## **Victor Valley Wastewater Reclamation Authority**

# **2016 Annual Biosolids Report**

Submitted to: USEPA on February 21, 2017



## **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
. Program Information
Please select the NPDES ID number below for this Sewage Sludge (Biosolids) Annual Report. *
CAL102822: VICTOR VALLEY WRA WWTP
IMPORTANT - If you do not see the NPDES ID associated with your facility (i.e., you only see a blue bar in the above drop down list), you MUST follow the instructions in the "Biosolids User's Guide." A shorter set of instructions to fix this issue are in the "Important Instructions on Accessing Your NPDES ID" document. Both documents are located at: <a href="https://epanet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids">https://epanet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids</a> .
Facility Name: VICTOR VALLEY WRA WWTP
Street: 15776 Main St. Suite 3
City: Hesperia
State: CA
<b>Zip Code</b> : 92345
1.1 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
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 Repor	rting Period * End Date of Reporting Period *	
01-01-2016	12-31-2016	
2. Facility Information		
2.1 Biosolids or Sev	vage Sludge Treatment Processes	
Please check the bo more that apply). *		nt processes that you used on the sewage sludge or biosolids generated or produced at your facility during the reporting period (check one or
Pathogen Reducti	ion Operations (see Appendix B to Part 503)	Physical Treatment Operations
Processes to Significant	icantly Reduce Pathogens (PSRP)	Preliminary Operations (e.g., sludge grinding, degritting, blending)
Aerobic Digest	iion	Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)
Air Drying (or "	'sludge drying beds")	∑ Sludge Lagoon
Anaerobic Dig	estion	Other Processes to Manage Sewage Sludge
Lower Temper	ature Composting	Temporary Sludge Storage (sewage sludge stored on land 2 years or less, not in sewage sludge unit)
Lime Stabilizat	ion	Long-term Sludge Storage (sewage sludge stored on land 2 years or more, not in sewage sludge unit)
Processes to Furthe	er Reduce Pathogens (PFRP)	Methane or Biogas Capture and Recovery
Higher Temper	rature Composting	Other Treatment Process:
Heat Drying (e.	.g., flash dryer, spray dryer, rotary dryer)	
Heat Treatmen	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 Irradia	ation	
Gamma Ray Irr	radiation	
Pasteurization		
2.2 Dissolide or Cou	was Cludge Applytical Mathods	
	vage Sludge Analytical Methods	
also specify the ana		oplied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator must be collected and analyzed. These regulations wage 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 bo	ox next to the following analytic methods used on the sewag	ge sludge 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		
	Sludge Monitoring - Ascaris ova.	Sludge Monitoring - Ascaris ova., "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix I),"
Ascaris ova.	Other Ascaris ova. Analytical Method:	Control of Pathogens and Vector Attraction in Sewage Sludge", EPA-625-R-92-013, July 2003

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:									
	Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association								
Salmanalla en Pactoria	EPA Method 1682 - Salmonella	EPA Method 1682, "Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium,"								
Salmonella 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 fi 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/Chemical Methods," EPA Pub. SW-846								
Arsenic	EPA Method 7010 - Arsenic (GF-AAS)	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, Physic							
	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 7010 - Chromium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid							
	EPA Method 7191 - Chromium	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 (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid							
	EPA Method 6010 - Copper (ICP-OES)	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 7010 - Lead (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,							
	EPA Method 7421 - Lead (AA-FT)	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							
	EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absoprtion), "Test Methods for Evaluating Solid							
Mercury	Other Mercury Analytical Method:	Waste, Physical/Chemical Methods," EPA Pub. SW-846							

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, Physical/Chemical Methods," EPA Pub. SW-846
Worybacham	EPA Method 7010 - Molybdenum (GF-AAS)	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)	EPA Method 7010 - Nickel (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste,
	Other Nickel Analytical Method:	Physical/Chemical Methods," EPA Pub. SW-846
Selenium	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
	EPA Method 7010 - Selenium (GF-AAS)	EPA Method 7010 - Selenium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid
	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 Compounds		
	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	i ubile i leatu i Association

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		EFA 300.0
	Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	Other Nitrogen Analytical Method:	Calculation for total Nitrogen
Nitrogen		
	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 1993
Total Kjeldahl Nitrogen	Other Total Kjeldahl Nitrogen Analytical Method:	1773
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
. a	Other Paint Filter Test Analytical Method:	
	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:	

Parameter	Method Number or Author	Descript	ion Text for Certification Section									
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 Meth		Public neatti Association									
TCLP	EPA Method 1311 - Toxicity Characteristic Leaching Procedure Other TCLP Analytical Method:		od 1311 - Toxicity Characteristic Leaching Procedure, "Test Methods for Evaluating Solid Waste, Physical/Chemical 'EPA Pub. SW-846									
	Standard Method 2550 - Temperature		Method 2550 - Temperature, "Standard Methods for the Examination of Water and Wastewater," American Public Health									
Temperature	Other Temperature Analytical Method:	Association	MI									
T	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	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	Public Health Association									
No Analytical Methods	No Analytical Methods Used											
Please use the selections below to add as many Se SSUID Section	wage Sludge Unique Identifier (SSUID) sections as neede		your facility was managed, used, or disposed by you or your facility for the reporting period. You can use the button ou manage your sewage sludge.									
Sewage Sludge Unique												
Management Practice Ty  Land Application	pe * Handler or Preparer Type *  Owner or Operator		Management Practice Detail *  Agricultural Land Application									
	eation includes the distribution and marketing (sale or given	(o away) of Class A F										
• •		•										
Bulk or Bag/Container * Bulk	Pathogen Class *  Class A EQ (sale/give away)	2238.5	t (dry metric tons) *									
Pollutant Concentration												
		ntrations in the sewa	age sludge exceeded a monthly average pollutant concentration in Table 3 of 40 CFR 503.13? *									
Yes • N			-gg									
	dge Pathogen Reduction Options											
ŭ												

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
$\boxtimes$	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
	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)
Biose	olids or	Sewage Sludge Vector Attraction Reduction Options
Pleas		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
	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

VR8

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 se pollutant limit (see Table 1 of 40 CFR 503.13).	ewage sludge in a bag or other con	tainer when one or more pollutant co	ncentrations in the sewage sludge	e exceeded a land application ceiling									
	Facility failed to properly collect and analyze its sewage sludge in (including appropriate method holding times) (see permit required)	in accordance with the required mo irements and <u>40 CFR 503.8</u> ).	onitoring frequency and approved ana	alytical methods in order to obtain	an accurate and representative sample									
	Facility had deficiencies with pathogen reduction (see 40 CFR 50	03.32).												
	Facility had deficiencies with vector attraction reduction (see $\underline{40}$	OCFR 503.33).												
	Land application 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)).													
	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 authority (see 40 CFR 503.14(c)).													
	Bulk sewage 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 the case of a reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).													
	One or more 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 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 lar	nd application applier (see <u>40 CFR 5</u>	503.12(f) and (g)).											
	The required notice and information was not provided to the ow	wner or lease holder of the land on	which bulk sewage sludge was applie	d (see <u>40 CFR 503.12(h)</u> ).										
	The required notice was not provided to the permitting authorit sewage sludge was prepared (see 40 CFR 503.12(i) and (j)).	ty for the State in which bulk sewaç	ge sludge was applied if the bulk sewa	ge sludge was applied to land in a	a State other than the State in which the bulk									
	The facility failed to keep the necessary records for preparers and	d appliers during the reporting per	riod (see <u>40 CFR 503.27</u> ).											
	Check when done with SSUID section. *													
Bios	olids Monitoring Data													
	INSTRUCTIONS: These monitoring data should be representative of frequency of monitoring requirements in 40 CFR 503.16 and 503.26.													
	Maximum Pollutant Concentration Data for All Sewage Sludge	Applied to Land *												
	This section summarizes the maximum pollutant concentrations in application of bulk sewage sludge or sewage sludge sold or gave aveiling pollutant limit (see Table 1 of 40 CFR 503.13). In order to ider	way sewage sludge in a bag or othe	er container when one or more sewage	e sludge pollutant concentrations	in the sewage sludge exceed a land application									
	Biosolids or Sewage Sludge Monitored Parameter Me.	easurement Type Uni	t of Measure (Dry Weight)	Sample Type										
	Arsenic	aximum mç	g/kg	COMPOS										
	January-February March-April	May-June	July-August	September-October	November-December									
	N N	= 9.2	N	N	= 8.8									

Biosolids or Sewage Sludge Monitored Parameter			Meas	Measurement Type		Unit	of Measure	e (Dry Weight)	Sample	е Туре		
Cadmium			Maximum			mg/l	kg		COMP	OS		
January-February	January-February March-April			May-June			July-August			September-October		November-December
N	N			=	2.3		N		N		=	6.9
Biosolids or Sewage Sludge Mon	itored Para	meter	Meas	surement	Туре	Unit	of Measure	e (Dry Weight)	Sample	е Туре		
Copper			Max	kimum		mg/l	kg		COMP	OS		
January-February		March-April			May-June			July-August	_	September-October		November-December
N	N			=	360		N		N		=	400
Biosolids or Sewage Sludge Mon	itored Para	ımeter	Meas	surement	Туре	Unit	of Measure	e (Dry Weight)	Sample	е Туре		
Lead			Max	kimum		mg/l	kg		COMP	OS		
January-February		March-April			May-June			July-August		September-October		November-December
N	N			=	18		N		N		=	17
Biosolids or Sewage Sludge Mon	itored Para	meter	Mea	surement	Tyne		of Measure	(Dry Weight)	Sample	Type		
Mercury	norca i ara			kimum	Турс	1	Unit of Measure (Dry Weight)  mg/kg			OS OS		
January-February		March-April	May-June			July-August			September-October		November-December	
N Sandary-rebraary	N	Water-April		=	.56		N	July-August	N	September-October	=	2
					Į.		L	(		_		
Biosolids or Sewage Sludge Mon	itored Para	ımeter	Measurement Type		Unit of Measure (Dry Weight)			Sample				
Molybdenum			Maximum		mg/kg		COMP	05				
January-February		March-April			May-June			July-August		September-October		November-December
N	N			=	18		N		N		=	19
Biosolids or Sewage Sludge Mon	itored Para	meter	Meas	surement	Туре	Unit	Unit of Measure (Dry Weight)			Туре		
Nickel			Max	kimum		mg/l	kg		COMP	OS		
January-February		March-April			May-June			July-August		September-October		November-December
N	N			=	23		N		N		=	21
Biosolids or Sewage Sludge Mon	itored Para	ımeter	Mea	surement	Туре	Unit	of Measure	e (Dry Weight)	Sample	е Туре		
Nitrogen		Ave	rage		mg/l	kg		COMP	OS			
January-February March-April				May-June			July-August		September-October		November-December	
N	N			=	42282		N		N		=	38405
Biosolids or Sewage Sludge Mon	itored Para	meter	Meas	surement	Type	Unit o	Unit of Measure (Dry Weight)			e Type		
Selenium			Maximum			1	mg/kg			OS OS		
January-February		March-April			May-June	ı <u> </u>	July-August			September-October		November-December
					-,							

Biosolids or Sewage Sludge Monitored Parameter			Mea	Measurement Type			Unit c	of Measur	e (Dry Weight)	5	Sample	Туре				
Zinc			Max	Maximum			mg/kg				COMPC	OS				
	January-February		March-April			May-June		July-August					September-October			November-December
N		N			=	980			N		l l	J			=	940
Monthl	y Average Pollutant Co	ncentrati	on Data for All Se	wage S	ludge App	olied to Land *										
This sec	tion summarizes the mor	nitoring-p	eriod average poll	utant co	oncentratio	ons in sewage slu	udge	e that	was appl	ied to land during the	e report	ing yea	r.			
Biosolid	s or Sewage Sludge Mon	itored Par	ameter	Mea	surement	Туре		Unit c	of Measur	e (Dry Weight)	5	Sample	Туре			
Arsenio	:			Ave	erage			mg/l	κg			COMPO	)S			
	January-February		March-April			May-June				July-August			September-October			November-December
N		N			=	2.5			N		1	l l			=	1.1
Biosolid	s or Sewage Sludge Mon	itored Par	ameter	Mea	surement	Туре		Unit c	of Measur	e (Dry Weight)	9	Sample '	Туре			
Cadmi	ım			Ave	erage		7 [	mg/l	kg			COMPC	)S			
	January-February		March-April			May-June				July-August			September-October			November-December
N		N			=	1.9			N	, ,		J			=	3.4
D! !! -!	C Clark NA	!t I D				T			£ N 4	- (Davida i alah)			T			
Coppe	s or Sewage Sludge Mon	itorea Par	ameter	1	Measurement Type  Average			Unit of Measure (Dry Weight)  mg/kg				Sample COMPC				
Coppei				Ave	erage		J L	mg/i	kg .			COMPC	)3			
	January-February		March-April			May-June		_		July-August			September-October	<b>-</b>		November-December
N		N			=	307.5			N		ľ	J			=	297
Biosolid	s or Sewage Sludge Mon	itored Par	ameter	Mea	Measurement Type			Unit of Measure (Dry Weight)			9	Sample	Туре			
Lead				Ave	erage			mg/l	кg			COMPC	)S			
	January-February		March-April			May-June				July-August			September-October			November-December
N		N			=	15			N		1	J			=	12.1
Biosolid	s or Sewage Sludge Mon	itored Par	ameter	Mea	surement	Туре		Unit c	of Measur	e (Dry Weight)	9	Sample '	Туре			
Mercur	y			1 -	erage		¬ г	mg/l				COMPC	)S			
	January-February		March-April			May-June				July-August			September-October			November-December
N		N			=	.495			N		1	I			=	1.21
Biosolids or Sewage Sludge Monitored Parameter			Mea	Measurement Type			Unit of Measure (Dry Weight)				Sample	Type				
Nickel				1	erage	J1: "	п г	mg/kg				COMPOS				
	January-February		March-April			May-June		July-August				September-October				November-December
N	January 1 obruary	N	тиноп дри		_	21			N	July August			coptorribor-october	7 [	_	14 0

Biosolids or Sewage Sludge Monitored Parameter			Me	Measurement Type			Unit	of Measur	e (Dry Weight)	Sample	Туре						
Selenium			Av	Average			mg/kg				COMPOS						
January-February March-April			May-June					July-August		September-October				November-December			
N			N				= 5.45			N			N			=	5.8
Biosolid	s or Sewage Sludge Mon	nito	red Para	meter	Me	asuı	rement Type		Unit	of Measur	e (Dry Weight)		Sample	Туре			
Zinc					Av	/era	ge		mg	/kg			COMP	OS			
	January-February			March-April			May-June				July-August			September-October			November-December
N			N				= 840			N			N		$\prod$	=	752
Pathon	ens: Class A, Fecal Colif	fori	m *														
_				motor	Mo	0011	romant Tuna		Unit	of Moscur	o (Dry Woight)		Cample	Typo			
Fecal C	s or Sewage Sludge Mon	IIIC	reu Para	meter			rement Type etric Mean			N/gram	e (Dry Weight)		Sample GRAB-				
recarc					Ge	20111			IVIPI	wygrain			GRAD-				
	January-February	1 [		March-April		ı F	May-June				July-August	_		September-October			November-December
N			N				= 25.2			N			=	17.7	┙┖	N	
Pathogo	ens: Class A, Salmonella	a *															
Biosolid	s or Sewage Sludge Mon	nito	red Para	meter	Me	asuı	rement Type		Unit	of Measur	e (Dry Weight)		Sample	:Type			
Salmor						Geometric Mean			MPN per 4 grams			GRAB-					
	January-February			March-April		May-June			July-August			September-October				November-December	
=	1.5	] [	N	<u> </u>			< 0.3			N			<	0.3		N	
							· · · · · · · · · · · · · · · · · · ·				1						
Ū	ens: Class A, Helminth (																
Biosolid	s or Sewage Sludge Mon	nito	red Para	meter	Me	asuı	rement Type		Unit of Measure (Dry Weight)			Sample Type					
Enteric	Viruses				Ar	ithn	netic Mean		PFU per 4 grams			COMPOS					
	January-February			March-April			May-June				July-August			September-October			November-December
N			N				< 1			N			<	1		N	
Riosolid	s or Sewage Sludge Mon	nito	red Para	meter	Me	asııı	rement Type		Unit	of Measur	e (Dry Weight)		Sample	Tyne			
Biosolids or Sewage Sludge Monitored Parameter Helminth Ova				netic Mean			N per 4 gra			COMP							
	January-February			March-April			May-June			1 5	July-August			September-October			November-December
N	January-rebruary	] [	N	March-April			< 1			N	July-August		<	1		N	November-December
		J	.,			l L	`   '							1 .			
Vector /	Attraction Reduction - \	Vo	latile So	lids Options (Op	tions 1	I-3)	*										
Biosolid	s or Sewage Sludge Mon	nito	red Para	meter	Me	asuı	rement Type		Unit	of Measur	e (Dry Weight)		Sample	Туре			
Solids,	total volatile percent ren	nov	/al		Mi	inim	num		Pero	Percent			CALCTD				
	January-February			March-April			May-June			July-August				September-October			November-December
=	89.7	] [	N				= 90.2			N			=	95.3		N	

Add	ditional Information		
	Please enter any additional information in the comment box below (limit to 3,900 characters) that you would	like to provide.	
	Additional Attachments		
Cer	tification Information		
	I certify, under penalty of law, that the information in this report was prepared under my direction and superv this information. I am aware that there are significant penalties for false certification including the possibility of the possib		ned to ensure that qualified personnel properly gather and evaluate
	Certifier E-Mail *	Form Action *	
	lolds@vvwra.com	Approve	

## **Attachment A. Biosolids Quality Lab Reports**



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 1 of 6

Project Name: VVWRA-Biosolids Sample - Anr

Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

#### **Sample Identification**

Lab Sample #	Client Sample ID	Matrix	Date Sampled	$\underline{\mathbf{B}}\underline{\mathbf{y}}$	Date Submitte	<u>d</u> <u>By</u>
B6E2233-01	160523-11 Staged From Drying Bed #4 - 6 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 10:57	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-02	160523-12 Staged From Drying Bed #4 - 8 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:01	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-03	160523-13 Staged From Drying Bed #4 - 9 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:04	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-04	160523-14 Staged From Drying Bed #4 - 10 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:08	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 2 of 6

Project Name: VVWRA-Biosolids Sample - Anr

05/24/16 16:24

Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

#### **Laboratory Reference Number**

#### B6E2233-01

Sample Description Matrix Sampled Date/Time Received Date/Time 160523-11 Staged From Drying Bed #4 - 6 (Class 1) Sludge 05/23/16 10:57

Biosolids (6 Grab-Comp)

Analyte(s)	Result	RDL	Units	Method A	analysis Date	Analyst	Flag
Anions							
Nitrate as N	7.1	2.1	mg/kg dry	EPA 300.0	06/03/16 04:5	55 ss	N_WEX
Solids							
Total Solids	96	0.10	%	SM 2540G	05/25/16 09:0	00 nhb	
Nutrients							
Nitrite as N	ND	1.0	mg/kg dry		2 B 05/27/16 16:1	5 nc	N_WEX
Ammonia-Nitrogen	3500	520	mg/Kg* dry	SM4500NH3	SH 05/27/16 12:3	30 sll	N_WEX
Kjeldahl Nitrogen	44000	2600	mg/kg dry	EPA 351.2	05/31/16 21:3	34 jma	
Total Phosphorus	40000	100	mg/Kg* dry	EPA 6020	06/01/16 14:3	31 mel	
Metals and Metalloids; EPA S	SW846 Series						
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	52 mel	
Arsenic	8.4	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Barium	370	10	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Cadmium	2.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Total Chromium	53	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Cobalt	3.6	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Copper	310	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Lead	16	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Mercury	0.48	0.21	mg/kg dry	EPA 7471A	06/02/16 12:4	2 mel	
Molybdenum	17	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Nickel	23	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Selenium	ND	5.0	mg/kg dry	EPA 6020	06/02/16 12:5	3 AP	
Silver	8.4	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Vanadium	110	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	
Zinc	910	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	2 mel	



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394 Work Order Number: B6E2233

> Received on Ice (Y/N): Yes Temp: 14 °C

Project Name: VVWRA-Biosolids Sample - Anr

Analytical Report: Page 3 of 6

Project Number: [none]

### **Laboratory Reference Number**

#### B6E2233-02

Sample Description 160523-12 Staged From Drying Bed #4 - 8 (Class 1)

Matrix Sludge Sampled Date/Time 05/23/16 11:01

Received Date/Time 05/24/16 16:24

Biosolids (6 Grab-Comp)

Report Date: 06-Jun-2016

Analyte(s)	Result	RDL	Units	Method Ar	nalysis Date	Analyst	Flag
Anions							
Nitrate as N	35	2.2	mg/kg dry	EPA 300.0	06/03/16 05:0	)4 SS	N_WEX
Solids							
Total Solids	92	0.10	%	SM 2540G	05/25/16 09:0	00 nhb	
Nutrients							
Nitrite as N	ND	1.1	mg/kg dry	SM 4500NO2	B 05/27/16 16:1	5 nc	N_WEX
Ammonia-Nitrogen	5900	540	mg/Kg* dry	SM4500NH3H	H 05/27/16 12:3	30 sll	N_WEX
Kjeldahl Nitrogen	50000	2700	mg/kg dry	EPA 351.2	05/31/16 21:3	34 jma	
Total Phosphorus	41000	110	mg/Kg* dry	EPA 6020	06/01/16 14:3	32 mel	
Metals and Metalloids; EPA S	SW846 Series						
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Arsenic	8.1	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	i4 mel	
Barium	380	10	mg/kg dry	EPA 6020	06/01/16 15:5	34 mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Cadmium	1.8	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	34 mel	
Total Chromium	43	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	i4 mel	
Cobalt	3.2	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Copper	310	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Lead	13	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Mercury	0.53	0.22	mg/kg dry	EPA 7471A	06/02/16 12:4	4 mel	
Molybdenum	16	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	i4 mel	
Nickel	20	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Selenium	6.8	5.0	mg/kg dry	EPA 6020	06/02/16 12:5	4 AP	
Silver	4.5	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Vanadium	97	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	
Zinc	810	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	4 mel	



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Vista = illa CA 0000

Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 4 of 6

Project Name: VVWRA-Biosolids Sample - Anr

Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

#### Laboratory Reference Number

#### B6E2233-03

Sample Description 160523-13 Staged From Drying Bed #4 - 9 (Class 1)

Matrix Sludge Sampled Date/Time 05/23/16 11:04 Received Date/Time 05/24/16 16:24

Biosolids (6 Grab-Comp)

Analyte(s)	Result	RDL	Units	Method Ar	nalysis Date	Analyst	Flag
Anions							
Nitrate as N	48	2.1	mg/kg dry	EPA 300.0	06/03/16 05:1	3 ss	N_WEX
Solids							
Total Solids	94	0.10	%	SM 2540G	05/25/16 09:0	0 nhb	
Nutrients							
Nitrite as N	ND	1.1	mg/kg dry	SM 4500NO2	B 05/27/16 16:1	5 nc	N_WEX
Ammonia-Nitrogen	4600	530	mg/Kg* dry	SM4500NH3F	H 05/27/16 12:3	o sll	N_WEX
Kjeldahl Nitrogen	39000	2700	mg/kg dry	EPA 351.2	05/31/16 21:3	4 jma	
Total Phosphorus	38000	110	mg/Kg* dry	EPA 6020	06/01/16 14:3	2 mel	
Metals and Metalloids; EPA S	SW846 Series						
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Arsenic	9.2	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Barium	390	10	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Cadmium	2.3	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Total Chromium	51	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Cobalt	3.7	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Copper	360	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Lead	18	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Mercury	0.41	0.21	mg/kg dry	EPA 7471A	06/02/16 12:4	6 mel	
Molybdenum	18	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Nickel	23	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Selenium	6.8	5.0	mg/kg dry	EPA 6020	06/02/16 12:5	6 AP	
Silver	5.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Vanadium	110	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	6 mel	
Zinc	980	5.0		EPA 6020	06/01/16 15:5	6 mel	



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 5 of 6

Project Name: VVWRA-Biosolids Sample - Anr

Received Date/Time

05/24/16 16:24

Project Number: [none]

Work Order Number: B6E2233

Sampled Date/Time

05/23/16 11:08

Received on Ice (Y/N): Temp: 14 °C Yes

#### **Laboratory Reference Number**

#### B6E2233-04

Matrix

Sludge

Sample Description

160523-14 Staged From Drying Bed #4 - 10 (Class

1) Biosolids (6 Grab-Comp)

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Anions Nitrate as N	38	2.1	mg/kg dry	EPA 300.0	06/03/16 05:4	19 SS	N_WEX
			0 0 7				_
Solids	00	0.40	0/	01105100	0=10=140.00	وا وا و و و	
Total Solids	96	0.10	%	SM 2540G	05/25/16 09:0	00 nhb	
Nutrients							
Nitrite as N	1.6	1.0	mg/kg dry	SM 4500NC	D2 B 05/27/16 16:1	15 nc	N_WEX
Ammonia-Nitrogen	4000	210	mg/Kg* dry	SM4500NH	3H 05/27/16 12:3	30 sll	N_WEX
Kjeldahl Nitrogen	36000	2600	mg/kg dry	EPA 351.2	05/31/16 21:3	34 jma	
Total Phosphorus	37000	100	mg/Kg* dry	EPA 6020	06/01/16 14:3	33 mel	
Metals and Metalloids; EPA SW8	346 Series						
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Arsenic	6.6	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Barium	280	10	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Cadmium	1.4	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Total Chromium	41	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Cobalt	3.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Copper	250	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Lead	13	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Mercury	0.56	0.42	mg/kg dry	EPA 7471A	06/02/16 13:0	)1 mel	
Molybdenum	13	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Nickel	18	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Selenium	5.7	5.0	mg/kg dry	EPA 6020	06/02/16 12:5	57 AP	
Silver	4.5	1.0	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:5	58 mel	
Vanadium	84	5.0	mg/kg dry	EPA 6020	06/01/16 15:5	s mel	

Zinc

660

5.0

mg/kg dry EPA 6020

mel

06/01/16 15:58



Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 6 of 6

Project Name: VVWRA-Biosolids Sample - Anr

Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

#### **Notes and Definitions**

N\_WEX Analyte determined on a 1:10 water extract from the sample.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or

above the Reportable Detection Limit (RDL)

NR: Not Reported

RDL: Reportable Detection Limit
MDL: Method Detection Limit

\* / "" : NELAP does not offer accreditation for this analyte/method/matrix combination

#### **Approval**

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

cc:

e-Short\_No Alias



The Standard of Excellence for Over 100 Years

Client Name: Victor Valley Reclamation Authority

Contact: Lorenzo Rodriguez Address: 20111 Shay Road

Victorville, CA 92394

Analytical Report: Page 1 of 1

Project Name: VVWRA-Biosolids Sample - Anr

Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Temp: 14 °C Yes



Report Date: 06-Jun-2016

## SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

#### Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: Lrodriguez@vvwra.com

Project N	Name: Biosolids Sa	mple – Annual	NPDES			nple				La	bo	rate	ry A	Analyses R	equested		SILS		Sampl		
Project Co	ontact: Lorenzo Rod	riguez (760) 246-	8638 ext. 21	6	Ту	pe					te-P			E.T. iding xin			otContainers		serva Aethoo		fatrix
	ame: Phayear		)			ite	nia-N		z	Z	ospha	<b>Jetals</b>	Solids	CR W.E.T. - including			otc	7	tion	П	Sample Matrix
VVWRA ID#	Sample Locatio	0 1	Sample Date	Sample Time	Grab	Composite	Ammonia-N	TKN	Nitrite - N	Nitrate	Total Ph	CAM Metals	% Total Solids	*Total CCR W.E.T. Analysis - including Asbestos & Dioxin		1	Total #	H <sub>2</sub> SO <sub>4</sub> pH<2	Refrigeration		Sa
	Storage Pad Biosolie					X	v					Х	v	X		+	6	-	6	-	_\$
	(6 grab Composite)					A		-		-			**				-	-	-	-	_
16.0523-1	Staged From Drying Be (Class 1)Biosolids (6 G	ed # 4 – <u>6</u> rab-Comp)	5/23/16	1057		X						X					1		1		S
	Staged From Drying Be (Class 1)Biosolids (6 G	d#4- %	1	1101		X	Х	X	X	X	X	X	X				1		1		S
	Staged From Drying Be (Class 1)Biosolids (6 G	d#4- 9		1104		X	-	_	-	_	_	Х	_				1		1		S
16:0523-13	Staged From Drying Be (Class 1)Biosolids (6 Gr	d#4-10		1108		X	Х	X	Х	X	X	X	Х				1		1		S
60523-19	Staged From Drying Be	d#4		1100		X			X				X			-	1	+	1	-	S
	(Class 1)Biosolids (6 Gi Staged From Drying Be					34-			-	-	-	_	X			+	1	+	1		S
	(Class I)Biosolids (6 Gr					X	Λ	Λ	Λ	Λ	Λ	X					1		1		
Print: Ph.	ned By (Sign):  AL MEJEL  VUNRA	Date/Time: 5/23/16	Print: Company:	By (Sign); howest	11,		Pri	nt:	4	3	-	11/1	gn):	VAO	Date/Time: 5-24-18	- Pri	nt:   } mpar	eCl y:	(Sign	year )	
	ned By (Sign):	Date/Time: 5/24/16	Received I				Re	linq	luis!	hed	Ву	(Si	gn):		Date/Time:	Re	ceive	ed B	y (Sigr	1):	
Print: 1-16 Company:	22/VAny	1624	Print: 78 Company:	ESB	_		Pri	nt:_ mpa	iny:					_			nt:_ mpar	ıy:		-	_
Sample Condition Upon Receipt by Laboratory:  Samples Received on Ice?  Samples Received Intact?  Yes  No  Temperature  14°C			perature 14°C				_	3.T.	308	2, 8	tion 3151	, 82	atory Notes I EPA 6020 60, 8270, 7 I Dioxin and		E	Samples sent via courier t E.S. Babcock Laboratorio Lab # Blo E 2233					

MAY 24 2016



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

#### Sample Identification

Lab Sample #	Client Sample ID	<u>Matrix</u>	Date Sampled	<u>By</u>	Date Submitted	<u>By</u>
B6K2623-01	Staged From Drying Bed #4-1 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 09:58	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-02	Staged From Drying Bed #4-2 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:00	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-03	Staged From Drying Bed #4-3 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:04	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-04	Staged From Drying Bed #4-5 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:06	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-05	Staged From Drying Bed #4-11 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:11	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 2 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

#### **Laboratory Reference Number**

#### B6K2623-01

Sample Description
Staged From Drying Bed #4-1 (Class 1) Biosolids (6
Grab-Comp)

Matrix Sludge Sampled Date/Time 11/29/16 09:58 Received Date/Time

11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	500	2.2	1.2	mg/kg dry	EPA 300.0	12/06/16 09:3	6 dcb	N_WEX
Solids								
Total Solids	91	0.10	0.10	%	SM 2540G	11/30/16 09:1	5 kl	
Nutrients								
Nitrite as N	ND	1.1	0.19	mg/kg dry	SM 4500NO2	B 11/29/16 21:4	5 nc	N_WEX
Ammonia-Nitrogen	2600	220	110	mg/Kg* dry	SM4500NH3H	H 11/30/16 20:2	9 nc	N_WEX
Kjeldahl Nitrogen	36000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:5	8 jma	
Total Phosphorus	19000	22	11	mg/Kg* dry	EPA 6020	12/01/16 10:1	6 MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.78	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 11:5	6 MEL	J
Arsenic	4.9	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 11:5	6 MEL	J
Barium	350	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	NMout
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Cadmium	2.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	
Total Chromium	39	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Cobalt	3.4	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Copper	270	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	
Lead	11	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	
Mercury	2.0	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:2	5 kya	
Molybdenum	9.3	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	
Nickel	15	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Selenium	5.1	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Silver	4.9	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	NMint
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	
Vanadium	79	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:3	8 ар	
Zinc	680	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:3	8 ap	



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 3 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

**Laboratory Reference Number** 

B6K2623-02

Sample Description

Staged From Drying Bed #4-2 (Class 1) Biosolids (6

Grab-Comp)

MatrixSampled Date/TimeReceived Date/TimeSludge11/29/16 10:0011/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	200	4.2	2.3	mg/kg dry	EPA 300.0	12/06/16 09:4	5 dcb	N_WEX
Solids								
Total Solids	95	0.10	0.10	%	SM 2540G	11/30/16 09:1	5 kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2	B 11/29/16 21:4	5 nc	N_WEX
Ammonia-Nitrogen	3900	530	270	mg/Kg* dry	SM4500NH3H	H 11/30/16 20:2	9 nc	N_WEX
Kjeldahl Nitrogen	44000	2600	2600	mg/kg dry	EPA 351.2	11/30/16 23:5	8 jma	
Total Phosphorus	25000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:1	7 MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.69	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 11:5	8 MEL	J
Arsenic	5.0	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 11:5	8 MEL	
Barium	420	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:4	1 ар	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:4	1 ар	
Cadmium	3.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Total Chromium	44	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:4	1 ар	
Cobalt	3.3	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Copper	250	5.0	3.9	mg/kg dry	EPA 6020	12/07/16 11:4	8 MEL	
Lead	12	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Mercury	1.3	0.26	0.13	mg/kg dry	EPA 7471A	12/08/16 14:2	7 kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Nickel	16	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Selenium	6.0	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Silver	3.5	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	1 ap	
Vanadium	69	5.0	0.76	mg/kg dry	EPA 6020	12/07/16 11:5	8 MEL	
Zinc	750	25	8.6	mg/kg dry	EPA 6020	12/07/16 11:4	8 MEL	



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 4 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

**Laboratory Reference Number** 

B6K2623-03

Sample Description

Staged From Drying Bed #4-3 (Class 1) Biosolids (6

Grab-Comp)

MatrixSampled Date/TimeReceived Date/TimeSludge11/29/16 10:0411/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	520	11	5.7	mg/kg dry	EPA 300.0	12/06/16 09:5	5 dcb	N_WEX
Solids								
Total Solids	93	0.10	0.10	%	SM 2540G	11/30/16 09:1	5 kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2	B 11/29/16 21:4	5 nc	N_WEX
Ammonia-Nitrogen	2100	110	54	mg/Kg* dry	SM4500NH3H	11/30/16 20:2	9 nc	N_WEX
Kjeldahl Nitrogen	33000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:5	3 jma	
Total Phosphorus	25000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:1	3 MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	ND	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:0	) MEL	
Arsenic	4.2	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:0	) MEL	J
Barium	210	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Cadmium	1.4	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Total Chromium	31	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Cobalt	3.6	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Copper	190	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Lead	7.8	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Mercury	1.1	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:2	) kya	
Molybdenum	11	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:4	з ар	
Nickel	14	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:4	3 ap	
Selenium	3.4	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:4		J
Silver	2.1	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:4		
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	3 ap	
Vanadium	62	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:4	3 ар	
Zinc	410	5.0	1.7	mg/kg dry		12/01/16 17:4		



Contact: Eugene Davis Address: 20111 Shay Road

Report Date: 12-Dec-2016

Victorville, CA 92394

Analytical Report: Page 5 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Temp: 11 °C Yes

**Laboratory Reference Number** 

B6K2623-04

Sample Description

Staged From Drying Bed #4-5 (Class 1) Biosolids (6

Grab-Comp)

Matrix Sampled Date/Time Received Date/Time 11/29/16 14:52 Sludge 11/29/16 10:06

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	130	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:0	5 dcb	N_WEX
Solids								
Total Solids	94	0.10	0.10	%	SM 2540G	11/30/16 09:1	5 kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2	B 11/29/16 21:4	5 nc	N_WEX
Ammonia-Nitrogen	2500	210	110	mg/Kg* dry	SM4500NH3F	11/30/16 20:2	9 nc	N_WEX
Kjeldahl Nitrogen	32000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:5	g jma	
Total Phosphorus	27000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:1	9 MEL	
Metals and Metalloids; EPA SW846 Se	eries							
Antimony	0.92	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:0	1 MEL	J
Arsenic	6.4	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:0	1 MEL	
Barium	370	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:4	ap	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:4	ap	
Cadmium	3.0	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:4	<sub>6</sub> ар	
Total Chromium	42	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:4	6 ap	
Cobalt	3.1	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	ap	
Copper	310	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:4	<sub>6</sub> ар	
Lead	11	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:4	6 ap	
Mercury	0.99	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:3	1 kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:4	<sub>6</sub> ар	
Nickel	16	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:4	6 ap	
Selenium	5.6	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:4	ap	
Silver	3.2	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:4	<sub>6</sub> ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:4	ap	
Vanadium	85	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:4	6 ap	
Zinc	800	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:4	ap	



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 6 of 7

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

**Laboratory Reference Number** 

B6K2623-05

Sample Description

Staged From Drying Bed #4-11 (Class 1) Biosolids

(6 Grab-Comp)

 Matrix
 Sampled Date/Time
 Received Date/Time

 Sludge
 11/29/16 10:11
 11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	42	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:1	4 dcb	N_WEX
Solids								
Total Solids	94	0.10	0.10	%	SM 2540G	11/30/16 09:1	5 kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2	B 11/29/16 21:4	5 nc	N_WEX
Ammonia-Nitrogen	3900	210	110	mg/Kg* dry	SM4500NH3F	11/30/16 20:2	9 nc	N_WEX
Kjeldahl Nitrogen	39000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:5	g jma	
Total Phosphorus	26000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:1	9 MEL	
Metals and Metalloids; EPA SW846 Seri	es							
Antimony	0.82	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:0	3 MEL	J
Arsenic	5.5	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:0	3 MEL	
Barium	370	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Cadmium	3.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Total Chromium	51	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Cobalt	3.7	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Copper	360	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Lead	14	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Mercury	1.1	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:3	8 kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Nickel	19	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Selenium	7.4	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Silver	3.4	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	
Vanadium	120	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:5	8 ap	
Zinc	940	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:5	в ар	



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 7 of 7

Project Name: VVWRA-Biosolids Sample -

Annual NPDES

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

#### **Notes and Definitions**

J Estimated value

N WEX Analyte determined on a 1:10 water extract from the sample.

NMint Due to matrix interference, the matrix spike and/or matrix spike duplicate performed on this sample did not

meet laboratory acceptance criteria.

NMout The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory

acceptance criteria.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or

above the Reportable Detection Limit (RDL)

NR: Not Reported

RDL: Reportable Detection Limit

MDL: Method Detection Limit

\* / "' : NELAP does not offer accreditation for this analyte/method/matrix combination

#### **Approval**

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

Nancy H. Boulineau For Cindy A. Waddell

cc:

e-Short No Alias.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 1

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Temp: 11 °C Yes



### SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

#### Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: Edavis@vvwra.com

				Sample Laboratory Analyses Re							The second second			_	and the same of the same of	C	1		-			
Project Name: Biosolids S	ample – Annual 1	NPDES		3	nple				La	bo	rate	ory A	Analyses	Requeste	i 		SIS		San			_
Project Contact: Eugene Dav				Ty	/pe					0.			. 50			.	orContainers			vation nods	×	(WW, DW, GW, SG)
										Total Phosphate-P			*Total CCR W.E.T. Analysis - including Asbestos & Dioxin				) nt	1	vien	ious	fatri	J.W.
Sampler Name: Mo	ists Casi	70				Z			-	pha	CAM Metals	ids	W. nch Dio				ĭ-		_		_ S	χ,
Sampler Signature:					Composite	Ammonia-		Z	4	108]	Met	Total Solids	15 . 8			1 1	0 #	pH<2	Refrigeration		am	, D
Sampler Signature.		T			odi	noi	7	ite	Nitrate	I P	M	otal	*Total Co Analysis Asbestos				al	)4 p	gera		Sa	8
VVWRA		Sample	Sample	Grab	om	冒	TKN	Nitrite	litr	ota	A	% Tc	Totanal mal			11.	Iotal	H <sub>2</sub> SO <sub>4</sub>	efri			3
ID# Sample Locati	on/Description	Date	Time	9	0	Ø	Н	Z	4	Т	0	%										
Storage Pad Bioso	tids				X	X	X	X	X	X	-X	-X-	<u>X</u>		+	1 6	5-1		61	-	- 5	$G^{7}$
(6 grab Composite									_			100	RY		+	+-+	+	$\rightarrow$	-		_	_
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Staged From Drying (Class 1)Biosolids (6			1000		X	X	X	X	Χ	X	Χ	X					1		1		S	SG
Staged From Drying (Class 1)Biosolids (6	Bed # 4 – 3		1004		X	X	Χ	X	X	Χ	X	X					1		1		S	SG
Staged From Drying (Class 1)Biosolids (6	Bed #45_		1006		X	Х	X	X	X	X	X	X		10000			1		1		S	SG
Staged From Drying			1000		v	v	v	v	X	v	v	X					-		1		- 9	G
(Class 1)Biosolids (6					-A-	-	-	-	-	-	-					-	-	_			-	
Staged From Drying (Class 1)Biosolids (6			1011		X	X	X	X	X	X	Х	X					1		1		S	G.
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Relinquished By (Sign):	Date/Time:	Received I	3y (Sign):			Rei	ing	Įuis.	nea	₽y	(9)	ign).			29	ICC	CCIV	cu D	y (13)	gii).		
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Company:		Company:				Coı	npa	my:						11	0	Co	mpai	ıy:				
Sample Condition Upon R	eceipt by Laborate	ory:											atory Note			Sa	mp	les s	ent	via coi	ırier t	to:
Samples Received on Ic			perature			1	W.E						d EPA 602		8081,	E	S. I	Babe	ock	Labo	ratori	es
Samples Received Intac	t? (Yes) No	41	°C										260, 8270,					A	ام	10	10	12
		U								-	-		d Dioxin a	-		-	b #_		01	0	4	
Please Fax a copy of the co	impleted Chain of	Custody do	ocument to	: Eu	gene	Da	vis,	, V	VW	R/	A at	t (76	60) 954-50	006	01-02	2-156-	717	0				AB

NOV 29 2016



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 3

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N):

Temp: 13 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

#### Sample Identification

Lab Sample #	Client Sample ID	<u>Matrix</u>	Date Sampled	<u>By</u>	Date Submitted	<u>By</u>
B6L0036-01	Staged From Drying Bed #4-6 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	12/01/16 09:10	Salvador Carlos	12/01/16 11:42	Courier (Hector N.) -DE



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 2 of 3

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

#### **Laboratory Reference Number**

#### B6L0036-01

Sample Description
Staged From Drying Red #4-6 (Class 1) F

Staged From Drying Bed #4-6 (Class 1) Biosolids (6

Grab-Comp)

Matrix Sampled Date/Time
Sludge 12/01/16 09:10

Received Date/Time 12/01/16 11:42

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	40	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:2	24 dcb	N_WEX
Solids								
Total Solids	96	0.10	0.10	%	SM 2540G	12/02/16 09:3	33 cmr	
Nutrients								
Nitrite as N	ND	1.0	0.18	mg/kg dry	SM 4500NO2	B 12/05/16 21:2	20 nc	N_WEX
Ammonia-Nitrogen	2000	100	52	mg/Kg* dry	SM4500NH3H	12/02/16 12:2	28 sll	N_WEX
Kjeldahl Nitrogen	45000	2600	2600	mg/kg dry	EPA 351.2	12/09/16 20:2	25 jma	
Total Phosphorus	34000	21	10	mg/Kg* dry	EPA 6020	12/09/16 12:0	03 MEL	
Metals and Metalloids; EPA SW846	Series							
Antimony	3.2	5.0	0.19	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	J
Arsenic	8.8	5.0	0.74	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Barium	410	10	0.84	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Cadmium	6.9	1.0	0.63	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Total Chromium	54	1.0	0.81	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Cobalt	3.8	1.0	0.19	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Copper	400	1.0	0.78	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Lead	17	5.0	0.29	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Mercury	0.78	0.26	0.13	mg/kg dry	EPA 7471A	12/08/16 14:4	42 kya	
Molybdenum	19	1.0	0.46	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Nickel	21	1.0	0.48	mg/kg dry	EPA 6020	12/09/16 16:	51 MEL	
Selenium	7.2	5.0	2.4	mg/kg dry	EPA 6020	12/09/16 16:		
Silver	4.8	1.0	0.30	mg/kg dry	EPA 6020	12/09/16 16:		
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/09/16 16:		
Vanadium	130	5.0	0.76	mg/kg dry	EPA 6020	12/09/16 16:		
Zinc	930	50	17	mg/kg dry	EPA 6020	12/09/16 17:4		



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 3 of 3

Project Name: VVWRA-Biosolids Sample -

Annual NPDES

Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

#### **Notes and Definitions**

J Estimated value

N WEX Analyte determined on a 1:10 water extract from the sample.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or

above the Reportable Detection Limit (RDL)

NR: Not Reported

RDL: Reportable Detection Limit
MDL: Method Detection Limit

\* / "" : NELAP does not offer accreditation for this analyte/method/matrix combination

#### **Approval**

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

Nancy	H. E	Boul	ineau	For	Cind	y A.	Waddell
-------	------	------	-------	-----	------	------	---------

cc:

e-Short No Alias.rpt

This report applies only to the sample(s) analyzed. As a mutual protection to clients, the public, and Babcock Laboratories, Inc., this report is submitted and accepted for the exclusive use of the Client to whom it is addressed. Interpretation and use of the information contained within this report are the sole responsibility of the Client. Babcock Laboratories, Inc. is not responsible for any misinformation or consequences that may result from misinterpretation or improper use of this report. This report is not to be modified or abbreviated in any way. Additionally, this report is not to be used, in whole or in part, in any advertising or publicity matter without written authorization from Babcock Laboratories, Inc. The liability of Babcock Laboratories, Inc. is limited to the actual cost of the requested analyses, unless otherwise agreed upon in writing. There is no other warranty expressed or implied.



Contact: Eugene Davis Address: 20111 Shay Road

Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 1

Project Name: VVWRA-Biosolids Sample -

**Annual NPDES** 

Temp: 13 °C

Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes



## SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

#### Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: Lrodriguez@vvwra.com

Project N	ame: Biosolids Sa	mple – Annual 1	NPDES			nple				La	aboratory Analyses Requested						Sample Preservation						
	ontact: Lorenzo Rod			6	Ty	/pe					d-							ofContainers	Р	222.22	vatio hods	n	rix
Sampler Na	ame: Salvader	Cayles					z				hate.	als	1s					Con		1			Mat
Sampler Si	1	-2	and the same of th			Grab Composite Ammonia-N TKN Nitrite - N Nitrate - N Cotal Phosphate-P CAM Metals										to #	5H<2	ation			Sample Matrix		
VVWRA ID#	Sample Location	on/Description	Sample Date	Sample Time	Grab	Composite	Ammonia-N	TKN	Nitrite -	Nitrate	Total P	CAM	% Total					Total	H <sub>2</sub> SO <sub>4</sub> pH<2	Refrigeration			S
10	Staged From Drying B 1)Biosolids (6 Grab-Co		12-1-16	09/0		X	X	X	Χ	Χ	X .	Х	Х					1		1			SC
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		12-1-16	Pi C	1.1011	10				5		1.		-	n.c	100		17 2				n.h		
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Company:	DE		Print: Company:				Prii Coi	nt: mpai	ny:					_	11/4	_	- 1	rint:_ Compa	any:	2	5V3		
	Condition Upon Re						,	W 12	т	Evt		_		tory Note	5 0, 7471A, 8	081					via co Lab		
	ples Received on Ice ples Received Intact		1 em	perature 2_°C				YY .12		3082	, 81	151,	, 82	60, 8270,	7196/719	001,	1		276			71	
	0.1		اد	<u>ر</u>			D	1.		As	bes	tos	and	Dioxin a	alysis.		I	_ab#			56.71	70	2
Please Fa	Please Fax a copy of the completed Chain of Custody document to: Lorenzo Rodriguez, VVWRA at (760) 246-5440 EC - 1							1 2	016	01-	02-1	56-71	70	HD									

mailing P.O Box 432 Riverside, CA 92502-0432 location 6100 Quail Valley Court Riverside, CA 92507-0704 P 951 653 3351 F 951 653 1662 www.babcocklabs.com

CA ELAP No. 2698 EPA No. CA00102 NELAP No. OR4035 LACSD No. 10119





685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

**REPORT NO.:** 160476 **PAGE NO.:** 1 of 2

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: 1682 Salmonella MSRV Method: EPA 1682

BioVir #	# Sample ID	Site	Analyte	Result	Units
160476-001	160215-11	Storage Pad	Salmonella spp.	1.4	MPN/4 g TS
,	2/16/2016 9:40:00		CollectTime: 11:21:00 AM Temp 6C Analysis Start Time: 1207		
Comment: 160476-002	160215-12	Drying Bed #4-3	Salmonella spp.	1.5	MPN/4 g TS
Collector: Mic ReceiveDate: Volume: Analyst: K <sup>*</sup>	2/16/2016 9:40:00		CollectTime: 11:24:00 AM Temp 6C Analysis Start Time: 1207		
160476-003	160215-13	Drying Bed #4-11	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:29:00 AM

De la Cita (Social de Control de

ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C

Volume: Analysis Start Date: 2/16/2016 Analysis Start Time: 1207

Analyst: KTucker Analysis End: 2/23/2016

Comment:

Test: Total Solids Method:

BioVir#	Sample ID	Site	Analyte	Result	Units
---------	-----------	------	---------	--------	-------

**REPORT NO.:** 160476 **PAGE NO.:** 2 of 2

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Total Solids Method:

Analysis Start Date: 2/17/16

Analysis End: 2/18/2016

BioVir	# Sample ID	Site	Analyte	Result	Units
160476-001	160215-11	Storage Pad	Total Solids (%)	92.6	
Collector: Mic	chael G	CollectDate: 2/15/2016	CollectTime: 11:21:00 AM		
ReceiveDate	2/16/2016 9:40:00 AM	Matrix: Biosoilds	Temp 6C		
Volume:	Analysis S	Start Date: 2/17/16	Analysis Start Time: 17:30		
Analyst: M	//Philbrook	Analysis End: 2/18/2016			
Comment:					
160476-002	160215-12	Drying Bed #4-3	Total Solids (%)	89.7	
Collector: Mic	chael G	CollectDate: 2/15/2016	CollectTime: 11:24:00 AM		
ReceiveDate	2/16/2016 9:40:00 AM	Matrix: Biosoilds	Temp 6C		
Volume:	Analysis S	Start Date: 2/17/16	Analysis Start Time: 17:30		
Analyst: M	//Philbrook	Analysis End: 2/18/2016			
Comment:					
160476-003	160215-13	Drying Bed #4-11	Total Solids (%)	92.1	
Collector: Mic	chael G	CollectDate: 2/15/2016	CollectTime: 11:29:00 AM		
ReceiveDate	2/16/2016 9:40:00 AM	Matrix: Biosoilds	Temp 6C		

Analyst:
Comment:

**MPhilbrook** 

Volume:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.

Analysis Start Time: 17:30

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or other material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

2/26/2016	Fichal E	Donil	
Date:	Signature	Quality ElbaM	



(Please fill out applicable areas, sign and return

to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY:

LIMS #: 160 476-1

Client #: VI COOL

Date Rec'd: 2-16-16

Time Rec'd: 0940

temo: 6:0 5

	Phone: 1-800	print clearly using v	vaterproo	f ink.			
COMPANY NAME & A		· .		1	E OF SAMPLING:	2-15	-76
Willer Valley	COMPANY NAME & ADDRESS: water Reclamation Alberty Victor Valley wask water Reclamation Alberty DOIII Shay Rd Victor ville Ca. 92394 Contact Name: Loren 20 Rodryce Tel: Good 246 - 8638 x24					1121	
Contact Name: ムーハ	20 Rodrive	2 Tel:(#25)2 98	- 000	· //	IPLE ID: 160	215-	<i>,,</i>
NAME OF SAMPLER:	Michael Coul	И	· 				COMPOSITE
LOCATION OF SAMP	LING: Solvas	PAS			E OF SAMPLE:		CONFOUNT
TREATMENT CHARA	CTERISTICS:	all-A Ana	erobic	asout 101	AL SOLIDS PERC		%_
SAMPLE VOLUME (V	<del></del>	~ 3005			(MUST BE	INCLUDED IN OF FGIN ANALYSIS	
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMO	NELLA FEC	AL COLIFORM		5679
(Store and ship	2 Weeks	1 Month  from EPA Fecal Collif	6 Ho		8 Hours*		
*Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For Accai Coliform (Biosolids) Method 1680 (LTB-sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sludge (biosolids) only, the holding time limits is critical to the production of valid data. Sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours, samples must be maintained at <10°C until preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until preferably, within 2 hours, samples must be maintained at <10°C until preferably, within 2 hours, samples must be maintained at <10°C until preferably, within 2 hours, samples must be maintained at <10°C until preferably. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal analysis. Samples must not be frozen. Sample handling procedures and holding time limits is critical to the production of valid data. Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits							
		ASSAY(S) TO BE P	ERFORM	IED - (PLEASE	CHECK)		
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-8	S HELMINTH ( 9 EPA 625/R-9	OVA 2/013	SALMONEL EPA 1682		COLIFORM A 1681	TOTAL SOLIDS EPA 1684
CLASS "A"				X			
CLASS "B"							<u> </u>
COMMENTS:							

	RECEIVED BY (SIGNED)	DATE	TIME
RELINQUISHED BY (SIGNED)	REGENCIA (SEC	2-15-16	1135
MAH	400	2-16-16	0940
SHIPPING ADDRESS: BIOVIR LABORATO	DO KA PET STONE ROAD, UNIT 6, B	ENICIA CALIFOR	NIA 94510
SHIPPING ADDRESS: BIOVIR LABORAT	ORIES, INC., 665 51 ONE NO. 51		



(Please fill out applicable areas, sign and return to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY: LIMS # 160 476-2
Client #: 1 CCC1  Date Rec'd: 2-16-16
Time Rec'd: 0940
temo: 6.0°C

		print clearly using w					
OMPANY NAME & A	DDRESS: VILL V	ally nusteur	ide	DATE OF SAM	IPLING: 2-15	-/6	
Redenati	- Allory	ille to 93	2794	TIME OF SAM		2	
20/11 Shey	Allocaty  Ped. Vilory  120 Ruday	7. Tel:(160) 24	6-8638 124	/		4	
NAME OF SAMPLER:		Grain		SAMPLE ID:	160215	12	
	IMCHAEL	<u> </u>		<u> </u>	APL€ 6 GRAB		
LOCATION OF SAMP	LING: Dry hs	Bed Y-	ک				
TREATMENT CHARA	درے/CTERISTICS:			<b>}</b>	S PERCENTAGE:	_ %	
SAMPLE VOLUME (V	vet weight):	- 3005			(MUST BE INCLUDED IN O TO BEGIN ANALYSI	ORDER S)	
UOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIF	ORM	53.69	
HOLD TIMES (Store and ship cold)	2 Weeks	1 Month	6 Hours*	8 Hours		97.04	
EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. And Class B anaerobically digested anaerobically digested. Anaerobically digested anaerobically digested.							
		ASSAY(S) TO BE PE	RFORMED - (PL	EASE CHECK)			
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92	•••	IONELLA A 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684	
CLASS "A"				<b>\</b>			
		The same of the sa	<u> </u>		<u></u>	人	
CLASS "B"						X	

	THE STATE OF THE S	RECEIVED BY (SIGNED)	DATE	TIME
	RELINQUISHED BY (SIGNED)		7-15-76	1/35
	MANN	Jano O	211-16	0910
	16	on les	ENICIA CALIEOR	NIA 94510
Sh	IPPING ADDRESS: BIOVIR LABORAT	ORIES, INC., 685 STONE ROAD, UNIT 6, B	ENICIA CALIFON	NIA D-1010



(Please fill out applicable areas, sign and return to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY: LIMS # 160476 Date Rec'd: 2-16-16 Time Rec'd:

	Note: Please p	rint clearly using v	vaterproc	or ink.				
COMPANY NAME & A	DDRESS: Water Vo	Thy washow	Fr	DATE OI	SAMPLING:	2-15	-16	
Kerleman	on Albanik Co	92394		TIME OF	SAMPLING:	//2	9	
Contact Name: //	125 Rodry of Z	181( 463) 2)	16-063	0 7-71				
NAME OF SAMPLER		M		SAMPLE	ID: 160		, the	
LOCATION OF SAME	LING: Dyna	Bal 4-	1/_		F SAMPLE:		COMPOSITE	)      
TREATMENT CHARA	CTERISTICS: (/a,	,-A Ane	shi P	Je, L TOTAL	SOLIDS PERC	ENTAGE:	%	
SAMPLE VOLUME (V		~7005			(MUST BE I	NCLUDED IN OF GIN ANALYSIS)	RDER	
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMO	NELLA FECAL	COLIFORM	AZ	539	
(Store and ship cold)	2 Weeks	1 Month	6 Ho	urs* 8 F	ours*			
* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (Júly 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until preferably, within 2 hours of collection. If it is impossible to examine samples within 6 hours unless otherwise specified in the Code of Federal analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.  Print Name:  Signature.  Signature.  Signature.								
	A A	SSAY(S) TO BE PE	RFORM			01150711	TOTAL CO	une
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92		SALMONELLA EPA 1682		OLIFORM 1681	TOTAL SO EPA 16	
CLASS "A"				<u> </u>				
CLASS "B"								
<u> 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 </u>	egi e e i							

RELINQUIŞHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
All Win	- CA-0	2-15-16	1135
	To the leave	2-16-16	0946
	CALYN	TO SALIFOR	04540

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510





685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

**REPORT NO.:** 160903 **PAGE NO.:** 1 of 6

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: 1682 Salmonella MSRV Method: EPA 1682

BioVir	# Sample	ID Site	Analyte	Result	Units
160903-001	160503-25	Drying Bed #4-9	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:27:00 PM		
ReceiveDate	5/4/2016 9:55:0	00 AM Matrix: Biosoilds	Temp 3.2C		
Volume: 496	6.13g An	alysis Start Date: 5/4/2016	Analysis Start Time: 1320		
Analyst: N	ИРiper	Analysis End: 5/7/2016	·		
Comment					
160903-002	160503-23	Drying Bed #4-	6 Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:16:00 PM		
ReceiveDate	5/4/2016 9:55:0	00 AM Matrix: Biosoilds	Temp 3.2C		
Volume: 439	0.43 An	alysis Start Date: 5/4/2016	Analysis Start Time: 1320		
Analyst: N	//Piper	Analysis End: 5/7/2016			
Comment					
160903-003	160503-22	Drying Bed #4-1	0 Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:20:00 PM		
ReceiveDate	5/4/2016 9:55:0	00 AM Matrix: Biosoilds	Temp 3.2C		
Volume: 477	7.70g An	alysis Start Date: 5/4/2016	Analysis Start Time: 1320		

Analyst: MPiper Analysis End: 5/7/2016

Comment

160903-004 160503-24 Drying Bed #4-8 Salmonella spp. <0.3 MPN/4 g TS

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM

ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C

Volume: 453.60g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320

Volume: 453.60g Analysis Start Date: 5/4/2016
Analyst: MPiper Analysis End: 5/7/2016

Comment

**REPORT NO.:** 160903 **PAGE NO.:** 2 of 6

**CLIENT:** Victor Valley Wastewater Reclamation Authority

20111 Shay Road **ADDRESS** 

Victorville, CA 92394

VIC001 **CLIENT NO CLIENT PO: N/A** 

#### **ASSAY RESULTS:**

Test: Coliform, Fecal Method: EPA 1681

BioVir	# Sample ID	Site	Analyte	Result	Units
160903-001	160503-25	Drying Bed #4-9	Coliform, Fecal	15.1	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:27:00 PM		
ReceiveDate	5/4/2016 9:55:00 AM	M Matrix: Biosoilds	Temp 3.2C		
Volume: 496	i.13g Analysis	s Start Date: 5/4/2016	Analysis Start Time: 1320		
Analyst: N	//Piper	Analysis End: 5/7/2016			
Comment					
160903-002	160503-23	Drying Bed #4-6	Coliform, Fecal	25.2	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:16:00 PM		
ReceiveDate	5/4/2016 9:55:00 AM	M Matrix: Biosoilds	Temp 3.2C		
Volume: 439	.43 Analysis	s Start Date: 5/4/2016	Analysis Start Time: 1320		
Analyst: N	//Piper	Analysis End: 5/7/2016			
Comment					
160903-003	160503-22	Drying Bed #4-10	Coliform, Fecal	10.3	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:20:00 PM		
ReceiveDate	5/4/2016 9:55:00 AM	M Matrix: Biosoilds	Temp 3.2C		
Volume: 477	7.70g Analysis	s Start Date: 5/4/2016	Analysis Start Time: 1320		
Analyst: N	//Piper	Analysis End: 5/7/2016			
Comment					
160903-004	160503-24	Drying Bed #4-8	Coliform, Fecal	19.4	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 5/3/2016	CollectTime: 12:30:00 PM		
	E/4/0040 0 EE 00 AA	A Matrice Dissaile	T 0.00		

ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C Volume: 453.60g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320

Analyst: **MPiper** Analysis End: 5/7/2016

Comment

Test: **Enteric Virus** Method: ASTM D 4994-89

BioVir# Sample ID Site Analyte Result Units **REPORT NO.:** 160903 **PAGE NO.:** 3 of 6

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Enteric Virus Method: ASTM D 4994-89

BioVir #	# Sample ID	Site	Analyte	Result	Units
160903-001	160503-25	Drying Bed #4-9	Enteric Virus	<1	pfu/4 g TS
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:27:00 PM		
ReceiveDate	5/4/2016 9:55:00 A	AM Matrix: Biosoilds	Temp 3.2C		
Volume: 496.	13g Analys	sis Start Date: 5/5/2016	Analysis Start Time: 13:55		
Analyst: Va	alentinaL	Analysis End: 5/9/2016			
Comment					
160903-002	160503-23	Drying Bed #4-6	Enteric Virus	<1	pfu/4 g TS
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:16:00 PM		
ReceiveDate	5/4/2016 9:55:00 A	AM Matrix: Biosoilds	Temp 3.2C		
Volume: 439.4	43 Analys	sis Start Date: 5/5/2016	Analysis Start Time: 13:55		
Analyst: Va	alentinaL	Analysis End: 5/9/2016			
Comment					
160903-003	160503-22	Drying Bed #4-10	Enteric Virus	<1	pfu/4 g TS
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:20:00 PM		
ReceiveDate	5/4/2016 9:55:00 A	AM Matrix: Biosoilds	Temp 3.2C		
Volume: 477.	70g Analys	sis Start Date: 5/5/2016	Analysis Start Time: 13:55		
Analyst: Va	alentinaL	Analysis End: 5/9/2016			
Comment					
160903-004	160503-24	Drying Bed #4-8	Enteric Virus	<1	pfu/4 g TS
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:30:00 PM		
ReceiveDate	5/4/2016 9:55:00 A	AM Matrix: Biosoilds	Temp 3.2C		
Volume: 453.0	60g Analys	sis Start Date: 5/5/2016	Analysis Start Time: 13:55		
Analyst: Va	alentinaL	Analysis End: 5/9/2016			
Comment					

Test: Helminth Ova Method:

BioVir # Sample ID Site Analyte Result Units

**REPORT NO.:** 160903 **PAGE NO.:** 4 of 6

**CLIENT:** Victor Valley Wastewater Reclamation Authority

20111 Shay Road **ADDRESS** 

Victorville, CA 92394

**CLIENT NO** VIC001 **CLIENT PO: N/A** 

#### **ASSAY RESULTS:**

Test: **Helminth Ova** Method:

BioVir	# Sample ID	Site	Analyte	Result	Units
160903-001	160503-25	Drying Bed #4-9	Viable Helminth Ova	<1	Viable Ova /4 g TS
Analyst: Sl	•	CollectDate: 5/3/2016 Matrix: Biosoilds Start Date: Analysis End: 6/8/2016	CollectTime: 12:27:00 PM Temp 3.2C Analysis Start Time:		
Comment	400500 00	D : D ! #/ 0	VI 11 11 1 1 1 2		Viol. 10 o v 40 o TO
160903-002	160503-23	Drying Bed #4-6	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bob ReceiveDate Volume: 439. Analyst: Sl	5/4/2016 9:55:00 AM	CollectDate: 5/3/2016  Matrix: Biosoilds  Start Date:  Analysis End: 6/8/2016	CollectTime: 12:16:00 PM Temp 3.2C Analysis Start Time:		
Comment					
160903-003	160503-22	Drying Bed #4-10	Viable Helminth Ova	<1	Viable Ova /4 g TS
	•	CollectDate: 5/3/2016 Matrix: Biosoilds Start Date: Analysis End: 6/8/2016	CollectTime: 12:20:00 PM Temp 3.2C Analysis Start Time:		
160903-004	160503-24	Drying Bed #4-8	Viable Helminth Ova	<1	Viable Ova /4 g TS
100903-004	100303-24	Drying bea #4-6		<b>&lt;</b> 1	Flable Ova /4 g 13
Collector: Bob	oby Hesse	CollectDate: 5/3/2016	CollectTime: 12:30:00 PM		

ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C

Volume: 453.60g Analysis Start Date: Analysis Start Time:

Analysis End: 6/8/2016 Analyst: SMullaney

Comment

Test: **Total Solids** Method:

BioVir# Sample ID Site Result Units Analyte

**REPORT NO.:** 160903 **PAGE NO.:** 5 of 6

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Total Solids Method:

BioVir #	Sample ID	Site	Analyte	Result	Units
60903-001	160503-25	Drying Bed #4-9	Total Solids (%)	93.1	
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:27:00 PM		
ReceiveDate	5/4/2016 9:55:00 Al	M Matrix: Biosoilds	Temp 3.2C		
Volume: 496.	13g Analysi	s Start Date: 5/4/16	Analysis Start Time: 1705		
Analyst: Mi	Piper	Analysis End: 5/5/2016			
Comment					
60903-002	160503-23	Drying Bed #4-6	Total Solids (%)	95.1	
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:16:00 PM		
ReceiveDate	5/4/2016 9:55:00 Al	M Matrix: Biosoilds	Temp 3.2C		
Volume: 439.4	43 Analysi	s Start Date: 5/4/16	Analysis Start Time: 1705		
Analyst: Mi	Piper	Analysis End: 5/5/2016			
Comment					
60903-003	160503-22	Drying Bed #4-10	Total Solids (%)	91.4	
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:20:00 PM		
ReceiveDate	5/4/2016 9:55:00 Af	M Matrix: Biosoilds	Temp 3.2C		
Volume: 477.7	70g Analysi	s Start Date: 5/4/16	Analysis Start Time: 1705		
Analyst: Mi	Piper	Analysis End: 5/5/2016			
Comment					
60903-004	160503-24	Drying Bed #4-8	Total Solids (%)	90.2	
Collector: Bob	by Hesse	CollectDate: 5/3/2016	CollectTime: 12:30:00 PM		
Paccivo Data	E/4/2016 0:55:00 A	M Matrix: Biosoilds	Tomp 2 2C		

ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C Volume: 453.60g Analysis Start Date: 5/4/16 Analysis Start Time: 1705

Analyst: MPiper Analysis End: 5/5/2016

Comment

**REPORT NO.:** 160903 **PAGE NO.:** 6 of 6

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred to above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or other material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

6/28/2016	Bichal & Danil
Date:	Signature Quality Checked ElbaM



(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY:	i
LIMS#: 160903	1
Client #: \ITCCci	
Date Rec'd: 5-4-16	
Time Rec'd: 0955	
temo: 3.2 °C	

	Phone: 1-800-	print clearly using wa	terproof ink.			
COMPANY NAME & AD				DATE OF SAN	IPLING: 5-J-	-16
JOINIFAIRT IVAINE S. S.	III SLAY RO	d. Victorille,	(a. 7417)	TIME OF SAM		i
Contact Name: Luce	120 Kodingse	Z Tel (765) 29	6 2618 1216	SAMPLE ID:	160503-	
NAME OF SAMPLER:	Bubby	Hesse		)		COMPOSITE
LOCATION OF SAMPL	ING: DIY.	Bed 4	-9	ļ		
TREATMENT CHARA				TOTAL SOLI	OS PERCENTAGE:	
SAMPLE VOLUME (W		~ 3005			(MUST BE INCLUDED IN ORI TO BEGIN ANALYSIS)	% DER
SAMPLE VOLUME (**		HELMINTH OVA	SALMONELLA	FECAL COLI	FORM	
HOLD TIMES (Store and ship	ENTERIC VIRUS	1 Month	6 Hours*	8 Hours	. 496	.139
cold)	2 Weeks				ly 2006): For fecal coli	elan for
conditions are not most are not most are not most are not most an are selected analysis. Samples in Regulations Part 50 Sample results will A holding time variants.	et.  Jage Extracted from language Extracted from language in the foliation of the foliation	EPA Salmonella (Bios t is impossible to exam mple analysis must be sample handling proce	solids) Method 1 ine samples withi gin within 6 hours edures and holdir	682 (July 2006) in 2 hours, samp unless otherwis ng time limits is c	s will be considered inv Analyses should begir les must be maintained e specified in the Code ritical to the production se refer to the Final Ru	n immediately, at <10°C until of Federal of valid data.
(up to 24 hrs from	AST HOLD TIME - i sampling for bacter	ial analysis)	1	ris IN	112	5-3-16
III - A A C D A EDORI	IPRISED OF CLASS A CALLY OR ANAERON AL COLIFORM TEST	DICALL DIGEOLES	Signature:	<u> </u>		Date
			ERFORMED - (F	PLEASE CHECK	)	
		ASSAY(S) TO BE P				<b>1</b>
ANALYTICAL	ENTERIC VIRUS ASTM D 4994-8	S HELMINTH C	OVA SALI	MONELLA PA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
ANALYTICAL STANDARD CLASS "A"	ENTERIC VIRUS ASTM D 4994-89	S HELMINTH C	OVA SALI	MONELLA	FECAL COLIFORM	TOTAL SOLIDS EPA 1684

COMMENTS:

	RECEIVED BY (SIGNED)	DATE	TIME	
RELINQUISHED (SIGNED)	A	5-4-16	0955 U	PS
CB	JAM John	<u> </u>		
	POAD HINT 6 R	ENICIA CALIFOR	NIA 94510	



(Please fill out applicable areas, sign and return

to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY: LIMS #: (60903)	2
Client #: \(\frac{11C00}{54-16}\) Date Rec'd: \(\frac{5-4-16}{200-6}\)	
Date Rec'd: 0955	
temp: 3.2°C	

	Note: Please	print clearly using w	aterproof illk.			
OMPANY NAME & AL				DATE OF SA	MPLING: 5-3-	16
JIVIPAIVI IVIIII 20	111 Stay FC	d. Victorille,	(a 123 / 1	TIME OF SA	MPLING: 1216	
ontact Name: long.	120 Rodryse	Z Tel (765) 24	6-8678 1211	<b>1</b>		
IAME OF SAMPLER:	Bubby	Hesse		0,	160503-	
OCATION OF SAMP			1-1	TYPE OF S	AMPLE GRAB C	OMPOSITE
	The second secon	Bed 4		TOTAL SOL	LIDS PERCENTAGE:	
FREATMENT CHARA	CTERISTICS: C/a	, A-day, Le	. Anowsi		WHICE BE INCLUDED IN ORL	% DER
SAMPLE VOLUME (V	VET WEIGHT):	~ 3005			TO BEGIN ANALYSIST	
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL CO		-43a
(Store and ship	2 Weeks	1 Month	6 Hours*	8 Hou	July 2006): For fecal colif types using either EPA M	
analysis. Samples of Regulations Part 50 Sample results will A holding time variation OK TO RUN F (up to 24 hrs from	D3. Note: Adherence to be considered invalid in ance is allowed from your PAST HOLD TIME - In sampling for bacter	sample handling prod f these conditions are our Regional Administ rial analysis)	not met. rator under Section Print Name:	ng time ilinia is	ples must be maintained rise specified in the Code scritical to the production ease refer to the Final Rules	The state of the s
	MPRISED OF CLASS ICALLY OR ANAERO AL COLIFORM TEST	ONLY).				
		ASSAY(S) TO BE F			FECAL COLIFORM	TOTAL SOLIDS
ANALYTICAL	ENTERIC VIRUS ASTM D 4994-8	HELMINTH EPA 625/R-9	O 47.	MONELLA PA 1682	EPA 1681	EPA 1684
STANDARD	AGTIVI D 4004 0	X		X	1	X
CLASS "A"						
CLASS "B"						
COMMENTS:	t tutti j		1 2 2		iga Ebrasia da Salah Ba	

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA. 94510

DATE



(Please fill out applicable areas, sign and return

to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY:	7
LIMS# (6090)	1
Client #: \II Cocl	
Date Rec'd: 6-4-10	
Time Rec'd:	
temo: 3.200	

	Note: Please pri	nt clearly using wa	terproof link.				
COMPANY NAME & A	3 - 3 - 12 - 2	RI		DATE OF SAM	MPLING: 5-3	-16	
20	111 SLAY ROGE	Victorial	1.0076 150	TIME OF SAN	IPLING: 122	20	
Contact Name: 20.72	120 Rodingsez	Tel:(765) 290	6 8678 4211	SAMPLE ID:	11.503 -	- 72	
NAME OF SAMPLER: BULLY HEUSE SAMPLE 16: 16:503 - 22  TYPE OF SAMPLE 6 GRAB COMPO							
LOCATION OF SAMP	LING: DO	Bed 4	-10	TYPE OF SA	MPLE GRAB	COMPOSITE	
TREATMENT CHARA	CTERISTICS:			TOTAL SOLI		%	
SAMPLE VOLUME (V	VET WEIGHT):	-3005		<u></u>	(MUST BE INCLUDED IN OR TO BEGIN ANALYSIS)	DER	
HOLD TIMES	ENTERIC VIRUS H	ELMINTH OVA	SALMONELLA	FECAL COL	FORM 477	7.70 g	
(Store and ship	2 Weeks	1 Month	6 Hours*	8 Hour	s"	<del></del>	
analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Analyzed analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Analyzed analyzed within 8 hours of sample collection to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, salmonella (Biosolids) Analyses should begin immediately, salmonella (Biosolids) Analyses should begin immediately, s							
ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)							
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92		MONELLA PA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684	
CLASS "A"	X	X		X	<u> </u>	X	
CLASS "B"						1	
COMMENTS:				olave medaline i . Nemocia			

	A DECEMBORY (SIGNED)	DATE	TIME
RELINQUISHED BY (SIGNED)	100	54-16	0955
1 Jane	Om gen		
		ENGLA CALIFOR	NIA 04510

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510



(Please fill out applicable areas, sign and return

to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

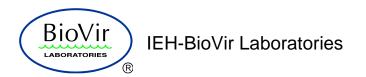
LAB USE ONLY:	2
LIVIS #. 100 1	
Client #: \II Coc\ 5-4-16	
Date Rec'd: D955	
Time Rec'd: 3.2°C	

	Note: Please	print clearly using w	raterproof Ink.			
OMPANY NAME & A	DDRESS: VV	WRA II.	A 9279	DATE OF SA	AMPLING: 5-J	-16
ي ر	111 SLay R				MPLING: /23	Δ
Contact Name: Lo.re.	120 Rodinge	Z Tel (765) 29	16 8678 KZ	/6		
NAME OF SAMPLER:		Hesse		SAMPLE ID	160503	······································
OCATION OF SAMP		Sed 4		TYPE OF S	AMPLE 6 GRAB	COMPOSITE
TREATMENT CHARA	CTERISTICS: (7/a		the state of the s	TOTAL SOI	IDS PERCENTAGE:	% DDEB
SAMPLE VOLUME (V	VET WEIGHT):	~ 3005			(MUST BE INCLUDED IN O TO BEGIN ANALYSIS	)
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMONELL	A FECAL CO	IFORM // S	3-609
(Store and ship cold)	2 Weeks	1 Month	6 Hours*	8 Hou	rs*	
preferably, within 2 analysis. Samples in Regulations Part 50 Sample results will A holding time variation OK TO RUN P (up to 24 hrs from SAMPLE COM	uage Extracted from hours of collection. If in must not be frozen. Sa Note: Adherence to	in imposable to the imple analysis must be a sample handling production of these conditions are pur Regional Administration analysis)  A COMPOSTED, BICALLY DIGESTED ONLY).	egin within 6 housedures and hole not met. rator under Sect Print Name:  Signature:	urs unless otherwiding time limits is tion 136.3(e). Ple		of receraing of valid data.
		ASSAY(S) TO BE P	ERFORMED -	(PLEASE CHEC	K)	
ANALYTICAL STANDARD	ENTERIC VIRUS	S HELMINTH ( 9 EPA 625/R-9)		LMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X		$\angle$	<u> </u>	X
CLASS "B"						<u> </u>
COMMENTS:						

RECEIVED BY (SIGNED)

5-4-16





685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

**REPORT NO.:** 162163 **PAGE NO.:** 1 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: 1682 Salmonella MSRV Method: EPA 1682

BioVir	r# Sam	ple ID	Site	Analyte	Result	Units
162163-001	160914-22		Drying Bed #4-1	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	obby Hesse		CollectDate: 9/14/2016	CollectTime: 1:45:00 PM		
ReceiveDate	e: 9/15/2016 10	0:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 423	3.5 g	Analysis Sta	art Date: 9/15/16	Analysis Start Time: 1616		
Analyst:	JTruscott		Analysis End: 9/21/2016			
Comment:						
162163-002	160914-23		Drying Bed #4-2	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	obby Hesse		CollectDate: 9/14/2016	CollectTime: 1:52:00 PM		
ReceiveDate	e: 9/15/2016 10	0:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 39°	1.9 g	Analysis Sta	art Date: 9/15/16	Analysis Start Time: 1616		
Analyst:	JTruscott		Analysis End: 9/21/2016			
Comment:						
162163-003	160914-24		Drying Bed #4-3	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	obby Hesse		CollectDate: 9/14/2016	CollectTime: 1:57:00 PM		
ReceiveDate	e: 9/15/2016 10	0:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 485	5.3 g	Analysis Sta	art Date: 9/15/16	Analysis Start Time: 1616		
Analyst:	JTruscott		Analysis End: 9/21/2016			
Comment:						
162163-004	160914-26		Drying hed # 4-1	Salmonella son	<0.3	MPN/4 a TS

162163-004 160914-26 Drying bed # 4-1 Salmonella spp. <0.3 MPN/4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM

ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds Temp 13.2C

Volume: 444.5 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616

Analyst: JTruscott Analysis End: 9/21/2016

Comment:

**REPORT NO.:** 162163 **PAGE NO.:** 2 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

20111 Shay Road **ADDRESS** 

Victorville, CA 92394

VIC001 **CLIENT NO CLIENT PO: N/A** 

#### **ASSAY RESULTS:**

Test: 1682 Salmonella MSRV Method: EPA 1682

BioVir	# Sample ID	Site	Analyte	Result	Units
162163-005	160914-25	DB#4-6	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:58:00 PM		
ReceiveDate	9/15/2016 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 476	i.1 g Analysis S	Start Date: 9/15/16	Analysis Start Time: 1616		
Analyst: J	Truscott	Analysis End: 9/21/2016			
Comment:					
162163-006	160914-27	Drying Bed #4-11	Salmonella spp.	<0.3	MPN/4 g TS
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:55:00 PM		
DanairoData	. 0/4E/2046 40:24:00 AM	Matrixa Dissoilds	Tamp 12.20		

ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds Temp 13.2C

Volume: 456.1 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616

Analysis End: 9/21/2016 Analyst: JTruscott

Comment:

Coliform, Fecal Method: EPA 1681 Test:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001 160914	4-22	Drying Bed #4-1	Coliform, Fecal	0.4	MPN/1 g Total Solids
Collector: Bobby Hess	se	CollectDate: 9/14/2016	CollectTime: 1:45:00 PM		
ReceiveDate: 9/15/20	16 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 423.5 g	Analysis Sta	rt Date: 9/15/16	Analysis Start Time: 1425		
Analyst: JTruscott	A	analysis End: 9/16/2016			
Comment:					
162163-002 160914	4-23	Drying Bed #4-2	Coliform, Fecal	17.7	MPN/1 g Total Solids
Collector: Bobby Hess	se	CollectDate: 9/14/2016	CollectTime: 1:52:00 PM		
ReceiveDate: 9/15/20	16 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 301.0 a	Analysis Sta	rt Date: 9/15/16	Analysis Start Time: 1425		

Volume: 391.9 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425

Analyst: JTruscott Analysis End: 9/16/2016

Comment:

**REPORT NO.:** 162163 **PAGE NO.:** 3 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Coliform, Fecal Method: EPA 1681

BioVir	# Sample ID	Site	Analyte	Result	Units
162163-003	160914-24	Drying Bed #4-3	Coliform, Fecal	2.2	MPN/1 g Total Solids
Collector: Bo	obby Hesse	CollectDate: 9/14/2016	CollectTime: 1:57:00 PM		
ReceiveDate	9/15/2016 10:31:00 Al	V Matrix: Biosoilds	Temp 13.2C		
Volume: 485	,	Start Date: 9/15/16	Analysis Start Time: 1425		
Analyst: .	JTruscott	Analysis End: 9/16/2016			
Comment:					
162163-004	160914-26	Drying bed # 4-1	Coliform, Fecal	11.1	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:47:00 PM		
ReceiveDate	9/15/2016 10:31:00 Al	V Matrix: Biosoilds	Temp 13.2C		
Volume: 444	1.5 g Analysis	Start Date: 9/15/16	Analysis Start Time: 1425		
Analyst:	JTruscott	Analysis End: 9/16/2016			
Comment:					
162163-005	160914-25	DB#4-6	Coliform, Fecal	3.2	MPN/1 g Total Solids
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:58:00 PM		
ReceiveDate	e: 9/15/2016 10:31:00 Al	V Matrix: Biosoilds	Temp 13.2C		
Volume: 476	6.1 g Analysis	Start Date: 9/15/16	Analysis Start Time: 1425		
Analyst:	JTruscott	Analysis End: 9/16/2016			
Comment:					
162163-006	160914-27	Drying Bed #4-11	Coliform, Fecal	2.5	MPN/1 g Total Solids
Collector: Bo	obby Hesse	CollectDate: 9/14/2016	CollectTime: 1:55:00 PM		
	e: 9/15/2016 10:31:00 Al	V Matrix: Biosoilds	Temp 13.2C		
Volume: 456	6.1 g Analysis	Start Date: 9/15/16	Analysis Start Time: 1425		
Analyst:	JTruscott	Analysis End: 9/16/2016			
Comment:					

Test: Enteric Virus Method: ASTM D 4994-89

BioVir # Sample ID Site Analyte Result Units

**REPORT NO.:** 162163 **PAGE NO.:** 4 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Enteric Virus Method: ASTM D 4994-89

Analysis End: 9/19/2016

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001 16	60914-22	Drying Bed #4-1	Enteric Virus	<1	pfu/4 g TS
Volume: 423.5 g	15/2016 10:31:00 AN Analysis Si	tart Date: 9/17/2016	CollectTime: 1:45:00 PM Temp 13.2C Analysis Start Time: 09:00		
Analyst: Valen Comment:	iunaL	Analysis End: 9/19/2016			
162163-002 16	60914-23	Drying Bed #4-2	Enteric Virus	<1	pfu/4 g TS
Collector: Bobby ReceiveDate: 9/1 Volume: 391.9 g Analyst: Valen Comment:	15/2016 10:31:00 AN Analysis Si	CollectDate: 9/14/2016 Matrix: Biosoilds tart Date: 9/17/2016 Analysis End: 9/19/2016	CollectTime: 1:52:00 PM Temp 13.2C Analysis Start Time: 09:00		
162163-003 16	60914-24	Drying Bed #4-3	Enteric Virus	<1	pfu/4 g TS
Collector: Bobby ReceiveDate: 9/1 Volume: 485.3 g Analyst: Valen Comment:	15/2016 10:31:00 AN Analysis Si	CollectDate: 9/14/2016 Matrix: Biosoilds tart Date: 9/17/2016 Analysis End: 9/19/2016	CollectTime: 1:57:00 PM Temp 13.2C Analysis Start Time: 09:00		
	2004 4 00	Don't a bad # 4.4	Fotonia Winne	_	₩6/4 æ TC
Collector: Bobby	15/2016 10:31:00 AN Analysis Si	Drying bed # 4-1  CollectDate: 9/14/2016  Matrix: Biosoilds tart Date: 9/17/2016  Analysis End: 9/19/2016	Enteric Virus  CollectTime: 1:47:00 PM  Temp 13.2C  Analysis Start Time: 09:00	<1	pfu/4 g TS
162163-005 16	60914-25	DB#4-6	Enteric Virus	<1	pfu/4 g TS
Collector: Bobby ReceiveDate: 9/1 Volume: 476.1 g	15/2016 10:31:00 AN Analysis S	CollectDate: 9/14/2016 Matrix: Biosoilds tart Date: 9/17/2016	CollectTime: 1:58:00 PM Temp 13.2C Analysis Start Time: 09:00		

Comment:

Analyst: ValentinaL

**REPORT NO.:** 162163 5 of 8 PAGE NO.:

**CLIENT:** Victor Valley Wastewater Reclamation Authority

20111 Shay Road **ADDRESS** 

Victorville, CA 92394

**CLIENT NO** VIC001 **CLIENT PO: N/A** 

#### **ASSAY RESULTS:**

Test: **Enteric Virus** Method: ASTM D 4994-89

BioVir# Sample ID Site Analyte Result Units pfu/4 g TS 162163-006 160914-27 Drying Bed #4-11 **Enteric Virus** <1

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds Temp 13.2C

Analysis Start Time: 09:00 Volume: 456.1 g Analysis Start Date: 9/17/2016

Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

Test: **Helminth Ova** Method:

BioVir	# Sample	ID Site	Analyte	Result	Units
162163-001	160914-22	Drying Bed #4-1	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bob	by Hesse	CollectDate: 9/14/2016	CollectTime: 1:45:00 PM		
ReceiveDate	9/15/2016 10:31:	00 AV Matrix: Biosoilds	Temp 13.2C		
Volume: 423.	5 g An	alysis Start Date:	Analysis Start Time:		
Analyst: Sl	Mullaney	Analysis End: 10/21/2016			
Comment:					
162163-002	160914-23	Drying Bed #4-2	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bob	by Hesse	CollectDate: 9/14/2016	CollectTime: 1:52:00 PM		

ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds Temp 13.2C

Volume: 391.9 g Analysis Start Date: Analysis Start Time:

Analyst: **SMullaney** Analysis End: 10/21/2016

Comment:

162163-003 160914-24 Drying Bed #4-3 Viable Helminth Ova Viable Ova /4 g TS <1

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM

ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds Temp 13.2C

Volume: 485.3 g Analysis Start Date: Analysis Start Time:

Analyst: **SMullaney** Analysis End: 10/21/2016

Comment:

**REPORT NO.:** 162163 **PAGE NO.:** 6 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VIC001 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Helminth Ova Method:

BioVir	# Sample ID	Site	Analyte	Result	Units
162163-004	160914-26	Drying bed # 4-1	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:47:00 PM		
ReceiveDate	9/15/2016 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 444	4.5 g Analysis S	start Date:	Analysis Start Time:		
Analyst: S	SMullaney	Analysis End: 10/21/2016			
Comment:					
162163-005	160914-25	DB#4-6	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:58:00 PM		
ReceiveDate	9/15/2016 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		
Volume: 476	6.1 g Analysis S	Start Date:	Analysis Start Time:		
Analyst: S	SMullaney	Analysis End: 10/21/2016			
Comment:					
162163-006	160914-27	Drying Bed #4-11	Viable Helminth Ova	<1	Viable Ova /4 g TS
Collector: Bo	bby Hesse	CollectDate: 9/14/2016	CollectTime: 1:55:00 PM		
ReceiveDate	9/15/2016 10:31:00 AN	Matrix: Biosoilds	Temp 13.2C		

Analyst:

Comment:

Volume: 456.1 g

SMullaney

Test: Total Solids Method:

Analysis Start Date:

Analysis End: 10/21/2016

BioVir #	# Sample ID	Site	Analyte	Result	Units
162163-001	160914-22	Drying Bed #4-1	Total Solids (%)	95.4	
Collector: Bob	by Hesse	CollectDate: 9/14/2016	CollectTime: 1:45:00 PM		
ReceiveDate	9/15/2016 10:31:00 AM	Matrix: Biosoilds	Temp 13.2C		
Volume: 423.	5 g Analysis	Start Date: 9/15/2016	Analysis Start Time: 18:05		
Analyst: M	Piper	Analysis End: 9/16/2016			

Analysis Start Time:

Comment:

**REPORT NO.:** 162163 **PAGE NO.:** 7 of 8

**CLIENT:** Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Total Solids Method:

BioVir #	Sample ID	Site	Analyte	Result	Units
<b>162163-002</b> 1	160914-23	Drying Bed #4-2	Total Solids (%)	95.3	
Collector: Bobby ReceiveDate: 9 Volume: 391.9 Analyst: MPi	, //15/2016 10:31:00 AV g Analysis S	CollectDate: 9/14/2016 Matrix: Biosoilds Start Date: 9/15/2016 Analysis End: 9/16/2016	CollectTime: 1:52:00 PM Temp 13.2C Analysis Start Time: 18:05		
Comment:					
162163-003	160914-24	Drying Bed #4-3	Total Solids (%)	98.0	
Collector: Bobby ReceiveDate: 9 Volume: 485.3 Analyst: MPi	/ //15/2016 10:31:00 AV g Analysis S	CollectDate: 9/14/2016 Matrix: Biosoilds Start Date: 9/15/2016 Analysis End: 9/16/2016	CollectTime: 1:57:00 PM Temp 13.2C Analysis Start Time: 18:05		
Comment:					
<b>162163-004</b> 1	160914-26	Drying bed # 4-1	Total Solids (%)	96.5	
Collector: Bobby ReceiveDate: 9 Volume: 444.5 Analyst: MPi Comment:	/ //15/2016 10:31:00 AV g Analysis S	CollectDate: 9/14/2016 Matrix: Biosoilds Start Date: 9/15/2016 Analysis End: 9/16/2016	CollectTime: 1:47:00 PM Temp 13.2C Analysis Start Time: 18:05		
<b>162163-005</b> 1	160914-25	DB#4-6	Total Solids (%)	98.9	
Collector: Bobby ReceiveDate: 9 Volume: 476.1 Analyst: MPi Comment:	/ //15/2016 10:31:00 AV g Analysis S	CollectDate: 9/14/2016 Matrix: Biosoilds Start Date: 9/15/2016 Analysis End: 9/16/2016	CollectTime: 1:58:00 PM Temp 13.2C Analysis Start Time: 18:05		
<b>162163-006</b> 1	160914-27	Drying Bed #4-11	Total Solids (%)	95.8	
Collector: Bobby	y Hesse	CollectDate: 9/14/2016	CollectTime: 1:55:00 PM		

Temp 13.2C

Analysis Start Time: 18:05

Comment:

Volume: 456.1 g

Analyst: MPiper

ReceiveDate: 9/15/2016 10:31:00 AV Matrix: Biosoilds

Analysis Start Date: 9/15/2016

Analysis End: 9/16/2016

**REPORT NO.:** 162163 **PAGE NO.:** 8 of 8

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or otlematerial from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

10/28/2016	Bichal & Danil
Date:	Signature Quality Checked ElbaM



(Please fill out applicable areas, sign and return to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

Note: Please print clearly using waterproof ink.

LAB USE ONLY:

LIMS #: 162163-1

Client #: VICOO!

Date Rec'd: 0915/6

Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS:							
Victor Valley Wastewater Keclamotion Authority Zoill Shay Rd. Victoria CA 92394				DATE OF	SAMPLING:	9-14-11	ę
Contact Name: Tel: 760-605-5843  Bodda; Hesse				TIME OF S	AMPLING:	1345	
NAME OF SAMPLER				SAMPLE II	D: 160914	1-22	
	PLING: Orling B	ed #4-1		TYPE OF	SAMPLE: (	GRAB	COMPOSITE
	ACTERISTICS: CLASS		bic digestal	TOTAL SC	LIDS PERC	ENTAGE:	04
	VET WEIGHT): N					NCLUDED IN O	
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL CO	LIFORM	1 23,5	93,259
(Store and ship cold)	2 Weeks	1 Month	6 Hours*	8 Ho	urs*	W.	P 9.15-16
* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.					ence to sample valid if these in immediately, d at <10°C until e of Federal n of valid data.		
OK TO RUN PA	AST HOLD TIME -		Print Name:				
(up to 24 hrs from	sampling for bacteri	ai analysis)	Bin Hes	Sc			9-14-14
SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).					Date		
ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)							
	L COLIFORM TEST C	ONLY).	ERFORMED - (PLI	EASE CHECK	<b>(</b> )		

#### COMMENTS:

CLASS "A"

CLASS "B"

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
200			
	1	0915/6	1631

X

X

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510



**Contact Name** 

NAME OF SAMPLE

# BIOSOLIDS SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

Note: Please print clearly using waterproof ink.

LAB USE ONLY:

Date Rec'd:

Time Rec'd:

DATE OF SAMPLING: 9-14-14
TIME OF SAMPLING: /352
SAMPLE ID: 160914-23

LOCATION OF SAMPLING

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 2011 Shay Rd. Victoriu CA 92394

TYPE OF SAMPLE

COMPOSITE

TREATMENT CHARACTERIS

SAMPLE VOLUME (WET WEIGHT):

TOTAL SOLIDS PERCENTAGE:

(MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)

**GRAB** 

FECAL COLIFORM **HELMINTH OVA** SALMONELLA **ENTERIC VIRUS HOLD TIMES** (Store and ship 8 Hours\* 6 Hours\* 1 Month 2 Weeks cold)

\* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

OK TO RUN PAST HOLD TIME -(up to 24 hrs from sampling for bacterial analysis) Print Name:

☐ SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM	TOTAL SOLIDS
ANALYTICAL STANDARD	ASTM D 4994-89	EPA 625/R-92/013	EPA 1682	EPA 1681	EPA 1684
CLASS "A"	×	X	X	X	
CLASS "B"			The State of the S		•

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
All Marie Control of the Control of		09/5/6	103/



(Please fill out applicable areas, sign and return to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

Note: Please print clearly using waterproof ink.

LAB USE ONLY:

LIMS #: 162163-3

Date Rec'd: \_

Time Rec'd: 1031

COMPANY NAME & ADDRESS: Victor Vally Washwater Reclamation Authority 2011 Shay Rd. Victorvill CA, 92394					DATE OF	SAMPLING:	9-14-14	ρ	
Contact Name: Buth	, Victorvia cot,	72399 Tel: 760 - G	105-5	ัยฯ3	TIME OF S	SAMPLING:	1357		
NAME OF SAMPLER	y Hesse				SAMPLE I	D: //pv9(	4-24		
LOCATION OF SAME		411 3				SAMPLE		COMPOSITE	
	Drying Be	d 49-3 Anaerub	از ر		TOTAL SC	OLIDS PER	CENTAGE:		
TREATMENT CHARA	ACTERISTICS: CLAS	S-A Digeske	1		TOTALOG			_%_	
SAMPLE VOLUME (V	VET WEIGHT):	300 grams	· · · · · · · · · · · · · · · · · · ·				INCLUDED IN O BEGIN ANALYSIS		
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALN	IONELLA	FECAL CO	DLIFORM	485	3.	
(Store and ship cold)	2 Weeks	1 Month	6 l	lours*	8 Ho	urs*	<i>د و</i> ۱ م	25	
sewage sludge (bios EC) or 1681 (A-1): C analyzed within 8 ho handling procedures conditions are not m Salmonella - Langu preferably, within 2 l analysis. Samples n Regulations Part 50	* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sewage sludge) (Liass B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.								
OK TO RUN PA	OK TO RUN PAST HOLD TIME -  (up to 24 hrs from sampling for bacterial analysis)				<u> </u>		· · · · · · · · · · · · · · · · · · ·	9-14-16	
SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).				ature:				Date	
		ASSAY(S) TO BE PI	ERFOR	MED - (PLE	EASE CHEC	K)			
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89		HELMINTH OVA EPA 625/R-92/013 EPA				COLIFORM 1681	TOTAL SOLIDS EPA 1684	

#### COMMENTS:

CLASS "A" CLASS "B"

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
1310		091516	1031



(Please fill out applicable areas, sign and return

to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

LAB USE ONLY: Client #: \_ Date Rec'd: 09516 Time Rec'd: 103

	Note: Please print clearly using water proof link.						
COMPANY NAME & ADDRESS: Victor Vally Wastewater Reclamation Authority 2011 Shay Rd Victorville CA, 92394 Contact Name: Tel: 760-605-5843					DATE OF SAMPLING: 9-14-150  TIME OF SAMPLING: 1347		
Contact Name:	by Hear	Tel: /@0 **		THVIL OF		1211	,
NAME OF SAMPLER	-			SAMPLE	ID: 1609	14-24	
LOCATION OF SAME	Drying to	ed 4-5		TYPE OF	SAMPLE	GRAB	COMPOSITE)
TREATMENT CHARA	ACTERISTICS: LAGS.	-A Araendsic	Digestel	TOTAL S	OLIDS PER		%
SAMPLE VOLUME (\	WET WEIGHT): 🔨	1300grams			(MUST BE	INCLUDED IN O BEGIN ANALYSIS	RDER S)
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL C	OLIFORM	Lin	11 -
(Store and ship cold)	2 Weeks	1 Month	6 Hours*	8 Ho	ours*	74	4.59
*Fecal Coliform - Language Extracted from EPA Pecal to 24 hours for the following sample types using either EPA Method 1680 (LTB-sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  **Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met. A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.  **Print Name:**    OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)    Sample COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).							
ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)							
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92	/013 EP/	ONELLA A 1682		COLIFORM 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	×		X		×
CLASS "B"							<i>y</i>

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
26		091516	1031



COMMENTS:

RELINQUISHED BY (SIGNED)

COMPANY NAME & ADDRESS:

# **BIOSOLIDS SAMPLE DATA SHEET**

(Please fill out applicable areas, sign and return

to BioVir with the sample.)

Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

Note: Please print clearly using waterproof ink.

LAB USE ONLY:

LIMS #: 162163 5

Date Rec'd: \_\_09/5/1

Time Rec'd:\_\_\_/\_03/ Temp:\_13.2°C

TIME

1031

DATE

DATE OF SAMPLING: 9-14-14

Victoryaly Wa	7 all 5 bard 16 d. July 6 M 1965 99					9-14-1	φ
Contact Name: Tel: 760-605-5843					SAMPLING:	1358	) :
NAME OF SAMPLER	Zitos Hesse			SAMPLE I	D: 1609	14-25	
LOCATION OF SAME		ed #4-6		TYPE OF	SAMPLE	<b>G</b> GRAB	сомрозите
TREATMENT CHARA	CTERISTICS: CLASS-		Digostal	TOTAL SO		CENTAGE:	_ %
SAMPLE VOLUME (V	WET WEIGHT):	300 grams			(MUST BE TO	E INCLUDED IN OI BEGIN ANALYSIS	RDER )
HOLD TIMES	ENTERIC VIRUS	IELMINTH OVA	SALMONELLA	FECAL CO	DLIFORM	47	
(Store and ship cold)	2 Weeks	1 Month	6 Hours*	8 Ho	urs*	471	<u> </u>
* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal analysis. Sample results will be considered invalid if these conditions are not met.  A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.  Print Name:  OK TO RUN PAST HOLD TIME -  (up to 24 hrs from sampling for bacterial analysis)  SamPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).							
	A	SSAY(S) TO BE PE	ERFORMED - (P	LEASE CHEC	K)		
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92		MONELLA PA 1682		COLIFORM A 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	×	X		×	X		X
CLASS "B"					:		<u> </u>

RECEIVED BY (SIGNED)



(Please fill out applicable areas, sign and return

to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com

Note: Please print clearly using waterproof ink.

LAB USE ONLY:

LIMS #: 162163-

Client #: VICOO

Date Rec'd: \_\_091576

Time Rec'd:\_\_1031

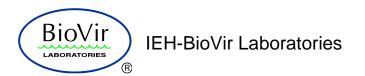
Temp: 13.2°C

Victor Vally Westernation Reclamation Authority						DATE OF SAMPLING: 9-14-1 p			
Victor Villy Wisternation Reclumation Authority 2011 Shay Rd Victorvine CA, 92394  Contact Name: Tel: 760-605-5843						TIME OF SAMPLING: /355			
NAME OF SAMPLER					SAMPLE ID	160,	914-2	7	
LOCATION OF SAME	N INC.	ed #4-11			TYPE OF S	AMPLE	GRAB	COMPOSITE	
	ACTERISTICS: CLASS	5-4 Amerobi		esfel	TOTAL SO			_%	
SAMPLE VOLUME (V	VET WEIGHT):	- 300 grun	S			(MUST BE TO	E INCLUDED IN OI BEGIN ANALYSIS	RDER )	
HOLD TIMES	ENTERIC VIRUS	HELMINTH OVA		ONELLA	FECAL CO	LIFORM	450	Colo	
(Store and ship cold)	2 Weeks	1 Month	6 H	lours*	8 Hou	rs*		49	
EC) or 1681 (A-1): C analyzed within 8 ho handling procedures conditions are not m Salmonella - Langu preferably, within 2 analysis. Samples r Regulations Part 50	* Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006): For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.  A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.								
OK TO RUN P. (up to 24 hrs from	AST HOLD TIME - I sampling for bacteria	al analysis)	Print	Name: by Kessi				9-14-16 Date	
CLASS B AEROBI	CALLY OR ANAEROB AL COLIFORM TEST O	ICALLY DIGESTED DNLY).		ZGC.	フ 				
		ASSAY(S) TO BE PE	ERFORM	MÉD - (PLE	ASE CHECK	0			
ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH O EPA 625/R-92		SALMO EPA			COLIFORM A 1681	TOTAL SOLIDS EPA 1684	
CLASS "A"	$\times$	X		X		X		X	
CLASS "B"	100								

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
The Lindows and the Lindows an		091516	1031
		LOUI CALIFORNIA	0.510





685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

**REPORT NO.:** 162381 **PAGE NO.:** 1 of 3

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: 1682 Salmonella MSRV Method: EPA 1682

	BioVir # Sample ID Site		Analyte	Result	Units	
1623	81-001	01	None Given	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1120

Analyst: JTruscott Analysis End: 10/12/2016

Comment:

162381-002 02 None Given Salmonella spp. <0.3 MPN/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 11:00:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Temp 7.70

Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1125

Analyst: JTruscott Analysis End: 10/12/2016

Comment:

Test: Coliform, Fecal Method: EPA 1681

BioVir	# Sar	nple ID	Site	Analyte	Result	Units
162381-001	01	No	one Given	Coliform, Fecal	:0.21 MF	PN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1144

Analyst: JTruscott Analysis End: 10/12/2016

Comment:

**REPORT NO.:** 162381 **PAGE NO.:** 2 of 3

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Enteric Virus Method: ASTM D 4994-89

BioVir # Sample ID Site Analyte Result Units

162381-001 01 None Given Enteric Virus <1 pfu/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Volume: 510.3g Analysis Start Date: 10/12/2016 Analysis Start Time: 09:20

Analyst: ElenaS Analysis End: 10/17/2016

Comment:

Test: Helminth Ova Method: EPA/625/R-92/013

BioVir # Sample ID Site Analyte Result Units

162381-001 01 None Given Helminth Ova <1 Helminth Ova observed / 4 g
Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Volume: 510.3g Analysis Start Date: Analysis Start Time:

Analyst: SMullaney Analysis End: 11/11/2016

Comment:

Test: Total Solids Method: SM2540B

BioVir # Sample ID Site Analyte Result Units

162381-001 01 None Given Total Solids (%) 83.9 % Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM

ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Volume: 510.3g Analysis Start Date: 10/10/16 Analysis Start Time: 17:45

Analyst: MPhilbrook Analysis End: 10/11/2016

Comment:

**REPORT NO.:** 162381 **PAGE NO.:** 3 of 3

CLIENT: Victor Valley Wastewater Reclamation Authority

ADDRESS 20111 Shay Road

Victorville, CA 92394

CLIENT NO VICO01 CLIENT PO: N/A

#### **ASSAY RESULTS:**

Test: Total Solids Method: SM2540B

BioVir # Sample ID Site Analyte Result Units

162381-002 02 None Given Total Solids (%) 97.8

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 11:00:00 AM ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C

Volume: 510.3g Analysis Start Date: 10/10/16 Analysis Start Time: 17:45

Analyst: MPhilbrook Analysis End: 10/11/2016

Comment:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or otlematerial from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

11/15/2016	Bichal & Danil
Date:	Signature Quality Checked ElbaM

# **Attachment B. Biosolids Evaluation Reports**



A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail; mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

### **Biosolids Evaluation Report**

Sample Location

Action Recommended:

Stage From Drying Bed #4-9 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

5/23/2016 11:04

Sample ID#

160523-13

Sampled By:

Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	9.2	PASS	
Cadmium	39	mg/kg	2.3	PASS	
Chromium, Total	1200	mg/kg	51	PASS	
Copper	1500	mg/kg	360	PASS	
Lead	300	mg/kg	18	PASS	
Mercury	17	mg/kg	0.41	PASS	
Molybdenum	18	mg/kg	18	PASS	
Nickel	420	mg/kg	23	PASS	
Selenium	36	mg/kg	6.8	PASS	
Zinc	2800	mg/kg	980	PASS	
Fecal Coliform	1000	MPN/g	15.1	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		
Bio Vir Lab Total Solids	Average - see below	%	93.1		
Average Total Solids	90	%	94	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

<del></del>		_
Lab Review:	Ma h	
	Cyc.	
Operations Review:	luz al	

Not acceptable for offsite disposal



A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

# **Biosolids Evaluation Report**

**Sample Location** 

Stage From Drying Bed #4-10 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

5/23/2016 11:08

Sample ID#

160523-14

Sampled By:

Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	6.6	PASS	
Cadmium	39	mg/kg	1.4	PASS	
Chromium, Total	1200	mg/kg	41	PASS	
Copper	1500	mg/kg	250	PASS	
Lead	300	mg/kg	13	PASS	
Mercury	17	mg/kg	0.56	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	18	PASS	
Selenium	36	mg/kg	5.7	PASS	
Zinc	2800	mg/kg	660	PASS	
Fecal Coliform	1000	MPN/g	10.3	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		-
Bio Vir Lab Total Solids	Average - see below	%	91.4		
Average Total Solids	90	%	94	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal	
b		
Lab Review:	Love	<u></u>
Operations Review:	10-	



A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-11 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:55

Sample ID #

160914-27

Sampled By:

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	5.5	PASS	
Cadmium	39	mg/kg	3.3	PASS	
Chromium, Total	1200	mg/kg	51	PASS	
Copper	1500	mg/kg	360	PASS	
Lead	300	mg/kg	14	PASS	
Mercury	17	mg/kg	1.1	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	19	PASS	
Selenium	36	mg/kg	7.4	PASS	
Zinc	2800	mg/kg	940	PASS	
Fecal Coliform	1000	MPN/g	2.5	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		
Bio Vir Lab Total Solids	Average - see below	%	95.8	1	
Average Total Solids	90	%	95	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not	acceptable for offsite disposal
Lab Review: Lyan Love	
Operations Review:	



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### **Biosolids Evaluation Report**

**Sample Location** 

Stage From Drying Bed #4-1 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:45

Sample ID#

160914-22

Sampled By:

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	4.9	PASS	
Cadmium	39	mg/kg	2.3	PASS	
Chromium, Total	1200	mg/kg	39	PASS	
Copper	1500	mg/kg	270	PASS	
Lead	300	mg/kg	11	PASS	
Mercury	17	mg/kg	2	PASS	
Molybdenum	18	mg/kg	9.3	PASS	
Nickel	420	mg/kg	15	PASS	
Selenium	36	mg/kg	5.1	PASS	
Zinc	2800	mg/kg	680	PASS	
Fecal Coliform	1000	MPN/g	0.4	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	91		
Bio Vir Lab Total Solids	Average - see below	%	95.4		
Average Total Solids	90	%	93	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal	
Lab Review:	an Love	
Operations Review:	8	



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### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-2 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:52

Sample ID#

160914-23

Sampled By:

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	5	PASS	
Cadmium	39	mg/kg	3.3	PASS	
Chromium, Total	1200	mg/kg	44	PASS	
Copper	1500	mg/kg	250	PASS	
Lead	300	mg/kg	12	PASS	
Mercury	17	mg/kg	1.3	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	16	PASS	
Selenium	36	mg/kg	6	PASS	
Zinc	2800	mg/kg	750	PASS	
Fecal Coliform	1000	MPN/g	17.7	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	95		
Bio Vir Lab Total Solids	Average - see below	%	95.3		
Average Total Solids	90	%	95	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal
Lab Review: Myn Lo	1
Operations Review:	



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### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-3 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:57

Sample ID #

160914-24

Sampled By:

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	4.2	PASS	
Cadmium	39	mg/kg	1.4	PASS	
Chromium, Total	1200	mg/kg	31	PASS	
Copper	1500	mg/kg	190	PASS	
Lead	300	mg/kg	7.8	PASS	
Mercury	17	mg/kg	1.1	PASS	
Molybdenum	18	mg/kg	11	PASS	
Nickel	420	mg/kg	14	PASS	
Selenium	36	mg/kg	3.4	PASS	
Zinc	2800	mg/kg	410	PASS	
Fecal Coliform	1000	MPN/g	2.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	93		
Bio Vir Lab Total Solids	Average - see below	%	98		
Average Total Solids	90	%	96	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal	
	,	
Lab Review:	in Lor	
,		
Operations Review:	E C	



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### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-5 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:47

Sample ID #

160914-26

Sampled By:

Action Recommended:

**Bobby Hesse** 

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	6.4	PASS	
Cadmium	39	mg/kg	3	PASS	
Chromium, Total	1200	mg/kg	42	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	11	PASS	
Mercury	17	mg/kg	0.99	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	16	PASS	
Selenium	36	mg/kg	5.6	PASS	
Zinc	2800	mg/kg	800	PASS	
Fecal Coliform	1000	MPN/g	11.1	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		***************************************
Bio Vir Lab Total Solids	Average - see below	%	96.5		
Average Total Solids	90	%	95	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Lab Review:	Rya	Loe
Operations Review:		

Not acceptable for offsite disposal



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### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-6 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

5/23/2016 10:57

Sample ID#

160523-11

Sampled By:

Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.4	PASS	
Cadmium	39	mg/kg	2.1	PASS	
Chromium, Total	1200	mg/kg	53	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	16	PASS	
Mercury	17	mg/kg	0.48	PASS	
Molybdenum	18	mg/kg	17	PASS	
Nickel	420	mg/kg	23	PASS	
Selenium	36	mg/kg	5	PASS	
Zinc	2800	mg/kg	910	PASS	
Fecal Coliform	1000	MPN/g	25.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		
Bio Vir Lab Total Solids	Average - see below	%	95.1		
Average Total Solids	90	%	96	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended	:	Not acceptable for offsite disposal	
	1	1	
Lab Review:	ayan	don	
Operations Review:		10	



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### **Biosolids Evaluation Report**

Sample Location

Stage From Drying Bed #4-8 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

5/23/2016 11:01

Sample ID #

160523-12

Sampled By:

Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.1	PASS	
Cadmium	39	mg/kg	1.8	PASS	
Chromium, Total	1200	mg/kg	43	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	13	PASS	
Mercury	17	mg/kg	0.53	PASS	
Molybdenum	18	mg/kg	16	PASS	
Nickel	420	mg/kg	20	PASS	
Selenium	36	mg/kg	6.8	PASS	
Zinc	2800	mg/kg	810	PASS	
Fecal Coliform	1000	MPN/g	19.4	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	92		
Bio Vir Lab Total Solids	Average - see below	%	90.2		
Average Total Solids	90	%	91	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal
Lab Review:	lya L
Operations Review:	On D



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### **Biosolids Evaluation Report**

**Sample Location** 

Stage From Drying Bed #4-6 (Class A) Biosolids (6 Grab-Comp) Composite

Sample Date

9/14/2016 13:58

Sample ID #

160914-25

Sampled By:

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.8	PASS	
Cadmium	39	mg/kg	6.9	PASS	
Chromium, Total	1200	mg/kg	54	PASS	
Copper	1500	mg/kg	400	PASS	
Lead	300	mg/kg	17	PASS	
Mercury	17	mg/kg	0.78	PASS	
Molybdenum	18	mg/kg	19	FAIL	
Nickel	420	mg/kg	21	PASS	
Selenium	36	mg/kg	7.2	PASS	
Zinc	2800	mg/kg	930	PASS	
Fecal Coliform	1000	MPN/g	3.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		
Bio Vir Lab Total Solids	Average - see below	%	98.9	1	
Average Total Solids	90	%	97	PASS	

<sup>\*</sup>Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended:	Not acceptable for offsite disposal		
Lab Review:	lya Lou		
Operations Review	? 69		