1.5	10.45	3.1
Barium	EDV COVO	malka dri	470	5.7					470	5.9				
Plant 1 Cake	EPA 6010B	mg/kg dry										-		
	EPA 6010B	mg/kg dry	980	4.4					1100	4.7				
Plant 1 Cake														

		Jul-2	2016	Aug-2		Sep-2		Oct-2		Nov-2		Dec-2	016	Annua
	Units	Average	RL	Mean										
eneral Chemistry														
Hexavalent Chromi	um													
Plant 1 Cake	mg/kg dry	ND	62					ND	130					< 290
Plant 2 Cake	mg/kg dry	ND	51					ND	230					< 230
Total Cyanide														
Plant 1 Cake	mg/kg dry	2.7	3.1					ND	2.7					2.7
Plant 2 Cake	mg/kg dry	ND	2.5					ND	2.3					3.3
Corrosivity														
Plant 1 Cake	-	NEG												NEG
Plant 2 Cake	-	NEG												NEG
Nitrate												l		
Plant 1 Cake	mg/kg dry	ND	6.8										I I	<6.8
Plant 2 Cake	mg/kg dry	ND	5.6											11
Ammonia Nitrogen	ilig/kg diy	IND	3.0										1	- ''
Plant 1 Cake	mg/kg dry	6350	1500	6250	1600	6550	1600	6150	1300	6350	1500	6500	1500	6,300
Plant I Cake	nig/kg dry	0330	1500	0230	1600	0000	1600	6130	1300	6330	1500	6500	1500	6,300
Plant 2 Cake	mg/kg dry	5050	1300	4700	1200	5050	1200	5300	1200	5100	1200	7800	1300	5,300
Organic Nitrogen														
Plant 1 Cake	mg/kg dry	54150		55250		58450		51350		50150		54500		54,00
Plant 2 Cake	mg/kg dry	52450		50300		45450		45200		42400		40700		45,00
Organic Lead														
Plant 1 Cake	mg/kg dry	ND	.11					ND	.28					<0.28
Plant 2 Cake	mg/kg dry	ND	.094					ND	.26					<0.26
pH	0 0 7											l		
Plant 1 Cake	pH units	7.92	.1		T			7.9	.1					7.8
Plant 2 Cake	pH units	7.81	.1					8	.1					7.8
Sulfide	pri dinto	7.01							1					
Plant 1 Cake	mg/kg dry	3400	250				1				T			3,400
Plant 2 Cake		12000	200											•
	mg/kg dry	12000	200				-		-					6,100
TKN	/	00500	7000	04500	0000	05000	7000	F7F00	0700	50500	7500	04000	7400	00.00
Plant 1 Cake	mg/kg dry	60500	7600	61500		65000		57500	6700	56500		61000	7400	60,00
Plant 2 Cake	mg/kg dry	57500	6200	55000	5800	50500	6200	50500	6100	47500	6000	48500	6300	50,00
Total Solids												ı		
Plant 1 Cake	%	17	.05	16	.05	16.5	.05	19	.05	17.5	.05	17	.05	17
Plant 2 Cake	%	20	.05	21	.05	20.5	.05	21	.05	21	.05	20.5	.05	21
race Elements														
Fluoride														
Plant 1 Cake	mg/kg dry	37	31											36
Plant 2 Cake	mg/kg dry	33	26											33
Potassium														
Plant 1 Cake	mg/kg dry	1400	310											1300
Plant 2 Cake	mg/kg dry	1000	250											950
Mercury	9,9 4)													
Plant 1 Cake	mg/kg dry	.815	.12	.525	.13	.935	.13	.865	.11	.815	.12	1.005	.12	0.89
Plant 2 Cake	mg/kg dry	.935	.099	.72	.096	1.15	.099	.52	.098	.88	.096	.815	.12	0.88
	mg/kg ury	.533	.033	.12	.090	1.10	.039	.52	.050	.00	.080	.010	1.1	0.08
Antimony	m m/l:=: -l=	ND	10				1	2.6	11					۰.
Plant 1 Cake	mg/kg dry	ND	12					2.6	11					3.5
Plant 2 Cake	mg/kg dry	1.8	10					3.1	9.1					2.9
Arsenic		I =			-		I						'	
Plant 1 Cake	mg/kg dry	7.95	1.9	6.7	2	7.55	1.9	6.7	1.6	7.55	1.8	7.65	1.8	7.6
Plant 2 Cake	mg/kg dry	7.5	1.5	5.6	1.4	6.65	1.5	7.15	1.5	6.4	1.4	6.25	1.5	7.5
Barium														
Plant 1 Cake	mg/kg dry	520	6.2					500	5.4					490
Plant 2 Cake	mg/kg dry	970	5					810	4.6					970
Beryllium	·		'	'	'									
			.62											

			Jan-2	2016	Feb-2	016	Mar-2	2016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 6010B	mg/kg dry	ND	.44					ND	.47				
Cadmium														
Plant 1 Cake	EPA 6010B	mg/kg dry	1.6	1.1	1.8	2.3	2.4	1.1	1.25	1.2	1.3	1.2	2.65	2.5
Plant 2 Cake	EPA 6010B	mg/kg dry	2.3	.9	2.9	1.8	3.1	.93	2.15	.97	2	.99	3.05	2
Chromium		0 0 7												
Plant 1 Cake	EPA 6010B	mg/kg dry	32.5	4.6	31	9.2	87.6667	4.5	88.5	4.7	47	5	44	9.8
Plant 2 Cake	EPA 6010B	mg/kg dry	34	3.6	33.5	7.3	66.6667	3.7	55	3.9	44	4	47	8.2
Cobalt		3. 3 . 7	1	1				1-		1				
Plant 1 Cake	EPA 6010B	mg/kg dry	2.9	5.7					3.2	5.9				
Plant 2 Cake	EPA 6010B	mg/kg dry	3.1	4.4					3.6	4.7				
Copper		3. 3 . 7	1											
Plant 1 Cake	EPA 6010B	mg/kg dry	385	2.8	440	5.7	450	2.8	475	3	405	3.1	450	6.1
Plant 2 Cake	EPA 6010B	mg/kg dry	405	2.3	445	4.5	490	2.3	520	2.4	455	2.5	460	5.1
Iron	L177 00 10D	mg/kg dry	400	2.0	110	7.0	400	2.0	020	2.7	100	2.0	400	0.1
Plant 1 Cake	EPA 6010B	mg/kg dry	55000	34	46000	69	55000	34	64500	35	57500	37	70000	74
Plant 2 Cake	EPA 6010B		64500	27	61500		68500		70500		69000	30	71000	61
	LI A UU IUD	mg/kg dry	04300	<b>L</b> I	01000	55	00000	28	10000	29	03000	30	7 1000	O I
Lead	EDA 6040D	malia da	0.4	11	0.4	22	10.4	11	12 5	10	0.65	10	0.25	25
Plant 1 Cake Plant 2 Cake	EPA 6010B EPA 6010B	mg/kg dry	9.1		8.4	23	10.4	11	13.5	12	8.65	12	8.25	25
	EPA 6010B	mg/kg dry	9.7	9	10.15	18	11.5	9.3	14.5	9.7	11	9.9	9.65	20
Magnesium	EDA 00:55		4.4=0		0000	4	00=0	F.0	4===	F.0	4050	0.0	5000	400
Plant 1 Cake	EPA 6010B	mg/kg dry	4450	57	3300	110	3650	56	4750	59	4650	62	5200	120
Plant 2 Cake	EPA 6010B	mg/kg dry	5050	88	5200	91	5500	46	5850	49	6050	50	5750	100
Molybdenum										_				
Plant 1 Cake	EPA 6010B	mg/kg dry	12	5.7	11.25	11	12	5.6	14.5	5.9	12.5	6.2	15	12
Plant 2 Cake	EPA 6010B	mg/kg dry	11	4.5	12.5	9.1	13.5	4.6	15.5	4.9	15	5	16	10
Nickel														
Plant 1 Cake	EPA 6010B	mg/kg dry	43.5	11	28.5	23	30.5	11	35.5	12	34	12	43	25
Plant 2 Cake	EPA 6010B	mg/kg dry	41	9	31	18	32.5	9.3	30.5	9.7	28.5	9.9	32	20
Phosphorus														
Plant 1 Cake	EPA 6010B	mg/kg dry	33000	91										
Plant 2 Cake	EPA 6010B	mg/kg dry	26000	71										
Selenium														
Plant 1 Cake	EPA 6010B	mg/kg dry	9.65	2.8	9.8	5.7	9.05	2.8	10.45	3	4.4	3.1	9.3	6.1
Plant 2 Cake	EPA 6010B	mg/kg dry	9.4	4.4	7.6	4.5	8.35	2.3	10.35	2.4	5.45	2.5	8.8	5.1
Silver														
Plant 1 Cake	EPA 6010B	mg/kg dry	4.65	1.7	4.85	3.4	5.95	1.7	5.75	1.8	5.1	1.9	5.9	3.7
Plant 2 Cake	EPA 6010B	mg/kg dry	5	1.4	5.6	2.7	6.5	1.4	4.85	1.5	5.15	1.5	4.8	3.1
Thallium		0 0 7												
Plant 1 Cake	EPA 6010B	mg/kg dry	ND	17					ND	18				
Plant 2 Cake	EPA 6010B	mg/kg dry	ND	13					1	14				
Vanadium		9,9 4)	=	1.0					'	1				
Plant 1 Cake	EPA 6010B	mg/kg dry	28	5.7					25	5.9				
Plant 2 Cake	EPA 6010B	mg/kg dry	58	4.4					49	4.7				
Zinc	LI A 0010B	ilig/kg diy	30	7.7		-	-		43	4.7		1		1
Plant 1 Cake	EPA 6010B	mg/kg dry	535	4.6	500	9.2	560	4.5	635	4.7	535	5	630	9.8
												4		
Plant 2 Cake	EPA 6010B	mg/kg dry	615	3.6	635	7.3	730	3.7	760	3.9	695	4	720	8.2
FOLD. Trace Flames														
CLP - Trace Elemer	nts													
Mercury						_								
Plant 1 Cake	EPA 7470A-	mg/L	ND	.002										
Dlant 2 Cake	TCLP(1311)	ma/l	ND	002			 							
Plant 2 Cake	EPA 7470A- TCLP(1311)	mg/L	ND	.002										
Arsenic	(.011)													
Plant 1 Cake	EPA 6010B-	mg/L	ND	.2										
	TCLP(1311)	J												
Plant 2 Cake	EPA 6010B-	mg/L	ND	.2										
	TCLP(1311)	3												

		Jul-2	2016	Aug-2	016	Sep-2	016	Oct-2	016	Nov-2	016	Dec-2	016	Annual
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 2 Cake	mg/kg dry	ND	.5					ND	.46					<0.50
Cadmium						·		·						
Plant 1 Cake	mg/kg dry	3.1	1.2	2.55	1.3	3.55	1.3	6.1333	1.1	5.95	1.2	4.15	1.2	3.0
Plant 2 Cake	mg/kg dry	3.45	1	3.55	.95	4.5	.99	6.0667	.98	6.65	.96	5.15	1	3.7
Chromium														
Plant 1 Cake	mg/kg dry	45.5	4.9	29.5	5.3	38	5	39.5	4.3	34	4.8	35	4.8	46
Plant 2 Cake	mg/kg dry	43.5	4	40	3.8	42.5	4	39	3.9	39	3.9	40	4.1	44
Cobalt			'											
Plant 1 Cake	mg/kg dry	ND	6.2					ND	5.4					3.1
Plant 2 Cake	mg/kg dry	ND	5					ND	4.6					3.4
Copper														1
Plant 1 Cake	mg/kg dry	490	3.1	395	3.3	515	3.1	485	2.7	440	3	420	3	450
Plant 2 Cake	mg/kg dry	505	2.5	475	2.4	510	2.5	490	2.4	530	2.4	485	2.5	480
Iron			-	-										
Plant 1 Cake	mg/kg dry	61500	37	49500	40	62500	38	80000	32	72500	36	67000	36	62,000
Plant 2 Cake	mg/kg dry	66000	30	67000	29	63000	30	66000	29	70500	29	75000	30	68,000
Lead	JJ J	1	1	1		1	1	1				1	1 - "	,
Plant 1 Cake	mg/kg dry	8.6	12	7.9	13	11.5	13	11	11	13.5	12	8.65	12	10
Plant 2 Cake	mg/kg dry	9.1	10	12	9.5	13.5	9.9	13	9.8	14.5	9.6	12.5	10	12
Magnesium	g,g ury	3.1	1.0		0.0	10.0	0.0	1.0	0.0		0.0	12.0	1.5	
Plant 1 Cake	mg/kg dry	5450	62	5100	67	4250	63	6150	54	5550	60	4900	60	4800
Plant 2 Cake	mg/kg dry	5850	50	5700	48	6000	50	5650	49	6450	48	6550	51	5800
Molybdenum	mg/kg ury	3030	30	3700	+0	0000	30	3030	73	UTJU	10	0000	J 1	3000
Plant 1 Cake	ma/ka dn	15.5	6.2	12	6.7	21	6.3	16	5.4	14.5	6	13.5	6	14
	mg/kg dry		5	14.5							4.8			
Plant 2 Cake	mg/kg dry	17	5	14.5	4.8	17	5	15.5	4.9	15	4.8	15	5.1	15
Nickel	/	00.5	40	0.5	40	00.5	40	00	4.4	00.5	10	07	40	
Plant 1 Cake	mg/kg dry	38.5	12	25	13	36.5	13	30	11	26.5	12	27	12	33
Plant 2 Cake	mg/kg dry	29.5	10	30	9.5	35	9.9	29.5	9.8	31.5	9.6	26.5	10	31
Phosphorus		1					_							
Plant 1 Cake	mg/kg dry	34000	99											34,000
Plant 2 Cake	mg/kg dry	31000	80											29,000
Selenium														
Plant 1 Cake	mg/kg dry	7.95	3.1	9.3	3.3	8.75	3.1	8.05	2.7	8.6	3	5.35	3	8.4
Plant 2 Cake	mg/kg dry	7.8	2.5	6.7	2.4	8.25	2.5	6.9	2.4	6	2.4	3.75	2.5	7.4
Silver														
Plant 1 Cake	mg/kg dry	6.2	1.9	3.7	2	5	1.9	5.6	1.6	5.3	1.8	5.2	1.8	5.3
Plant 2 Cake	mg/kg dry	5.65	1.5	4.5	1.4	5.8	1.5	6.55	1.5	6.75	1.4	5.4	1.5	5.5
Thallium														
Plant 1 Cake	mg/kg dry	ND	19					ND	16					<19
Plant 2 Cake	mg/kg dry	ND	15					ND	14					1.0
Vanadium														
Plant 1 Cake	mg/kg dry	25	6.2					23	5.4					25
Plant 2 Cake	mg/kg dry	48	5					44	4.6					50
Zinc	<del></del>	!			-!	!		!			-	!	-!	
Plant 1 Cake	mg/kg dry	665	4.9	545	5.3	700	5	670	4.3	600	4.8	610	4.8	600
Plant 2 Cake	mg/kg dry	785	4	725	3.8	750	4	735	3.9	760	3.9	755	4.1	720
	J. J J	-		-		-		-				-		
CLP - Trace Elemen	ts													
Mercury														
Plant 1 Cake	mg/L	ND	.002											<0.0020
Plant 2 Cake	mg/L	ND	.002											<0.0020
Arsenic														
Plant 1 Cake	mg/L	ND	.2											<0.20
i lant i Carc		1	1	1		1			1	1		1		
Plant 2 Cake			.2											<0.20

			Jan-	2016	Feb-20	016	Mar-2	2016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Barium														
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	.32	.2										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	.47	.2										
Cadmium														
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Chromium														
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Lead	, ,													
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.1										
Selenium	. ,					-								
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	.13	.1										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	.12	.1										
Silver														
Plant 1 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.2										
Plant 2 Cake	EPA 6010B- TCLP(1311)	mg/L	ND	.2										
TLC - Trace Elemen	nts													
Antimony														
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Arsenic														
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Barium														
Plant 1 Cake	EPA 6010B- STLC	mg/L	7	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	21	.2										
Beryllium														
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.08										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.08										
Cadmium				1	'	-		-				-		
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.1										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.1										
Chromium							1			1	1	1	1	
Plant 1 Cake	EPA 6010B- STLC	mg/L	.47	.1										
Plant 2 Cake	EPA 6010B- STLC	mg/L	.65	.1										
					-	1	1				1		1	
Cobalt														

	11.2	Jul-2		Aug-2		Sep-2		Oct-2		Nov-2		Dec-2		Annua Mean
D	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	wean
Barium Plant 1 Cake	mg/L	.19	.2											0.26
Platit I Cake	IIIg/L	.19	.2											0.26
Plant 2 Cake	mg/L	.47	.2											0.47
Cadmium														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Chromium														
Plant 1 Cake	mg/L	ND	.1											<0.10
	9/=													40110
Plant 2 Cake	mg/L	ND	.1											<0.10
Lead														
Plant 1 Cake	mg/L	ND	.1											<0.10
	<u> </u>													
Plant 2 Cake	mg/L	ND	.1											<0.10
Selenium									[					
Plant 1 Cake	mg/L	ND	.1											0.13
	<i>3</i>													
Plant 2 Cake	mg/L	ND	.1											0.12
Silver														
Plant 1 Cake	mg/L	ND	.2		T		T		Ī		T			<0.20
riant round	9, =													40.20
Plant 2 Cake	mg/L	ND	.2											<0.20
LC - Trace Elemen	te													
Antimony														
Plant 1 Cake	mg/L	.15	.2											0.15
Plant 2 Cake	mg/L	.15	.2											0.15
Arsenic														
Plant 1 Cake	mg/L	ND	.2											<0.20
	_													
Plant 2 Cake	mg/L	ND	.2											<0.20
Barium														
Plant 1 Cake	mg/L	6.5	.2								1			6.8
	9, =													0.0
Plant 2 Cake	mg/L	8.9	.2											15
Beryllium														
Plant 1 Cake	mg/L	ND	.08		T						T		T	<0.080
riant round	9, =													40.000
Plant 2 Cake	mg/L	ND	.08											<0.080
Cadmium														
Plant 1 Cake	mg/L	ND	.1											<0.10
I lant I Care	mg/L	IND												<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Oh														
Chromium	ma/l	.57	.1											0.50
Plant 1 Cake	mg/L	.31	. 1									1		0.52
Plant 2 Cake	mg/L	.56	.1											0.61
<b>.</b>														
Cobalt		ND	0											
Plant 1 Cake	mg/L	ND	.2											<0.20

		11.2	Jan-		Feb-2	-	Mar-2		Apr-2		May-2		Jun-2	
Diamet O Calva	Method	Units	Average	RL	Average	RL	Average	RL		RL	Average	RL		RL
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Copper														
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Lead														
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.1										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.1										
Mercury	OTEO													
Plant 1 Cake	EPA 7470A-	mg/L	ND	.002										
Plant 2 Cake	STLC EPA 7470A-	mg/L	ND	.002										
	STLC	mg/L	IND	.002										
Molybdenum														
Plant 1 Cake	EPA 6010B- STLC	mg/L	.11	.4										
Plant 2 Cake	EPA 6010B- STLC	mg/L	.12	.4										
Nickel	0.20													
Plant 1 Cake	EPA 6010B- STLC	mg/L	.75	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	.85	.2										
Selenium														
Plant 1 Cake	EPA 6010B- STLC	mg/L	.3	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	.29	.2										
Silver	OTEO													
Plant 1 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Plant 2 Cake	EPA 6010B- STLC	mg/L	ND	.2										
Thallium	SILC													
Plant 1 Cake	EPA 6010B-	mg/L	ND	.2										
Plant 2 Cake	STLC EPA 6010B-	mg/L	ND	.2										
Vanadium	STLC													
Plant 1 Cake	EPA 6010B-	mg/L	.44	.2										
Plant 2 Cake	STLC EPA 6010B-	mg/L	1.2	.2										
<b>7</b>	STLC													
Zinc Plant 1 Cake	EPA 6010B-	mg/L	6.4	.4										
Plant 2 Cake	STLC EPA 6010B-	mg/L	5.5	.4										
	STLC													
latile Organic Com	pounds													
1,1,1,2-Tetrachloro														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
1,1,1-Trichloroetha			-		-	-	+		-	-	+	-		-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,1,2,2-Tetrachloro	ethane													
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,1,2-Trichloroetha		10 0)	ı		I		I		1				1	

		Jul-2		Aug-2		Sep-2		Oct-2		Nov-2		Dec-2		Annual
Diamet O. Calva	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 2 Cake	mg/L	ND	.2											<0.20
Copper														
Plant 1 Cake	mg/L	ND	.2											<0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
Lead														
Plant 1 Cake	mg/L	ND	.1				T				T			<0.10
Tiant Toake	IIIg/L	IND	-'			-		-						<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Mercury														
Plant 1 Cake	mg/L	ND	.002											<0.0020
Plant 2 Cake	ma/l	ND	.002											-0.000
Plant 2 Cake	mg/L	ND	.002											<0.0020
Molybdenum														
Plant 1 Cake	mg/L	.07	.4											0.090
	3													
Plant 2 Cake	mg/L	.073	.4											0.10
<b>.</b>														
Nickel		10												
Plant 1 Cake	mg/L	.43	.2											0.59
Plant 2 Cake	mg/L	.25	.2											0.55
riant 2 date	mg/L	.20												0.55
Selenium														
Plant 1 Cake	mg/L	ND	.2											0.30
Plant 2 Cake	mg/L	ND	.2											0.29
Silver														
Plant 1 Cake	mg/L	ND	.2											<0.20
Plant I Cake	mg/L	טאו	.2											<0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
	J													
Thallium														
Plant 1 Cake	mg/L	ND	.2											<0.20
DI ( 0 0 . l	/1	ND												
Plant 2 Cake	mg/L	ND	.2											<0.20
Vanadium														
Plant 1 Cake	mg/L	.37	.2		Ī									0.41
i ani i cano	g/ =		- <u>-</u>											0.41
Plant 2 Cake	mg/L	.82	.2											1.0
Zinc														
Plant 1 Cake	mg/L	2.7	.4											4.6
Plant 2 Cake	mg/L	.23	.4											2.9
Flant 2 Cake	IIIg/L	.23	.4											2.9
latile Organic Com	oounds													
1,1,1,2-Tetrachloro														
Plant 1 Cake	μg/kg dry	ND	150				T	ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
1,1,1-Trichloroetha			.00		-						_			7 _ 700
Plant 1 Cake	μg/kg dry	ND	60				T	ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,1,2,2-Tetrachloro		110	00				1	110	1					¬ J-10
Plant 1 Cake	µg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,1,2-Trichloroetha		1,10	100	1			1	110					1	~ J+U

			Jan	-2016	Feb-2	016	Mar-2	2016	Apr	-2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,1-Dichloroethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				T
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,1-Dichloroethene		100										-		-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
1,1-Dichloropropene		F-9/9 47	1	1					1					
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	1100	ND	1200		Ī		
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,2,3-Trichlorobenze		pg/ng ary	110	10			110	000	ITTE	0.10				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry μg/kg dry	ND	110			ND	2200	ND	2400				
		µg/kg ury	IND	110			IND	2200	IND	2400	<del></del>			
1,2,3-Trichloropropa		ar/lear alme	ND	200			ND	5400	NID	F000				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	280			ND		ND	5900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	220			ND	4500	ND	4700				
1,2,4-Trichlorobenze			T	1					1					
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
1,2,4-Trimethylbenz														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,2-Dibromo-3-chlor	ropropane													
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
1,2-Dibromoethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,2-Dichlorobenzene	e	100										-		-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57		Ī	ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,2-Dichloroethane	2.7.02002	µ9,119 a.)					,,,,,	000		0.0				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,2-Dichloropropane		µg/kg dry	IND	7-0			IND	030	IND	340				
		a./l.ca. alm.r	ND	F7			ND	1100	ND	1200				_
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,3,5-Trichlorobenze									1					
Plant 1 Cake	EPA 8260B	μg/kg dry					ND	2200	ND	2400				
Plant 2 Cake	EPA 8260B	μg/kg dry					ND	1800	ND	1900				
1,3,5-Trimethylbenz														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,3-Dichlorobenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,3-Dichloropropane	Э												,	
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				<b> </b>
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
1,4-Dichlorobenzene			-		-	-	-	-	+		-			-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
I Idill Z Care		1.00 4.7	_	1.5			-	1		1		1	1	
	3						ND	2200	ND	2400		T		T
2,2-Dichloropropane		ua/ka dry	ND	57						- TUU				1 "
2,2-Dichloropropane Plant 1 Cake	EPA 8260B	μg/kg dry	ND ND	57 43		-				1000				
2,2-Dichloropropane Plant 1 Cake Plant 2 Cake		μg/kg dry μg/kg dry	ND ND	57 43			ND	1800	ND	1900				
2,2-Dichloropropane Plant 1 Cake Plant 2 Cake 2-Chlorotoluene	EPA 8260B EPA 8260B	μg/kg dry	ND	43			ND	1800	ND					
2,2-Dichloropropane Plant 1 Cake Plant 2 Cake	EPA 8260B					-				1900 2900 2400				

	l loita		l-2016	Aug-2		Sep-20			:-2016	Nov-2		Dec-20		Annua Mean
	Units	Average		Average	RL	Average	RL	Averag		Average	RL	Average	RL	
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,1-Dichloroethane														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,1-Dichloroethene														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
1,1-Dichloropropen	е													
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,2,3-Trichlorobenz	ene													
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 290
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 240
1,2,3-Trichloropropa														
Plant 1 Cake	μg/kg dry	ND	300		Ī			ND	260					< 5900
Plant 2 Cake	μg/kg dry	ND	250					ND	220					< 4700
1,2,4-Trichlorobenz		ואט	200		1		1	שויו	220	1	1	1		_ ~ <del>~</del> 7700
Plant 1 Cake		ND	150	1	T_		1_	ND	130	1			1	< 290
	μg/kg dry										-			
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 240
1,2,4-Trimethylbenz														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	36	50					ND	44					36
1,2-Dibromo-3-chlo	ropropane													
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 290
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 240
,2-Dibromoethane														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,2-Dichlorobenzen												_		
Plant 1 Cake	μg/kg dry	ND	60		Ī			ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,2-Dichloroethane	pg/kg dry	140	00					IND						\ 340
Plant 1 Cake	μg/kg dry	ND	60					ND	52		T			< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					
		ND	50			-		ND	44			-	-	< 940
1,2-Dichloropropan		1							1					
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,3,5-Trichlorobenz														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					<240
Plant 2 Cake	μg/kg dry	ND	50					ND	44					<1900
1,3,5-Trimethylbenz	zene			-										
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,3-Dichlorobenzen							1			1				
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
1,3-Dichloropropan		ויוט	30				1	טייו	7-7	1	1			\ 34U
·		ND	60		T			ND	E2		1			. 420
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
,4-Dichlorobenzen								=	l					
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 120
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
2,2-Dichloropropan														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					<240
Plant 2 Cake	μg/kg dry	ND	50					ND	44					<1900
2-Chlorotoluene		'	'			'		'	'			'		
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 290
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 240
= Ouno	1.5.1.5 4.7													

			Jan-2	2016	Feb-2	016	Mar-2	016	Apr-2	016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B	μg/kg dry					ND	14000	ND	15000				
Plant 2 Cake	EPA 8260B	μg/kg dry					ND	11000	ND	12000				
4-Chlorotoluene						-								-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				T
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
ACETONITRILE		F-997		1										
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	1100										
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	860										
Acrolein	217102002	pg/ng ary	110	000										
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	2800			ND	54000	ND	59000				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	2200			ND	45000		47000				
Acrylonitrile	LI A 0200B	µg/kg ury	IND	2200			IND	43000	IND	47000				
Plant 1 Cake	EPA 8260B	ua/ka day	ND	2800			ND	54000	NID	59000				
		μg/kg dry					ND							
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	2200			ND	45000	טא	47000				
Benzene	ED4 0000D	, ,	lub.				LIB	11100	LUB.	1000				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Bromobenzene	ED4 0000D		LIB	1440			LIB	Ja=00	lub.	0000				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Bromochlorometha				1										
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Bromodichlorometh								1						
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Bromoform														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Bromomethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Carbon tetrachlorid														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Chlorobenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Chloroethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Chloroform														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Chloromethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
cis-1,2-Dichloroethe														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
cis-1,3-Dichloropro														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Dibromochlorometh														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				-
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Dibromomethane														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				

		Jul-2		Aug-2		Sep-2		Oct-2		Nov-2		Dec-2		Annual
	Units	Average	RL	Average	RL		RL	Average	RL	Average	RL	Average	RL	Mean
Plant 1 Cake	μg/kg dry	ND	750					500	650					500
Plant 2 Cake	μg/kg dry	ND	630					ND	550					<12,000
4-Chlorotoluene														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
ACETONITRILE														
Plant 1 Cake	μg/kg dry													< 1100
Plant 2 Cake	μg/kg dry													< 860
Acrolein														
Plant 1 Cake	μg/kg dry	ND	3000					ND	2600					< 59,000
Plant 2 Cake	μg/kg dry	ND	2500					ND	2200					< 47,000
Acrylonitrile	P-3/37		1-444											,
Plant 1 Cake	μg/kg dry	ND	3000					ND	2600		Ī			< 59,000
Plant 2 Cake	μg/kg dry	ND	2500					ND	2200					< 47,000
	µg/kg diy	IND	2300					IND	2200					< 47,000
Benzene		ND	00					ND						. 4000
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Bromobenzene		ND	450		1			NID	400		1			
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Bromochlorometha		NE	450					NE	400					
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Bromodichlorometh									1					
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Bromoform							_						_	
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Bromomethane														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Carbon tetrachlorid	е													
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Chlorobenzene														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Chloroethane		-				-		-		-		-		-
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Chloroform		-				-		-		-		-		-
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Chloromethane														
Plant 1 Cake	μg/kg dry	ND	150					60	130					60
Plant 2 Cake	μg/kg dry	ND	130					200	110					200
cis-1,2-Dichloroeth		1		1		1		1	1	1				
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
cis-1,3-Dichloropro						-	-	-		!		-		
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Dibromochlorometh					-		-		1	!	-			1 3 10
Plant 1 Cake	μg/kg dry	ND	60		T			ND	52		T		T	< 1200
Plant 2 Cake	μg/kg dry μg/kg dry	ND	50					ND	44					< 940
Dibromomethane	µg/ng ury	110	50					110	77		1			<b>\ 340</b>
Plant 1 Cake	μg/kg dry	ND	60					ND	52		1			< 1200
Plant 2 Cake			50		-		_	ND	44	-	μ-			
riani z Cake	μg/kg dry	ND	50					טאו	44					< 940

			Jan-	2016	Feb-2	016	Mar-2	2016	Apr-	2016	May-2	016	Jun-20	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Dichlorodifluoromet	hane													
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Ethylbenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Hexachlorobutadier		13.3.7						1						-
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140		T	ND	2700	ND	2900				T
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Isobutyl alcohol	LI A 0200D	pg/kg dry	IND	110			IND	2200	IND	2400				-
	EDA 0000D	ua/ka dak	ND	1400			ND	E 4000	ND	59000				
Plant 1 Cake	EPA 8260B	μg/kg dry						54000						-
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	1100			ND	45000	ND	47000				
Isopropylbenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
m,p-Xylenes														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	86			ND	1800	ND	1900				
Methyl ethyl ketone		F-5''-8''-1'						. 550	1			1		
Plant 1 Cake	EPA 8260B	ua/ka da	540	280			ND	11000	ND	12000				
		μg/kg dry												
Plant 2 Cake	EPA 8260B	μg/kg dry	2400	220			ND	8900	ND	9400				
Methylene Chloride						_								
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	570			ND	11000	ND	12000				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	430			ND	8900	ND	9400				
MIBK														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	5400	ND	5900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	4500	ND	4700				
Naphthalene		µ9/.19 a.)		10			=	1000						
<u> </u>	EDA OSCOD	ua/ka da	NID	140		T	ND	2700	ND	2000		T		
Plant 1 Cake	EPA 8260B	μg/kg dry	ND				ND			2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
n-Butylbenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
n-Propylbenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
o-Xylene		F-9-1-9 -1-7		1.4						• • •				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
						-						-		-
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
sec-Butylbenzene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Styrene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
tert-Butylbenzene		µ9/.19 4.7		1.0			=	000		0.0				
Plant 1 Cake	EPA 8260B	ua/ka dak	ND	140			ND	2700	ND	2900				1
		μg/kg dry				-								-
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Tetrachloroethene														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Toluene						-								
Plant 1 Cake	EPA 8260B	μg/kg dry	110	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	34	43			ND	890	ND	940				
trans-1,2-Dichloroe		Maying ury	٠,	1.0			1,10	000	110	0.40		1		
			ND	E-7			NID	4400	NID	4000				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200 940				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	0.40				

		Ju	l-2016	Aug-2	016	Sep-20		Oct-	2016	Nov-2		Dec-2		Annual
	Units	Average	e RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Dichlorodifluoromet	hane													
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Ethylbenzene														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Hexachlorobutadier	ne	-	-	-!				-		-		-		
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Isobutyl alcohol	100,				-									
Plant 1 Cake	μg/kg dry	ND	1500		Ī			ND	1300					< 59,000
Plant 2 Cake	μg/kg dry	ND	1300					ND	1100					< 47,000
	µg/kg ury	IND	1300					IND	1100					< <del>4</del> 1,000
Isopropylbenzene		ND	00				1	ND	<b>50</b>		1		1	4000
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
m,p-Xylenes														
Plant 1 Cake	μg/kg dry	ND	120					ND	100					< 2400
Plant 2 Cake	μg/kg dry	ND	100					ND	89					<1900
Methyl ethyl ketone												,		
Plant 1 Cake	μg/kg dry	ND	300					4600	260					2,600
Plant 2 Cake	μg/kg dry	930	250					ND	220					1,700
Methylene Chloride		1					1			1				.,,,,,
Plant 1 Cake	μg/kg dry	ND	600					ND	530					<12,000
Plant 2 Cake			500						440					,
	μg/kg dry	ND	500					ND	440					<9400
MIBK														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 5900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 4700
Naphthalene														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
n-Butylbenzene														
Plant 1 Cake	μg/kg dry	ND	150					ND	130				Ī	< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
n-Propylbenzene	pg/kg dry	IND	100					IND	110					<b>\ 2400</b>
Plant 1 Cake	ua/ka da	ND	60					ND	52					. 1200
	μg/kg dry										-		-	< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
o-Xylene														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
sec-Butylbenzene			-					-						
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Styrene	10 0)						1			1		1		1
Plant 1 Cake	μg/kg dry	ND	60					ND	52		T			< 1200
Plant 2 Cake		ND	50		-	 		ND	44					< 940
	μg/kg dry	חאו	30	<del>-</del>			1	טאו	44			[		< 940
tert-Butylbenzene			1						1					
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Tetrachloroethene														
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Toluene	,				1		1			1				
Plant 1 Cake	μg/kg dry	43	60					32	52					62
Plant 2 Cake	μg/kg dry	ND	50					ND	44					34
		טאו	30				1	טאו	44				1-7	34
trans-1,2-Dichloroe		NB	00					NIP	F0					4
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940

			Jan-2	2016	Feb-2	016	Mar-2	2016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Trichloroethene	LI A 0200D	µg/kg diy	IND	70			IND	030	ND	340				
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	57			ND	1100	ND	1200				T
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	43			ND	890	ND	940				
Trichlorofluorometh		pg/kg dry	IND	40			IND	000	IND	340				
			ND	4.40			ND	0700	ND	2000				_
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
Vinyl chloride														
Plant 1 Cake	EPA 8260B	μg/kg dry	ND	140			ND	2700	ND	2900				
Plant 2 Cake	EPA 8260B	μg/kg dry	ND	110			ND	2200	ND	2400				
CLP - Volatile Organ	ic Compounds													
1,1,1,2-Tetrachloro	•													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
. id.it i daile	TCLP(1311)	9/ =												
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)	Ü												
1,1,1-Trichloroethai														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02										Ţ
	TCLP(1311)		NE	00										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
4.4.0.0 T. (	TCLP(1311)													
1,1,2,2-Tetrachloro			1	1				1						
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02										
Diamet O Calca	TCLP(1311)	/1	ND	00										-
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
1 1 0 Triablara atha	TCLP(1311)													
1,1,2-Trichloroetha		//	ND	00										_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										-
Plant 2 Cake	TCLP(1311)	mg/L	טאו	.02										
1,1-Dichloroethane														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02						I				T
Plant I Cake	TCLP(1311)	mg/L	IND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
riant 2 date	TCLP(1311)	mg/L	140	.02										
1,1-Dichloroethene	· '													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05		T						T		
riant round	TCLP(1311)	mg/L	140	.00										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
=	TCLP(1311)													
1,1-Dichloropropen														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02										
	TCLP(1311)	•												
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
	TCLP(1311)													
1,2,3-Trichlorobenz	ene													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
1,2,3-Trichloropropa														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.1										
Plant 2 Cake	TCLP(1311) EPA 8260B-	mg/L	ND	.1										
	TCLP(1311)	-												
1,2,4-Trichlorobenz														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)	<i>J</i>												
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
r lant 2 dano				1			1				1			

	Units	Jul-2 Average	RL	Aug-2 Average	016 RL	Sep-20 Average		Oct-2 Average	RL	Nov-2 Average	016 RL	Dec-2 Average	016 RL	Annua Mean
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Trichloroethene			-									-		
Plant 1 Cake	μg/kg dry	ND	60					ND	52					< 1200
Plant 2 Cake	μg/kg dry	ND	50					ND	44					< 940
Trichlorofluorometh														
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Vinyl chloride	13 3 7													
Plant 1 Cake	μg/kg dry	ND	150					ND	130					< 2900
Plant 2 Cake	μg/kg dry	ND	130					ND	110					< 2400
Tiant 2 Garc	µg/kg dry	IND	130					IND	110					<b>\ 2400</b>
N.D. Valatila Organ	ia Campaun	مام												
CLP - Volatile Organ		us												
1,1,1,2-Tetrachloro		ND	0.5											.0.050
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
riant 2 Care	mg/L	110	.00				1		1				1	\U.U3(
1,1,1-Trichloroetha	ne	1		1		1	1	1	1	1		1	1	1
Plant 1 Cake	mg/L	ND	.02										<b></b>	<0.020
	Ü													
Plant 2 Cake	mg/L	ND	.02											<0.020
1,1,2,2-Tetrachloro	ethane													
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
1,1,2-Trichloroetha	20													
Plant 1 Cake	mg/L	ND	.02				Ī		T		T		T	<0.020
Flatil I Cake	IIIg/L	IND	.02	-										<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
=	3													
1,1-Dichloroethane														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
1,1-Dichloroethene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
I lant 2 Cake	IIIg/L	IND	.03	-				-						<0.030
1,1-Dichloropropen	e													
Plant 1 Cake	mg/L	ND	.02											<0.020
	J.													
Plant 2 Cake	mg/L	ND	.02											<0.020
1,2,3-Trichlorobenz	ene													
Plant 1 Cake	mg/L	ND	.05											<0.050
Diam' 0.0 d	/1	ND	٥٢											
Plant 2 Cake	mg/L	ND	.05											<0.050
1,2,3-Trichloroprop	ano						1		1				1	
		ND	.1											<0.10
Plant 1 Cake	mg/L	טא	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
i iailt 2 Oake	mg/L	110					1		1				1	<b>~0.10</b>
1,2,4-Trichlorobenz	ene	1				1	1		1			1	1	1
Plant 1 Cake	mg/L	ND	.05											<0.050
	J.													
Plant 2 Cake	mg/L	ND	.05											<0.05
	-								1			1		1

			Jan-2		Feb-20		Mar-2		Apr-2		May-2		Jun-2	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	_	Average	RI
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
1,2-Dibromo-3-chlor														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
1,2-Dibromoethane	, ,													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										-
1,2-Dichlorobenzen														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
,2-Dichloroethane	TOLI (1311)													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
1,2-Dichloropropane	TCLP(1311)			1										_
Plant 1 Cake	EPA 8260B-	ma/l	ND	.02										
	TCLP(1311)	mg/L												
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
,3,5-Trichlorobenze														_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
1,3,5-Trimethylbenz														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
,3-Dichlorobenzen	е													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
,3-Dichloropropane														_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
1,4-Dichlorobenzen														_
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
2,2-Dichloropropane		,,	\=					1				1		_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
2-Chlorotoluene														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										

	Units	Jul-2 Average	1016 RL	Aug-2 Average		Sep-20 Average	Oct-2	RL	Nov-2 Average	RL	Dec-2 Average	016 RL	Annual Mean
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
	_	IND	.02				 						<0.020
,2-Dibromo-3-chlo		1											
Plant 1 Cake	mg/L	ND	.05				 						<0.050
Plant 2 Cake	mg/L	ND	.05				 						<0.050
,2-Dibromoethane													
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,2-Dichlorobenzen													
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,2-Dichloroethane													
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,2-Dichloropropane													
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,3,5-Trichlorobenz	ene												
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,3,5-Trimethylbenz	ene												
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,3-Dichlorobenzen	е												
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,3-Dichloropropane	<b>a</b>												
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
,4-Dichlorobenzen	0				1								
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
	•												
,2-Dichloropropane		NIE.											-
Plant 1 Cake	mg/L	ND	.02				 						<0.020
Plant 2 Cake	mg/L	ND	.02				 						<0.020
-Chlorotoluene													
Plant 1 Cake	mg/L	ND	.05				 						<0.050
Plant 2 Cake	mg/L	ND	.05				 						< 0.050

			Jan-		Feb-20		Mar-2		Apr-2		May-2		Jun-2	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Acetone	,		1											
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	.92	.1										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	1.3	.1										
Acrolein	TOLI (1311)													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.5										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.5										
Acrylonitrile														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.5										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.5										
Benzene	TCLP(1311)													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
Bromobenzene	TCLP(1311)					1								
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Bromochlorometha	ne													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Bromodichlorometh														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02										
Plant 2 Cake	TCLP(1311) EPA 8260B-		ND	.02										
	TCLP(1311)	mg/L	IND	.02										
Bromoform														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Bromomethane	1011 (1011)					1				1		1		
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Carbon tetrachlorid	е													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
Chlorobenzene	TCLP(1311)					1						1		
Plant 1 Cake	EPA 8260B-	mg/L	ND	.02			1				T		T	
	TCLP(1311)						-		-		-		-	
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Chloroethane	. ,													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													

	Units	Jul-2 Average	016 RL	Aug-2 Average	016 RL	Sep-20 Average	D16 RL	Oct-2	016 RL	Nov-2 Average	J16 RL	Dec-2 Average	016 RL	Annua Mean
Plant 1 Cake	mg/L	ND	.05											<0.050
	/1	ND	05											0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Acetone														
Plant 1 Cake	mg/L	.3	.1											0.61
Plant 2 Cake	mg/L	.39	.1											0.85
Acrolein														
Plant 1 Cake	mg/L	ND	.5											<0.50
Diamet O Calva	/1	ND	_											0.50
Plant 2 Cake	mg/L	ND	.5											<0.50
Acrylonitrile														
Plant 1 Cake	mg/L	ND	.5											<0.50
Plant 2 Cake	mg/L	ND	.5											<0.50
Benzene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Bromobenzene											-			
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Bromochlorometha	20													
Plant 1 Cake	mg/L	ND	.05											<0.050
riant round	9/ _		.00											۷٥.٥٥٥
Plant 2 Cake	mg/L	ND	.05											<0.050
Bromodichlorometh	ane													
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Bromoform Plant 1 Cake	ma/l	ND	.05											-0.0E0
Flatit i Cake	mg/L	ND	.03											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Bromomethane														
Plant 1 Cake	mg/L	ND	.05											<0.050
Diont 2 Calca	ma/l	ND	05											-0.050
Plant 2 Cake	mg/L	טאו	.05											<0.050
Carbon tetrachlorid														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Ohlorob														
Chlorobenzene	ma/l	ND	02											-0.000
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Chloroethane							1		1		1	1		
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
	-													

		Jan-2		Feb-20		Mar-2		Apr-2		May-2		Jun-20	
ethod	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	_	Average	RL
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
,													
PA 8260B- CLP(1311)	mg/L	ND	.05										
PA 8260B- CLP(1311)	mg/L	ND	.05										
JEI (1011)													
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
e ()													
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
) )										<u> </u>			
, PA 8260B- CLP(1311)	mg/L	ND	.02										Ī
PA 8260B- CLP(1311)	mg/L	ND	.02										
(1011)										<u> </u>			
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
e (1011)													
PA 8260B-	mg/L	ND	.05		T						T		
CLP(1311)	3												
PA 8260B- CLP(1311)	mg/L	ND	.05										
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.05										
PA 8260B- CLP(1311)	mg/L	ND	.05										
PA 8260B- CLP(1311)	mg/L	ND	.2										
PA 8260B- CLP(1311)	mg/L	ND	.2										
· · · · · ·													
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
()		ı		1		1		1	1	1		1	_
PA 8260B- CLP(1311)	mg/L	ND	.02										
PA 8260B- CLP(1311)	mg/L	ND	.02										
(.011)				1					1	1	1	1	
PA 8260B- CLP(1311)	mg/L	.05	.1										
PA 8260B-	mg/L	.078	.1										
CLP(1311)													

	Units	Jul-2	:016 RL	Aug-20 Average		Sep-20 Average	016 RL	Oct-2	016 RL	Nov-20	016 RL	Dec-2	016 RL	Annua Mean
Plant 1 Cake	mg/L	Average ND	.02					Average		Average		Average		<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Chloromethane														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
-i- 4 0 Diablass 4b														
cis-1,2-Dichloroeth	mg/L	ND	.02											<0.020
	9/ _	110	.02											<b>40.02</b> 0
Plant 2 Cake	mg/L	ND	.02											<0.020
cis-1,3-Dichloropro	pene													
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02								-	 		<0.020
	_	110	.02											40.020
Dibromochlorometh		1												
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Dibromomethane														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Dichlorodifluoromet	hane													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05									 		<0.050
riant 2 dake	mg/L	IND	.00											νο.οσι
Ethylbenzene					_									
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02				-				-			<0.020
Hexachlorobutadie	200													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
sobutyl alcohol														
Plant 1 Cake	mg/L	ND	.2											<0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
	9/ =													10.20
sopropylbenzene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
m n Vidanaa														
n,p-Xylenes Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Methyl ethyl ketone														
Plant 1 Cake	mg/L	.047	.1											0.049
Plant 2 Cake	mg/L	ND	.1			 		 				 		0.078
Flain 2 Cake	mg/L	שואו	. '							1				0.078

			Jan-		Feb-20		Mar-2		Apr-2		May-2		Jun-2	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	.019	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	.015	.05										
MIBK														
Plant 1 Cake	EPA 8260B-	mg/L	ND	.1										
	TCLP(1311)													
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.1										
Naphthalene														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
n-Butylbenzene	1021 (1011)													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05		T								
	TCLP(1311)											-	-	
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
n-Propylbenzene														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
o-Xylene	( - · · )					1	1			1	1	1	1	
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
D. t. II	TCLP(1311)													
sec-Butylbenzene	ED4 0000D	/1	ND	0.5						I			1	_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Styrene														
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
tert-Butylbenzene	1021 (1011)													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8260B-	mg/L	ND	.05										
<del>-</del>	TCLP(1311)													
Tetrachloroethene	<b>FD</b> 4 2 2 2 2 2 2							1						_
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Toluene	. ,		'	'					'			,		
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.02										
trong 1 2 Diables	TCLP(1311)													
trans-1,2-Dichloroe		ma c: /1	ND	00				I						
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
trans-1,3-Dichlorop	ropene													
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										

	Units	Jul-2	2016 RL	Aug-2 Average	016 RL	Sep-20 Average	016 RL	Oct-2	016 RL	Nov-20 Average	)16 RL	Dec-2 Average	016 RL	Annua Mean
Plant 1 Cake	mg/L	Average .012	.05											0.016
Plant 2 Cake	mg/L	.012	.05											0.014
ИВК														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Naphthalene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
n-Butylbenzene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
-Propylbenzene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
-Xylene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
ec-Butylbenzene														
Plant 1 Cake	mg/L	ND	.05				T				Ī			<0.050
riant round	g/ L		.00											νο.οοι
Plant 2 Cake	mg/L	ND	.05											<0.050
Styrene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
ert-Butylbenzene														
Plant 1 Cake	mg/L	ND	.05											<0.050
		ND	.05											
Plant 2 Cake	mg/L	ND	.05											<0.050
Tetrachloroethene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
oluene														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
rans-1,2-Dichloroe														
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
rans-1,3-Dichlorop	ropene											[		
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Trichloroethene														

			Jan-2	2016	Feb-2	016	Mar-2	016	Apr-2	2016	May-2	016	Jun-20	)16
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Plant 2 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.02										
Trichlorofluorometh	. ,													
Plant 1 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)	•												
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
	TCLP(1311)													
Vinyl chloride	ED4 0000D	/1	NIB											
Plant 1 Cake	EPA 8260B- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8260B-	mg/L	ND	.05										
- Idili 2 dano	TCLP(1311)	g/ _		.00										
emi-volatile Organic	Compounds													
1,2,4-Trichlorobenz														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry μg/kg dry	ND	72000					ND	18000				
1,2-Dichlorobenzen		μg/ng ury	110	12000		-		1	110	13000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
1.3-Dichlorobenzen		µg/kg ury	שוו	12000					מאו	10000			1	
,		ua/ka dni	ND	43000					ND	49000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND											
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
1,4-Dichlorobenzen										1				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,4,5-Trichlorophen														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,4,6-Trichlorophen	ol													
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,4-Dichlorophenol														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,4-Dimethylphenol														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,4-Dinitrophenol														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	86000					ND	98000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	140000					ND	35000				
2,4-Dinitrotoluene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2,6-Dinitrotoluene		P3/13 41)	1	1						1.000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2-Chloronaphthaler		pg/kg dry	IVE	72000					IND	10000				
Plant 1 Cake	EPA 8270C	ua/ka day	ND	43000					ND	49000				T.
	EPA 8270C	μg/kg dry	ND	72000		-			ND	18000			1	
Plant 2 Cake	EFA 02/00	μg/kg dry	טאו	12000					טאו	10000				
2-Chlorophenol	EDA 00700	/1 1:	ND	40000	I				ND	40000				_
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2-Methylnaphthaler						_								
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2-Methylphenol														

			2016	Aug-2		Sep-20		Oct-20		Nov-2		Dec-2		Annual
	Units	Average	RL	Average	RL	Average	RL		RL	Average	RL	Average	RL	Mean
Plant 1 Cake	mg/L	ND	.02											<0.020
Plant 2 Cake	mg/L	ND	.02											<0.020
Trichlorofluorometh	ane													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Vinyl chloride														
Plant 1 Cake	mg/L	ND	.05											<0.050
Flatil I Cake	IIIg/L	IND	.03											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
i valatila Ossasia	0													
emi-volatile Organic 1,2,4-Trichlorobenz		i												
Plant 1 Cake	ene μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 1 Cake	μg/kg dry μg/kg dry	ND	41000					ND ND	11000					< 72,000
1,2-Dichlorobenzer		ואט	41000					ואט	11000					< 12,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
1,3-Dichlorobenzer	ne													
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
1,4-Dichlorobenzer	ne													
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,4,5-Trichloropher	nol									ļ.				
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,4,6-Trichloropher	nol									1				
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,4-Dichlorophenol														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,4-Dimethylpheno	1													
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,4-Dinitrophenol										I				
Plant 1 Cake	μg/kg dry	ND	41000					ND	26000					< 98,000
Plant 2 Cake	μg/kg dry	ND	82000					ND	22000					<140,000
2,4-Dinitrotoluene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2,6-Dinitrotoluene	10 0 7													, ,
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2-Chloronaphthaler		1						1						1.2,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2-Chlorophenol	רטייט עויץ		1.1000				1		. 1000		1		1	- 12,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
		שוו	71000		1		1	שוו	11000		1		1-"	< 12,000
2-Methylnaphthaler Plant 1 Cake		ND	20000	1	1_		_	ND	13000	l		1		- 40 00¢
	μg/kg dry													< 49,000
Plant 2 Cake	µg/kg dry	ND	41000					ND	11000					< 72,000

			Jan-2	016	Feb-2	016	Mar-2	016	Apr-2	2016	May-2	016	Jun-20	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2-Nitroaniline	LI A 02700	µg/kg dry	IND	72000					IND	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
2-Nitrophenol	217102700	pg/kg dry	IND	12000					IND	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000		 		
Plant 2 Cake			ND			-	 							
	EPA 8270C	μg/kg dry	ND	72000			-		ND	18000				
3,3-Dichlorobenzidi		. /	ND	440000	I				ND	100000	I			
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	110000					ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
3-Nitroaniline					ı									
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
4,6-Dinitro-2-methy	lphenol													
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	55000					ND	62000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	92000					ND	22000				
4-Bromophenyl phe	enyl ether					-			,					
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
4-Chloro-3-methylp	henol													
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
4-Chloroaniline		F9/119 41.)		000										
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
		µg/kg ury	IND	72000				-	IND	10000				
4-Chlorophenyl phe	•		ND	10000				I	ND	40000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
4-Methylphenol			1											
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					57000	18000				
4-Nitroaniline														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	110000					ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
4-Nitrophenol														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	110000					ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
Acenaphthene		·	1			-	1	1						-
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Acenaphthylene	· · · · · ·	10 0 . 7				1		1		1				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry μg/kg dry	ND	72000					ND	18000				
Aniline	LI A 02/00	µg/kg ury	ואט	, 2000		1			ואט	10000				
	EPA 8270C	a/l.a.alm.	ND	FF000					ND	62000				
Plant 1 Cake		μg/kg dry	ND	55000					ND	62000				ļ <del>-</del>
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	92000					ND	22000				
Anthracene	ED 4 65-56	, .	lub.	10000	I				lub.	40000	I			
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Azobenzene/1,2-Di														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benz(a)anthracene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benzidine						1			1					

		Jul-2		Aug-20		Sep-20		Oct-2		Nov-2		Dec-2		Annual
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2-Nitroaniline														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
2-Nitrophenol														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
3,3-Dichlorobenzidi														
Plant 1 Cake	μg/kg dry	ND	51000					ND	33000					<120,000
Plant 2 Cake	μg/kg dry	ND	100000					ND	28000					<180,000
3-Nitroaniline														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
4,6-Dinitro-2-methy	lphenol													
Plant 1 Cake	μg/kg dry	ND	26000					ND	17000					< 62000
Plant 2 Cake	μg/kg dry	ND	52000					ND	14000					< 92000
4-Bromophenyl phe		ı	1	1	1	1	1	1		1	1	1	1	1
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72.000
4-Chloro-3-methylp														,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
4-Chloroaniline	pg/ng ary	110	11000					110	11000					\ 1 <u>L</u> ,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000		I	 		< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
4-Chlorophenyl phe		IND	41000					IND	11000					< 12,000
Plant 1 Cake		ND	20000					ND	13000					40.000
	μg/kg dry													< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
4-Methylphenol	. /	NID	00000	I				ND	10000					
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
4-Nitroaniline		1												
Plant 1 Cake	μg/kg dry	ND	51000					ND	33000		-			<120,000
Plant 2 Cake	μg/kg dry	ND	100000					ND	28000					<180,000
4-Nitrophenol														
Plant 1 Cake	μg/kg dry	ND						ND	33000					<120,000
Plant 2 Cake	μg/kg dry	ND	100000					ND	28000					<180,000
Acenaphthene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Acenaphthylene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Aniline														
Plant 1 Cake	μg/kg dry	ND	26000					ND	17000					< 62000
Plant 2 Cake	μg/kg dry	ND	52000					ND	14000					< 92000
Anthracene	, 5 5 7		1	1	1		1				1		1	
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Azobenzene/1,2-Di			1.000		1		1		. 1000				1	- 12,000
Plant 1 Cake	µg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake		ND	41000					ND	11000					< 72,000
	μg/kg dry	ואט	+1000					ואט	11000					< 12,000
Benz(a)anthracene		ND	20000					ND	13000					40.000
Plant 1 Cake	μg/kg dry	ND	20000					ND						< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000

			Jan-2	016	Feb-2	016	Mar-2	016	Apr-2	2016	May-2	016	Jun-20	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	200000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	290000					ND	71000				
Benzo(a)pyrene	217102700	pg/ng dry	110	200000					110	7 1000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000				T	ND	49000		T		T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benzo(b)fluoranthei		µg/kg dry	IND	72000					IND	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake														-
	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benzo(g,h,i)perylen		. //	ND	40000	I				ND	40000	I			
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benzo(k)fluoranther				ı	ı									
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Benzoic acid														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	110000					ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
Benzyl alcohol							,							
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Bis(2-chloroethoxy)	methane	, , ,												
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000		T		T	ND	49000		T		T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Bis(2-chloroethyl)et		pg/ng ary	110	12000					110	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				T
Plant 2 Cake	EPA 8270C		ND	72000					ND	18000				
		μg/kg dry	טאו	72000		-		-	IND	10000				
Bis(2-chloroisoprop			ND	40000		I		I	ND	40000	1	T		
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Bis(2-ethylhexyl)pht														
Plant 1 Cake	EPA 8270C	μg/kg dry	38000	43000					62000	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	42000	72000					24000	18000				
Butyl benzyl phthala														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Chrysene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Dibenz(a,h)anthrace	ene													
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	55000					ND	62000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	92000					ND	22000				
Dibenzofuran				l										
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000				T	ND	49000		T		T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Diethyl phthalate	217(02700	pg/kg ary	IND	72000					110	10000				
	EPA 8270C	ua/ka day	ND	42000		T		T	ND	40000		T		
Plant 1 Cake		μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Dimethyl phthalate	EDA 20772		NB	4000	I				NIP	10000	I			
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				ļ <del>-</del>
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Di-n-butyl phthalate					1									
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Di-n-octyl phthalate														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				Ī
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Fluoranthene			1				1	1					1	-

	11.9	Jul-2		Aug-20		Sep-20		Oct-2		Nov-2		Dec-2		Annual Mean
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Plant 1 Cake	μg/kg dry	ND	83000					ND	53000					<200,000
Plant 2 Cake Benzo(a)pyrene	μg/kg dry	ND	170000					ND	45000					<290,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Benzo(b)fluoranthe		IND	41000					110	11000					< 12,000
Plant 1 Cake	μg/kg dry	ND	20000				T	ND	13000		T	T		< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Benzo(g,h,i)perylen		IND	41000					IND	11000					< 12,000
Plant 1 Cake	μg/kg dry	ND	20000				Ī	ND	13000		T			< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000		-			< 72,000
Benzo(k)fluoranthei		IND	41000					IND	11000					< 12,000
		ND	20000					ND	13000					- 40 000
Plant 1 Cake	μg/kg dry	ND	20000					ND						< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Benzoic acid	. // 1 .	ND	E4000	1				ND	00000					400.000
Plant 1 Cake	μg/kg dry	ND	51000					ND	33000					<120,000
Plant 2 Cake	μg/kg dry	ND	100000					ND	28000					<180,000
Benzyl alcohol	. / .	NIP	00055	I				NIP	40000					40.00
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Bis(2-chloroethoxy)														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Bis(2-chloroethyl)et														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Bis(2-chloroisoprop	yl)ether													
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Bis(2-ethylhexyl)pht	thalate													
Plant 1 Cake	μg/kg dry	40000	20000					16000	13000					39,000
Plant 2 Cake	μg/kg dry	46000	41000					18000	11000					33,000
Butyl benzyl phthala	ate													
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Chrysene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Dibenz(a,h)anthrac														
Plant 1 Cake	μg/kg dry	ND	26000					ND	17000					< 62000
Plant 2 Cake	μg/kg dry	ND	52000					ND	14000					< 92000
Dibenzofuran														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Diethyl phthalate	F-557	1	111111					1	1					112,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Dimethyl phthalate	רטייש עוי	1						1	. 1300				1	- 1 2,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
		IND	71000	_				IND	11000	<u> </u>				< 12,000
Di-n-butyl phthalate		ND	20000					ND	12000					- 40 000
Plant 1 Cake	μg/kg dry	ND	20000				-	ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Di-n-octyl phthalate		ND	00000	I				ND	40000					
Plant 1 Cake	μg/kg dry μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	/1	ND	41000					ND	11000					< 72,000

			Jan-2	2016	Feb-20	016	Mar-2	016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Fluorene		µ9/.19 w.)	1.15											
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Hexachlorobenzene		µ9/.19 w.)							1.1.5					
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Hexachlorobutadie		pg/ng ary	110	72000					110	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000				T	ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Hexachlorocyclope		µg/kg diy	IND	72000					IND	10000				
Plant 1 Cake	EPA 8270C	ua/ka dry	ND	110000		T			ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
	EPA 82/0C	μg/kg dry	ND	180000					IND	44000		-		
Hexachloroethane	EDA 00700	. // . 1.	NID	40000					ND	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Indeno(1,2,3-cd)py								1	N.E					
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Isophorone														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Kepone														
Plant 1 Cake	EPA 8270C	μg/kg dry							ND	590000				
Plant 2 Cake	EPA 8270C	μg/kg dry							ND	210000				
Naphthalene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Nitrobenzene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
N-Nitrosodimethyla		F-9-1-97							1					
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
N-Nitroso-di-n-prop		pg/kg dry	IND	72000					IND	10000				
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	33000					ND	37000				
Plant 2 Cake	EPA 8270C		ND	55000		-			ND	13000				
N-Nitrosodiphenyla		μg/kg dry	IND	55000					טאו	13000				
Plant 1 Cake	EPA 8270C	ua/ka dni	ND	43000					ND	49000				
		μg/kg dry						-						
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Pentachlorophenol	ED 1 00700		LIB	140000	I				LIB	1400000	I			
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	110000					ND	120000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	180000					ND	44000				
Phenanthrene								1	N.E					
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Phenol														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Pyrene														
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	43000					ND	49000				
Plant 2 Cake	EPA 8270C	μg/kg dry	ND	72000					ND	18000				
Pyridine													,	-
,			1					1	1					$\neg$
Plant 1 Cake	EPA 8270C	μg/kg dry	ND	44000					ND	50000				

		Jul-2	016	Aug-20	016	Sep-20	016	Oct-2	016	Nov-20	016	Dec-2	016	Annual
	Units	Average	RL	Average	RL	•	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Fluorene	pg/kg dry	IND	41000					IND	11000					< 12,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Hexachlorobenzen		IND	41000					IND	11000					< 12,000
Plant 1 Cake	μg/kg dry	ND	20000		T		Ī	ND	13000		T			< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Hexachlorobutadie		IND	41000					IND	11000					< 72,000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry μg/kg dry	ND	41000					ND	11000					< 72,000
Hexachlorocyclope		ואט	41000	<del></del>				ואט	11000	<del></del>			-	< 12,000
		ND	51000					ND	22000					.420.000
Plant 1 Cake Plant 2 Cake	μg/kg dry	ND						ND	33000					<120,000
	μg/kg dry	ND	100000					ND	28000					<180,000
Hexachloroethane	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ND		I				N.D.	10000	I				40.000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Indeno(1,2,3-cd)py														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Isophorone														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Kepone														
Plant 1 Cake	μg/kg dry	ND	250000					ND	16000					< 590,000
Plant 2 Cake	μg/kg dry	ND	500000					ND	14000					< 500,000
Naphthalene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Nitrobenzene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
N-Nitrosodimethyla														,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
N-Nitroso-di-n-prop		110	11000					1110	11000					1.2,000
Plant 1 Cake	μg/kg dry	ND	15000					ND	9900					<37,000
Plant 2 Cake	μg/kg dry	ND	31000					ND	8400			 		<55,000
N-Nitrosodiphenyla		IND	31000					IND	0400					<b>&lt;33,000</b>
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake		ND	41000					ND	11000					< 72,000
Pentachlorophenol	μg/kg dry	IND	+1000				1	IND	11000		1		1	< 12,000
		ND	E1000					ND	22000					<b>420 000</b>
Plant 1 Cake Plant 2 Cake	μg/kg dry	ND	51000					ND	33000					<120,000
	μg/kg dry	ND	100000					ND	28000					<180,000
Phenanthrene	,,,,,	ND		I		1		ND	10000	I				40.000
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Phenol									145-					
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Pyrene														
Plant 1 Cake	μg/kg dry	ND	20000					ND	13000					< 49,000
Plant 2 Cake	μg/kg dry	ND	41000					ND	11000					< 72,000
Pyridine														
Plant 1 Cake	μg/kg dry	ND	21000					ND	13000					< 50,000
Plant 2 Cake	μg/kg dry	ND	42000					ND	11000					< 74,000
	- •				-		-				-		-	· · · · · · · · · · · · · · · · · · ·

			Jan-2		Feb-2	-	Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
CLP - Semi-volatile		unds												
1,2,4-Trichlorobenz														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
1,2-Dichlorobenzen														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
	TCLP(1311)													
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
1,3-Dichlorobenzen	ie													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
1,4-Dichlorobenzen														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
2,4,5-Trichloropher							I			1	1		I	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
2,4,6-Trichloropher	. ,													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.1		T						T		T
riant reake	TCLP(1311)	mg/L	ND	.'										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
2,4-Dichlorophenol														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
2,4-Dimethylphenol														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
2,4-Dinitrophenol	(.011)			1				1						
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
2,4-Dinitrotoluene				1				1						
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										-
2,6-Dinitrotoluene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C-	mg/L	ND	.05										
2-Chloronaphthaler	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
2-Chlorophenol	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
гіапі і Саке	TCLP(1311)	mg/L	ואט	.00					-				<u> </u>	

			-2016	Aug-2	016	Sep-20		Oct-20	016	Nov-2	016	Dec-2	016	Annua
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
CLP - Semi-volatile		ompounds												
1,2,4-Trichlorobenz		ND	.05								1		I	-0.050
Plant 1 Cake	mg/L													<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
1,2-Dichlorobenzer	ie													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
1,3-Dichlorobenzer	ie													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
1,4-Dichlorobenzer	ie													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,4,5-Trichloropher	nol					1								
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
2,4,6-Trichloropher	nol										1			
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
2,4-Dichlorophenol														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,4-Dimethylpheno			·											
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
2,4-Dinitrophenol														
Plant 1 Cake	mg/L	ND	.5											<0.50
Plant 2 Cake	mg/L	ND	.5											<0.50
2,4-Dinitrotoluene								1		1	1			1
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,6-Dinitrotoluene						1								
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2-Chloronaphthaler	ne													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2-Chlorophenol														
Plant 1 Cake	mg/L	ND	.05		T		I		I		T		T	<0.050
i idili i Care	9/∟	1,10	.00											\0.030

			Jan	-2016	Feb-2	016	Mar-2	016	Apr-2		May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
2-Methylnaphthaler														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										Ţ
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
2-Methylphenol	1021 (1011)													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										-
Plant 2 Cake	EPA 8270C-	mg/L	ND	.05										
2-Nitroaniline	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.1										
	TCLP(1311)													
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
2-Nitrophenol														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
3,3-Dichlorobenzidi	ne													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
3-Nitroaniline	- ( - ,													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
4,6-Dinitro-2-methy														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.2										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.2										
	TCLP(1311)	mg/L	IND											
4-Bromophenyl phe		/1	ND	0.5										
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										-
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
4-Chloro-3-methylp														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
4-Chloroaniline	( /)			-			'	1		1	-	-	1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
4-Chlorophenyl phe														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
4 Mothy delta : 1	TCLP(1311)													
4-Methylphenol	EDA 00700	/1	054	0.5										
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	.051	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
4-Nitroaniline														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										

Units mg/L	Average ND		Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
mg/L	ND					_							
		.05											<0.050
е													
mg/L	ND	.05											<0.050
mg/L	ND	.05											<0.050
mg/L	ND	.05											<0.050
mg/L	ND	.05											<0.050
mg/L	ND	.1											<0.10
mg/L	ND	.1											<0.10
mg/L	ND	.05											<0.050
mg/L	ND	.05											<0.050
n													
mg/L	ND	.2											<0.20
mg/L	ND	.2											<0.20
mg/L	ND	.1											<0.10
mg/L	ND	.1											<0.10
lphenol													
mg/L	ND	.2											<0.20
mg/L	ND	.2											<0.20
nvl ether													
mg/L	ND	.05											<0.050
	ND	.05											<0.050
	NE												
													<0.10
mg/L	ND	.1											<0.10
mg/L	ND	.05											<0.050
mg/L	ND	.05											<0.050
nvl ether													
	ND	.05											<0.050
_													
mg/L	ND	.05											<0.050
	'		'		'		,				-		
mg/L	ND	.05											0.051
mg/L	ND	.05											<0.050
							1				1		1
mg/L	ND	.5											<0.50
	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	mg/L ND	mg/L         ND         .05           mg/L         ND         .05           mg/L         ND         .1           mg/L         ND         .1           mg/L         ND         .05           mg/L         ND         .2           mg/L         ND         .1           mg/L         ND         .1           lphenol         mg/L         ND         .2           enyl ether         mg/L         ND         .05           mg/L         ND         .05           henol         mg/L         ND         .1           mg/L         ND         .1           mg/L         ND         .05           mg/L         ND         .05	mg/L         ND         .05            mg/L         ND         .05            mg/L         ND         .1            mg/L         ND         .05            mg/L         ND         .05            mg/L         ND         .2            mg/L         ND         .1            mg/L         ND         .2            mg/L         ND         .2            mg/L         ND         .2            mg/L         ND         .05            mg/L         ND         .05            mg/L         ND         .1            mg/L         ND         .05            mg/L         ND         .05	mg/L         ND         .05             mg/L         ND         .05             mg/L         ND         .1             mg/L         ND         .05             mg/L         ND         .05             mg/L         ND         .2             mg/L         ND         .1             mg/L         ND         .1             iphenol         mg/L         ND         .2             mg/L         ND         .05             mg/L         ND         .05	mg/L         ND         .05              mg/L         ND         .05              mg/L         ND         .1              mg/L         ND         .05              mg/L         ND         .05              mg/L         ND         .2              mg/L         ND         .1              mg/L         ND         .1              mg/L         ND         .2              mg/L         ND         .2              mg/L         ND         .2              mg/L         ND         .05              mg/L         ND         .05              mg/L         ND         .05              mg/L         ND	mg/L         ND         .05						

	NA. d	11.9	Jan-		Feb-20		Mar-2		Apr-2		May-2		Jun-20	
Diamet O Calva	Method	Units	Average	RL	Average	RL		RL	Average	RL	Average	_	Average	RL
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5						-				
4-Nitrophenol														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Acenaphthene	,		'											
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Acenaphthylene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Aniline	104 (1311)											1		
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Anthracene	10LI (1311)													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Azobenzene/1,2-Di		Δ												
Plant 1 Cake	EPA 8270C-	mg/L	ND	.1		T	 	T			T	1		
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.1										
Flant 2 Cake	TCLP(1311)	IIIg/L	IND	.'										
Benz(a)anthracene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Benzidine	,													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Benzo(a)pyrene	()									1	1	1	1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Benzo(b)fluoranthe										1	1	1	1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Benzo(g,h,i)perylen										1	1	1	1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										<b></b>
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Benzo(k)fluoranthe										1	1	1		
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Benzoic acid	1011 (1011)									<u> </u>		1		
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										

			2016	Aug-2		Sep-20		Oct-2		Nov-20		Dec-2		Annua
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 2 Cake	mg/L	ND	.5											<0.50
I-Nitrophenol														
Plant 1 Cake	mg/L	ND	.5											<0.50
Plant 2 Cake	mg/L	ND	.5											<0.50
Acenaphthene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Acenaphthylene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Aniline		\					1							
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Anthracene		'	1	1		'	1	1	1	-1		1		
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Azobenzene/1,2-Di	phenylhydi	razine												
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Benz(a)anthracene														
Plant 1 Cake		ND	.05											<0.050
Plant I Cake	mg/L	טאו	.05											<0.030
Plant 2 Cake	mg/L	ND	.05											<0.050
Benzidine														
Plant 1 Cake	mg/L	ND	.5											<0.50
	_													
Plant 2 Cake	mg/L	ND	.5											<0.50
Benzo(a)pyrene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Benzo(b)fluoranthe	ne													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Benzo(g,h,i)perylen														
Plant 1 Cake		ND	.05											40.0E0
Plant i Cake	mg/L	ND	.05								-			<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Benzo(k)fluoranthe	ne		1	<u> </u>	-	'		'				'		
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Benzoic acid														
Plant 1 Cake	mg/L	ND	.5		T		1				Ī			<0.50
FIAIIL I CAKE	my/∟	טאו	.5		1					<del></del>	1			<0.50

			Jan-2		Feb-20		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.5										
Benzyl alcohol	, ,													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Bis(2-chloroethoxy)														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Bis(2-chloroethyl)et														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-		ND	.05										
	TCLP(1311)	mg/L	IND	.05			-				-			
Bis(2-chloroisoprop			NB	6=										
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Bis(2-ethylhexyl)pht	thalate													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.25										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.25										
Butyl benzyl phthala														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Chrysene	- ( - ,													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Dibenz(a,h)anthrac														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C-	mg/L	ND	.1										
Dibenzofuran	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
Diothyd shths:1-4-	TCLP(1311)													
Diethyl phthalate Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
B. 4.1	TCLP(1311)													
Dimethyl phthalate	EDA 60706		NB	0.5										
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Di-n-butyl phthalate														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Di-n-octyl phthalate				-			'		'		'		1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										

		Jul-2		Aug-2		Sep-2		Oct-2		Nov-20		Dec-2		Annua
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 2 Cake	mg/L	ND	.5											<0.50
Benzyl alcohol														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Bis(2-chloroethoxy)	methane													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Bis(2-chloroethyl)et	her													
Plant 1 Cake	mg/L	ND	.05											<0.050
	J.													
Plant 2 Cake	mg/L	ND	.05											<0.050
Bis(2-chloroisoprop	yl)ether													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Bis(2-ethylhexyl)pht	halate			1		1		1			1	1		
Plant 1 Cake	mg/L	ND	.25											<0.25
Plant 2 Cake	mg/L	ND	.25											<0.25
Butyl benzyl phthala	ıte													
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Chrysene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Dibenz(a,h)anthrace	ene													
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
	1119/12		. '											ζ0.10
Dibenzofuran	mg/L	ND	.05		T		I							<0.050
Plant 1 Cake														
Plant 2 Cake	mg/L	ND	.05											<0.050
Diethyl phthalate														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Dimethyl phthalate														
Plant 1 Cake	mg/L	ND	.05		T		1							<0.050
i idin i Oane	≀iig/∟		.00											30.030
Plant 2 Cake	mg/L	ND	.05											<0.050
Di-n-butyl phthalate		ı		1		ı		1		I	1	1		1
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Di-n-octyl phthalate								1			1			
Plant 1 Cake	mg/L	ND	.2											<0.20
i Gano	g/ =		-											10.20

			Jan-2	2016	Feb-20		Mar-2	2016	Apr-2	2016	May-2	016	Jun-20	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
Fluoranthene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Fluorene	,													
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Hexachlorobenzene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Hexachlorobutadie														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
Hexachlorocyclope	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.2										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.2										
Hexachloroethane	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	ma/l	ND	.05		Ī		T						
	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311)	mg/L	ND	.05										
Indeno(1,2,3-cd)py														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.1				Ī						T
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.1										
	TCLP(1311)	my/L	ND	.'										
Isophorone	EDA 00700		ND	OF										
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05		-								
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Kepone														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Naphthalene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Nitrobenzene	, ,		'		'		1		'		'			
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
N-Nitrosodimethyla						1	1						1	
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
N-Nitroso-di-n-prop														
Plant 1 Cake	EPA 8270C-	mg/L	ND	.1		T		T						
. and i dane	TCLP(1311)	g, L	110											

			-2016	Aug-2		Sep-20		Oct-2		Nov-20		Dec-2		Annua
	Units	Average		Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 2 Cake	mg/L	ND	.2											<0.20
Fluoranthene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Fluorene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Hexachlorobenzene	<u> </u>													
Plant 1 Cake	mg/L	ND	.05											<0.050
	3													
Plant 2 Cake	mg/L	ND	.05											<0.050
Hexachlorobutadier	ne													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Hexachlorocycloper	ntadiene				1									I
Plant 1 Cake	mg/L	ND	.2											<0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
Hexachloroethane														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Indeno(1,2,3-cd)pyr	one													
Plant 1 Cake	mg/L	ND	.1											<0.10
· iain · Gano	9/ =													100
Plant 2 Cake	mg/L	ND	.1											<0.10
Isophorone														1
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Kepone							1	1				1		I.
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Naphthalene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Nitrobenzene					1									
Plant 1 Cake	mg/L	ND	.2				1							<0.20
i idili i Cake	mg/L	שואו	٠.٢					1			1-			₹0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
N-Nitrosodimethylai	mine						1	1			1	1		I
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
N-Nitroso-di-n-prop	vlamine													
Plant 1 Cake	mg/L	ND	.1											<0.10
	1 1 1 1 1 / 1	INIJ	1.1	<del></del>	1	1								

			Jan	-2016	Feb-2	016	Mar-2	2016	Apr-	2016	May-2		Jun-2	.016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.1										
N-Nitrosodiphenyla					'									
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										<b></b>
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
Da	TCLP(1311)													
Pentachlorophenol		,	LID.									1		_
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2					-	-				
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.2										
Phenanthrene														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Phenol	10L1 (1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8270C-	mg/L	ND	.05										
Pyrene	TCLP(1311)													
Plant 1 Cake	EPA 8270C-	mg/L	ND	.05										
	TCLP(1311) EPA 8270C-		ND	.05										
Plant 2 Cake	TCLP(1311)	mg/L	ND	.05			-				-			
Pyridine														
Plant 1 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8270C- TCLP(1311)	mg/L	ND	.05										
											'			
rganochlorine Pestic	cides													
Aldrin														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
alpha-BHC		0 0 7												
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
beta-BHC	217(0001	mg/kg dry	110						110	30				
Plant 1 Cake	EPA 8081	ma/ka dni	ND	.13		1			ND	150				_
		mg/kg dry												
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Chlordane									1	1				
Plant 1 Cake	EPA 8081	mg/kg dry	ND	1.3					ND	1500				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	20					ND	900				
delta-BHC														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.27					ND	300				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	4					ND	180				
Dieldrin														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Endosulfan 1														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Endosulfan 2		J. J)										1		
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				T
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Endosulfan Sulfate		mg/kg ury	ואט			1		1	ואט	30		1		
		ma/ka da	ND	27					ND	200				_
Plant 1 Cake	EPA 8081 EPA 8081	mg/kg dry mg/kg dry	ND ND	.27					ND ND	300 180				
Plant 2 Cake														

Plant 2 Cake N-Nitrosodiphenylar	Units	Jul-2	2016 RL	Aug-2 Average	016 RL	Sep-20	016 RL	Oct-20 Average	016 RL	Nov-20	016 RL	Dec-2	016 RL	Annual Mean
N-Nitrosodiphenylar	mg/L	Average ND	.1			Average 				Average		Average		<0.10
14-14III OSOUIPI ICH yiai	mine													
Plant 1 Cake	mg/L	ND	.05		1		Ī							<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Pentachlorophenol														
Plant 1 Cake	mg/L	ND	.2											<0.20
Plant 2 Cake	mg/L	ND	.2											<0.20
Phenanthrene														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Phenol Plant 1 Cake	mg/L	ND	.05							1				<0.050
	mg/L	שואו	.00		_								Ĺ	~0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Pyrene														I.
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Pyridine														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
I lant 2 Care	mg/L	IND	.03	-		-								<0.030
rganochlorine Pestic Aldrin	ides													
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
alpha-BHC	ilig/kg uly	IND	200					IND	34	<del></del>			-	<200
•	man allen alme	ND	200					ND	40					200
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
beta-BHC														ı
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Chlordane														
Plant 1 Cake	mg/kg dry	ND	3900					ND	400					<3900
Plant 2 Cake	mg/kg dry	ND	2600					ND	340					<2600
delta-BHC	0 0 7													
	mg/kg dry	ND	780					ND	80					<780
Plant 1 Cake	mg/kg dry	ND	530					ND	68					<530
Plant 1 Cake	mg/kg ury	ואט	550					ואט	00		1		1	<000
Plant 2 Cake														
Plant 2 Cake Dieldrin	ma military 1	ND	200				T	ND	40		T		T	000
Plant 2 Cake Dieldrin Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake	mg/kg dry mg/kg dry	ND ND	390 260					ND ND	40 34					<390 <260
Plant 2 Cake Dieldrin Plant 1 Cake	mg/kg dry				-									
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake					-									
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1	mg/kg dry	ND	260					ND	34					<260
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake	mg/kg dry	ND ND	390					ND ND	34					<260 <390
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake Plant 2 Cake Endosulfan 2 Cake	mg/kg dry mg/kg dry mg/kg dry	ND ND ND	390 260					ND ND ND	34 40 34					<260 <390 <260
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake	mg/kg dry mg/kg dry mg/kg dry mg/kg dry	ND ND ND	390 260 390					ND ND ND	34 40 34					<260 <390 <260 <390
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake Plant 2 Cake	mg/kg dry mg/kg dry mg/kg dry	ND ND ND	390 260					ND ND ND	34 40 34					<260 <390 <260
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake Plant 2 Cake Endosulfan Sulfate	mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry	ND ND ND	390 260 390 260					ND ND ND	34 40 34 40 34	     				<260 <390 <260 <390 <260
Plant 2 Cake Dieldrin Plant 1 Cake Plant 2 Cake Endosulfan 1 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake Plant 2 Cake Endosulfan 2 Plant 1 Cake Plant 2 Cake	mg/kg dry mg/kg dry mg/kg dry mg/kg dry	ND ND ND	390 260 390					ND ND ND	34 40 34					<260 <390 <260 <390

			Jan-	2016	Feb-2	016	Mar-2	2016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Endrin														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Endrin Aldehyde		0 0 7												
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13		1		T	ND	150		T		
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Endrin Ketone	LI A 0001	mg/kg dry	IND						IND	30				
Plant 1 Cake	EPA 8081	ma/ka dn	ND	.13		1			ND	150		T		T
		mg/kg dry												-
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
gamma-BHC												_		
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Heptachlor														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Heptachlor Epoxide	)													
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Methoxychlor		3.3.7												
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150		I		
Plant 2 Cake	EPA 8081		ND	2					ND	90				
Mirex	EFA 6001	mg/kg dry	IND						IND	90				
	EDA 0004		ND	07		I			ND	200				
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.27					ND	300				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	4					ND	180				
o,p'-DDD														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
o,p'-DDE														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
o,p'-DDT														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
p,p'-DDD	217(0001	mg/ng dry	IVE						IND	30				
Plant 1 Cake	EPA 8081	ma/ka dn	ND	.13		1		T	ND	150				T
		mg/kg dry												
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
p,p'-DDE														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
p,p'-DDT														
Plant 1 Cake	EPA 8081	mg/kg dry	ND	.13					ND	150				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	2					ND	90				
Total DDTs														
Plant 1 Cake	EPA 8081	mg/kg dry	ND						ND					
Plant 2 Cake	EPA 8081	mg/kg dry	ND						ND					
Toxaphene		9,9,	=											
Plant 1 Cake	EPA 8081	mg/kg dry	ND	5.3					ND	6100				
Plant 2 Cake	EPA 8081	mg/kg dry	ND	80					ND	3600				
CLP - Organochlorin	e Pesticides													
Aldrin														
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
alpha-BHC													,	
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										

			2016	Aug-2		Sep-2		Oct-2		Nov-2		Dec-2		Annual
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Endrin														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Endrin Aldehyde														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Endrin Ketone														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
gamma-BHC														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Heptachlor	3.3.7								1					
Plant 1 Cake	mg/kg dry	ND	390					ND	40		T			<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
		IND	200				1	IND	34					<200
Heptachlor Epoxide		ND	200					ND	40					-000
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Methoxychlor		1						1						
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Mirex														
Plant 1 Cake	mg/kg dry	ND	780					ND	80					<780
Plant 2 Cake	mg/kg dry	ND	530					ND	68					<530
o,p'-DDD		-						-						
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
o,p'-DDE	3.3.7								1					
Plant 1 Cake	mg/kg dry	ND	390					ND	40				Ī	<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
o,p'-DDT	mg/kg dry	IND	200					IND	04					\ <b>Z</b> 00
Plant 1 Cake	no or/lear alme	ND	200					ND	40					-200
	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
p,p'-DDD														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
p,p'-DDE														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
p,p'-DDT														
Plant 1 Cake	mg/kg dry	ND	390					ND	40					<390
Plant 2 Cake	mg/kg dry	ND	260					ND	34					<260
Total DDTs	0 0 7													
Plant 1 Cake	mg/kg dry	ND						ND			Ī		T	<390
Plant 2 Cake	mg/kg dry	ND						ND						<260
Toxaphene	ilig/kg diy	IND						IND						<b>\200</b>
Plant 1 Cake	mg/kg dry	ND	10000					ND	1000					40.000
		ND	16000					ND	1600					<16,000
Plant 2 Cake	mg/kg dry	ND	11000					ND	1400					<11,000
LP - Organochlorin	e Pesticides													
Aldrin		1												
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Diamet C Oct	/1	ND	0005				-				-			.0.000=
Plant 2 Cake	mg/L	ND	.0005											<0.0005
alpha-BHC			1											
	ma/l	ND	0005											-0.0005
Plant 1 Cake	mg/L	טאו	.0005											<0.0005

				2016	Feb-2		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average		Average	RL								
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
beta-BHC														
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Chlordane										1				
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.005										
delta-BHC	1011 (1311)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.001										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.001										
Dieldrin	TCLP(1311)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.0005										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.0005										
Endosulfan 1	TCLP(1311)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Endosulfan 2	,													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Endosulfan Sulfate	1021 (1011)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.001										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.001										
Endrin	1021 (1011)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081-	mg/L	ND	.0005										
Endrin Aldehyde	TCLP(1311)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.0005										<b> </b>
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.0005										
Endrin Ketone	TCLP(1311)							1						
Plant 1 Cake	EPA 8081-	mg/L	ND	.0005										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.0005										
DUO.	TCLP(1311)													
gamma-BHC	EDA 2021	//	NB	0000										_
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Heptachlor														
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Heptachlor + Epoxi			'		1	-		1			1			
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND											

	11.5		2016	Aug-2		Sep-2		Oct-2		Nov-2		Dec-2		Annual Mean
Plant 2 Cake	Units mg/L	Average ND	RL .0005	Average	RL	Average	KL	Average	RL	Average	RL	Average	RL 	<0.00050
I lain 2 Care	mg/L	ND	.0003											<0.0003
beta-BHC												_		_
Plant 1 Cake	mg/L	ND	.0005											<0.00050
Plant 2 Cake	mg/L	ND	.0005											<0.00050
Chlordane														
Plant 1 Cake	mg/L	ND	.005											<0.0050
Plant 2 Cake	mg/L	ND	.005											<0.0050
Like BUO														
delta-BHC Plant 1 Cake	mg/L	ND	.001								1			<0.0010
riant round	mg/L		.001											40.0010
Plant 2 Cake	mg/L	ND	.001											<0.0010
Dieldrin			1											
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.00050
Endosulfan 1														
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Diamet O Calva	/I	ND	0005											0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Endosulfan 2														
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Endosulfan Sulfate														
Plant 1 Cake	mg/L	ND	.001											<0.0010
Plant 2 Cake	mg/L	ND	.001											<0.0010
Endrin														
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Endrin Aldehyde														
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Endrin Ketone								1	1					1
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
gamma DLIC														
gamma-BHC Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Heptachlor														
Plant 1 Cake	mg/L	ND	.0005											<0.0005
Plant 2 Cake	mg/L	ND	.0005											<0.0005
Heptachlor + Epoxi	de										1		1	
Plant 1 Cake	mg/L	ND			T		T		T		T			<0.0005

			Jan-		Feb-2		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND											
Heptachlor Epoxide														
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Methoxychlor	- ( - )													_
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Mirex	1021 (1011)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.001										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.001										
o,p'-DDD	TCLP(1311)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.0005										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.0005										
o,p'-DDE	TCLP(1311)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081-	mg/L	ND	.0005										
o,p'-DDT	TCLP(1311)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
p,p'-DDD	1021 (1011)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
p,p'-DDE	10Li (1311)													
Plant 1 Cake	EPA 8081- TCLP(1311)	mg/L	ND	.0005										
Plant 2 Cake	EPA 8081-	mg/L	ND	.0005										
p,p'-DDT	TCLP(1311)							1				1		
Plant 1 Cake	EPA 8081-	mg/L	ND	.0005										Ī
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.0005										
Toxaphene	TCLP(1311)													
Plant 1 Cake	EPA 8081-	mg/L	ND	.025										
Plant 2 Cake	TCLP(1311) EPA 8081-	mg/L	ND	.025										
	TCLP(1311)	mg/L	ND	.023										
LC - Organochlorin	e Pesticides													
Aldrin Plant 1 Cake	EPA 8081-	μg/L	ND	.5										
Plant 2 Cake	STLC EPA 8081-	μg/L	ND	.5										
	STLC													
alpha-BHC								1						
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										

			_		•								Annual
	Average						Average		Average		Average	_	Mean
mg/L	ND												<0.0005
mg/L	ND	.0005											<0.00050
mg/L	ND	.0005											<0.00050
mg/L	ND	.0005											<0.0005
ma/l	ND	0005											<0.0005
mg/L	IND	.0003											<0.0003
mg/L	ND	.001											<0.0010
mg/L	ND	.001											<0.0010
mg/L	ND	.0005											<0.00050
ma/l	ND	0005									 		<0.00050
g/ _		.0000											ζο.σσσσ
mg/L	ND	.0005											<0.00050
mg/L	ND	.0005											<0.00050
		1											
mg/L	ND	.0005											<0.0005
mg/L	ND	.0005											<0.0005
ma/l	ND	0005											<0.00050
9/=													10.000
mg/L	ND	.0005											<0.0005
mg/L	ND	.0005											<0.0005
ma/l	ND	0005											-0.0005
mg/L	IND	.0003				-							<0.00050
mg/L	ND	.0005											<0.00050
mg/L	ND	.0005											<0.00050
ma/l	ND	025		 							 		<0.025
mg/L	IND	.023	1										<0.023
mg/L	ND	.025											<0.025
e Pesticide	es												
μg/L	ND	.5											<0.50
μg/L	ND	.5											<0.50
μg/L	ND	.5											<0.50
r-3-	·	1.2	1				1						13.00
μg/L	ND	.5											<0.50
	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Units Average mg/L ND	mg/L         ND            mg/L         ND         .0005           mg/L         ND         .0005           mg/L         ND         .0005           mg/L         ND         .001           mg/L         ND         .001           mg/L         ND         .0005           mg/L         ND         .0025           mg/L         ND         .025           mg/L         ND         .025           mg/L         ND         .5           mg/L         ND         .5	Units         Average         RL         Average           mg/L         ND             mg/L         ND         .0005            mg/L         ND         .0025            mg/L         ND <td< td=""><td>Units         Average mg/L         RL         Average mg/L         RL           mg/L         ND              mg/L         ND         .0005             mg/L         ND         .0005             mg/L         ND         .0005             mg/L         ND         .001             mg/L         ND         .0005             mg/L         ND</td><td>Units         Average         RL         Average         RL         Average           mg/L         ND               mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .001              mg/L         ND         .0001              mg/L         ND         .0005              &lt;</td><td>Units         Average MD         RL         Average Average</td><td>Units         Average mg/L         RL         <th< td=""><td>Initis         Average MD         RL         Average RL         Average RL         RV         RV</td></th<><td>Units         Average         RL         Inchmission         Inchmission</td><td>  No</td><td>Units         Average RL MD         Average RL MD<!--</td--><td>  No</td></td></td></td<>	Units         Average mg/L         RL         Average mg/L         RL           mg/L         ND              mg/L         ND         .0005             mg/L         ND         .0005             mg/L         ND         .0005             mg/L         ND         .001             mg/L         ND         .0005             mg/L         ND	Units         Average         RL         Average         RL         Average           mg/L         ND               mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .0005              mg/L         ND         .001              mg/L         ND         .0001              mg/L         ND         .0005              <	Units         Average MD         RL         Average	Units         Average mg/L         RL         Average mg/L         RL <th< td=""><td>Initis         Average MD         RL         Average RL         Average RL         RV         RV</td></th<> <td>Units         Average         RL         Inchmission         Inchmission</td> <td>  No</td> <td>Units         Average RL MD         Average RL MD<!--</td--><td>  No</td></td>	Initis         Average MD         RL         Average RL         Average RL         RV         RV	Units         Average         RL         Inchmission         Inchmission	No	Units         Average RL MD         Average RL MD </td <td>  No</td>	No

			Jan-		Feb-2		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average	RL										
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Chlordane														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	5										
delta-BHC	0.20													
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	1										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	1										
Dieldrin														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Endosulfan 1			1	1	1		1	1	I		1	1	1	
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Endosulfan 2				1		1		1	1	1		1	1	
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Endosulfan Sulfate														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	1										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	1										
Endrin														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Endrin Aldehyde														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Endrin Ketone														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
gamma-BHC														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Heptachlor														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Heptachlor Epoxide							,							
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Methoxychlor														

	Units	Jul-2	016 RL	Aug-20 Average		Sep-20 Average	016 RL	Oct-2	016 RL	Nov-20 Average	016 RL	Dec-2	016 RL	Annua Mean
Plant 1 Cake	µg/L	Average ND	.5	Average	KL				KL 			Average	KL	<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Chlordane														
Plant 1 Cake	μg/L	ND	5											<5.0
Plant 2 Cake	μg/L	ND	5											<5.0
delta-BHC														
Plant 1 Cake	μg/L	ND	1											<1.0
Plant 2 Cake	μg/L	ND	1											<1.0
Dialdria														
Dieldrin Plant 1 Cake	μg/L	ND	.5											<0.50
Plant I Cake	µg/L	טאו	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Endosulfan 1														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Endosulfan 2														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
ndosulfan Sulfate														
Plant 1 Cake	μg/L	ND	1											<1.0
Plant 2 Cake	μg/L	ND	1											<1.0
Endrin														
Plant 1 Cake	μg/L	ND	.5		1									<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Endrin Aldehyde														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Endrin Ketone														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
gamma-BHC							-		1		1			
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Jontook!s=														
Heptachlor Plant 1 Cake	μg/L	ND	.5						T					∠n En
														<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
leptachlor Epoxide	;						-	-	1		1			
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50

			Jan-2		Feb-2		Mar-2		Apr-2		May-2		Jun-2	
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Mirex														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	1										
Plant 2 Cake	EPA 8081- STLC	µg/L	ND	1										
o,p'-DDD														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
o,p'-DDE	0120													
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
o,p'-DDT	3120													
Plant 1 Cake	EPA 8081-	μg/L	ND	.5										
	STLC													
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
p,p'-DDD	EDA 6004	. /1	ND											
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
p,p'-DDE														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
p,p'-DDT														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	.5										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	.5										
Total DDTs														
Plant 1 Cake	EPA 8081- STLC	μg/L	ND											
Plant 2 Cake	EPA 8081- STLC	μg/L	ND											
Toxaphene					1		'		'					
Plant 1 Cake	EPA 8081- STLC	μg/L	ND	25										
Plant 2 Cake	EPA 8081- STLC	μg/L	ND	25										
<b>O</b> Do														
CBs PCB 1016										T				
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB 1221														
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB 1232														
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB 1242			!		!	-	!	-	!	!	!		!	-
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB 1248	L. / \ 000Z	Parna ury	1.10	.500	1				1,10	550				

		Jul-2		Aug-2		Sep-20		Oct-2		Nov-2		Dec-2		Annua
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Mirex														
Plant 1 Cake	μg/L	ND	1											<1.0
Plant 2 Cake	μg/L	ND	1											<1.0
o,p'-DDD														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
o,p'-DDE														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
o,p'-DDT														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
p,p'-DDD														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	µg/L	ND	.5											<0.50
Plant 2 Cake	µg/L	IND	.5											<0.50
p,p'-DDE														ı
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
p,p'-DDT														
Plant 1 Cake	μg/L	ND	.5											<0.50
Plant 2 Cake	μg/L	ND	.5											<0.50
Total DDTs														
Plant 1 Cake	μg/L	ND												<0.50
Plant 2 Cake	μg/L	ND												<0.50
Toxaphene Plant 1 Cake	μg/L	ND	25											. 0.5
Flant I Cake	µg/L	IND	25									-		< 25
Plant 2 Cake	μg/L	ND	25											< 25
CBs														
PCB 1016														
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB 1221														
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB 1232	, .		1								1			
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB 1242		NE	0000					Lue-			1			-
Plant 1 Cake Plant 2 Cake	μg/kg dry	ND	3300					ND	390 340					<3300
DI==+ 0 O=1	μg/kg dry	ND	3700					ND						<3700

			Jan-2	2016	Feb-2	016	Mar-2	016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB 1254	21710002	pg/ng ary	110	1000					110	000				
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300				T	ND	1500				
Plant 2 Cake	EPA 8082		ND	1000		-			ND	900				-
	EFA 0002	μg/kg dry	טאו	1000				-	טאו	900				
PCB 1260	ED4 0000	, ,	NIB	1000					NID	1500				
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
PCB_HR_DM														
Plant 1 Cake	EPA 8082	μg/kg dry	ND	1300					ND	1500				
Plant 2 Cake	EPA 8082	μg/kg dry	ND	1000					ND	900				
Total PCBs														
Plant 1 Cake	EPA 8082	μg/kg dry	ND						ND					
Plant 2 Cake	EPA 8082	μg/kg dry	ND						ND					
erbicides														
2,4,5-T														
Plant 1 Cake	EPA 8151	ua/ka day	ND	240			 	T				1		T
		μg/kg dry				-		-				-		-
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
2,4,5-TP (Silvex)												_		
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
2,4-D														
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
2,4-DB														
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240								Ī		
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
4-Nitrophenol		µ9,9 a.,	=	1.00										
Plant 1 Cake	EPA 8151	μg/kg dry	ND	940										
Plant 2 Cake						-		-				-		-
	EPA 8151	μg/kg dry	ND	730										
Dalapon														_
Plant 1 Cake	EPA 8151	μg/kg dry	770	2900										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	2200										
Dicamba														
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
Dichlorprop (2,4-DF	P)													
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240						<b></b>				
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
Dinoseb (DNBP)		F99)	1											
Plant 1 Cake	EPA 8151	μg/kg dry	ND	1400				Ī		1		1		1
Plant 2 Cake	EPA 8151	μg/kg dry μg/kg dry	ND	1100										
	EFACISI	μg/kg dry	טאו	1100				-						
MCPA						1								
Plant 1 Cake	EPA 8151	μg/kg dry	ND	57000										
Plant 2 Cake	EPA 8151	μg/kg dry	16000	44000										
MCPP														
Plant 1 Cake	EPA 8151	μg/kg dry	8400	57000										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	44000										
Pentachlorophenol														
Plant 1 Cake	EPA 8151	μg/kg dry	ND	240										
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
Picloram		رانه وو س				-								-
Plant 1 Cake	EPA 8151	ua/ka da	ND	240		1_		1		1		1_		
		μg/kg dry												
Plant 2 Cake	EPA 8151	μg/kg dry	ND	180										
CLP - Herbicides														
2,4,5-T														
Plant 1 Cake	EPA 8151-	mg/L	ND	.025										
	TCLP(1311)			1	1			1		1		1	1	

		Jul-2	2016	Aug-2	016	Sep-20	016	Oct-2	016	Nov-2	016	Dec-2	016	Annual
	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB 1254														
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB 1260		-				-		-		-				
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
PCB_HR_DM					-						-			
Plant 1 Cake	μg/kg dry	ND	3300					ND	390					<3300
Plant 2 Cake	μg/kg dry	ND	3700					ND	340					<3700
Total PCBs														
Plant 1 Cake	μg/kg dry	ND						ND					<b></b>	<3300
Plant 2 Cake	μg/kg dry	ND						ND						<3700
riant 2 dans	F-3/37							1						10.00
erbicides														
2,4,5-T														
Plant 1 Cake	μg/kg dry	ND	250		T		I				1		T	< 250
Plant 2 Cake		ND	210										 	< 210
	μg/kg dry	טאו	210										-	< 210
2,4,5-TP (Silvex)	. /	00	050						1				I	
Plant 1 Cake	μg/kg dry	69	250											69
Plant 2 Cake	μg/kg dry	190	210											190
2,4-D														
Plant 1 Cake	μg/kg dry	ND	250											< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
2,4-DB														
Plant 1 Cake	μg/kg dry	ND	250											< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
4-Nitrophenol														
Plant 1 Cake	μg/kg dry	ND	1000											<1000
Plant 2 Cake	μg/kg dry	ND	820											< 820
Dalapon														
Plant 1 Cake	μg/kg dry	ND	3000											770
Plant 2 Cake	μg/kg dry	ND	2500											< 2500
Dicamba														
Plant 1 Cake	μg/kg dry	ND	250											< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
Dichlorprop (2,4-DF														
Plant 1 Cake	μg/kg dry	ND	250				T						T	< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
Dinoseb (DNBP)	pg/ng ary	I I I	210											12.0
Plant 1 Cake	μg/kg dry	ND	1500											< 1500
Plant 2 Cake	μg/kg dry	ND	1200											< 1200
MCPA	μg/kg ury	IND	1200										ļ	< 1200
Plant 1 Cake	110/lcm -l	ND	61000		T						T			. 04 00
	μg/kg dry				-		-				-		_	< 61,000
Plant 2 Cake	μg/kg dry	ND	50000											16,000
MCPP					_				1		_			
Plant 1 Cake	μg/kg dry	ND	61000											8,400
Plant 2 Cake	μg/kg dry	ND	50000											< 50,00
Pentachlorophenol													_	
Plant 1 Cake	μg/kg dry	ND	250											< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
Picloram														
Plant 1 Cake	μg/kg dry	ND	250											< 250
Plant 2 Cake	μg/kg dry	ND	210											< 210
		-		-	-	-		-	+	-	-	-	-	-
CLP - Herbicides														
2,4,5-T														
2,4,5-1														
Plant 1 Cake	mg/L	ND	.025											<0.025

				-2016	Feb-2		Mar-2		Apr-2		May-2		Jun-20	
	Method	Units	Average		Average	RL	Average	RL		RL	Average		Average	RL
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.025										
2,4,5-TP (Silvex)	· · · · ·													
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.025										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.025										
2,4,6-Trichlorophen														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8151-	mg/L	ND	.05										
2,4-D	TCLP(1311)													
Plant 1 Cake	EPA 8151-	ma/l	ND	.05								I		T
	TCLP(1311)	mg/L												
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
2,4-DB														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
2,6-Dichlorophenol														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
3,5-Dichlorobenzoid														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151-	mg/L	ND	.1										
4-Nitrophenol	TCLP(1311)													
Plant 1 Cake	EPA 8151-	mg/L	ND	.1										
	TCLP(1311)													
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
ACIFLUORFEN														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
BENTAZON	, ,		'			-	'		1				'	
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Chloramben	. 02. (1011)					1								
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151-	mg/L	ND	.1										
Dalassi	TCLP(1311)					1								
Dalapon	EDA 0454	/'	ND	-		1		I				I		_
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.5										-
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.5										
DCPA														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										-
Dicamba	( - ')		<u> </u>		1	1		-	1		1		-	
Plant 1 Cake	EPA 8151-	mg/L	ND	.05				T						

			l-2016	Aug-2		Sep-2		Oct-2		Nov-20		Dec-2		Annua
DI 1001	Units	Average		Average	RL	Average	RL	Average	RL		RL	Average	RL	Mean
Plant 2 Cake	mg/L	ND	.025											<0.025
2,4,5-TP (Silvex)														
Plant 1 Cake	mg/L	ND	.025											<0.025
Plant 2 Cake	mg/L	ND	.025											<0.025
2,4,6-Trichlorophen	ol													l
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,4-D														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,4-DB														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
2,6-Dichlorophenol														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
3,5-Dichlorobenzoio	a acid													
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
4-Nitrophenol														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
AOIELLIODEEN														
ACIFLUORFEN Plant 1 Cake	mg/L	ND	.1											<0.10
Flant I Cake	IIIg/L	ND	.'						-					<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
BENTAZON					-	'		'	'			'		
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Chloramben														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Dalapon							1							
Plant 1 Cake	mg/L	ND	.5											<0.50
	_													
Plant 2 Cake	mg/L	ND	.5											<0.50
DCPA														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
Dicamba														
Plant 1 Cake	mg/L	ND	.05											<0.050

				2016	Feb-2			-2016	Apr-2		May-2		Jun-2	
	Method	Units	Average		Average	_	Average	RL	Average		Average	_	Average	R
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
Dichlorprop (2,4-DF														
Plant 1 Cake	EPA 8151-	mg/L	ND	.05										
Plant 2 Cake	TCLP(1311) EPA 8151-	mg/L	ND	.05										
	TCLP(1311)													
Dinoseb (DNBP)														
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.1										
MCPA	,													
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	12										
Plant 2 Cake	EPA 8151-	mg/L	ND	12										
MODD	TCLP(1311)													
MCPP	EDA 0454	ma a: /I	NID	10										
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	12										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	12										
Pentachlorophenol													_	
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.025										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.025										
Picloram	10L1 (1311)													
Plant 1 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
Plant 2 Cake	EPA 8151- TCLP(1311)	mg/L	ND	.05										
41														
ther 2,3,7,8-Tetrachloro	dibanza n diavi													
Plant 1 Cake	•		ND	20		T			ND	20		Ī		
Plant 2 Cake	EPA 1613B	pg/g dry		28 19		-			ND	30				
	EPA 1613B	pg/g dry	ND	19					ND	23				
Chrysotile		0/ 1	NID						ND	1	1			
Plant 1 Cake		% dry	ND						ND					
Plant 2 Cake		% dry	ND						ND					
Paint Filter Free Lic														
Plant 1 Cake	EPA 9095A	-	NEG		NEG		NEG		NEG		NEG		NEG	
Plant 2 Cake	EPA 9095A	-	NEG		NEG		NEG		NEG		NEG		NEG	
	_													
entatively Identified (														
.BETASITOSTER														
Plant 1 Cake	EPA 8270C	μg/kg dry	440000	65000										
1000147-77-7														
Plant 2 Cake	EPA 8270C	μg/kg dry												
1000210-86-9									,					
Plant 2 Cake	EPA 8270C	μg/kg dry												
2,7-Dimethyl-3,5-di									1		1			
Plant 2 Cake	EPA 8270C	μg/kg dry	570000	110000	)									
2-ETHYL-3-METH						-						-		_
Plant 1 Cake	EPA 8270C	µg/kg dry							380000	74000				-
			1						300000	74000		1		
2-Pentanone, 4-hyd									1000	<b></b>				
Plant 1 Cake	EPA 8270C	μg/kg dry							1300000	74000				
	EPA 8270C	μg/kg dry							1100000	27000				
Plant 2 Cake														
Plant 2 Cake	EPA 8270C	μg/kg dry												
Plant 2 Cake 758-16-7														
Plant 2 Cake 758-16-7 Plant 2 Cake				110000										

Plant 2 Cake	I Indian		2016	Aug-2		Sep-20		Oct-2		Nov-2		Dec-2		Annual Mean
	Units mg/L	Average	RL .05	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL 	<0.050
riant 2 Gate	9/ =													۷٥.٥٥٥
Dichlorprop (2,4-DF	P)													
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
Dinoseb (DNBP)														
Plant 1 Cake	mg/L	ND	.1											<0.10
Plant 2 Cake	mg/L	ND	.1											<0.10
MCPA														
Plant 1 Cake	mg/L	ND	12											< 12
Plant 2 Cake	mg/L	ND	12											< 12
MCPP														
Plant 1 Cake	mg/L	ND	12											< 12
Plant 2 Cake	mg/L	ND	12											< 12
Pentachlorophenol											1			
Plant 1 Cake	mg/L	ND	.025											<0.025
Plant 2 Cake	mg/L	ND	.025											<0.025
Picloram														
Plant 1 Cake	mg/L	ND	.05											<0.050
Plant 2 Cake	mg/L	ND	.05											<0.050
	الد د د د داناد													
	dibenzo-p-dio	oxin ND	27					ND	11					<30
2,3,7,8-Tetrachloro		-	27					ND ND	11 9.1					<30 <24
	pg/g dry	ND					-							
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake	pg/g dry	ND					-							
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile	pg/g dry pg/g dry	ND ND	24					ND	9.1					<24
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry	ND ND	24					ND ND	9.1					<24 ND
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry	ND ND	24					ND ND	9.1					<24 ND
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake	pg/g dry pg/g dry % dry % dry quid test	ND ND ND	24  					ND ND ND	9.1					<24 ND ND
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test	ND ND ND ND	 	  NEG		   NEG		ND ND ND	9.1	  NEG	   	   NEG		<24  ND ND ND NEG
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds	ND ND ND ND	 	  NEG		   NEG		ND ND ND	9.1	  NEG	   	   NEG		<24  ND ND ND NEG
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL	ND ND ND ND NEG NEG	 	  NEG		   NEG		ND ND ND	9.1	  NEG	   	   NEG		<24  ND ND ND NEG NEG
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER	pg/g dry pg/g dry % dry % dry quid test Compounds	ND ND ND ND	     	  NEG NEG		   NEG NEG		ND ND ND NEG NEG	9.1	  NEG NEG		  NEG NEG		<24  ND ND ND NEG NEG
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL	ND ND ND ND NEG NEG	     	  NEG NEG		   NEG NEG		ND ND ND NEG NEG	9.1	NEG NEG		  NEG NEG		<24 ND ND NEG NEG 440,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Other Plant 2 Cake Natively Identified 0 SETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL μg/kg dry	ND ND ND NEG NEG	24       	NEG NEG		NEG NEG		ND ND NEG NEG	9.1	NEG NEG		NEG NEG		<24 ND ND NEG NEG 440,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL μg/kg dry	ND ND ND NEG NEG	24       	NEG NEG		NEG NEG		ND ND NEG NEG	9.1	NEG NEG		NEG NEG		<24 ND ND NEG NEG 440,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry	ND ND ND NEG NEG	24	NEG NEG	     	NEG NEG		ND ND NEG NEG 240000	9.1	NEG NEG		NEG NEG		<24 ND ND NEG NEG 440,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Paint Filter Free Lic Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry	ND ND ND NEG NEG	24	NEG NEG	     	NEG NEG		ND ND NEG NEG 240000	9.1	NEG NEG		NEG NEG		<24 ND ND NEG NEG 440,000 240,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake 2,7-Dimethyl-3,5-dii Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry µg/kg dry µg/kg dry	ND ND ND NEG NEG	24       	NEG NEG		NEG NEG		ND ND NEG NEG 240000	9.1    17000	NEG NEG	       	NEG NEG		<24 ND ND NEG NEG 240,000 180,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Intatively Identified 0 BETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake 2,7-Dimethyl-3,5-dii Plant 2 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry µg/kg dry µg/kg dry	ND ND ND NEG NEG	24       	NEG NEG		NEG NEG		ND ND NEG NEG 240000	9.1    17000	NEG NEG	       	NEG NEG		<24 ND ND NEG NEG 440,000 240,000 180,000 570,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Plant 2 Cake Intatively Identified 0 IBETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake 2,7-Dimethyl-3,5-dii Plant 2 Cake 2-ETHYL-3-METHY Plant 1 Cake	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry methylthio-2h µg/kg dry //LCYCLOPE µg/kg dry	ND ND ND NEG NEG H-1,2,4-t NTENE	24	NEG NEG NEG	       	NEG NEG		ND ND NEG NEG 240000 180000	9.1    17000 17000	NEG NEG	       	NEG NEG	       	<24 ND ND NEG NEG 440,000 240,000 180,000 570,000
2,3,7,8-Tetrachloror Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Intatively Identified 0 INTERIOR I	pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry methylthio-2h µg/kg dry //LCYCLOPE µg/kg dry	ND ND ND NEG NEG H-1,2,4-t NTENE	24	NEG NEG NEG	       	NEG NEG		ND ND NEG NEG 240000 180000	9.1    17000 17000	NEG NEG	       	NEG NEG	       	<24 ND ND NEG NEG 440,000 240,000 180,000 570,000
2,3,7,8-Tetrachloror Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Intatively Identified (Interpretation of the plant 1 Cake) Interpretation of the plant 1 Cake Interpretation of the plant 2 Cake Interpretation of the plant 1 Cake Interpretation of the plant 2 Cake Interpretation of the plant 1 Cake Interpretation of the plant 1 Cake Interpretation of the plant 2 Cake Interpretation of	pg/g dry pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry µg/kg dry methylthio-2h µg/kg dry //CCYCLOPE µg/kg dry droxy-4-meth	ND ND ND NEG NEG H-1,2,4-t NTENE yl-	24	NEG NEG NEG	         	NEG NEG	         	ND ND NEG NEG 240000 180000	9.1	NEG NEG		NEG NEG	         	<24 ND ND NEG NEG 440,000 240,000 180,000 570,000 380,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake Intatively Identified 0 INSETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake 2,7-Dimethyl-3,5-dii Plant 2 Cake 2-ETHYL-3-METHY Plant 1 Cake 2-Pentanone, 4-hyc Plant 1 Cake Plant 2 Cake	pg/g dry pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry methylthio-2h µg/kg dry //LCYCLOPE µg/kg dry droxy-4-meth; µg/kg dry	ND   ND   ND   NEG   NEG	24             31000	NEG NEG	         	NEG NEG		ND ND NEG NEG 240000	9.1	NEG NEG	           	NEG NEG		<24 ND ND NEG NEG 440,000 240,000 180,000 570,000 380,000
2,3,7,8-Tetrachloro Plant 1 Cake Plant 2 Cake Chrysotile Plant 1 Cake Plant 2 Cake Plant 2 Cake Plant 1 Cake Plant 1 Cake Plant 1 Cake Plant 2 Cake OBETASITOSTER Plant 1 Cake 1000147-77-7 Plant 2 Cake 1000210-86-9 Plant 2 Cake 2,7-Dimethyl-3,5-dii Plant 2 Cake 2-ETHYL-3-METHY Plant 1 Cake 2-Pentanone, 4-hyc Plant 1 Cake	pg/g dry pg/g dry pg/g dry % dry % dry quid test Compounds OL µg/kg dry µg/kg dry µg/kg dry methylthio-2F µg/kg dry /LCYCLOPE µg/kg dry droxy-4-meth µg/kg dry µg/kg dry	ND   ND   ND   NEG   NEG   NEG   NEG   NEG   NEG   NEG   NET   NTENE   NTENE	24	NEG NEG	         	NEG NEG		ND ND NEG NEG 240000	9.1	NEG NEG	           	NEG NEG		<24  ND ND ND NEG

			Jan-2	2016	Feb-2	016	Mar-2	2016	Apr-2	2016	May-2	016	Jun-2	016
	Method	Units	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RI
9-OCTADECENOIO	C ACID, (E)-													
Plant 1 Cake	EPA 8270C	μg/kg dry	580000	65000					790000	74000				
Plant 2 Cake	EPA 8270C	μg/kg dry	2200000	110000					180000	27000				
Cholest-4-en-3-one	•													
Plant 1 Cake	EPA 8270C	μg/kg dry	300000	65000				T	650000	74000				T
Plant 2 Cake	EPA 8270C	μg/kg dry	540000	110000					97000	27000				
CHOLEST-5-EN-3-		13 3 7	1						11 111					-
Plant 1 Cake	EPA 8270C	μg/kg dry				T		T				T		T
CHOLEST-8-EN-3-														_
Plant 2 Cake	EPA 8270C	μg/kg dry												
Cholestan-3-ol		F9/119 G1)												
Plant 2 Cake	EPA 8270C	μg/kg dry							1000000	27000				
Cholestan-3-one	LI A 02/00	µg/kg ury							1000000	27000	<u> </u>			
	EDA 9270C	ua/ka day							1500000	74000				_
Plant 1 Cake	EPA 8270C	μg/kg dry							1500000	74000				
Plant 2 Cake	EPA 8270C	μg/kg dry							140000	27000				
Cholestan-3-one, (						1						_		_
Plant 1 Cake	EPA 8270C	μg/kg dry												
Plant 2 Cake	EPA 8270C	μg/kg dry							620000	27000				
CHOLESTAN-3-ON	NE, 4,4-DIMETI	HYL-, (5.ALP	HA											
Plant 2 Cake	EPA 8270C	μg/kg dry							130000	27000				
CHOLESTANE, 2,3	B-EPOXY-, (2.A	LPHA.,3.ALF	·Η											
Plant 1 Cake	EPA 8270C	μg/kg dry	1900000	65000										
Plant 2 Cake	EPA 8270C	μg/kg dry	2500000	110000										
CHOLESTANE, 3-E	ETHOXY-, (3.B	ETA.,5.ALPH	<i>F</i>											
Plant 1 Cake	EPA 8270C	μg/kg dry	470000	65000					240000	74000				Ī
CHOLESTANOL														_
Plant 1 Cake	EPA 8270C	μg/kg dry	2300000	65000					3000000	74000		T		Ī
Plant 2 Cake	EPA 8270C	μg/kg dry	2500000	110000										
CHOLESTEROL		F-9/97		1										_
Plant 1 Cake	EPA 8270C	μg/kg dry							780000	74000				T
Plant 2 Cake	EPA 8270C	μg/kg dry					 		120000	27000				
CYCLOHEXENE, 3									120000	27000				_
Plant 2 Cake	EPA 8270C	μg/kg dry						T		T		 		
		µg/kg diy				-								
Ergost-7-en-3-ol, (3														_
Plant 2 Cake	EPA 8270C	μg/kg dry												
n-Hexadecanoic ac														_
Plant 1 Cake	EPA 8270C	μg/kg dry	1400000											
Plant 2 Cake	EPA 8270C	μg/kg dry	3500000	110000										
OCTADECANOIC A														
Plant 1 Cake	EPA 8270C	μg/kg dry	430000	65000					400000	74000				
Plant 2 Cake	EPA 8270C	μg/kg dry	1000000	110000										
PREGN-5-EN-20-C	NE, 3-HYDRO	XY-												
Plant 1 Cake	EPA 8270C	μg/kg dry												Ī
Squalene														
Plant 1 Cake	EPA 8270C	μg/kg dry	350000	65000					510000	74000				
Plant 2 Cake	EPA 8270C	μg/kg dry	760000	110000										
TETRADECANOIC	ACID													_
Plant 1 Cake	EPA 8270C	μg/kg dry												T
Plant 2 Cake	EPA 8270C	μg/kg dry												
TRIDECANE	2.7.32.00	רש פייש												
Plant 2 Cake	EPA 8270C	μg/kg dry							93000	27000				T
UNKNOWN	LI A 02/00	μg/kg diy	1	1	ļ	ļ			93000	27000	ļ			
	EDA 00700					I						ı		_
Plant 1 Cake	EPA 8270C	μg/kg dry												
VITAMIN E						1								_
Plant 1 Cake	EPA 8270C	μg/kg dry												
Plant 2 Cake	EPA 8270C	μg/kg dry												

		Jul-2	016	Aug-20	116	Sep-20	116	Oct-2	016	Nov-20	116	Dec-2	016	Annual
	Units	Average	RL	Average		Average		Average		Average		Average		Mean
9-OCTADECENOIO		7.170.ugo		7 o. u.go	- `-	7.1. c. ago		7110.ugo		71101ago		7.1.0.490	- `-	
Plant 1 Cake	μg/kg dry	570000	31000					330000	20000					570,000
Plant 2 Cake	μg/kg dry	650000	62000					440000	17000					870,000
Cholest-4-en-3-one		00000	02000						1					010,000
Plant 1 Cake	μg/kg dry	270000	31000											410,000
Plant 2 Cake	μg/kg dry	470000	62000					150000	17000					310,000
CHOLEST-5-EN-3-		17 0000	02000					100000	17000					010,000
Plant 1 Cake	μg/kg dry							120000	20000		Ī		I	120,000
CHOLEST-8-EN-3-								120000	20000					120,000
Plant 2 Cake	μg/kg dry	-, 						770000	17000					770,000
Cholestan-3-ol	pg/ng ary							110000	17000					110,000
Plant 2 Cake	μg/kg dry	320000	62000					120000	17000					480,000
Cholestan-3-one	pg/kg dry	020000	02000					120000	17000					400,000
Plant 1 Cake	μg/kg dry				I		Ī				Ī			1,500,000
Plant 2 Cake	μg/kg dry μg/kg dry													140,000
Cholestan-3-one, (5														140,000
Plant 1 Cake	µg/kg dry	130000	31000											130,000
Plant 2 Cake						<del></del>								-
	µg/kg dry	 TUVI <i>(</i> 5 A												620,000
CHOLESTAN-3-ON Plant 2 Cake			NLFHA		I									420.000
	μg/kg dry	 ALDHA 2	^											130,000
CHOLESTANE, 2,3	· ·		ALPH		I								T	4 000 000
Plant 1 Cake	μg/kg dry													1,900,000
Plant 2 Cake	μg/kg dry	 DETA = A1	 											2,500,000
CHOLESTANE, 3-E	· · ·	BETA.,5.AL	_PHA.	I					1					
Plant 1 Cake	μg/kg dry													360,000
CHOLESTANOL					ı									
Plant 1 Cake	μg/kg dry	300000	31000					870000	20000					1,600,000
Plant 2 Cake	μg/kg dry													2,500,000
CHOLESTEROL														
Plant 1 Cake	μg/kg dry													780,000
Plant 2 Cake	μg/kg dry													120,000
CYCLOHEXENE, 3	`	PROPYL)-											_	
Plant 2 Cake	μg/kg dry	200000	62000											200,000
Ergost-7-en-3-ol, (3	3.													
Plant 2 Cake	μg/kg dry	210000	62000											210,000
n-Hexadecanoic ac	id													
Plant 1 Cake	μg/kg dry	1400000	31000											1,400,000
Plant 2 Cake	μg/kg dry	2000000	62000											2,800,000
OCTADECANOIC /	ACID													
Plant 1 Cake	μg/kg dry	530000	31000					230000	20000					400,000
Plant 2 Cake	μg/kg dry	560000	62000					290000	17000					620,000
PREGN-5-EN-20-C	NE, 3-HYDR	OXY-												
Plant 1 Cake	μg/kg dry	1800000	31000											1,800,000
Squalene									-			-		
Plant 1 Cake	μg/kg dry													430,000
Plant 2 Cake	μg/kg dry	390000	62000											580,000
TETRADECANOIC								'					1	
Plant 1 Cake	μg/kg dry	110000	31000											110,000
Plant 2 Cake	μg/kg dry	170000	62000					96000	17000					130,000
TRIDECANE	_ · - • •	1				ı		1		1		1		
Plant 2 Cake	μg/kg dry													93,000
UNKNOWN				!			-		-			!		,
Plant 1 Cake	μg/kg dry							130000	20000					130,000
VITAMIN E	1 J J		<u> </u>					1	1.00					
Plant 1 Cake	μg/kg dry	180000	31000											180,000
Plant 2 Cake	μg/kg dry μg/kg dry	250000	62000					98000	17000					170,000
i iaiii 2 Cane	pg/ng ury	200000	02000					33000	17000		<u> </u>			170,000





# 2013 Biosolids or Sewage Sludge Annual Report

Mail signed printout to: Robert Phalen, ADEQ Biosolids Coordinator 1110 W. Washington St., Phoenix, AZ 85007

and email file to: biosolids@azdeq.gov

Date signed =date(mm/dd/ year)	NPDES/AZP DES Permit#	APP#	Facility Name	Contact First Name	Contact Last Name	Contact Email	Title	FTE Residents served	Preparer or Applicator (P/A/AP)	Street or P.O. Box #	Street Name or "P.O. Box"
2/18/2017	110604		Orange County Sanitation District	Ron	Coss	rcoss@ocsd.com	Laboratory, Monitoring, and	2,500,000	Р	10844	Ellis Avenue
City	Zip	Phone	Lagoons/Tanks or LINED Drying Beds for ALL Sludge (Y/N)	Dry Tons Stored 01/01/14	Class (A/B/N)	Alternative #	VAR#	Dry Tons stored 12/31/14	Class (A/B/N)	Alternative #	VAR #
Fountain Valley	92708	(714)593-7450	N	0							
Dry Tons stored 01/01/13	Dry Tons in, from Daily Flow	Dry Tons Sludge Received	From Facility (Name)	Dry Tons Sludge sent away	To Facilty (Name)	Mark "S" if reporting Short, NOT Metric Tons	Dry Tons Additions to Sludge	Received / Sent Away Hauler	Hauler Phone		Follow Up
0	95258.6113										



# 2013 Biosolids or Sewage Sludge Annual Report

Mail signed printout to: Robert Phalen, ADEQ Biosolids Coordinator 1110 W. Washington St., Phoenix, AZ 85007

and email file to: biosolids@azdeg.gov

	Dry Tons			1					and em	all the lo. blost	olids@azdeq.gov
Disposition	out, weighed	Class (A/B/N)	Alternative #	VAR#	Fecal C/ Salm. (F/S)	To (Recipient Name)	Hauler Name	Hauler Phone	Application Site		
Surface Unit		-						<del>-</del> .	1		·
Surface Unit					-						
Landfill											
Landfill			-	-							
Landfill											
Composting	10237	В	2,AppB(A)(3)	1		Synagro	GIC Transports		AZ Soils Composting		
Composting							Паперопе	•	Composing		
Land Apply	26901	В	2,AppB(A)(3)	1		Tule Ranch	Western Express		AgTech & Desert Ridge -		-
Land Apply							LAPICOO		Descri Nage -		
Land Apply											
Land Apply								****	-		
Land Apply									-	·	
Land Apply								<del></del> ·			
Land Apply											
Land Apply							***			<u> </u>	
Land Apply											
Land Apply											
Land Apply											
Land Apply											
Land Apply								·		<del> </del>	
Land Apply											
Land Apply											
system desiane	ed to ensure th	at qualified pe	mation and descriptions have be ersonnel properly gather and ev	aluate the infor	mation used to d	letermine whether the	a	TAIL	M		
applicable bios	olids requirement of and imprisor	ents have bee	en met. I am aware that there a	re significant pe	nalties for false	certification including the	-	/ prus	1		<u> </u>

The history of OCSD's Biosolids Program is important to understand as we plan for the future. In order to maintain the integrity of this information for future generations, the historical information is maintained in this appendix.

### **Program History**

- In 1971, OCSD entered into a long-term contract with Goldenwest Fertilizer
  Co., Inc., a local fertilizer manufacturer, who hauled and composted the
  sludge off site. OCSD maintained contracts with Goldenwest Fertilizer Co. for
  several years until the firm lost their land lease for their composting operation
  in 1979. Contracts with other composting companies were also used during
  the 1970s.
- In 1978, after notification that their contract with Goldenwest Fertilizer Co. would be ending in 1979, OCSD presented a proposal to the County of Orange to co-dispose sludge with municipal solid waste at Orange County landfills. Following approval by Orange County and the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB): OCSD established an air drying/composting site at Coyote Canyon landfill. OCSD used this site as a sludge-drying operation until 1981 when it was converted to an open-air composting facility. This was done to reduce odors and dry the sludge to the required 50% solids content prior to being blended with municipal solid waste.
- The 50% solids requirement was set by the CRWQCB, by Order No. 79-55. In December 1982, the requirements were modified by Order No. 82-299. The new order reduced the required average solids content to 22.5%. In addition to the solids content requirements, the volume of refuse to sludge incorporated into the landfill was required to be a 10:1 ratio. After the new Order was issued and the treatment plant belt press dewatering system was installed, the air drying process was no longer needed and its operation was discontinued.
- In 1974, OCSD began a cooperative regional sludge management study with the City of Los Angeles, the Los Angeles County Sanitation Districts, the Environmental Protection Agency (EPA), and the CRWQCB. By a joint powers agreement, the Regional Wastewater Solids Management Program for the Los Angeles/Orange County Metropolitan Area (LA/OMA Project) had a separate staff and budget to develop a long-term solids reuse or disposal plan, including an implementation strategy for the Los Angeles/Orange County metropolitan areas. This extensive, six-year, \$4.0 million study, which covered all aspects of sludge processing and disposal, was completed in 1980. The conclusion was that each of the three entities would carry out its own sludge management program. For OCSD, land-based disposal and beneficial reuse were the study's preferred alternatives.

However, co-combustion and enclosed mechanical in-vessel composting alternatives at OCSD's Reclamation Plant No. 1 were added to OCSD's LA/OMA supplemental study when the recommended composting facilities were evaluated as being difficult to site.

- In 1978 and 1983, OCSD brought activated sludge facilities online at Plant No. 1 and Plant No. 2 respectively, which led to significant improvements of ocean water quality. By 1984, OCSD had replaced centrifuges that dewatered to about 20% with new belt presses at both plants. The new belt presses had to dewater to at least 22.5% in order to meet landfill requirements. As a result, waste activated secondary sludges were dewatered separately and sent to a private landfill. Clean Water Grant Funds aided in the construction of the important facilities improvements at Plant No. 2 including the activated sludge plant (\$45 million) and sludge handling/process facilities (\$30 million).
- In November 1983, OCSD's Boards of Directors submitted a new Residual, Solids Management Plan to the EPA. The plan included both short- and long-tern compliance strategies. The short-term compliance plan involved the continued practice of trucking 22.5% solids to Coyote Canyon landfill for co-disposal with municipal waste until the landfill closed in March 1990. It also included hauling sludge to private landfills using OCSD's trucks or private contractors. The long-term plan included co-disposal at county landfills and off-site reuse/management by private contractors.
- In November 1984, OCSD approved an interim sludge disposal program due to the limitation of the amount of sludge this could be co-disposed at Coyote Canyon. As part of this program, an agreement was made with BKK Corporation to take the balance of the sludge to the BKK-owned and operated landfill in West Covina (Los Angeles County). This contract expired in late 1991.
- In 1987, OCSD began a facilities master planning effort that culminated in July 1989. The 1989 30-year master plan, "2020 Vision," established 11 major objectives for maintaining our excellent record of environmental and public health protection including, "Sludge Reuse: OCSD will continue to promote multiple, beneficial reuse alternatives for sludge and strive to increase beneficial reuse from 60% to 100%. We will develop at least one in-county land disposal alternative as a backup to guarantee long-term reliability." The goals are summarized below:
  - Continue discussions with the County of Orange pertaining to landfill ·codisposal options;
  - Pursue co-disposal options at out-of county landfills;
  - Continue and/or expand use of private contracts to reuse or dispose of sludge;

- Pursue with Orange County Environmental Management Agency staff the use of sludge as the final cover for Coyote Canyon's closure;
- Monitor the status of the;
- Initiate a regular status review of OCSD management program that would provide centralized information in one location;
- Hire a full-time sludge manager to coordinate OCSD's overall sludge reuse/disposal program (completed in August of 1989).
- The goals noted above led to a series of new recycling options starting in 1988 using three separate contractors. Two contracts were created with compost contractors, and one was created with an agricultural land fertilization contractor. Using these three contractors, OCSD recycled about 50% of their sludge from 1988-1991.
- 1990: About 50% of the sludge is processed into compost by L. Curti Truck & Equipment and by Recyc; Inc., or applied directly to agricultural land by Pima Gro-Systems, Inc. The remaining 50% of the sludge is disposed in the BKK landfill in Los Angeles County. The dewatered sludge is hauled to the landfill and directly incorporated with municipal solid waste in conformance with operating requirements of the Regional Water Quality Control Board, Los Angeles.

Prior to March of 1990, landfill co-disposal was available at the Coyote Canyon landfill in Orange County and the BKK landfill. During this period 14% of the Districts' sludge went to Coyote Canyon and 36% went to BKK.

- On June 24, 1991 a new solids handling storage facility (truck loading) was
  placed in service. Plant No. 1 Belt Press Dewatering Building M was placed in
  service in February 1983. Belt Press Dewatering Building C was placed in
  service in October 1988. By 2018, the belt presses will be replaced by
  centrifuges, the DAFTs will be replaced by thickening centrifuges, and truck
  loading will be rehabilitated.
- Beginning in Beginning in November 1991, the Districts' Biosolids Management Program achieved a milestone of 100% beneficial reuse. Beneficial reuse allows the Districts to lower its management costs and eliminate the need to take up valuable landfill space. The program consisted of compost, direct land application, and a standby agreement to landfill the biosolids in the event of an emergency. Further benefits of switching to beneficial reuse was been a reduction in disposal costs. Beneficial reuse costed the Districts less than landfilling and was expected to become even more cost effective in the future as the market for compost material grows. About 73% of the biosolids are processed into compost by Pima Gro Systems, Inc. at the Riverside Recyc compost facility. The remaining 23% is applied directly to agricultural land by Ag Tech Company in Yuma, Arizona.

- During 1993-94, only one biosolids contractor was used to haul and manage the OCSD's biosolids produced by Plant No. 1. Pima Gro Systems, Inc. hauled the biosolids to the Recyc processing site in Riverside County where it was composted. The biosolids based compost was then sold to nearby farmers as a nutrient rich soil amendment and fertilizer.
- In late 1994, the Ag Tech Company was contracted to use OCSD biosolids to enhance agricultural soils, reduce the amount of irrigation water needed, and provide a much needed source of organic humus. The biosolids were injected 6 inches to 15 inches beneath the surface (in the root zone) within hours of their arrival to permitted farm lands.
- In June 1995, Bio Gro, a division of Wheelabrator Clean Water Systems, Inc., was added as a biosolids contractor. Biosolids were recycled on agricultural land in Riverside County. Pima Gro used commercial fertilizer spreaders to distribute the biosolids prior to incorporation on agricultural land in Kern County, California.
- In March 1996, Tule Ranch was added as a biosolids contractor. Pima Gro was still recycling biosolids in Kern County, California, and Bio Gro was recycling biosolids in Riverside. No composting was reported.
- In 1997, continued 100% beneficial reuse with all biosolids recycled via direct land application in Kern, Riverside, and San Diego counties.

The Districts also entered into a one-year pilot project contract with Waste Conversion Industries, Inc. (WCI) to chemically treat and heat dry the Districts' biosolids at their Corona, California site. Due to mechanical difficulties, WCI was not able to process any of the Districts' biosolids.

During fiscal year 1996-97, the Districts' biosolids management cost was reduced by approximately \$1 million from that of fiscal year 1995-96. New and amended biosolids management contracts as well increased efficiency in the Districts' belt operation contributed to the decrease in biosolids management costs. Upon the expiration of the Ag Tech contract and the termination of the Hondo contract, the Districts maintained only two active biosolids management contractors, Bio Gro and . Pima Gro. In August 1996, having only two active biosolids management contractors, and receiving numerous unsolicited lower cost biosolids management proposals Districts' staff prepared and issued a Request for Proposals for Biosolids Management (RFP). The RFP was necessary in order to increase biosolids management diversity and reliability while decreasing costs. Eight biosolids management firms submitted proposals. Bio Gro proposed to maintain their existing contract, but unilaterally offered a pricing amendment, while Pima Gro submitted a new proposal that provided the Districts with the option of

accepting the entire proposal or modify the pricing structure of the existing contract.

After extensive review and ranking of the proposals by staff, new contracts were offered to Tule Ranch and Waste Conversion Industries, Inc., while Bio Gro's and Pima Gro's existing contracts were amended to reflect their new price schedules.

- In 1998 through 2000, continued 100% beneficial reuse with all biosolids recycled via direct land application in Kern, Kings, San Diego and Riverside counties. Pima Gro, Bio Gro, and Tule Ranch were OCSD's biosolids contractors. Small amounts of biosolids were composted at Pimo Gro's Riverside composting facility, Bio Gro's Arizona Soils facility in La Paz County, Arizona, and by Pima Gro for a UCR Extension research project in Imperial County.
- In June 2000, OCSD purchased 1,800 acres of Tule Ranch's farm in Kings County, California, to provide a reliable, long-term site for treatment and land application of biosolids. Tule Ranch contracted to manage OCSD's biosolids its farm at a reduced cost per ton.
- In 2001, Synagro purchased Pima Gro and Bio Gro, and OCSD added Yakima as a contractor. One-hundred percent beneficial reuse via direct land application in Kern, Kings, San Diego, and Riverside. Synagro also recycled biosolids to tribal land farms in San Bernardino County, California. Small amounts were composted in Riverside and tribal land.

In 2001, Riverside County issued an ordinance that banned the use of Class B biosolids for land application but allowed limited use of Class A biosolids. In 2003, the restrictions were expanded to address nuisance problems related to Class A biosolids. Kern County's Class A requirement (Class B ban) went into effect in early 2002, and King's County followed in 2003 with only composted biosolids allowed after 2006.

- In 2002, as staff began work on a large-scale long-range biosolids management plan and contentious local county Class B land application bans were on the rise, OCSD began increasing diversification away from land application and added more composting in Riverside County. Biosolids were also recycled on Fort Mohave tribal land in Mohave County, Arizona and Clark County, Nevada.
- October 28, 2002 Yakima Co. began operations at their new biosolids management site in La Paz County, Arizona. The operation involved biosolids air drying to achieve material greater than 50% total solids and use as alternative daily cover at La Paz Landfill. A total of 4,628.09 wet tons (881.7 dry metric tons) of biosolids were managed through this process through

2002. This amount represents about 2% of the total District's biosolids material beneficially reused in land application operations during 2002. The District discontinued its use of the Yakima Co. for management of its biosolids in early January 2003. The facility was later shut-down by the County of La Paz and a lawsuit was won against the County by Yakima for \$9.2 million in damages.

- In 2002, OCSD's Board of Directors voted to increase the level of treatment to full-secondary treatment requirements, which produced significantly more biosolids, especially between 2002 to 2005, until the new dewatering centrifuges could be constructed and implemented at each plant (2018-2020). OCSD's focus through the 2000's was on building the water-side capital facilities to meet this increased level of service.
- In 2003, OCSD continued to encourage contractors to diversify its biosolids options, especially in Arizona and Nevada. OCSD started using Arizona Soils in La Paz County, Arizona on a regular basis. OCSD additionally piloted Tule Ranch's subcontractor, Universal, to utilize farms in Wellton and Dateland, Arizona for land application of about 6% of OCSD's biosolids. Tule Ranch's Class A lime stabilization process was started in order to continue recycling biosolids in Kern and Kings Counties. A small amount of biosolids was used in Maricopa County, Arizona.

In addition, OCSD started using Solid Solutions to recycle biosolids in Nye County, Nevada to further diversify the biosolids management program. Solid Solutions was a subcontractor to California Soils Products who had a 2002 contract with OCSD to render biosolids into a treated soil product.

By March 2004, OCSD pulled out of Nye because of a hearing with complaints from affected neighbors, local competition with dairy manure, and a letter from Nevada congressional representative, Harry Reid, whose brother was a local resident. This episode also captured the attention of the 2003-04 Orange County Grand Jury who performed an investigative study and published a report: http://www.ocgrandjury.org/pdfs/biosolids.pdf.

OCSD concluded its use of Solid Solutions in 2005 when it was clear that the Soil Products facility would not materialize.

- In December 2003, OCSD finalized a Long Range Biosolids Management Plan that set forth the following recommendations to ensure a sustainable biosolids management program. These recommendations were implemented over the following decade.
  - Maintain at least three different product-manufacturing options at any given time.
  - Optimize capital and operations and maintenance (O&M) costs at OCSD's treatment plants as part of implementation of the long-range plan.

- Limit maximum participation for any market to one-half of the total biosolids production.
- Limit biosolids management contracts to a maximum of one-third of total biosolids production per merchant facility, and one-half per contractor (for contractors with multiple product manufacturing facilities).
- For each OCSD-owned product manufacturing facility, limit the size to one-half of the total biosolids production.
- Explore funding options for in-county facilities (private capital, OCSD capital, or both).
- Allocate up to 10 percent of biosolids for participation in emerging markets.
- Pursue Orange County-based product manufacturing facilities and maximize the use of horticultural products within the OCSD service area by member agencies and through developing public-private partnerships.
- o Maintain capacity and options at OCSD's Central Valley Ranch.
- Pursue failsafe backup options (landfilling, alternative daily cover for landfills, and dedicated landfilling) to acquire a 100 percent contingency capacity.
- From November 1991 through December 2004, OCSD achieved 100
  percent beneficial reuse of its biosolids mostly through the use of land
  application with some composting.
- In 2004, OCSD started ramping up the land application in Arizona through Tule Ranch's Dateland operation, from about 10% in 2003 to 20% in 2004.
   OCSD also ramped up it's use of compost sites in California and Arizona from about 7% in 2003 to 20% in 2004.
- In January 2005 and 2006, OCSD sent a small fraction of its biosolids to two landfills in Arizona (Copper Mountain and South Yuma County Landfill) in order to increase the diversity of its biosolids management options, as well as address the operational needs caused by wet weather periods. The routes to these two landfills were not impacted by severe weather.
- Starting in 2006, Synagro eliminated their last remaining OCSD land application (Maricopa County), as fuel prices hit record highs, and focused on composting services.
  - On December 27, 2006, Synagro's new composting facility (South Kern Compost Manufacturing Facility) came online. This was the first long-term contract to become operational as an outcome of the 2003 Long-Range Biosolids Management Plan.
- In 2007, with OCSD's contract that guaranteed at least 250 tons per day to Synagro's new facility, OCSD's biosolids allocation to compost facilities expanded to its current level of about 50% of its total biosolids production.

These facilities have extensive permitting and regulatory oversight and reporting, improved public outreach with neighbors and local communities, and have more air quality and odor process controls. Today's framework is more sophisticated than what was in place two decades ago.

Land application was also allocated about 50% of OCSD's portfolio with half of that as lime-stabilized Class A in Kern County and half as Class B in Yuma County, Arizona.

- In March 2007, OCSD stopped actively using landfills and maintained this
  option only as a failsafe backup. OCSD re-gained its 100 percent recycling
  performance from 2008 through 2012 (excluding some digester cleanings).
- In August 2007, the Orange County Water District's (OCWD) Advanced Water Purification Facility, later called the Ground Water Replenishment System (GWRS), started taking an average of 30 MGD of Plant No. 1's secondary treated water to test their facility in purifying the water to meet drinking water standards. OCWD uses microfiltration and reverse osmosis, as well as ultraviolet (UV) disinfection. The water is used as a barrier for salt water intrusion and to recharge groundwater basins starting in January 2008. About 100 MGD of OCSD's secondary effluent produced about 70 MGD of purified water for reuse. Secondary effluent not sent to OCSD is sent as usual to Plant No. 2 to blends with treated wastewater from Plant No. 2 prior to ocean discharge through OCSD's 120-inch, 5-mile outfall.
- In October 2008, Synagro's Regional Compost Facility in Riverside County stopped receiving OCSD biosolids in order to prepare for the site's closure. The facility's conditional use permit was not renewed by the County of Riverside after homes were developed nearby and residents filed hundreds of odor complaints.
- In late 2008, OCSD stopped using Tule Ranch's farm in Kern County. This
  change in strategy culminated when the EnerTech facility started
  commissioning their process and Kern County required additional costly
  environmental studies to continue utilizing that option. OCSD's Kings County
  property was sold in December 2011.
- As part of the 2003 Long Range Biosolids Management Plan implementation, OCSD issued a series of request for proposals in 2004. As a result, EnerTech Environmental, Inc. was awarded a 225-ton guaranteed-minimum contract in 2005, which was signed in May 2006. The Rialto facility was constructed and began commissioning on November 3, 2008. OCSD reallocated Tule Ranch's Kern County land application loads to EnerTech to meet contractual obligations. EnerTech's patented technology used heat and pressure to convert biosolids to a certified renewable energy pellet (E-fuel) that was burned as a replacement for coal in local cement kilns. EnerTech encountered a series of technical and permitting setbacks during the

commissioning process. During the start-up process, biosolids not processed at the Rialto facility were land-applied in Yuma County, Arizona by Terra Renewal (formerly Solid Solutions).

In November 2010, EnerTech began implementation of a Single Train Technical Plan that was anticipated to address the issues and finish the commissioning process by March 2012. After a final extension and failure to meet contractual performance requirements, OCSD terminated its contract with EnerTech effective July 2012. OCSD re-allocated the EnerTech loads to our two remaining contractors, Synagro (composting) and Tule Ranch (land application), at about 50% each.

- March 2009, OCSD began diverted settled sludge from Plant No. 1's primary clarifiers, along with about 2.5 MGD of belt press dewatering filtrate, to Plant No. 2's headworks, where they are mixed with the influent wastewater. OCSD built a new pump station at Plant No. 1, the Steve Anderson Lift Station, in order to bring more flow into Plant No. 1 to provide more flows to GWRS. However, the additional flows produced more solids than Plant No. 1 was equipped to handle during rehabilitation of its digesters and construction of its thickening and dewatering centrifuges, making the diversion of these solids to Plant No. 2 necessary. OCSD diverted the cationic dewatering filtrate to protect GWRS from the dewatering polymers. The sludge diversion is anticipated to continue until the new sludge thickening and dewatering facility (P1-101) at Plant No. 1 is operational in 2018 per the current CIP schedule.
- In March 2010, OCSD sent a demonstration load to the City of Los Angeles Terminal Island Renewable Energy (TIRE) project via OCSD's contract with Tule Ranch. OCSD material was not compatible with their facility because the material required more screening than the City's biosolids.
- In April 2010, Tule Ranch permanently moved their land application operations from Dateland, AZ to Yuma, AZ.
- In January 2011, Tule Ranch formed an agreement with AgTech and managed OCSD biosolids at two sites (Desert Ridge and AgTech) in Yuma. The following year, Tule Ranch purchased the AgTech operations and integrated the two operations. Tule Ranch has continued land applying at both Yuma sites.
- In 2012, OCSD met the new NPDES ocean discharge permit's treatment requirements for secondary treatment standards. With full secondary treatment facilities operational, the focus is now on asset rehabilitation, including solids treatment facilities. The Capital Improvement Program Annual Report (<a href="https://www.ocsd.com/CIPAnnual">www.ocsd.com/CIPAnnual</a>) summarizes the projects and their progress.

- In February and March 2012, OCSD's Plant No. 2 biosolids exceeded the Arsenic Table 3 Exceptional Quality Limit for fields 23110121, 2311013, 2311021, and 2311022, but were below Table 1 Ceiling Concentrations. OCSD's land application contractor, Tule Ranch, already reports Table 2 Cumulative Pollutant Loading Rates for all pollutants and all fields as part of their annual report to the Arizona Department of Environmental Quality.
- As directed by the Board's November 2011 Strategic Plan direction, OCSD executed an agreement with Orange County Waste and Recycling (OCWR) to manage up to100 tons per day of OCSD's biosolids at the Prima Deshecha landfill located in the city of San Juan Capistrano, California. This alternative provides OCSD a local biosolids management option during projected peak biosolids production period until 2017.

As a result of the landfill start-up in 2013, OCSD is recycling about 94-97% of its biosolids, with the remaining biosolids going to the OCWR landfill. Landfill loads do not count towards recycling despite the indirect energy production from capturing methane onsite. OCSD sends the landfill about 1 truck per day of grit and screenings (non-recyclable material) and 3 trucks of biosolids per day (5 days per week when not impacted by rain) in order to keep some revenues and resources in-County (see also OCSD Biosolids Policy Board Resolution 13-03: ocsd.com/policy.

However, after residential complaints about odor in late 2016, biosolids loads to the landfill were on hiatus until operations moved further away from the phase of the housing development that opened in Fall of 2016. With the heavy rains received December through February 2017, the landfill was operating in a different section, and OCSD remained on hiatus.

- In 2015, OCSD awarded a professional engineering services contract for developing a new Biosolids Master Plan. The Biosolids Master Plan will meet one of the goals in OCSD's 5-year Strategic Plan (<a href="www.ocsd.com/5yearstrategicplan">www.ocsd.com/5yearstrategicplan</a>), which is to recommend future biosolids management options, as well as recommending and providing design of capital facility improvements for a 20-year planning period. The Plan is anticipated to be published in spring 2017.
- OCSD is replacing the belt filter presses with new dewatering centrifuge facilities, which are scheduled to start service in 2018 for Plant No. 1 and in 2020 for Plant No. 2. As a result, the total percent solids of digested biosolids is anticipated to increase from 18-22% to 30%, resulting in approximately one-third fewer solids to manage. In addition, this project is also bringing predigestion thickening centrifuges to replace the dissolved air floatation thickening at Plant No. 1, and will rehabilitation the Plant No. 1 truck loading facility.

- In November 2016, the Kern Measure E (2006) biosolids ban was struck down. A Tulare County Superior Court judge ruled that Kern County Measure E is invalid and unlawful. The Judge found that Measure E, the ordinance banning land application of biosolids in the unincorporated areas of the county, is preempted by state recycling laws and exceeded Kern's police powers. The judge granted a permanent injunction against enforcing Measure E.
- The Irvine Ranch Water District (IRWD) discharges its untreated solids (sludge) to OCSD. IRWD is currently constructing their own solids treatment facility and plans to cease sending their solids to OCSD by 2018. This cessation is anticipated to reduce Plant No. 1's influent solids by 10-15%.

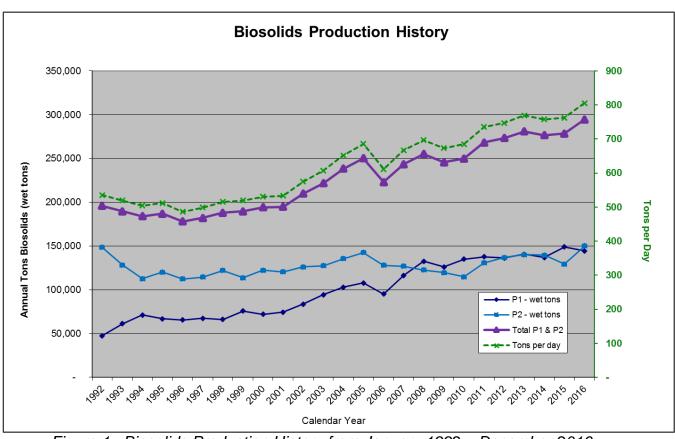


Figure 1: Biosolids Production History from January 1992 - December 2016

### **Biosolids Program Policy**

Originally adopted in 1999 and amended in 2006 and 2013, OCSD's Resolution 13-03 (<a href="www.ocsd.com/policy">www.ocsd.com/policy</a>), established a policy that commits the agency to support biosolids beneficial reuse (organics recycling). The resolution states OCSD is committed to:

- A sustainable biosolids program.
- Diversifying its portfolio of offsite biosolids management options with multiple biosolids contractors, markets, facilities, and maintaining failsafe back-up capacity at least 100% of its daily biosolids production.
- Supporting the recycling of biosolids.
- Striving to balance financial, environmental, and societal considerations when making biosolids decisions.
- Utilizing a biosolids management system to maintain a sustainable and publicly supported biosolids program.
- Researching and implementing ways to reduce the volume of biosolids at the treatment plants to minimize the need for offsite management.
- Declaring its support of continuing to research biosolids benefits and potential safety concerns.
- Demonstrating the benefits of biosolids compost by using it at the OCSD's facilities.



## **Sewage Sludge (Biosolids) Annual Report**

EPA Regulations - 503.18, 503.28, 503.48

#### INSTRUCTIONS

EPA's sewage sludge regulations (40 CFR part 503) require certain POTWs and Class I sewage sludge management facilities to submit to an annual biosolids report. POTWs that must submit an annual report include POTWs with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more. This is the biosolids annual report form for POTWs and Class I sewage sludge management facilities in the 42 states and all tribes and territories where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge' also refers to the material that is commonly referred to as 'biosolids.' EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.

Please note that questions with a (\*) are required. Please also note that EPA may contact you after you submit this report for more information regarding your sewage sludge program.

Questions regarding this form should be directed to the NPDES Electronic Reporting Helpdesk at:

• NPDESeReporting@epa.gov OR	
• 1-877-227-8965	

What action would you like to take? *
New Biosolids Program Report

#### 1. Program Information

Please select the NPDES ID number below for this Sewage Sludge (Biosolids) Annual Repo	ort.*	
CAL110604: Orange County SD #1		
If you do not see the NPDES ID associated with your facility, please Cancel and within the <u>epanet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids</u>	Forms tab submit a NPDES ID Access Request. Comp	olete instructions are available in the Biosolids Users Guide at: <a href="https://">https://</a>
Facility Name: Orange County SD #1		
Street: 10844 Ellis Avenue		
City: FOUNTAIN VALLEY		
State: CA		
<b>Zip Code</b> : 92708-7018		
1.1 Please select at least one of the following options pertaining to your obligation to sub	mit a Sewage Sludge (Biosolids) Annual Report in co	impliance with 40 CFR 503. The facility is: *
a POTW with a design flow rate equal to or greater than one million gallons per day	a POTW that serves 10,000 people or more	a Class I Sludge Management Facility as defined in 40 CFR 503.9
Otherwise required to report (e.g. permit condition, enforcement action)	none of the above	

1.2 Reporting Perio	od Start and End Dates	
Start Date of Repo	orting Period * End Date of Reporting Period *	
01-01-2016	12-31-2016	
2. Facility Information		
-	wage Sludge Treatment Processes	
	oox next to the following biosolids or sewage sludge treatment pr	rocesses that you used on the sewage sludge or biosolids generated or produced at your facility during the reporting period (check one or
	tion Operations (see Appendix B to Part 503)	Physical Treatment Operations
Processes to Signif	ficantly Reduce Pathogens (PSRP)	Preliminary Operations (e.g., sludge grinding, degritting, blending)
Aerobic Diges	ition	Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)
Air Drying (or	"sludge drying beds")	Sludge Lagoon
Anaerobic Dig	gestion	Other Processes to Manage Sewage Sludge
Lower Temper	rature Composting	Temporary Sludge Storage (sewage sludge stored on land 2 years or less, not in sewage sludge unit)
Lime Stabiliza	tion	Long-term Sludge Storage (sewage sludge stored on land 2 years or more, not in sewage sludge unit)
Processes to Furth	er Reduce Pathogens (PFRP)	Methane or Biogas Capture and Recovery
Higher Tempe	erature Composting	Other Treatment Process:
Heat Drying (e	e.g., flash dryer, spray dryer, rotary dryer)	
Heat Treatmer	nt (Liquid sewage sludge is heated to temp. of 356°F (or 180°C) or	higher for 30 min.)
Thermophilic A	Aerobic Digestion	
Beta Ray Irradi	iation	
Gamma Ray Iri	radiation	
Pasteurization	1	
2.2 Biosolids or Sev	wage Sludge Analytical Methods	
also specify the an	pecify that representative samples of sewage sludge that is applie allytical methods that must be used to analyze samples of sewage 2 40 CFR 503.23. See also 40 CFR 503.8.	to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator must be collected and analyzed. These regulations e sludge. For example, EPA requires facilities to monitor for the certain parameters, which are listed in Tables 1, 2, 3, and 4 at 40 CFR 503.13
Please check the b	oox next to the following analytic methods used on the sewage sl	udge or biosolids generated or produced by you or your facility during the reporting period (check one or more that apply). *
Parameter	Method Number or Author	Description Text for Certification Section
Pathogens		
Ascaris ova.	Sludge Monitoring - Ascaris ova.	Sludge Monitoring - Ascaris ova., "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix I)," Control of Pathogens and Vector Attraction in Sewage Sludge", EPA-625-R-92-013, July 2003

Other Ascaris ova. Analytical Method:

Parameter	Method Number or Author	Description Text for Certification Section			
Entorio virusos	ASTM Method D4994 - Enteric Viruses	$ASTM\ Method\ D4994-Enteric\ Viruses, "Standard\ Practice\ for\ Recovery\ of\ Viruses\ From\ Wastewater\ Sludges,"\ ASTM\ International$			
Enteric viruses	Other Enteric Viruses Analytical Method:				
	Standard Method 9222 - Fecal Coliform	Standard Method 9222 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association [Note: This method is only allowable for Class B sewage sludge]			
	Standard Method 9221 - Fecal Coliform	Standard Method 9221 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public			
Fecal coliform	EPA Method 1680 - Fecal Coliform	Health Association EPA Method 1680 - Fecal Coliform, "Fecal Coliforms in Sewage Sludge by Multiple-Tube Fermentation using Lauryl Tryptose Broth			
	EPA Method 1681 - Fecal Coliform	and EC Medium," EPA-821-R-10-003, April 2010 EPA Method 1681 - Fecal Coliform, Fecal Coliforms in Sewage Sludge (Biosolids) by MultipleTube Fermentation using A-1			
	Other Fecal Coliform Analytical Method:	medium, EPA-821-R-04-027, June 2005			
Helminth ova.	W.A. Yanko Method - Helminth ova.	W.A. Yanko Method - Helminth Ova., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges," EPA-600-1-87-014, 1987			
нешшин оча.	Other Helminth ova. Analytical Method:	ETA 600 T 67 614, 1767			
	Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association			
Salmonella sp. Bacteria	EPA Method 1682 - Salmonella	EPA Method 1682, "Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium,"			
Saimonella sp. Bacteria	Kenner and Clark Method - Salmonella	EPA-821-R-06-014, July 2006 Kenner and Clark Method - Salmonella, "Detection and Enumeration of Salmonella and Pseudomonas aeruginosa," J. Water			
	Other Salmonella sp. Bacteria Analytical Method:	Pollution Control Federation, 46(9):2163-2171, 1974			
Total Culturable Viruses	Class A Sludge Monitoring - Total Culturable Viruses	EPA Class A Sludge Monitoring - Total Culturable Viruses, "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix H)," Control of Pathogens and Vector Attraction in Sewage Sludge, EPA-625-R-92-013, July 2003			
Total Culturable Viruses	Other Total Culturable Viruses Analytical Method:	Staage (Appendix 1.), Control of Fathogens and vector Attraction in Sewage Staage, Et A-023-11-72-013, July 2003			
Metals					
	EPA Method 6010 - Arsenic (ICP-OES)	EPA Method 6010 - Arsenic (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846			
	EPA Method 6020 - Arsenic (ICP-MS)	EPA Method 6020 - Arsenic (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/			
Arsenic	EPA Method 7010 - Arsenic (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Arsenic (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,			
	EPA Method 7061 - Arsenic (AA-GH)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7061 - Arsenic (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical			
	Other Arsenic Analytical Method:	Methods," EPA Pub. SW-846			
	EPA Method 6010 - Beryllium (ICP-OES)	EPA Method 6010 - Beryllium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846			
	EPA Method 6020 - Beryllium (ICP-MS)	EPA Method 6020 - Beryllium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste,			
Beryllium	EPA Method 7000 - Beryllium (FAAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Beryllium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/			
	EPA Method 7010 - Beryllium (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Beryllium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid			
	Other Beryllium Analytical Method	Waste, Physical/Chemical Methods," EPA Pub. SW-846			

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 6010 - Cadmium (ICP-OES)	EPA Method 6010 - Cadmium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Cadmium (ICP-MS)	EPA Method 6020 - Cadmium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste,
Codesium	EPA Method 7000 - Cadmium (FAAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Cadmium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
Cadmium	EPA Method 7010 - Cadmium (GF-AAS)	Chemical Methods," EPA Pub. SW-846
	EPA Method 7131 - Cadmium (GF-AAS)	EPA Method 7010 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other Cadmium Analytical Method:	EPA Method 7131 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Chromium (ICP-OES)	EPA Method 6010 - Chromium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Chromium (ICP-MS)	EPA Method 6020 - Chromium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste,
	EPA Method 7000 - Chromium (FAAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Chromium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
Chromium	EPA Method 7010 - Chromium (GF-AAS)	Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 7191 - Chromium	EPA Method 7010 - Chromium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	(AA-FT)	EPA Method 7191 - Chromium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/
	Other Chromium Analytical Method:	Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Copper (ICP-OES)	EPA Method 6010 - Copper (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Copper (ICP-MS)	EPA Method 6020 - Copper (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Copper	EPA Method 7000 - Copper (FAAS)	EPA Method 7000 - Copper (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
	EPA Method 7010 - Copper (GF- AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Copper (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
	Other Copper Analytical Method:	Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Lead (ICP-OES)	EPA Method 6010 - Lead (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Lead (ICP-MS)	EPA Method 6020 - Lead (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods," EPA Pub. SW-846
Lood	EPA Method 7000 - Lead (FAAS)	EPA Method 7000 - Lead (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
Lead	EPA Method 7010 - Lead (GF-AAS)	Chemical Methods," EPA Pub. SW-846  EPA Method 7010 Lead (Craphite Furnese Atomic Absorption Spectrophotometry) "Toot Methods for Fugling Solid Wests
	EPA Method 7421 - Lead (AA-FT)	EPA Method 7010 - Lead (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other Lead Analytical Method:	EPA Method 7421 - Lead (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Mercury	EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absoprtion), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
,	Other Mercury Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 6010 - Molybdenum (ICP-OES)	EPA Method 6010 - Molybdenum (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Molybdenum (ICP-MS)	EPA Method 6020 - Molybdenum (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Molybdenum	EPA Method 7000 - Molybdenum (FAAS)	EPA Method 7000 - Molybdenum (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
Worksacham	EPA Method 7010 - Molybdenum (GF-AAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Molybdenum (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
	EPA Method 7481 - Molybdenum (AA-FT)	Waste, Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7481 - Molybdenum (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/
	Other Molybdenum Analytical Method:	Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Nickel (ICP-OES)	EPA Method 6010 - Nickel (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Nickel (ICP-MS)	EPA Method 6020 - Nickel (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Nickel	EPA Method 7000 - Nickel (FAAS)	EPA Method 7000 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 7010 - Nickel (GF- AAS) Other Nickel Analytical Method:	EPA Method 7010 - Nickel (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Selenium (ICP-OES)	EPA Method 6010 - Selenium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Selenium (ICP-MS)	EPA Method 6020 - Selenium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Selenium	EPA Method 7010 - Selenium (GF-AAS)	EPA Method 7010 - Selenium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
Scientiani	EPA Method 7740 - Selenium (AA-FT)	Waste, Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7741A - Selenium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/
	EPA Method 7741 - Selenium (AA-GH)	Chemical Methods," EPA Pub. SW-846 EPA Method 7741 - Selenium (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemica
	Other Selenium Analytical Method:	Methods," EPA Pub. SW-846
	EPA Method 6010 - Zinc (ICP-OES)	EPA Method 6010 - Zinc (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Zinc (ICP-MS)	EPA Method 6020 - Zinc (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Zinc	EPA Method 7000 - Zinc (FAAS)	EPA Method 7000 - Zinc (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 7010 - Zinc (GF-AAS)	EPA Method 7010 - Zinc (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
	Other Zinc Analytical Method:	Physical/Chemical Methods," EPA Pub. SW-846
Nitrogen Compound	s	
	EPA Method 350.1 - Ammonia Nitrogen	EPA Method 350.1 - Ammonia Nitrogen, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry," August 1993
Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Ammonia Nitrogen Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 9056 - Nitrate Nitrogen (IC)	EPA Method 9056 - Nitrate Nitrogen (Ion Chromatography), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 9210 - Nitrate Nitrogen (ISE)	EPA Method 9210 - Nitrate Nitrogen (Ion-Selective Electrode), "Test Methods for Evaluating Solid Waste, Physical/Chemical
	Other Nitrate Nitrogen Analytical Method:	Methods," EPA Pub. SW-846
Nitrate Nitrogen		EPA 300.0
Nitrogen	Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Milogen	Other Nitrogen Analytical Method:	
	Standard Method 4500-Norg - Organic Nitrogen	Standard Method 4500-Norg - Organic Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Organic Nitrogen Analytical Method:	Calculation
Organic Nitrogen		
	EPA Method 351.2 - Total Kjeldahl Nitrogen	EPA Method 351.2 - Total Kjeldahl Nitrogen, "Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry," Augus
Total Kjeldahl Nitrogen	Other Total Kjeldahl Nitrogen Analytical Method:	1993
Other Analytes		
-	Standard Method 2540 - Fixed Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater,"
Fixed Solids	Other Fixed Solids Analytical Method:	American Public Health Association
	EPA Method 9095 - Paint Filter Liquids Test	EPA Method 9095 - Paint Filter Liquids Test, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub.
Paint Filter Test	Other Paint Filter Test Analytical Method:	SW-846
	EPA Method 9040 - pH (≤ 7% solids)	EPA Method 9040 - pH (≤ 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
рН	EPA Method 9045 - pH (> 7% solids)	EPA Method 9045 - pH (> 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other pH Analytical Method:	
Specific Oxygen Uptake	Standard Method 2710 - SOUR	Standard Method 2710 - Specific Oxygen Uptake Rate, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Rate	Other Specific Oxygen Uptake Rate Analytical Method:	Trinorical in ability is designed in
TCLP	EPA Method 1311 - Toxicity Characteristic Leaching Procedure Other TCLP Analytical Method:	EPA Method 1311 - Toxicity Characteristic Leaching Procedure, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846

Parameter	Method Number or Author	Descrip	tion Text for Certification Section			
	Standard Method 2550 - Temperature		Method 2550 - Temperature, "Standard Methods for the Examination of Water and Wastewater," American Public Health			
Temperature	Other Temperature Analytical Method:	Associatio	Association			
	Standard Method 2540 - Total Solids		Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater,"			
Total Solids	Other Total Solids Analytical Method:	American	American Public Health Association			
	Standard Method 2540 - Volatile Solids		Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater,"			
Volatile Solids	Other Volatile Solids Analytical Method:	American	n Public Health Association			
No Analytical Methods						
24817  3. Biosolids or Sewage Sludg	je Management					
EPA NPDES regulations at 40 CFR 503 only require reporting for land application, surface disposal, or incineration. You have the option to select "Other Management Practice" if you wish to provide more information on how you manage your sewage sludge or biosolids.  Please use the selections below to identify how sewage sludge or biosolids generated or produced at your facility was managed, used, or disposed by you or your facility for the reporting period. You can use the button below to add as many Sewage Sludge Unique Identifier (SSUID) sections as needed to describe how you manage your sewage sludge.						
		needed to describe how y				
below to add as many So SSUID Section		needed to describe how y				
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below to add as many Some SSUID Section  Sewage Sludge Unique  Management Practice To Land Application	ewage Sludge Unique Identifier (SSUID) sections as n e Identifier (SSUID): 001 Type * Handler or Preparer Type *	Preparer	Management Practice Detail *  Agricultural Land Application			
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below to add as many Some SSUID Section  Sewage Sludge Unique Management Practice To Land Application  Please Note: Land Application  Bulk or Bag/Container*	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B	Preparer e or give away) of Class A E Volume Amount (dr	Management Practice Detail *  Agricultural Land Application  EQ.			
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below to add as many Se SSUID Section  Sewage Sludge Unique Management Practice T Land Application  Please Note: Land Appl Bulk or Bag/Container *  Bulk  Pollutant Concentration	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B  Ons:	Preparer e or give away) of Class A E Volume Amount (dr 718	Management Practice Detail *  Agricultural Land Application  EQ.  ry metric tons) *			
below to add as many Social Section  Sewage Sludge Unique Management Practice To Land Application  Please Note: Land Application  Bulk or Bag/Container *  Bulk  Pollutant Concentration  Did the facility land application	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B  Ons:	Preparer e or give away) of Class A E  Volume Amount (dr  718  concentrations in the sew	Management Practice Detail *  Agricultural Land Application  EQ.  ry metric tons) *			
below to add as many Social Section  Sewage Sludge Unique Management Practice T Land Application  Please Note: Land Appl Bulk or Bag/Container * Bulk  Pollutant Concentration  Did the facility land appl  Yes  Name of Off-Site Third	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B  Ons:  Iy bulk sewage sludge when one or more pollutant comparts the party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Handler Or Preparer for this Sewage Sludge Class Party Party Handler Or Preparer for this Sewage Sludge Class Party Party Handler Or Preparer for this Sewage Sludge Class Party Party Handler Or Preparer for this Sewage Sludge Class Party	Preparer  e or give away) of Class A E  Volume Amount (dr  718  concentrations in the sew.  ge Unique Identifier  ler or Preparer for this Sev	Management Practice Detail *  Agricultural Land Application  EQ.  ry metric tons) *			
below to add as many So SSUID Section  Sewage Sludge Unique Management Practice T Land Application  Please Note: Land Appl Bulk or Bag/Container * Bulk  Pollutant Concentration  Did the facility land appl  Yes  Name of Off-Site Third  Please complete the foll blank after clicking the L	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B  Ons:  Iy bulk sewage sludge when one or more pollutant or No Unknown  Party Handler or Preparer for this Sewage Sludge owing information for the Off-Site Third-Party Handler or Preparer for third-Party Handler or	Preparer  e or give away) of Class A E  Volume Amount (dr  718  concentrations in the sew.  ge Unique Identifier  ler or Preparer for this Sev	Management Practice Detail *  Agricultural Land Application  EQ.  ry metric tons) *  vage sludge exceeded a monthly average pollutant concentration in Table 3 of 40 CFR 503.13?			
below to add as many So SSUID Section  Sewage Sludge Unique Management Practice To Land Application  Please Note: Land Application  Bulk or Bag/Container * Bulk  Pollutant Concentration  Did the facility land application  Yes  Name of Off-Site Third  Please complete the foll blank after clicking the Land	e Identifier (SSUID): 001  Type * Handler or Preparer Type *  Off-Site Third-Party Handler or Prication includes the distribution and marketing (sale Pathogen Class *  Class B  Ons:  Ily bulk sewage sludge when one or more pollutant or Prication includer or Preparer for this Sewage Sludge lowing information for the Off-Site Third-Party Handler or Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing lowing information for the Off-Site Third-Party Handler on Preparer for this Sewage sludge lowing	Preparer  e or give away) of Class A E  Volume Amount (dr  718  concentrations in the sew.  ge Unique Identifier  ler or Preparer for this Sev	Management Practice Detail *  Agricultural Land Application  EQ.  ry metric tons) *  vage sludge exceeded a monthly average pollutant concentration in Table 3 of 40 CFR 503.13?			

Facil	ity/Com	pany Name *								
Tule	ule Ranch / Ag-Tech									
Addı	ess *									
432	4 E. Ash	lan Ave.								
City	*		State *		Zip Code *					
Fres	ino		California		93726					
Off-S	ite Thir	d-Party Handler or Preparer Conta	ct Information							
First	Name *			Last Name *				Title *		
Sha	en			Magan				Owner		
Phor	ne (10-d	igits, No dashes) * Ext.	E-Mail Address *							
559	9709432	2	kurt@westexp.com	1						
Bios	olids or	Sewage Sludge Pathogen Reduction	on Options							
Pleas	e use th	ne selections below to identify the pa	thogen reduction option	ns used by your faci	lity for this sewage slud	ge unique identifie	er for the repo	orting period (check one o	r more that apply).	
				2.2					., .	
Cod	е	Patho Class A (must also demonstrate	gen Reduction Option e that meet fecal colifo	orm or salmonella	limits)					
	B1	Class B-Alternative 1: Fecal Coliform	n Geometric Mean							
	B21	Class B-Alternative 2 PSRP 1: Aerobi	ic Digestion							
	B22	Class B-Alternative 2 PSRP 2: Air Dry	ving							
$\boxtimes$	B23 Class B-Alternative 2 PSRP 3: Anaerobic Digestion									
	B24	Class B-Alternative 2 PSRP 4: Compo	osting							
	B25 Class B-Alternative 2 PSRP 5: Lime Stabilization									
	B3 Class B-Alternative 3: PSRP Equivalency									
	рН	pH Adjustment (Domestic Septage)	)							

### **Biosolids or Sewage Sludge Vector Attraction Reduction Options**

Please use the selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).

Vec	tor Attra	ction Reduction Options					
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction					
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)					
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)					
	VR4	Option 4-Specific Oxygen Uptake Rate					
	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)					
	VR6	Option 6-Alkaline Treatment					
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)					
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)					
	VR9	Option 9-Sewage Sludge Injection					
$\boxtimes$	VR10	Option 10-Sewage Sludge Timely Incorporation into Land					
	VR11	Option 11-Sewage sludge Covered at the End of Each Operating Day					
Pleas	e use the	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met age sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).					
Land	Applica	tion					
		nd applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling limit (see Table 1 of 40 CFR 503.13).					
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample appropriate method holding times) (see permit requirements and 40 CFR 503.8).					
F	acility ha	d deficiencies with pathogen reduction (see <u>40 CFR 503.32</u> ).					
F	Facility had deficiencies with vector attraction reduction (see 40 CFR 503.33).						
	and app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).					
	Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of the United States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).						
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).					
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in f a reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).					

One or more label or information sho	eet requirements were not met for sewa	ige sludge that was s	sold or given away for la	and application (see 40 CFR 503.14(e)).		
Bulk sewage sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.						
The required notice and information	was not provided to the land application	on applier (see <u>40 CF</u>	R 503.12(f) and (g)).			
The required notice and information	was not provided to the owner or lease	holder of the land o	on which bulk sewage sl	udge was applied (see <u>40 CFR 503.12(h)</u> ).		
The required notice was not provide sewage sludge was prepared (see 40		ite in which bulk sew	vage sludge was applied	l if the bulk sewage sludge was applied to land in a Sta	ate other than the State in which the bulk	
The facility failed to keep the necess	ary records for preparers and appliers du	uring the reporting p	period (see <u>40 CFR 503.2</u>	<u>.7</u> ).		
When sewage sludge that meets Class B with EPA's Federal sewage sludge Class B				I site restrictions must be met. Please use the check bo porting period.	ixes below to indicate any noncompliance	
Food crops with harvested parts that	t touched the sewage sludge/soil mixtu	re (such as melons, c	cucumbers, squash, etc.)	were harvested within 14 months after application of	sewage sludge (see <u>40 CFR 503.32(b)(5)</u>	
Food crops with harvested parts beliand surface for four months or long	ow the soil surface (root crops such as peer prior to incorporation into the soil (se	otatoes, carrots, radi ee <u>40 CFR 503.32(b)(5</u>	ishes) were harvested w 5)(ii)).	ithin 20 months after application of sewage sludge an	d the sewage sludge remained on the	
	ow the soil surface (root crops such as possible for the soil (see			ithin 38 months after application of the sewage sludg	e and the sewage sludge remained on the	
Food crops, feed crops, and fiber cro	ps were harvested within 30 days after a	application of sewag	ge sludge (see <u>40 CFR 50</u>	3.32(b)(5)(iv)).		
Animals were grazed on a site within	30 days after application of sewage slu	dge (see <u>40 CFR 503</u>	3.32(b)(5)(v)).			
Turf was harvested within 1 year after CFR 503.32(b)(5)(vi)).	er application of sewage sludge if the tu	rf was placed on land	d with a high potential f	or public exposures or a lawn, unless otherwise specif	ied by the permitting authority (see 40	
Public access to land with high pote	ntial for public exposure was not restrict	ted for 1 year after ap	pplication of sewage slu	ndge (see <u>40 CFR 503.32(b)(5)(vii)</u> ).		
Public access to land with a low pote	ential for public exposure was not restric	cted for 30 days after	application of sewage	sludge (see <u>40 CFR 503.32(b)(5)(viii)</u> ).		
SSUID Section						
Sewage Sludge Unique Identifier (SSU	ID): 002					
Management Practice Type *	Handler or Preparer Type *		Management Practic	e Detail *		
Other Management Practice	Off-Site Third-Party Handler or Prepa	arer	Disposal in a Munici	pal Landfill (under 40 CFR 258)		
Please Note: Land Application includes	the distribution and marketing (sale or g	give away) of Class A	EQ.			
Bulk or Bag/Container *	Pathogen Class *	Volume Amount (d	dry metric tons) *			
Bulk	Class B	1260				
Name of Off-Site Third-Party Handler	or Preparer for this Sewage Sludge Ur	nique Identifier				
Please complete the following information blank after clicking the Look Up button,	•	•	ewage Sludge Unique Id	entifier.You may optionally look up a NPDES ID to auto	o-populate this information. If fields remain	
Off-Site Third-Party Handler or Prepar	,					
NPDES ID (if known)						

Facility/Company Name *									
Orange County Waste and Recycling, Prima Deshecha Landfill									
Address *									
32250 La Pata Ave.									
City *		State *		Zip Cod	de *				
San Juan Capistrano		California		92675					
Off-Site Third-Party Handler or Prepare	er Conta	ct Information							
First Name *			Last Name *					Title *	
Greg			Dayak					Landfill Operations Superinte	ndent
Phone (10-digits, No dashes) *	Ext.	E-Mail Address *							
9497283050		Greg.Dayak@ocwr	.ocgov.com						
Do you have any deficiencies to report fo	r this SSL	JID? *							
○ Yes ● No	Unknowi	า							
SSUID Section									
Sewage Sludge Unique Identifier (SSU	ID): 003								
Management Practice Type *	Handle	er or Preparer Type *			Management Practice	Detail *			
Land Application		te Third-Party Handler o	or Preparer		Distribution and Marketing - Compost				7
Please Note: Land Application includes t	he distrik	oution and marketing (s	sale or give away) of	of Class A E					_
Bulk or Bag/Container *	Pathog	jen Class *	Volume An	mount (dr	y metric tons) *				
Bulk	Class A	A EQ (sale/give away)	12867						
Pollutant Concentrations:									
Did the facility land apply bulk sewage sli	udge wh	en one or more pollutar	nt concentrations ir	n the sewa	age sludge exceeded a n	monthly a	verage poll	utant concentration in Table 3 of	40 CFR 503.13?
Yes No	) Unknov	wn							
Name of Off-Site Third-Party Handler of	r Prepar	er for this Sewage Slu	ıdge Unique Identi	ifier					
Please complete the following informatic blank after clicking the Look Up button, t	on for the hen no d	Off-Site Third-Party Ha ata exists and you must	ındler or Preparer fo t enter the informat	or this Sew tion	vage Sludge Unique Ider	ntifier.Yo	u may optio	nally look up a NPDES ID to auto-	populate this information. If fields remain
Off-Site Third-Party Handler or Prepare	er Inform	nation							
NPDES ID (if known)									

Facil	ity/Com	pany Name *							
Syn	agro – S	outh Kern Compost Manufacturing Fac	cility						
Addr	ess *								
P.O.	Box 265	5							
City	*		State *		Zip Code *				
Taft			California		93268				
Off-S	ite Thir	d-Party Handler or Preparer Contact	t Information						
First	Name *			Last Name *			Title *		
Cha	d			Buechel			Area Manager		
Phor	ne (10-di	igits, No dashes) * Ext.	E-Mail Address *						
661	7652200	223	cbuechel@SYNAG	RO.com					
Bios	olids or	Sewage Sludge Pathogen Reduction	Options						
Pleas	e use th	ne selections below to identify the patho	ogen reduction optio	ns used by your faci	lity for this sewage slu	dge unique identifie	for the reporting period (check	cone or more that apply).	
		Dathogo	en Reduction Option						
Cod	е	Class A (must also demonstrate t			imits)				
	A1	Class A-Alternative 1: Time/Temperate	ture						
	A2	Class A-Alternative 2: pH/Temperature	re/Percent Solids						
	A3	Class A-Alternative 3: Test Enteric Viru	uses and Helminth ova	a; Operating Parame	eters				
	A4	Class A-Alternative 4: Test Enteric Viru	uses and Helminth ova	a; No New Solids					
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Compos	sting						
	A52	Class A-Alternative 5 PFRP 2: Heat Dry	ying						
	A53	Class A-Alternative 5 PFRP 3: Liquid He	leat Treatment						
	A54	Class A-Alternative 5 PFRP 4: Thermop	philic Aerobic Digestic	on (ATAD)					
	A55	5 Class A-Alternative 5 PFPR 5: Beta Ray Irradiation							
	A56	66 Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation							
	A57	Class A-Alternative 5 PFRP 7: Pasteuriz	zation						
	A6	Class A-Alternative 6: PFRP Equivalence	су						
	На	pH Adjustment (Domestic Septage)							

Ved	tor Attra	ction Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)
Non	mnlin	and Demonstrate
NO	<u>ıcompiia</u>	nce Reporting
prep	ares sewa	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are me age sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).
Lan	d Applica	tion
		nd applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling limit (see Table 1 of 40 CFR 503.13).
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample pappropriate method holding times) (see permit requirements and 40 CFR 503.8).
	Facility ha	d deficiencies with pathogen reduction (see 40 CFR 503.32).
	Facility ha	d deficiencies with vector attraction reduction (see $\underline{40\ CFR\ 503.33}$ ).
	Land app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of d States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in fa reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
	One or m	ore label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
	Bulk sewa	ge sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
	The requi	red notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).

The required notice and information wa	s not provided to the owner o	or lease holder of the land	d on which bulk sewage sludge v	was applied (see <u>40</u>	) CFR 503.12(h)).	
The required notice was not provided to sewage sludge was prepared (see 40 CF		the State in which bulk se	ewage sludge was applied if the	bulk sewage sludg	ge was applied to land in a State o	other than the State in which the bulk
The facility failed to keep the necessary	records for preparers and app	liers during the reporting	g period (see <u>40 CFR 503.27</u> ).			
SSUID Section						
Sewage Sludge Unique Identifier (SSUID)	: 004					
Management Practice Type *	Handler or Preparer Type *		Management Practice Detai	il *		
Land Application	Off-Site Third-Party Handler o	r Preparer	Distribution and Marketing	g - Compost		
Please Note: Land Application includes the	distribution and marketing (s	ale or give away) of Class	A EQ.			
Bulk or Bag/Container * P	Pathogen Class *	Volume Amount	(dry metric tons) *			
Bulk	Class A EQ (sale/give away)	8593				
Pollutant Concentrations:						
Did the facility land apply bulk sewage sludg	ge when one or more pollutar	nt concentrations in the se	ewage sludge exceeded a month	hly average polluta	ant concentration in Table 3 of 40	) CFR 503.13?
Yes No U	Jnknown					
Name of Off-Site Third-Party Handler or P	Preparer for this Sewage Slu	dge Unique Identifier				
Please complete the following information f blank after clicking the Look Up button, ther	or the Off-Site Third-Party Har n no data exists and you must	ndler or Preparer for this S enter the information	Sewage Sludge Unique Identifier	r.You may optiona	lly look up a NPDES ID to auto-po	opulate this information. If fields remain
Off-Site Third-Party Handler or Preparer I	,					
NPDES ID (if known)						
Facility/Company Name *						
Synagro – Arizona Soils						
Address *						
5615 S. 91st Avenue						
City *	State *	Zip (	Code *			
Tolleson	Arizona	853	<del></del>			
Off-Site Third-Party Handler or Preparer (	Contact Information					
First Name *		Last Name *			Title *	
Craig		Geyer			Senior Operations Manager	
Phone (10-digits, No dashes) * E	Ext. E-Mail Address *					
6239366328	CGeyer@SYNAGRO	).com				
Biosolids or Sewage Sludge Pathogen Rec	duction Options					

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).

Cod	е	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
	A1	Class A-Alternative 1: Time/Temperature
	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting
	A52	Class A-Alternative 5 PFRP 2: Heat Drying
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
	A57	Class A-Alternative 5 PFRP 7: Pasteurization
	A6	Class A-Alternative 6: PFRP Equivalency
	рН	pH Adjustment (Domestic Septage)
Bios	olids or	Sewage Sludge Vector Attraction Reduction Options
Pleas apply		e selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that
Vec	tor Attra	action Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)

### Noncompliance Reporting

Option 8-Drying (Equal to or Greater than 90 Percent)

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).

Land Application							
	Facility land applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling pollutant limit (see Table 1 of 40 CFR 503.13).						
Facility failed to p (including approp	roperly collect and oriate method holdi	analyze its sewage sludge in accordand ng times) (see permit requirements and	ce with the required m d <u>40 CFR 503.8</u> ).	nonitoring frequency and	approved analytical meth	nods in order to obtain an a	ccurate and representative sample
Facility had defici	encies with pathog	en reduction (see <u>40 CFR 503.32</u> ).					
Facility had defici	encies with vector a	attraction reduction (see 40 CFR 503.33	).				
Land application	of bulk sewage slud	lge likely to adversely affected a threat	ened or endangered s	species listed under Section	on 4 of the Endangered Sp	oecies Act or its designated	critical habitat (see 40 CFR 503.14(a)).
		gricultural land, forest, a public contact <u>R 122.2,</u> except as provided in a permi					dge entered a wetland or other waters of
Bulk sewage slud authority (see 40		gricultural land, forest, or a reclamatior	n site was 10 meters or	r less from waters of the U	Jnited States, as defined in	n <u>40 CFR 122.2</u> , unless other	wise specified by the permitting
		gricultural land, forest, a public contac vise specified by the permitting authori			oplication rate that was gro	reater than the agronomic r	rate for the bulk sewage sludge, unless, in
One or more labe	l or information she	eet requirements were not met for sewa	age sludge that was so	old or given away for land	d application (see 40 CFR 5	503.14(e)).	
Bulk sewage slud	ge was applied to la	and where the cumulative pollutant loa	ading rates in <u>§503.13(</u>	(b)(2) have been reached.			
The required not	ce and information	was not provided to the land application	on applier (see <u>40 CFR</u>	R 503.12(f) and (g)).			
The required not	ce and information	was not provided to the owner or lease	e holder of the land or	n which bulk sewage slud	lge was applied (see <u>40 CF</u>	FR 503.12(h)).	
1 1 .	•	d to the permitting authority for the Sta CFR 503.12(i) and (j)).	ate in which bulk sewa	age sludge was applied if	the bulk sewage sludge w	vas applied to land in a Stat	te other than the State in which the bulk
The facility failed	to keep the necessa	ary records for preparers and appliers d	luring the reporting pe	eriod (see <u>40 CFR 503.27</u> ).			
SSUID Section							
Sewage Sludge Unio	ue Identifier (SSUI	ID): 005					
Management Practice	e Type *	Handler or Preparer Type *		Management Practice [	Detail *		
Land Application		Off-Site Third-Party Handler or Prepare	arer	Distribution and Market	eting - Compost		
Please Note: Land Ap	plication includes t	he distribution and marketing (sale or	give away) of Class A E	EQ.			
Bulk or Bag/Containe	r*	Pathogen Class *	Volume Amount (dr	ry metric tons) *			
Bulk		Class A EQ (sale/give away)	50				
Pollutant Concentra	tions:						
Did the facility land a	oply bulk sewage slu	udge when one or more pollutant cond	centrations in the sewa	age sludge exceeded a m	nonthly average pollutant o	concentration in Table 3 of	40 CFR 503.13?
○ Yes ●	) No	) Unknown					
	$\sim$	or Preparer for this Sewage Sludge U	nique Identifier				

Please complete the following information for the Off-Site Third-Party Handler or Preparer for this Sewage Sludge Unique Identifier. You may optionally look up a NPDES ID to auto-populate this information. If fields remain blank after clicking the Look Up button, then no data exists and you must enter the information

Off-Site Third-Party Handler or Preparer Information

NPDI	S ID (if	known)					
		pany Name *					
	-	re Regional Composting Authority					
Addr							
	45 6th S						
City *		State * Zip Code * amonga					
		d-Party Handler or Preparer Contact Information					
	Name *	Last Name * Title *					
Jeff		Ziegenbein Facility Manager					
		gits, No dashes) * Ext. E-Mail Address *					
	993198						
		Sewage Sludge Pathogen Reduction Options					
Pleas	e use th	e selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).					
Cod	e	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)					
П	A1	Class A (must also demonstrate that meet recal conform of salmonella limits)  Class A-Alternative 1: Time/Temperature					
$\Box$	A2	Class A-Alternative 2: pH/Temperature/Percent Solids					
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters					
$\Box$	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids					
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting					
	A52	Class A-Alternative 5 PFRP 2: Heat Drying					
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment					
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)					
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation					
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation					
	A57	Class A-Alternative 5 PFRP 7: Pasteurization					
	A6	Class A-Alternative 6: PFRP Equivalency					
	рН	pH Adjustment (Domestic Septage)					

Ved	tor Attra	ction Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)
Non	mnlin	and Demonstrate
NO	<u>ıcompiia</u>	nce Reporting
prep	ares sewa	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are me age sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).
Lan	d Applica	tion
		nd applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling limit (see Table 1 of 40 CFR 503.13).
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample pappropriate method holding times) (see permit requirements and 40 CFR 503.8).
	Facility ha	d deficiencies with pathogen reduction (see 40 CFR 503.32).
	Facility ha	d deficiencies with vector attraction reduction (see $\underline{40\ CFR\ 503.33}$ ).
	Land app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of d States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in fa reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
	One or m	ore label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
	Bulk sewa	ge sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
	The requi	red notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).

The required notice and information wa	as not provided to the owner	or lease holder of the land	on which bulk sewage	e sludge was applied (see	40 CFR 503.12(h)).	
The required notice was not provided to sewage sludge was prepared (see 40 CF		the State in which bulk sev	wage sludge was appl	ied if the bulk sewage slu	idge was applied to land in a State	other than the State in which the bulk
The facility failed to keep the necessary	records for preparers and app	oliers during the reporting	period (see 40 CFR 50	<u>3.27</u> ).		
SSUID Section						
Sewage Sludge Unique Identifier (SSUID):	: 006					
Management Practice Type *	Handler or Preparer Type *		Management Prac	tice Detail *		
Land Application	Off-Site Third-Party Handler o	r Preparer	Distribution and I	Marketing - Compost		
Please Note: Land Application includes the	distribution and marketing (s	ale or give away) of Class A	₹EQ.			
Bulk or Bag/Container * P	Pathogen Class *	Volume Amount (	dry metric tons) *			
Bulk	Class A EQ (sale/give away)	751				
Pollutant Concentrations:						
Did the facility land apply bulk sewage sludg	ge when one or more pollutar	nt concentrations in the se	wage sludge exceede	d a monthly average poll	utant concentration in Table 3 of 4	10 CFR 503.13?
	Jnknown					
Name of Off-Site Third-Party Handler or P	Preparer for this Sewage Slu	dge Unique Identifier				
Please complete the following information f blank after clicking the Look Up button, ther	for the Off-Site Third-Party Ha n no data exists and you must	ndler or Preparer for this So enter the information	ewage Sludge Unique	Identifier.You may optio	nally look up a NPDES ID to auto-p	oopulate this information. If fields remain
Off-Site Third-Party Handler or Preparer I	,					
NPDES ID (if known)						
Facility/Company Name *						
Synagro - Nursery Products						
Address *						
PO Box 1439						
City *	State *	Zip C	ode *			
Helendale	California	9234	42			
Off-Site Third-Party Handler or Preparer 0	Contact Information					
First Name *		Last Name *			Title *	
Chad		Buechel			Area Manager	
Phone (10-digits, No dashes) * E	Ext. E-Mail Address *					
6613782515	cbuechel@SYNAGI	RO.com				
Biosolids or Sewage Sludge Pathogen Rec	duction Options					

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).

Cod	е	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
	A1	Class A-Alternative 1: Time/Temperature
	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting
	A52	Class A-Alternative 5 PFRP 2: Heat Drying
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
	A57	Class A-Alternative 5 PFRP 7: Pasteurization
	A6	Class A-Alternative 6: PFRP Equivalency
	рН	pH Adjustment (Domestic Septage)
Bioso	olids or	Sewage Sludge Vector Attraction Reduction Options
Pleas apply		e selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that
Vect	or Attra	action Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)

### Noncompliance Reporting

Option 8-Drying (Equal to or Greater than 90 Percent)

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).

Land Application							
	Facility land applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling pollutant limit (see Table 1 of 40 CFR 503.13).						
Facility failed to positive (including approp	roperly collect and riate method holdi	analyze its sewage sludge in accordan ng times) (see permit requirements an	nce with the required mand 40 CFR 503.8).	nonitoring frequency and	approved analytical meth	nods in order to obtain an a	accurate and representative sample
Facility had deficie	encies with pathog	en reduction (see <u>40 CFR 503.32</u> ).					
Facility had deficie	encies with vector a	attraction reduction (see 40 CFR 503.33	<u>3</u> ).				
Land application	of bulk sewage slud	lge likely to adversely affected a threat	tened or endangered s	species listed under Sectio	n 4 of the Endangered Sp	ecies Act or its designated	l critical habitat (see 40 CFR 503.14(a)).
		gricultural land, forest, a public contac <u>R 122.2,</u> except as provided in a permi					dge entered a wetland or other waters of
Bulk sewage sludg authority (see 40 c		gricultural land, forest, or a reclamatio	n site was 10 meters o	r less from waters of the U	nited States, as defined in	n <u>40 CFR 122.2,</u> unless othe	rwise specified by the permitting
		gricultural land, forest, a public contactives specified by the permitting author			pplication rate that was gro	eater than the agronomic i	rate for the bulk sewage sludge, unless, in
One or more label	or information she	et requirements were not met for sew	vage sludge that was so	old or given away for land	application (see 40 CFR 5	<u>03.14(e)</u> ).	
Bulk sewage sludg	ge was applied to la	and where the cumulative pollutant lo	ading rates in <u>§503.13(</u>	(b)(2) have been reached.			
The required notice	ce and information	was not provided to the land applicati	ion applier (see <u>40 CFR</u>	R 503.12(f) and (g)).			
The required notice	ce and information	was not provided to the owner or leas	se holder of the land or	n which bulk sewage slud	ge was applied (see <u>40 CF</u>	R 503.12(h)).	
1 1 '	•	d to the permitting authority for the St CFR 503.12(i) and (j)).	ate in which bulk sewa	age sludge was applied if	the bulk sewage sludge w	as applied to land in a Stat	te other than the State in which the bulk
The facility failed	to keep the necessa	ary records for preparers and appliers o	during the reporting pe	eriod (see <u>40 CFR 503.27</u> ).			
SSUID Section							
Sewage Sludge Uniq	ue Identifier (SSUI	D): 007					
Management Practice	Type *	Handler or Preparer Type *		Management Practice D	etail *		
Land Application		Off-Site Third-Party Handler or Prep	parer	Distribution and Marke	ting - Compost		
Please Note: Land Ap	plication includes t	he distribution and marketing (sale or	give away) of Class A E	EQ.			
Bulk or Bag/Container	*	Pathogen Class *	Volume Amount (dr	ry metric tons) *			
Bulk		Class A EQ (sale/give away)	147				
Pollutant Concentrat	ions:						
Did the facility land ap	ply bulk sewage slu	udge when one or more pollutant con	centrations in the sewa	age sludge exceeded a mo	onthly average pollutant o	concentration in Table 3 of	f <u>40 CFR 503.13</u> ?
Yes •	) No	) Unknown					
•	$\sim$	or Preparer for this Sewage Sludge U	Inique Identifier				

Please complete the following information for the Off-Site Third-Party Handler or Preparer for this Sewage Sludge Unique Identifier. You may optionally look up a NPDES ID to auto-populate this information. If fields remain blank after clicking the Look Up button, then no data exists and you must enter the information

Off-Site Third-Party Handler or Preparer Information

NPDI	ES ID (if	known)					
		pany Name *					
	rty Com	npost					
Addr		www.Dd					
		oway Rd.					
City	Hills	State * Zip Code *  California 93249					
		rd-Party Handler or Preparer Contact Information					
	Name *	Last Name * Title *					
Patr		McCarthy Composting/Logistics					
	ie (10-di 7972914	igits, No dashes) * Ext. E-Mail Address *					
		Sewage Sludge Pathogen Reduction Options					
Pleas	e use th	e selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).					
Cod	e	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)					
	A1	Class A-Alternative 1: Time/Temperature					
	A2	Class A-Alternative 2: pH/Temperature/Percent Solids					
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters					
	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids					
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting					
	A52	Class A-Alternative 5 PFRP 2: Heat Drying					
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment					
	A54	4 Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)					
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation					
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation					
	A57	Class A-Alternative 5 PFRP 7: Pasteurization					
	A6	Class A-Alternative 6: PFRP Equivalency					
	рН	pH Adjustment (Domestic Septage)					

Vec	tor Attra	ction Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2 VR3	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)  Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)
Non	complia	nce Reporting
prep	ares sewa	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are me age sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).
□ F		tion  Indicate the standard of
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample appropriate method holding times) (see permit requirements and 40 CFR 503.8).
F	acility ha	d deficiencies with pathogen reduction (see <u>40 CFR 503.32</u> ).
F	acility ha	d deficiencies with vector attraction reduction (see <u>40 CFR 503.33</u> ).
	and app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of d States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in fa reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
	One or mo	ore label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
E	Bulk sewa	ge sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
	he requi	red notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).

Th	ne required notice and infor	mation was not provided to	the owner or lease I	holder of the land o	n which bul	k sewage sludge was app	olied (see	40 CFR 503.12(h)).			The required notice and information was not provided to the owner or lease holder of the land on which bulk sewage sludge was applied (see 40 CFR 503.12(h)).								
		provided to the permitting a (see <u>40 CFR 503.12(i) and (j)</u>		e in which bulk sew	age sludge	was applied if the bulk se	wage slu	dge was applied to la	and in a State	other than the State in whic	ch the bulk								
Th	The facility failed to keep the necessary records for preparers and appliers during the reporting period (see 40 CFR 503.27).																		
	Please provide additional explanatory details in the comment box below (limit to 3,900 characters) or attach a PDF file if you are reporting any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this SSUID during the reporting period. In particular, please note the sewage sludge tonnage related to the deficiencies identified above.																		
See a	See attachment submitted with form.																		
Land A	Application Deficiencies PDI	F Attachment																	
File: No	one																		
⊠ Ch	neck when done with SSUID	) section. *																	
Biosolids M	Monitoring Data																		
		g data should be representa nents in <u>40 CFR 503.16</u> and <u>5</u>								CFR 503.8(a). This section us	ses the								
	, ,	nents in <u>40 CFR 503.16</u> and <u>5</u> I <b>tion Data for All Sewage S</b>	•		as data qua	illiers: 1 = 100 Numerou	s to Coun	, E = Estimated, N = 1	NO Data.										
		•	•																
applic	cation of bulk sewage sludg	kimum pollutant concentrati ge or sewage sludge sold or o 1 of 40 CFR 503.13). In order	gave away sewage s	ludge in a bag or ot	ther contain	er when one or more sev	age slud	je pollutant concent	rations in the	sewage sludge exceed a lar	nd application								
	lids or Sewage Sludge Mon	•	Measurement Ty			re (Dry Weight)		ole Type	.g 5011001111.d.		<u></u>								
Arsei	nic		Maximum	r	mg/kg		CON	MPOS											
	January	February		March -		April		May		June									
=	6.7	= 6.7	=	11	=	7.3	=	7.6	=	12	]								
	July	August	s	eptember		October	_	November		December	_								
=	8.6	= 7.0	=	8.6	=	6.8	=	7.6	=	8.2									
Bioso	lids or Sewage Sludge Mon	itored Parameter	Measurement Ty	rpe U	Init of Measu	re (Dry Weight)	Samı	ые Туре											
Cadr	nium		Maximum	1	mg/kg		CON	1POS											
	January	February		March		April		May		June	_								
=	1.8	= 2.3	=	2.9	=	1.5	=	1.3	=	2.7									
	July	August	S	eptember		October	,	November		December	7								
=	3.4	= 2.9	=	4.0	=	9.7	=	6.9	=	4.5									

Biosolids or Sewage Sludge Monitored Parameter					Measurement Type Ur			Unit of Measure (Dry Weight)			mple Type		
Copper	Copper			Max	Maximum			′kg			OMPOS		
	January		February			March			April		May		June
=	450	=	520		=	490		=	480	=	410	=	480
	July		August			September			October		November		December
=	540	=	410		=	540		=	520	=	460	=	420
Biosolid	s or Sewage Sludge Moni	tored Para	ameter	Mea	Measurement Type l			Unit of Measure (Dry Weight)			mple Type		
Lead				Max	ximum		mg.	⁄kg			OMPOS		
	January		February			March			April		May		June
=	11	<	23		=	12		=	14	<	12	<	25
	July		August			September			October		November		December
<	12	<	13		=	12		=	12	=	17	<	12
Biosolid	s or Sewage Sludge Moni	tored Para	ameter	Mea	surement	Type	Unit	of Measure	e (Dry Weight)	Sa	mple Type		
Mercur				7 [	Maximum			mg/kg			OMPOS		
	January		February			March			April		May		June
=	0.70	=	1.0		=	0.61		=	0.65	=	1.9	=	1.5
	July		August			September			October		November		December
=	0.88	=	0.55		=	0.96		=	0.95	=	0.95	=	1.3
Biosolid	s or Sewage Sludge Moni	tored Para	ameter	Mea	surement	Type	Unit	of Measure	e (Dry Weight)	Sa	mple Type		
Molybo					ximum	.,,,,,		Unit of Measure (Dry Weight) mg/kg			OMPOS		
	January		February			March			April		May		June
=	14	=	13		=	13		=	15	=	13	=	16
	July		August			September			October		November		December
=	17	=	12		=	25		=	17	=	16	=	14
Biosolid	s or Sewage Sludge Moni	tored Para	ameter	Mea	surement	Type	Unit	of Measure	e (Dry Weight)	Sa	mple Type		
Nickel	3 1 1 1 3 1 1 1 1 1				ximum		mg		. 3 3 7		OMPOS		
	January		February			March			April		May		June
=	55	=	31		=	36		=	36	=	34	=	46
	July		August			September			October		November		December
=	43	=	25		=	37		=	33	=	29	=	27

Biosolids or Sewage Sludge Monitored Parameter			Measurement Type		Un	it of Measure (Dry Weight)	Sample Type			
Nitrogen			Average		m	ig/kg	COMPOS			
	January		February		March		April	May		June
=	53000	=	59000		= 61000		= 49000	= 45000	=	56000
	July		August		September		October	November		December
=	54000	=	55000		= 58000		= 51000	= 50000	=	55000
Biosolic	ds or Sewage Sludge Mon	itored Par	ameter	Mea	surement Type	Un	nit of Measure (Dry Weight)	Sample Type		
Seleniu				1	ximum		ıg/kg	COMPOS		
	January	-	February		March		April	May		June
=	10	=	14		= 9.7		= 11	= 5.1	=	12
	July		August		September		October	November		December
=	8.2	=	12		= 12		= 9.9	= 11	=	6.7
Rinsolin	ds or Sewage Sludge Mon	itored Par	ameter	Mea	surement Tyne	Un	nit of Measure (Dry Weight)	Sample Type		,
Zinc	as or sewage staage more	- Itorca r are	<u>ameter</u>	Measurement Type  Maximum			ig/kg	COMPOS		
	January		February		March		April	May		June
=	620	=	570		= 620		= 640	= 550	=	670
	July		August		September		October	November		December
=	710	=	560		= 750		= 710	= 630	=	610
	ly Average Pollutant Concion summarizes the mor			_				ring the reporting year		
iosolic	This section summarizes the monitoring-period average pollu Biosolids or Sewage Sludge Monitored Parameter			atarit cc	incentrations in sewage	: siuuye ti	hat was applied to land du	ring the reporting year.		
	us or sewage studge Mort	itored Para			oncentrations in sewage surement Type		hat was applied to land du nit of Measure (Dry Weight)			
Arseni		itored Par		Mea		Un				
Arsenio		itored Par		Mea	surement Type	Un	nit of Measure (Dry Weight)	Sample Type		June
	ic	itored Para	rameter	Mea	surement Type erage	Un	nit of Measure (Dry Weight) ng/kg	Sample Type  COMPOS	=	June
	January		rameter February	Mea	surement Type erage March	Un	nit of Measure (Dry Weight) ng/kg April	Sample Type  COMPOS  May	=	1
	January 6.3		February 6.4	Mea	erage  March  = 8.3	Un	ait of Measure (Dry Weight) g/kg  April  7.0	Sample Type  COMPOS  May  = 6.7	=	12
=	January 6.3 July	=	February 6.4 August 6.7	Mea Ave	surement Type erage  March = 8.3  September	Un m	ait of Measure (Dry Weight) g/kg  April  = 7.0  October	Sample Type  COMPOS  May  = 6.7  November  = 7.6		12 December
= = :iosolic	January 6.3  July 8.0  ds or Sewage Sludge Mon	=	February 6.4 August 6.7	Mea Ave	March = 8.3 September = 7.6	Un	April  = 7.0  October  = 6.7	Sample Type  COMPOS  May  = 6.7  November  = 7.6		12 December
= = :iosolic	January 6.3  July 8.0  ds or Sewage Sludge Mon	=	February 6.4 August 6.7	Mea Ave	surement Type erage  March = 8.3 September = 7.6 surement Type	Un	April  = 7.0 October  = 6.7  Measure (Dry Weight)	Sample Type  COMPOS  May  = 6.7  November  = 7.6  Sample Type		12 December
=== Eiosolic Cadmi	January 6.3  July 8.0  ds or Sewage Sludge Monium	=	February 6.4 August 6.7 Fameter	Mea Ave	March = 8.3 September = 7.6 surement Type	Un	April  = 7.0  October  = 6.7  Measure (Dry Weight)  October  g/kg	Sample Type  COMPOS  May  = 6.7  November  = 7.6  Sample Type  COMPOS		December 7.7
= = siosolic Cadmi	January 6.3  July 8.0  ds or Sewage Sludge Monium January	= = itored Para	February 6.4 August 6.7 Fameter	Mea Ave	March  = 8.3  September  = 7.6  surement Type  March  March	Un	April  April  7.0  October  6.7  April  October  Control of Measure (Dry Weight)  April  April	Sample Type  COMPOS  May  = 6.7  November  = 7.6  Sample Type  COMPOS  May	=	December 7.7  June

Biosolids or Sewage Sludge Monitored Parameter					Measurement Type			Unit of Measure (Dry Weight)			ple Type		
Coppe	Copper			Av	Average			g/kg		COI	MPOS		
	January		February			March			April		May		June
=	390	=	440		=	450		=	480	=	410	=	450
	July		August			September			October		November		December
=	490	=	400		=	520		=	490	=	440	=	420
iosoli	ds or Sewage Sludge Mon	itored Pa	rameter	Me	asureme	ent Type	Uni	it of Measu	ıre (Dry Weight)	Sam	ple Type		
ead	<u> </u>				erage			g/kg	- · · · · · · · · · · · · · · · · · · ·		MPOS		
	January		February			March			April		May		June
<	11	<	23		<	11		=	14	<	12	<	25
	July		August			September			October		November		December
<	12	<	13		<	13		=	11	=	14	<	12
iosoli	ds or Sewage Sludge Mon	itorod Da	rameter	Mo	acuromo	ent Type	Hni	it of Mossi	ıre (Dry Weight)	Sam	ple Type		
/lercu		iitoreu Pa	nametei		erage	ттуре		g/kg	ire (Dry Weight)		MPOS		
/ICI CC	-				erage			19/ Kg					
	January		February			March		1	April		May		June
-	0.62	=	0.87		=	0.60		=	0.64	=	1.7	=	1.3
	July		August			September		_	October		November		December
-	0.82	=	0.53		=	0.94		=	0.87	=	0.82	=	1.0
osoli	ds or Sewage Sludge Mon	itored Pa	rameter	Me	asureme	ent Type	Uni	it of Measu	ıre (Dry Weight)	Sam	ple Type		
Vickel								mg/kg			MPOS		
	January		February			March			April		May		June
-	44	=	29		=	31		=	36	=	34	=	43
	July		August			September			October		November		December
=	39	=	25		=	37		=	30	=	27	=	27
insoli	ds or Sewage Sludge Mon	itored Pa	rameter	Ma	asurama	ent Type	Hni	it of Massi	re (Dry Weight)		ple Type		
		intorcura	indifficter		erage	ли турс		g/kg	ire (bry weight)	$\neg$	MPOS		
Seleni									April		May		lumo
Seleni	lanuary		February			March							111116
Seleni =	January 9.7	=	February 9.8		=	March 9.1		=	10	=	4.4	=	June 9.3
	<del>, , , , , , , , , , , , , , , , , , , </del>	=			=			=		=		=	

Biosolids or Sewage Sludge Monitored Parameter					Measurement Type		Unit c	Unit of Measure (Dry Weight)			Sample Type					
Zinc					Average		mg/k	кg			COMPO	OS				
	January			February			March			April			May			June
=	540		=	500		=	560		=	640		=	540	=	=	630
	July			August			September			October			November			December
=	670		=	550		=	700		=	670		=	600	=	=	610
Pathogo	ns: Class A Focal Colife	orr	m *													
J	Pathogens: Class A, Fecal Coliform *  Biosolids or Sewage Sludge Monitored Parameter Measurement Type Unit of Measure (Dry Weight) Sample Type															
Fecal Co		110	леи гагаг	Hetel		metric Me			/gram	are (bry weight)		GRAB-7				
	January			February			March		, grann	April			May			June
N	January	Γ	N	reblualy		N	IVIdICII		N	April	7 [	N	iviay	N		Julie
	luk	L		August			Contombor			October			November	Ľ		December
N	July	ſ	N	August		N	September		N	Octobel	7 [	N	November	N		December
		L	14			14			1,4			14		Ľ		
Pathoge	Pathogens: Class A, Salmonella *															
Biosolids	or Sewage Sludge Mon	ito	red Parar	meter	Measurement Type Unit of Measure (Dry Weight)			Sample	Туре							
Salmon	ella				Geometric Mean			MPN per 4 grams				GRAB-7				
	January	_		February			March			April			May			June
N			N			N			N			N		Ν	V	
	July			August			September			October			November			December
N			N			N			N			N		N	V	
Vector A	attraction Reduction - V	/ol	latile Sol	ids Options (Optic	ns 1-	3) *										
	or Sewage Sludge Mon			-		surement	Tyne	Unit	of Meas	ure (Dry Weight)		Sample	Tyne			
	otal volatile percent rem			110101		imum	1,700	Perce		are (Bry Weight)		CALCTI				
	January			February			 March			April			May			June
=	62	ſ	=	63		=	61		=	59	7 [	=	58	Γ		54
		August	September			October			November				December			
=	60		=	61		=	62		=	62	7 [	=	62	[=		60
		L					1									

Additional Information

Please enter any additional information in the comment box below (limit to 3,900 characters) that you would like to provide.

- Reported "organic nitrogen" in "Nitrogen" fields above.
- Attached is OCSD's Biosolids Management Compliance Report including the Priority Pollutants report in Appendix C.
- OCSD does not monitor biosolids for indicator organisms because we produce Class B via time and temperature in anaerobic digesters (N chosen for fecal coliform and salmonella).
- Reported value for VSR is an average calculation using two flow-weighted sample results and average monthly flows.
- Per OCSD's email to EPA on 2/2/17, for consistency with OCSD's historical reporting practices, OCSD has reported our biosolids data to the reporting limit (RL). OCSD will follow-up with EPA to address this matter for 2017 reporting.

#### **Additional Attachments**

Confirm Certifier: rcoss@ocsd.com \*

File: 2016\_OCSD\_Annual\_Biosolids\_Compliance\_Report\_503.pdf

#### **Certification Information**

Certifier E-Mail \*
rcoss@ocsd.com



# **Sewage Sludge (Biosolids) Annual Report**

EPA Regulations - 503.18, 503.28, 503.48

#### INSTRUCTIONS

EPA's sewage sludge regulations (40 CFR part 503) require certain POTWs and Class I sewage sludge management facilities to submit to an annual biosolids report. POTWs that must submit an annual report include POTWs with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more. This is the biosolids annual report form for POTWs and Class I sewage sludge management facilities in the 42 states and all tribes and territories where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge' also refers to the material that is commonly referred to as 'biosolids.' EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.

Please note that questions with a (\*) are required. Please also note that EPA may contact you after you submit this report for more information regarding your sewage sludge program.

Questions regarding this form should be directed to the NPDES Electronic Reporting Helpdesk at:

<ul> <li>NPDESeReporting@epa.gov OF</li> </ul>	2
• 1-877-227-8965	

What action would you like to take? *
New Biosolids Program Report

otherwise required to report (e.g., permit condition, enforcement action)

#### 1. Program Information

, an institution
ease select the NPDES ID number below for this Sewage Sludge (Biosolids) Annual Report. *
CAL120604: Orange County SD #2
you do not see the NPDES ID associated with your facility, please Cancel and within the Forms tab submit a NPDES ID Access Request. Complete instructions are available in the Biosolids Users Guide at: <a href="https://banet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids">https://banet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids</a>
acility Name: Orange County SD #2
treet: 10844 Ellis Avenue
ity: FOUNTAIN VALLEY
tate: CA
ip Code: 92708-7018
1 Please select at least one of the following options pertaining to your obligation to submit a Sewage Sludge (Biosolids) Annual Report in compliance with 40 CFR 503. The facility is: *
a POTW with a design flow rate equal to or greater than one million gallons per day a POTW that serves 10,000 people or more a Class I Sludge Management Facility as defined in 40 CFR 503.9

none of the above

1.2 Reporting Perio	od Start and End Dates	
Start Date of Repo	orting Period * End Date of Reporting Period *	
01-01-2016	12-31-2016	
2. Facility Information		
2.1 Biosolids or Sev	wage Sludge Treatment Processes	
Please check the b more that apply). *		ocesses that you used on the sewage sludge or biosolids generated or produced at your facility during the reporting period (check one or
	tion Operations (see Appendix B to Part 503)	Physical Treatment Operations
Processes to Signif	ficantly Reduce Pathogens (PSRP)	Preliminary Operations (e.g., sludge grinding, degritting, blending)
Aerobic Diges	tion	Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)
Air Drying (or	"sludge drying beds")	Sludge Lagoon
Anaerobic Dig	gestion	Other Processes to Manage Sewage Sludge
Lower Temper	rature Composting	Temporary Sludge Storage (sewage sludge stored on land 2 years or less, not in sewage sludge unit)
Lime Stabiliza	tion	Long-term Sludge Storage (sewage sludge stored on land 2 years or more, not in sewage sludge unit)
Processes to Furth	er Reduce Pathogens (PFRP)	Methane or Biogas Capture and Recovery
Higher Tempe	erature Composting	Other Treatment Process:
Heat Drying (e	e.g., flash dryer, spray dryer, rotary dryer)	
Heat Treatmer	nt (Liquid sewage sludge is heated to temp. of 356°F (or 180°C) or	higher for 30 min.)
Thermophilic a	Aerobic Digestion	
Beta Ray Irradi	iation	
Gamma Ray Ir	radiation	
Pasteurization	1	
2.2 Biosolids or Sev	wage Sludge Analytical Methods	
also specify the an	pecify that representative samples of sewage sludge that is applie allytical methods that must be used to analyze samples of sewage $2 + 40 + 100 = 40 = 40 = 40 = 40 = 40 = 40 = 40 $	d to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator must be collected and analyzed. These regulations e sludge. For example, EPA requires facilities to monitor for the certain parameters, which are listed in Tables 1, 2, 3, and 4 at 40 CFR 503.13
Please check the b	oox next to the following analytic methods used on the sewage sli	udge or biosolids generated or produced by you or your facility during the reporting period (check one or more that apply). *
Parameter	Method Number or Author	Description Text for Certification Section
Pathogens		
Ascaris ova.	Sludge Monitoring - Ascaris ova.	Sludge Monitoring - Ascaris ova., "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix I)," Control of Pathogens and Vector Attraction in Sewage Sludge", EPA-625-R-92-013, July 2003

Other Ascaris ova. Analytical Method:

Parameter	Method Number or Author	Description Text for Certification Section					
Enteric viruses	ASTM Method D4994 - Enteric Viruses	$ASTM\ Method\ D4994-Enteric\ Viruses, "Standard\ Practice\ for\ Recovery\ of\ Viruses\ From\ Wastewater\ Sludges,"\ ASTM\ International$					
Effectic viruses	Other Enteric Viruses Analytical Method:						
	Standard Method 9222 - Fecal Coliform	Standard Method 9222 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association [Note: This method is only allowable for Class B sewage sludge]					
	Standard Method 9221 - Fecal Coliform	Standard Method 9221 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public					
Fecal coliform	EPA Method 1680 - Fecal Coliform	Health Association EPA Method 1680 - Fecal Coliform, "Fecal Coliforms in Sewage Sludge by Multiple-Tube Fermentation using Lauryl Tryptose Broth					
	EPA Method 1681 - Fecal Coliform	and EC Medium," EPA-821-R-10-003, April 2010 EPA Method 1681 - Fecal Coliform, Fecal Coliforms in Sewage Sludge (Biosolids) by MultipleTube Fermentation using A-1					
	Other Fecal Coliform Analytical Method:	medium, EPA-821-R-04-027, June 2005					
Halminth ava	W.A. Yanko Method - Helminth ova.	W.A. Yanko Method - Helminth Ova., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges," EPA-600-1-87-014, 1987					
Helminth ova.	Other Helminth ova. Analytical Method:	EI/ 000 1 0/ 014, 1/0/					
	Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association					
Salmonella sp. Bacteria	EPA Method 1682 - Salmonella	EPA Method 1682, "Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium,"					
Saimonella sp. Bacteria	Kenner and Clark Method - Salmonella	EPA-821-R-06-014, July 2006 Kenner and Clark Method - Salmonella, "Detection and Enumeration of Salmonella and Pseudomonas aeruginosa," J. Water					
	Other Salmonella sp. Bacteria Analytical Method:	Pollution Control Federation, 46(9):2163-2171, 1974					
Total Culturable Viruses	Class A Sludge Monitoring - Total Culturable Viruses	EPA Class A Sludge Monitoring - Total Culturable Viruses, "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix H)," Control of Pathogens and Vector Attraction in Sewage Sludge, EPA-625-R-92-013, July 2003					
Total Culturable viruses	Other Total Culturable Viruses Analytical Method:	5 ( ) , , , , , , , , , , , , , , , , , ,					
Metals							
	EPA Method 6010 - Arsenic (ICP-OES)	EPA Method 6010 - Arsenic (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846					
	EPA Method 6020 - Arsenic (ICP-MS)	EPA Method 6020 - Arsenic (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/					
Arsenic	EPA Method 7010 - Arsenic (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Arsenic (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,					
	EPA Method 7061 - Arsenic (AA-GH)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7061 - Arsenic (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical					
	Other Arsenic Analytical Method:	Methods," EPA Pub. SW-846					
	EPA Method 6010 - Beryllium (ICP-OES)	EPA Method 6010 - Beryllium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846					
	EPA Method 6020 - Beryllium (ICP-MS)	EPA Method 6020 - Beryllium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste,					
Beryllium	EPA Method 7000 - Beryllium (FAAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Beryllium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/					
	EPA Method 7010 - Beryllium (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Beryllium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid					
	Other Beryllium Analytical Method	Waste, Physical/Chemical Methods," EPA Pub. SW-846					

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 6010 - Cadmium (ICP-OES)	EPA Method 6010 - Cadmium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Cadmium (ICP-MS)	EPA Method 6020 - Cadmium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Cadmium	EPA Method 7000 - Cadmium (FAAS)	EPA Method 7000 - Cadmium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
	EPA Method 7010 - Cadmium (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
	EPA Method 7131 - Cadmium (GF-AAS)	Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other Cadmium Analytical Method:	EPA Method 7131 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Chromium (ICP-OES)	EPA Method 6010 - Chromium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Chromium (ICP-MS)	EPA Method 6020 - Chromium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste,
	EPA Method 7000 - Chromium (FAAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Chromium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
Chromium	EPA Method 7010 - Chromium (GF-AAS)	Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 7191 - Chromium	EPA Method 7010 - Chromium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	(AA-FT)  Other Chromium Analytical Method:	EPA Method 7191 - Chromium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Copper (ICP-OES)	EPA Method 6010 - Copper (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Copper (ICP-MS)	EPA Method 6020 - Copper (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Copper	EPA Method 7000 - Copper (FAAS)	EPA Method 7000 - Copper (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
	EPA Method 7010 - Copper (GF-AAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Copper (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
	Other Copper Analytical Method:	Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Lead (ICP-OES)	EPA Method 6010 - Lead (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Lead (ICP-MS)	EPA Method 6020 - Lead (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/
Lead	EPA Method 7000 - Lead (FAAS)	Chemical Methods," EPA Pub. SW-846 EPA Method 7000 - Lead (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/
Leau	EPA Method 7010 - Lead (GF-AAS)	Chemical Methods," EPA Pub. SW-846
	EPA Method 7421 - Lead (AA-FT)	EPA Method 7010 - Lead (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other Lead Analytical Method:	EPA Method 7421 - Lead (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Mercury	EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absoprtion), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
wording	Other Mercury Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 6010 - Molybdenum (ICP-OES)	EPA Method 6010 - Molybdenum (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Molybdenum (ICP-MS)	EPA Method 6020 - Molybdenum (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Molybdenum	EPA Method 7000 - Molybdenum (FAAS)	EPA Method 7000 - Molybdenum (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
Worksacham	EPA Method 7010 - Molybdenum (GF-AAS)	Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7010 - Molybdenum (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
	EPA Method 7481 - Molybdenum (AA-FT)	Waste, Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7481 - Molybdenum (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/
	Other Molybdenum Analytical Method:	Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Nickel (ICP-OES)	EPA Method 6010 - Nickel (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Nickel (ICP-MS)	EPA Method 6020 - Nickel (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Nickel	EPA Method 7000 - Nickel (FAAS)	EPA Method 7000 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods," EPA Pub. SW-846
	EPA Method 7010 - Nickel (GF- AAS) Other Nickel Analytical Method:	EPA Method 7010 - Nickel (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6010 - Selenium (ICP-OES)	EPA Method 6010 - Selenium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Selenium (ICP-MS)	EPA Method 6020 - Selenium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Selenium	EPA Method 7010 - Selenium (GF-AAS)	EPA Method 7010 - Selenium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
Scientiani	EPA Method 7740 - Selenium (AA-FT)	Waste, Physical/Chemical Methods," EPA Pub. SW-846 EPA Method 7741A - Selenium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/
	EPA Method 7741 - Selenium (AA-GH)	Chemical Methods," EPA Pub. SW-846 EPA Method 7741 - Selenium (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemica
	Other Selenium Analytical Method:	Methods," EPA Pub. SW-846
	EPA Method 6010 - Zinc (ICP-OES)	EPA Method 6010 - Zinc (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 6020 - Zinc (ICP-MS)	EPA Method 6020 - Zinc (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Zinc	EPA Method 7000 - Zinc (FAAS)	EPA Method 7000 - Zinc (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 7010 - Zinc (GF-AAS)	EPA Method 7010 - Zinc (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
	Other Zinc Analytical Method:	Physical/Chemical Methods," EPA Pub. SW-846
Nitrogen Compound	s	
	EPA Method 350.1 - Ammonia Nitrogen	EPA Method 350.1 - Ammonia Nitrogen, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry," August 1993
Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Ammonia Nitrogen Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
	EPA Method 9056 - Nitrate Nitrogen (IC)	EPA Method 9056 - Nitrate Nitrogen (Ion Chromatography), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	EPA Method 9210 - Nitrate Nitrogen (ISE)	EPA Method 9210 - Nitrate Nitrogen (Ion-Selective Electrode), "Test Methods for Evaluating Solid Waste, Physical/Chemical
	Other Nitrate Nitrogen Analytical Method:	Methods," EPA Pub. SW-846  EPA 300.0
Nitrate Nitrogen		EPA 500.0
Nitrogon	Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Healt Association
Nitrogen	Other Nitrogen Analytical Method:	Association
	Standard Method 4500-Norg - Organic Nitrogen	Standard Method 4500-Norg - Organic Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Organic Nitrogen Analytical Method:	Calculation
Organic Nitrogen		
	ST FDAMAR A 2512 2. TANKIN ALAKANIA	EPA Method 351.2 - Total Kjeldahl Nitrogen, "Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry," Augu
Total Kjeldahl Nitrogen	EPA Method 351.2 - Total Kjeldahl Nitrogen	1993
	Other Total Kjeldahl Nitrogen Analytical Method:	
Other Analytes		
Fixed Solids	Standard Method 2540 - Fixed Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Fixed Solids Analytical Method:	
Paint Filter Test	EPA Method 9095 - Paint Filter Liquids Test	EPA Method 9095 - Paint Filter Liquids Test, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Tunit Filter Fest	Other Paint Filter Test Analytical Method:	
	EPA Method 9040 - pH (≤ 7% solids)	$EPA\ Method\ 9040\ -\ pH\ (\le 7\%\ solids),\ "Test\ Methods\ for\ Evaluating\ Solid\ Waste,\ Physical/Chemical\ Methods,"\ EPA\ Pub.\ SW-846$
рН	EPA Method 9045 - pH (> 7% solids)	EPA Method 9045 - pH (> 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	Other pH Analytical Method:	
Specific Oxygen Uptake	Standard Method 2710 - SOUR	Standard Method 2710 - Specific Oxygen Uptake Rate, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Rate	Other Specific Oxygen Uptake Rate Analytical Method:	Afficilitati dolic ricatti Association
TCLP	EPA Method 1311 - Toxicity Characteristic Leaching Procedure Other TCLP Analytical Method:	EPA Method 1311 - Toxicity Characteristic Leaching Procedure, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846

Parameter	Method Nun	nber or Author	Descript	ion Text for Certification Se	ection		
	Standard	Method 2550 - Temperature	Standard Associatio		, "Standard Methods for the	e Examination of Water a	and Wastewater," American Public Health
Temperature	Other Ten	nperature Analytical Method:	Associatio	) II			
		Method 2540 - Total Solids			nd volatile solids, "Standard	d Methods for the Exam	ination of Water and Wastewater,"
Total Solids	Other Total	Fotal Solids Analytical Method:		Public Health Association			
	Standard	Standard Method 2540 - Volatile Solids			nd volatile solids, "Standard	d Methods for the Exam	ination of Water and Wastewater,"
Volatile Solids		atile Solids Analytical Method:	American	Public Health Association			
No Analytical	Methods No Analyt	cical Methods Used					
2.3 What is the 29534	e estimated total volume c	of biosolids or sewage sludge produced	at your facility for the	reporting period (in dry metr	ric tons)? *		
3 Riosolids or Sewa	age Sludge Management						
EPA NPDES regulations at 40 CFR 503 only require reporting for land application, surface disposal, or incineration. You have the option to select "Other Management Practice" if you wish to provide more information on how you manage your sewage sludge or biosolids.  Please use the selections below to identify how sewage sludge or biosolids generated or produced at your facility was managed, used, or disposed by you or your facility for the reporting period. You can use the button below to add as many Sewage Sludge Unique Identifier (SSUID) sections as needed to describe how you manage your sewage sludge.  SSUID Section							
SSUID Section	1		ded to describe now y	ou manage your sewage sluc	dge.		
SSUID Section Sewage Sludg	n ge Unique Identifier (SSU	JID): 001	aea to aescribe now y				
SSUID Section	n ge Unique Identifier (SSU Practice Type *			ou manage your sewage sluc  Management Practice Deta  Agricultural Land Applicate	ill *		
SSUID Section Sewage Sludg Management F Land Applicat	n ge Unique Identifier (SSU Practice Type * tion	JID): 001  Handler or Preparer Type *	arer	Management Practice Deta Agricultural Land Applicate	ill *		
SSUID Section Sewage Sludg Management F Land Applicat	ge Unique Identifier (SSU Practice Type * tion and Application includes	JID): 001  Handler or Preparer Type *  Off-Site Third-Party Handler or Prepa	arer	Management Practice Deta Agricultural Land Applicate EQ.	ill *		
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L	ge Unique Identifier (SSU Practice Type * tion and Application includes	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparethe distribution and marketing (sale or continuous)	arer give away) of Class A E	Management Practice Deta Agricultural Land Applicate EQ.	ill *		
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co	ge Unique Identifier (SSU Practice Type * tion and Application includes ontainer *	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparent Handler or Pathogen Class *	arer give away) of Class A E Volume Amount (dr	Management Practice Deta Agricultural Land Applicate EQ.	ill *		
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cone	pe Unique Identifier (SSU Practice Type * tion and Application includes ontainer *	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparent Handler or Pathogen Class *	arer give away) of Class A E Volume Amount (dr 26183	Management Practice Deta Agricultural Land Applicate CO. y metric tons) *	ill * on	entration in Table 3 of <u>4</u>	O CFR 503.13?
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cond	ge Unique Identifier (SSU Practice Type * tion  and Application includes ontainer *  acentrations:  land apply bulk sewage s	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparent Handler or Preparent Handler or Preparent Handler or Preparent Handler Handler or Preparent Handler Handler Office Handler Handl	arer give away) of Class A E Volume Amount (dr 26183	Management Practice Deta Agricultural Land Applicate CO. y metric tons) *	ill * on	entration in Table 3 of <u>4</u>	0 CFR 503.13?
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cone Did the facility Yes	pe Unique Identifier (SSU Practice Type * tion  and Application includes ontainer *  acentrations:  land apply bulk sewage s	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparethe distribution and marketing (sale or gathogen Class *  Class B	arer give away) of Class A E Volume Amount (dr 26183  centrations in the sewa	Management Practice Deta Agricultural Land Applicate CO. y metric tons) *	ill * on	entration in Table 3 of <u>4</u>	0 CFR 503.13?
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cone Did the facility Yes Name of Off-S	pe Unique Identifier (SSU Practice Type * tion  and Application includes ontainer *  icentrations:  land apply bulk sewage s  No  Site Third-Party Handler te the following informati	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparethe distribution and marketing (sale or gathogen Class *  Class B  ludge when one or more pollutant concomply Unknown or Preparer for this Sewage Sludge University (State of State	arer give away) of Class A E Volume Amount (dr 26183  centrations in the sewanique Identifier or Preparer for this Sev	Management Practice Deta Agricultural Land Applicate  Q. y metric tons) *  age sludge exceeded a month	ill * on hly average pollutant conc		0 CFR 503.13?  opulate this information. If fields remain
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cone Did the facility Yes Name of Off-S Please complet blank after click	pe Unique Identifier (SSU Practice Type * tion  and Application includes ontainer *  icentrations:  land apply bulk sewage s  No  Site Third-Party Handler te the following informati	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparethe distribution and marketing (sale or generating Pathogen Class *  Class B  ludge when one or more pollutant concession Unknown or Preparer for this Sewage Sludge Union for the Off-Site Third-Party Handler of then no data exists and you must entersisted.	arer give away) of Class A E Volume Amount (dr 26183  centrations in the sewanique Identifier or Preparer for this Sev	Management Practice Deta Agricultural Land Applicate  Q. y metric tons) *  age sludge exceeded a month	ill * on hly average pollutant conc		
SSUID Section Sewage Sludg Management F Land Applicat Please Note: L Bulk or Bag/Co Bulk Pollutant Cone Did the facility Yes Name of Off-S Please complet blank after click	pe Unique Identifier (SSU Practice Type * tion  and Application includes ontainer *  centrations: land apply bulk sewage s  No Site Third-Party Handler te the following informatiking the Look Up button, -Party Handler or Prepar	Handler or Preparer Type *  Off-Site Third-Party Handler or Preparethe distribution and marketing (sale or generating Pathogen Class *  Class B  ludge when one or more pollutant concession Unknown or Preparer for this Sewage Sludge Union for the Off-Site Third-Party Handler of then no data exists and you must entersisted.	arer give away) of Class A E Volume Amount (dr 26183  centrations in the sewanique Identifier or Preparer for this Sev	Management Practice Deta Agricultural Land Applicate  Q. y metric tons) *  age sludge exceeded a month	ill * on hly average pollutant conc		

Facil	ity/Com	pany Name *								
Tule	Ranch	/ Ag-Tech								
Addı	ess *									
432	4 E. Ash	lan Ave.								
City	*		State *		Zip Code *					
Fres	ino		California		93726					
Off-S	ite Thir	d-Party Handler or Preparer Conta	ct Information							
First	Name *			Last Name *				Title *		
Sha	en			Magan				Owner		
Phor	ne (10-d	igits, No dashes) * Ext.	E-Mail Address *							
559	9709432	2	kurt@westexp.com	1						
Bios	olids or	Sewage Sludge Pathogen Reduction	on Options							
Pleas	e use th	ne selections below to identify the pa	thogen reduction option	ns used by your faci	ility for this sewage slud	ge unique identifie	er for the repo	rting period (check one o	or more that apply).	
				2.2					, , , , ,	
Cod	е	Patho Class A (must also demonstrate	gen Reduction Option e that meet fecal colifo	orm or salmonella	limits)					
	B1	Class B-Alternative 1: Fecal Coliform	n Geometric Mean							
	B21	Class B-Alternative 2 PSRP 1: Aerobi	ic Digestion							
	B22	Class B-Alternative 2 PSRP 2: Air Dry	ving							
$\boxtimes$	B23	Class B-Alternative 2 PSRP 3: Anaero	obic Digestion							
	B24	Class B-Alternative 2 PSRP 4: Compo	osting							
	B25	Class B-Alternative 2 PSRP 5: Lime S	tabilization							
	В3	Class B-Alternative 3: PSRP Equivale	ency							
	рН	pH Adjustment (Domestic Septage)	)							

Vec	tor Attra	ction Reduction Options					
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction					
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)					
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)					
	VR4	Option 4-Specific Oxygen Uptake Rate					
	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)					
	VR6	Option 6-Alkaline Treatment					
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)					
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)					
	VR9	Option 9-Sewage Sludge Injection					
$\boxtimes$	VR10	Option 10-Sewage Sludge Timely Incorporation into Land					
	VR11	Option 11-Sewage sludge Covered at the End of Each Operating Day					
Pleas	Noncompliance Reporting  Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).						
Land	Applica	tion					
		nd applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling limit (see Table 1 of 40 CFR 503.13).					
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample appropriate method holding times) (see permit requirements and 40 CFR 503.8).					
F	acility ha	d deficiencies with pathogen reduction (see <u>40 CFR 503.32</u> ).					
F	acility ha	d deficiencies with vector attraction reduction (see 40 CFR 503.33).					
L	and app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).					
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of d States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).					
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).					
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in f a reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).					

One or m	ore label or information	n sheet requirements were not met for se	wage sludge that was s	sold or given away for lar	nd application (see 40 CFR 503.14(e	<u>)</u> ).		
Bulk sewa	age sludge was applied	to land where the cumulative pollutant le	oading rates in <u>§503.13</u>	<mark>3(b)(2)</mark> have been reache	d.			
The requi	The required notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).							
The requi	red notice and informa	tion was not provided to the owner or lea	ase holder of the land o	on which bulk sewage slu	dge was applied (see 40 CFR 503.1)	<u>2(h)</u> ).		
		vided to the permitting authority for the see 40 CFR 503.12(i) and (j)).	State in which bulk sew	vage sludge was applied	if the bulk sewage sludge was appl	ied to land in a State o	ther than the State in which the bulk	
The facilit	ty failed to keep the ne	cessary records for preparers and appliers	during the reporting p	period (see <u>40 CFR 503.27</u>	·).			
		ss B pathogen reduction requirements, bo ass B pathogen reduction requirements (s				e use the check boxes be	below to indicate any noncompliand	
Food crop	os with harvested parts	that touched the sewage sludge/soil mix	ture (such as melons, c	cucumbers, squash, etc.)	were harvested within 14 months a	fter application of sew	rage sludge (see 40 CFR 503.32(b)(5)	
Food crop	os with harvested parts ace for four months or I	below the soil surface (root crops such as onger prior to incorporation into the soil	s potatoes, carrots, radi (see <u>40 CFR 503.32(b)(5</u>	ishes) were harvested wi	hin 20 months after application of	sewage sludge and the	e sewage sludge remained on the	
		below the soil surface (root crops such as onths prior to incorporation into the soil (			hin 38 months after application of	the sewage sludge and	d the sewage sludge remained on th	
Food crop	os, feed crops, and fibe	crops were harvested within 30 days after	er application of sewag	je sludge (see <u>40 CFR 503</u>	3.32(b)(5)(iv)).			
Animals v	vere grazed on a site w	ithin 30 days after application of sewage	sludge (see <u>40 CFR 503</u>	.32(b)(5)(v)).				
Turf was h	narvested within 1 year 32(b)(5)(vi)).	after application of sewage sludge if the	turf was placed on land	d with a high potential fo	r public exposures or a lawn, unles	s otherwise specified b	by the permitting authority (see 40	
Public acc	cess to land with high p	otential for public exposure was not rest	ricted for 1 year after a	pplication of sewage slud	dge (see <u>40 CFR 503.32(b)(5)(vii)</u> ).			
Public acc	cess to land with a low	potential for public exposure was not resi	tricted for 30 days after	application of sewage s	udge (see <u>40 CFR 503.32(b)(5)(viii)</u> )			
SSUID Sectio	n							
Sewage Slud	ge Unique Identifier (	SSUID): 002						
Management	Practice Type *	Handler or Preparer Type *		Management Practice	Detail *			
Land Applica	ation	Off-Site Third-Party Handler or Pre	eparer	Distribution and Mar	keting - Compost			
Please Note:	Land Application inclu	des the distribution and marketing (sale c	or give away) of Class A	EQ.				
Bulk or Bag/C	ontainer *	Pathogen Class *	Volume Amount (d	Iry metric tons) *				
Bulk		Class A EQ (sale/give away)	905					
Pollutant Cor	ncentrations:							
Did the facility	y land apply bulk sewa	ge sludge when one or more pollutant co	ncentrations in the sev	vage sludge exceeded a	monthly average pollutant concent	ration in Table 3 of 40	CFR 503.13?	
Yes	<ul><li>No</li></ul>	Unknown						
_	Site Third-Party Hand	ler or Preparer for this Sewage Sludge	Unique Identifier					
Diago comple	ata tha fallowing inform	nation for the Off Cita Third Porty Handle	r or Droporor for this Co	waaa Chudaa Halawa Ida	ntifier Vou mov entionally look up	a NIDDEC ID to outo no	nulate this information. If fields rome	

Please complete the following information for the Off-Site Third-Party Handler or Preparer for this Sewage Sludge Unique Identifier. You may optionally look up a NPDES ID to auto-populate this information. If fields remain blank after clicking the Look Up button, then no data exists and you must enter the information

Off-Site Third-Party Handler or Preparer Information

NPDI	S ID (if	known)
		pany Name *
	-	re Regional Composting Authority
Addr		
	45 6th S	
City *		State * Zip Code * amonga
		d-Party Handler or Preparer Contact Information
	Name *	Last Name * Title *
Jeff		Ziegenbein Facility Manager
		gits, No dashes) * Ext. E-Mail Address *
	993198	
		Sewage Sludge Pathogen Reduction Options
Pleas	e use th	e selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).
Cod	e	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
П	A1	Class A (must also demonstrate that meet recal conform of salmonella limits)  Class A-Alternative 1: Time/Temperature
$\Box$	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
$\Box$	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting
	A52	Class A-Alternative 5 PFRP 2: Heat Drying
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
	A57	Class A-Alternative 5 PFRP 7: Pasteurization
	A6	Class A-Alternative 6: PFRP Equivalency
	рН	pH Adjustment (Domestic Septage)

Ved	tor Attra	ction Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)
Non	mnlin	and Demonstrate
NO	<u>ıcompiia</u>	nce Reporting
prep	ares sewa	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are me age sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).
Lan	d Applica	tion
		nd applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling limit (see Table 1 of 40 CFR 503.13).
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample pappropriate method holding times) (see permit requirements and 40 CFR 503.8).
	Facility ha	d deficiencies with pathogen reduction (see 40 CFR 503.32).
	Facility ha	d deficiencies with vector attraction reduction (see $\underline{40\ CFR\ 503.33}$ ).
	Land app	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of d States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).
		age sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in fa reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
	One or m	ore label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
	Bulk sewa	ge sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
	The requi	red notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).

The required notice and information was r	not provided to the owner or le	ease holder of the land or	n which bulk sewage sludge was applied	(see 40 CFR 503.12(h)).	
The required notice was not provided to the sewage sludge was prepared (see 40 CFR!		e State in which bulk sewa	age sludge was applied if the bulk sewag	e sludge was applied to land in a State	other than the State in which the bulk
The facility failed to keep the necessary red	cords for preparers and applie	rs during the reporting pe	eriod (see <u>40 CFR 503.27</u> ).		
SSUID Section					
Sewage Sludge Unique Identifier (SSUID): 0	003				
Management Practice Type * Har	ndler or Preparer Type *		Management Practice Detail *		
Land Application Of	ff-Site Third-Party Handler or Pi	reparer	Agricultural Land Application		
Please Note: Land Application includes the dis	stribution and marketing (sale	or give away) of Class A E	EQ.		
Bulk or Bag/Container * Pat	thogen Class *	Volume Amount (dr	ry metric tons) *		
Bulk	ass A EQ (sale/give away)	64			
Pollutant Concentrations:					
Did the facility land apply bulk sewage sludge	when one or more pollutant c	concentrations in the sewa	age sludge exceeded a monthly average	pollutant concentration in Table 3 of 4	<u>10 CFR 503.13</u> ?
	known				
Name of Off-Site Third-Party Handler or Pre	eparer for this Sewage Sludge	e Unique Identifier			
Please complete the following information for blank after clicking the Look Up button, then r	the Off-Site Third-Party Handl no data exists and you must en	ler or Preparer for this Sev nter the information	wage Sludge Unique Identifier.You may o	ptionally look up a NPDES ID to auto-p	oopulate this information. If fields remain
Off-Site Third-Party Handler or Preparer Inf	•				
NPDES ID (if known)					
Facility/Company Name *					
Synagro - Nursery Products					
Address *					
PO Box 1439					
City *	State *	Zip Coo	de *		
Helendale	California	92342			
Off-Site Third-Party Handler or Preparer Co	entact Information				
First Name *	La	ast Name *		Title *	
Chad	Е	Buechel		Area Manager	
Phone (10-digits, No dashes) * Ext	E-Mail Address *				
6613782515	cbuechel@SYNAGRO.	com			
Biosolids or Sewage Sludge Pathogen Redu	ection Options				

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).

Cod	е	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
	A1	Class A-Alternative 1: Time/Temperature
	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting
	A52	Class A-Alternative 5 PFRP 2: Heat Drying
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
	<b>A</b> 55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
	A57	Class A-Alternative 5 PFRP 7: Pasteurization
	A6	Class A-Alternative 6: PFRP Equivalency
	рН	pH Adjustment (Domestic Septage)
	se use th	Sewage Sludge Vector Attraction Reduction Options e selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that
Vec	tor Attra	action Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)

### Noncompliance Reporting

Option 8-Drying (Equal to or Greater than 90 Percent)

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).

<b>Land Applicat</b>	ion						
	d applied bulk sewage slu imit (see Table 1 of <u>40 CFF</u>	udge or sold or gave away sewage sludg R 503.13).	ge in a bag or other c	ontainer when one or more p	ollutant concentrations in the sewag	je sludge exceed	led a land application ceiling
	Facility failed to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample (including appropriate method holding times) (see permit requirements and 40 CFR 503.8).						
Facility had	d deficiencies with patho	gen reduction (see <u>40 CFR 503.32</u> ).					
Facility had	d deficiencies with vector	attraction reduction (see 40 CFR 503.33	3).				
Land appli	cation of bulk sewage slu	dge likely to adversely affected a threat	tened or endangered	species listed under Section 4	of the Endangered Species Act or it	s designated crit	tical habitat (see <u>40 CFR 503.14(a)</u> ).
		agricultural land, forest, a public contac <u>FR 122.2</u> , except as provided in a permi				k sewage sludge	entered a wetland or other waters of
1 1	ge sludge was applied to a see <u>40 CFR 503.14(c)</u> ).	agricultural land, forest, or a reclamation	n site was 10 meters (	or less from waters of the Unit	ed States, as defined in 40 CFR 122.2	, unless otherwis	se specified by the permitting
		agricultural land, forest, a public contac wise specified by the permitting author			cation rate that was greater than the	agronomic rate	for the bulk sewage sludge, unless, in
One or mo	re label or information sh	eet requirements were not met for sew	age sludge that was	sold or given away for land ap	plication (see <u>40 CFR 503.14(e)</u> ).		
Bulk sewaç	ge sludge was applied to I	and where the cumulative pollutant loa	ading rates in <u>§503.1.</u>	3(b)(2) have been reached.			
The require	ed notice and informatior	n was not provided to the land applicati	ion applier (see <u>40 CF</u>	R 503.12(f) and (g)).			
The require	ed notice and informatior	n was not provided to the owner or leas	se holder of the land o	on which bulk sewage sludge	was applied (see <u>40 CFR 503.12(h)</u> ).		
	ed notice was not provide udge was prepared (see <u>4</u> 0	ed to the permitting authority for the St O CFR 503.12(i) and (j)).	ate in which bulk sev	vage sludge was applied if the	bulk sewage sludge was applied to	land in a State o	ther than the State in which the bulk
The facility	failed to keep the necess	ary records for preparers and appliers o	during the reporting p	period (see <u>40 CFR 503.27</u> ).			
SSUID Section	1						
Sewage Sludg	e Unique Identifier (SSL	JID): 004					
Management I	Practice Type *	Handler or Preparer Type *		Management Practice Deta	ail *		
Land Applicat	ion	Off-Site Third-Party Handler or Prep	oarer	Agricultural Land Applicat	on		
Please Note: L	and Application includes	the distribution and marketing (sale or	give away) of Class A	EQ.			
Bulk or Bag/Co	ontainer *	Pathogen Class *	Volume Amount (d	dry metric tons) *			
Bulk		Class A EQ (sale/give away)	1168				
Pollutant Con	centrations:						
Did the facility	land apply bulk sewage s	ludge when one or more pollutant con-	centrations in the sev	wage sludge exceeded a mont	thly average pollutant concentration	ı in Table 3 of <u>40</u>	CFR 503.13?
Yes	(•) No	Unknown					
_		or Preparer for this Sewage Sludge U	Inique Identifier				

Please complete the following information for the Off-Site Third-Party Handler or Preparer for this Sewage Sludge Unique Identifier. You may optionally look up a NPDES ID to auto-populate this information. If fields remain blank after clicking the Look Up button, then no data exists and you must enter the information

Off-Site Third-Party Handler or Preparer Information

NPD	ES ID (if	known)								
		npany Name *								
Syn	agro – S	South Kern Compost Manufacturing Facility	У							
Addı	ress *					ı				
P.O.	Box 26!	5								
City		Sta	ate *		Zip Code *					
Taft		Ca	alifornia		93268					
Off-S	Site Thir	rd-Party Handler or Preparer Contact Inf	formation							
First	Name *	k		Last Name *				Title *		
Cha	ıd			Buechel				Area Manager		
Phor	ne (10-d	ligits, No dashes) * Ext. E	E-Mail Address *						_	
661	7652200	0 223	cbuechel@SYNAGR	O.com						
Bios	olids or	r Sewage Sludge Pathogen Reduction Op	ptions							
Pleas	se use th	ne selections below to identify the pathoge	en reduction option	s used by your facil	lity for this sewage sludg	e unique identifie	er for the repo	orting period (check one or mo	ore that apply).	
		Pathogen R	Reduction Option							
Cod	le	Class A (must also demonstrate that	it meet fecal colifor	rm or salmonella l	imits)					
	A1	Class A-Alternative 1: Time/Temperature	9							
	A2	Class A-Alternative 2: pH/Temperature/Pe	Percent Solids							
	A3	Class A-Alternative 3: Test Enteric Viruses	s and Helminth ova;	Operating Parame	eters					
	A4	Class A-Alternative 4: Test Enteric Viruses	s and Helminth ova;	No New Solids						
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting	g							
	A52	Class A-Alternative 5 PFRP 2: Heat Drying	g							
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat	t Treatment							
	A54	Class A-Alternative 5 PFRP 4: Thermophil	lic Aerobic Digestion	n (ATAD)						
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irra	adiation							
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray	y Irradiation							
	A57	Class A-Alternative 5 PFRP 7: Pasteurization	ion							
	A6	Class A-Alternative 6: PFRP Equivalency								
	рН	pH Adjustment (Domestic Septage)								

Vect	or Attrac	ction Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)
None	ompliar	nce Reporting
prepa when	res sewa the sewa	check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who ge sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are made and the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).
	Applicat acility lar	cion applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling
		imit (see Table 1 of <u>40 CFR 503.13</u> ).
		led to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample appropriate method holding times) (see permit requirements and 40 CFR 503.8).
F	acility ha	d deficiencies with pathogen reduction (see <u>40 CFR 503.32</u> ).
F	acility ha	d deficiencies with vector attraction reduction (see 40 CFR 503.33).
L	and appl	ication of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of I States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
		ge sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting (see 40 CFR 503.14(c)).
		ge sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in a reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
C	ne or mo	ore label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
В	ulk sewa	ge sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
T	he requir	ed notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).

The required notice and information was	s not provided to the owner o	or lease holder of the land	d on which bulk sewage sludge was	applied (see <u>40 CFR 503.12(h)</u> ).	
The required notice was not provided to sewage sludge was prepared (see 40 CFI		the State in which bulk se	ewage sludge was applied if the bul	k sewage sludge was applied to land in a Stat	e other than the State in which the bulk
The facility failed to keep the necessary	records for preparers and app	liers during the reporting	g period (see <u>40 CFR 503.27</u> ).		
SSUID Section					
Sewage Sludge Unique Identifier (SSUID):	: 005				
Management Practice Type *	landler or Preparer Type *		Management Practice Detail *		
Land Application	Off-Site Third-Party Handler o	r Preparer	Distribution and Marketing - C	compost	
Please Note: Land Application includes the	distribution and marketing (sa	ale or give away) of Class	A EQ.		
Bulk or Bag/Container * P	athogen Class *	Volume Amount	(dry metric tons) *		
Bulk	Class A EQ (sale/give away)	1215			
Pollutant Concentrations:					
Did the facility land apply bulk sewage sludg	ge when one or more pollutar	nt concentrations in the se	ewage sludge exceeded a monthly	average pollutant concentration in Table 3 of	40 CFR 503.13?
	Inknown				
Name of Off-Site Third-Party Handler or P	reparer for this Sewage Slu	dge Unique Identifier			
Please complete the following information for blank after clicking the Look Up button, ther	or the Off-Site Third-Party Har	ndler or Preparer for this S enter the information	Sewage Sludge Unique Identifier.Yc	ou may optionally look up a NPDES ID to auto-	-populate this information. If fields remain
Off-Site Third-Party Handler or Preparer I	-				
NPDES ID (if known)					
Facility/Company Name *					
Synagro – Arizona Soils					
Address *					
5615 S. 91st Avenue					
City *	State *	Zip (	Code *		
Tolleson	Arizona	853	353		
Off-Site Third-Party Handler or Preparer C	Contact Information			•	
First Name *		Last Name *		Title *	
Craig		Geyer		Senior Operations Manager	
Phone (10-digits, No dashes) * E.	xt. E-Mail Address *				
6239366328	CGeyer@SYNAGRO	).com			
Biosolids or Sewage Sludge Pathogen Rec	duction Options				•

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply).

Cod	e	Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
	A1	Class A-Alternative 1: Time/Temperature
	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
$\boxtimes$	A51	Class A-Alternative 5 PFRP 1: Composting
	A52	Class A-Alternative 5 PFRP 2: Heat Drying
	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
	A57	Class A-Alternative 5 PFRP 7: Pasteurization
	A6	Class A-Alternative 6: PFRP Equivalency
	рН	pH Adjustment (Domestic Septage)
	e use th	Sewage Sludge Vector Attraction Reduction Options e selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that
Vec	tor Attr	action Reduction Options
$\boxtimes$	VR1	Option 1-Volatile Solids Reduction
	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
	VR4	Option 4-Specific Oxygen Uptake Rate
$\boxtimes$	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
	VR6	Option 6-Alkaline Treatment
П	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)

### Noncompliance Reporting

Option 8-Drying (Equal to or Greater than 90 Percent)

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).

L	and Application														
	Facility land applied bulk sewa pollutant limit (see Table 1 of	age sludge <u>40 CFR 50</u>	e or sold or gave awa 3.13).	ıy sewa	ge sludge in a bag or othe	er conta	iner whe	n one or more polluta	nt co	ncentrati	ons in the sewage slu	ıdge	exceeded	l a land application ceili	ng
	Facility failed to properly colle (including appropriate metho					ed mon	itoring fr	equency and approve	ed an	alytical m	ethods in order to ob	tain	an accura	te and representative sa	ample
	Facility had deficiencies with p	pathogen	reduction (see <u>40 CF</u>	R 503.3	<u>2</u> ).										
	Facility had deficiencies with v	vector attr	action reduction (se	e <u>40 CFI</u>	R 503.33).										
	Land application of bulk sewa	ige sludge	likely to adversely a	ffected	a threatened or endanger	ed spec	ies listed	under Section 4 of th	ie End	dangered	Species Act or its des	signa	ated critica	al habitat (see <u>40 CFR 50</u>	03.14(a)).
	Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of the United States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).  Bulk sewage sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting														
	Bulk sewage sludge was appli authority (see 40 CFR 503.14(c		cultural land, forest,	or a rec	lamation site was 10 meter	rs or les	ss from w	aters of the United Sta	ates,	as define	d in <u>40 CFR 122.2</u> , unl	ess c	otherwise	specified by the permit	ting
	Bulk sewage sludge was appl the case of a reclamation site,							ole sludge applicatior	n rate	e that was	greater than the agre	onor	mic rate fo	r the bulk sewage sludç	ge, unless, in
	One or more label or informat	tion sheet	requirements were ı	ot met	for sewage sludge that wa	as sold	or given a	away for land applicat	tion (	see <u>40 CF</u>	R 503.14(e)).				
	Bulk sewage sludge was appli	ied to land	where the cumulat	ve pollu	utant loading rates in <u>§503</u>	3.13(b)(	2) have b	een reached.							
	The required notice and inform	mation wa	is not provided to th	e land a	application applier (see <u>40</u>	CFR 50	3.12(f) an	d (g)).							
	The required notice and inform	mation wa	s not provided to th	e owne	r or lease holder of the lan	id on w	hich bulk	sewage sludge was a	pplie	ed (see <u>40</u>	CFR 503.12(h)).				
	The required notice was not p sewage sludge was prepared			nority fo	or the State in which bulk s	sewage	sludge w	as applied if the bulk	sewa	age sludg	e was applied to land	in a	State other	er than the State in whic	ch the bulk
	The facility failed to keep the r	necessary	records for preparer	s and ap	opliers during the reportin	ıg perio	d (see <u>40</u>	CFR 503.27).							
	Check when done with SSUID	section. *													
Bioso	olids Monitoring Data														
II	NSTRUCTIONS: These monitoring	g data sho	uld be representativ	e of the	e sewage sludge that was a	applied	to land o	r placed on a surface	dispo	osal site d	uring the reporting y	ear s	see <u>40 CFR</u>	503.8(a). This section u	ses the
	requency of monitoring requirem				3	sed as o	data qual	fiers: T = Too Numero	ous to	Count, E	E = Estimated, N = No	Data	а.		
ı	Maximum Pollutant Concentrat	tion Data	for All Sewage Slud	lge App	olied to Land *										
ä	This section summarizes the max application of bulk sewage sludge ceiling pollutant limit (see Table 1	e or sewaç	ge sludge sold or gav	e away	sewage sludge in a bag or	r other	containe	when one or more se	ewag	je sludge	pollutant concentrati	ions	in the sew	age sludge exceed a lai	nd application
1	Biosolids or Sewage Sludge Moni	itored Para	ameter	Measu	rement Type	Unit	of Measur	e (Dry Weight)		Sample	Туре				
	Arsenic			Maxin	num	mg/l	кg			COMP	OS				
-	January		February		March			April			May			June	1
	= 6.8	=	9.5		= 10		=	9.1		=	8.1		=	11	
_	July		August		September			October			November	_		December	1
	= 83	=	5.7		=   72		l =	7.6		I =	6.4		1 =	66	

Biosolio	ds or Sewage Sludge Mon	itored Pa	rameter	Mea	asuremen	ıt Type	Un	nit of Meas	ure (Dry Weight)	Sam	ple Type		
Cadmi	um			Ma	aximum		m	ng/kg		COI	MPOS		
	January		February			March			April		May		June
=	2.5	=	3.3		=	3.4		=	2.4	=	2.2	=	3.4
	July		August			September			October		November		December
=	3.6	=	3.8		=	5.1		=	9.1	=	7.6	=	5.3
iosolio	ds or Sewage Sludge Mon	itored Pa	rameter	Measurement Type Unit of Measure (Dry Weight) Sample Type									
Coppe					ximum	· 71· ·		ng/kg	· · · · · · · · · · · · · · · · · · ·		MPOS		
January February						March			April		May		June
=	450 = 500				=	510		=	550	=	470	=	470
	July August					September			October		November		December
-	550		=	520		=	490	=	570	=	520		
osolio	ds or Sawaga Sludga Mon	itored Da	rameter	Ma	asuremen	at Type	Hn	nit of Meas	ure (Dry Weight)	Sam	ple Type		
iosolids or Sewage Sludge Monitored Parameter Lead					aximum	птуре		ng/kg	ure (Dry Weight)		MPOS		
·ouu	lanuary		zamiami	March	] [:::	19/119	April		May		June		
	January February  11 < 18				=	12		=	April 15		11		20
			-							November			
	July 10	=	August 12		=	September October  14 = 13					15		December 14
`	10	L	12			14		] [-	13	=	15		14
osolio	ds or Sewage Sludge Mon	itored Pa	rameter	Mea	Measurement Type U				ure (Dry Weight)	Sam	ple Type		
Легси	ry			Ma	aximum		m	ng/kg		COI	MPOS		
	January		February			March			April		May		June
	0.70	=	1.2		=	1.0		=	1.2	=	0.94	=	1.3
	July		August			September			October		November		December
	1.0	=	0.74		=	1.2		=	0.92	=	0.89	=	0.82
osolio	ds or Sewage Sludge Mon	itored Pa	rameter	Mea	asuremen	it Type	Un	nit of Meas	ure (Dry Weight)	Sam	ple Type		
	denum				aximum	· 71		ng/kg			MPOS		
	January February					March			April		May		June
:	12 = 14				= 14			=	16	15	=	16	
July August				September October November				November		December			
	18 = 15												

Biosolids or Sewage Sludge Monit	ameter	Mea	surement	Туре	Unit	t of	f Measure	(Dry Weight)		Sample	Туре			
Nickel			Max	kimum		mg	g/ko	g			COMPO	)S		
January		February			March				April			May		June
= 49	=	33		=	33		]	=	31	[	=	30	=	32
July		August	September					October		November			December	
= 31	=	30		=	35		]	=	30	[	=	36	=	28
Biosolids or Sewage Sludge Monit	tored Pai	ameter	Mea	surement i	Tyne	Unit	t of	f Measure	(Dry Weight)		Sample	Tyne		
Nitrogen				rage	.,,,,,	mg			(2.) Weight		COMPO			
		February			March			April			May		June	
	=	45000		=	45000			=	44000	Γ.	=	41000	=	44000
		-			September		ו נ		October	_		November		December
	July August  52000 = 50000  solids or Sewage Sludge Monitored Parameter lenium			= 45000 = 45000 = 42000						=	41000			
							J [			_				
	ameter		surement :	Туре				(Dry Weight)		Sample				
Selenium			Max	kimum		mg	g/K(	<u>g</u>		J L	COMPOS			
January		February			March		1 1		April			May		June
= 11	January  49  49  33  July  Augus  31  31  = 30  Jolds or Sewage Sludge Monitored Parameter of Sewage Sludge Monitored Para			=	8.9			=	11	:	=	6.2	=	10
= 11 = 12  July August					September				October	_		November		December
= 8.0	=	8.4		=	8.4		= 6.9 = 8.5				8.5	=	4.6	
Biosolids or Sewage Sludge Monit	tored Pai	ameter	Meas	surement i	Type	Unit	t of	f Measure	(Dry Weight)	(	Sample	Type		
Zinc			Maximum mg/kg COMPOS											
January		February			March				April			May		June
	=	_		=	740		] [	=	790	-	=	700	=	740
July		August			September				October			November		December
= 840	=	730		=	790		] [	=	740	-	=	830	=	820
Monthly Average Pollutant Con	contrati	on Data for All Sowe	nao Si	udao Anr	lied to Land *									
			_											
		= -	nt co	ncentratio	ons in sewage slud	_			_	port	ting yea	r.		
	tored Pai	ameter		surement	Туре				(Dry Weight)	п г	Sample			
Arsenic		Ave	rage		mg	g/ko	g			COMPO	OS .			
					March		, ,		April	_		May		June
= 6.8		8.5	= 8.7		= 8.8		8.8	= 7.5			=	10		
July August				September				October	November				December	
		E 4		=	6.7			=	7.2	Ι.	=	6.4	=	6.3

3iosolic	ds or Sewage Sludge Moni	tored Pa	rameter	Mea	surement	Туре	Un	t of Measu	ıre (Dry Weight)		Sample Type					
Cadmi	ium			Ave	erage		_ m	g/kg			СОМ	POS				
	January		February			March			April			May			June	
=	2.3	=	2.9		=	3.1		=	2.2		=	2.0		=	3.1	
	July		August			September			October			November			December	
=	3.5	=	3.6		=	4.5		=	6.1		=	6.7		=	5.2	
Biosolids or Sewage Sludge Monitored Parameter				Mea	Measurement Type Unit of Measure (Dry Weight) Sample Type											
	Copper				erage			g/kg	. , , , ,		СОМ					
	January		February			March			April			May			June	
=	410	=	450		=	490		=	520		=	460		=	460	
	July		August			September			October			November			December	
= 510 = 480					=	510		=	490		=	530		=	490	
Riosolia	ds or Sewage Sludge Moni	tored Da	ramotor	Moa	surement	Type	Hn	t of Massi	ıre (Dry Weight)		Samn	e Type			,	
Lead	as or sewage studge Mort	toreu ra	rameter	$\neg$	erage	Туре		g/kg	ile (bry weight)		COM					
					, ugo	March		yy	April			May			June	
	January 9.7	<	18		=	12		=	15		= 11			<	20	
	July		August			September		J [	October			November			December	
<	10	=	12		=	14		] [=	13		=	15		=	13	
						17		] [				10			10	
	ds or Sewage Sludge Mon	tored Pa	rameter		Measurement Type Unit of Measure (Dry Weight)							е Туре				
Mercu	ry			Ave	erage		m	g/kg			COM	POS				
	January		February			March		,	April			May			June	
=	0.65	=	1.1		=	0.85		=	0.91		=	0.94		=	1.2	
	July		August			September			October		November				December	
=	0.94	=	0.72		=	1.2		=	0.52		=	0.88		=	0.82	
Biosolic	ds or Sewage Sludge Moni	tored Pa	rameter	Mea	surement	Туре	Un	t of Measu	ıre (Dry Weight)		Samp	е Туре				
Nickel				Ave	erage			g/kg			СОМ					
	January February					March			April			May			June	
=	= 31				=	33		= 31 = 29					=	32		
July August			September			October			November				December			
	30 = 30					35		1	30			32			27	

Biosolids	Biosolids or Sewage Sludge Monitored Parameter						rement	Туре	Unit	of N	Measure	(Dry Weight)		Sample	Туре			
Seleniu	m				A۷	/era	ige		mg/	kg				COMPO	OS			
	January			February				March				April			May			June
=	9.4		=	7.6			=	8.4		=		10		=	5.5		=	8.8
	July	Ī		August		September October November								December				
=	7.8		=	6.7			=	8.3		=	=	6.9		=	6.0		=	3.8
Biosolids or Sewage Sludge Monitored Parameter					Me	asu	asurement Type Unit of Measure (Dry Weight) Sample Type											
Zinc				Αν	era	ige		mg/	kg				COMPO	OS				
January February							March				April			May			June	
=	620		=	640			=	730		=	=	760		=	700		=	720
July August								September				October			November			December
= 790 = 730				730			=	750		[-	=	740		=	760		=	760
Pathoge	ens: Class A, Fecal Colifo	orn	n *															
Biosolids	s or Sewage Sludge Moni	toı	red Parar	meter	Me	asu	rement	Туре	Unit	of N	Measure	(Dry Weight)		Sample	Туре			
Fecal Co	oliform				Ge	eon	netric Me	ean	MPN	l/gr	ram			GRAB-7	1			
	January			February				March				April	•		May			June
N			N				N			1	N			N			N	
	July			August				September				October			November			December
N			N				N			1	N			N			N	
Pathoge	ens: Class A, Salmonella																	
_			rod Darar	matar	Me	201	rement	Tyne	Unit (	of N	Measure	(Dry Weight)		Sample	Type			
Biosolids or Sewage Sludge Monitored Parameter Salmonella							netric Me		- —		er 4 grai			GRAB-7				
January February								March	] [	-	9	April			May			June
N				N				ſ	N	, M. II.		N N			N	Jane		
	luly	L		August		ı L		September		October				November				December
July August N					lΓ	N	Sehreimei		Г	N	Octobel		N	November		N	Decelline	

Vector Attraction Reduction - Volatile Solids Options (Options 1-3) \*

Biosolid	s or Sewage Sludge Mon	meter Me	Measurement Type Unit			t of Measure (Dry Weight)			S	Sample	Туре				
Solids,	total volatile percent rem	noval	N	linir	mum	Per	cei	nt			CALCTI	)			
	January		February	March					April			May			June
=	65	=	60	= 62		62		= 59		=	=	63	] [=		62
July August				September			October					November			December
=	59	=	60	= 59		59		=	68	=	•	65			62

#### Additional Information

Please enter any additional information in the comment box below (limit to 3,900 characters) that you would like to provide.

- Reported "organic nitrogen" in "Nitrogen" fields above.
- Attached is OCSD's Biosolids Management Compliance Report including the Priority Pollutants report in Appendix C.
- OCSD does not monitor biosolids for indicator organisms because we produce Class B via time and temperature in anaerobic digesters (N chosen for fecal coliform and salmonella).
- Reported value for VSR is an average calculation using two flow-weighted sample results and average monthly flows.
- Per OCSD's email to EPA on 2/2/17, for consistency with OCSD's historical reporting practices, OCSD has reported our biosolids data to the reporting limit (RL). OCSD will follow-up with EPA to address this matter for 2017 reporting.

#### **Additional Attachments**

File: 2016\_OCSD\_Annual\_Biosolids\_Compliance\_Report\_503.pdf

#### Certification Information

Certifier E-Mail \*

rcoss@ocsd.com

Confirm Certifier: rcoss@ocsd.com \*



## **ORANGE COUNTY SANITATION DISTRICT**

Laboratory, Monitoring & Compliance Division 10844 Ellis Avenue Fountain Valley, California 92708-7018 714.962.2411

www.ocsd.com