



Friday, May 23, 2014

Ken Besnia
Novato Sanitary District
500 Davidson St.
Novato, CA 94945

Re Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Collected By: KEN BESNIA
PO/Contract #:

Dear Ken Besnia:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, May 07, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Enclosures

Project Manager: Todd Albertson



ENVIRONMENTAL ANALYSES

SAMPLE SUMMARY

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received
P050364001	NOVATO EFFLUENT E-002	Water	05/07/2014 08:00	05/07/2014 16:40



ENVIRONMENTAL ANALYSES

NARRATIVE

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods (SM) 20th Edition except where noted (SMOL=online edition).

Caltest collects samples in compliance with 40 CFR, EPA Methods, Cal. Title 22, and Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis were not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

- | | |
|---|--|
| 1 | Analyte(s) reported as 'ND' means not detected at or above the listed Method Detection Limits (MDL). |
| 2 | Surrogates did not meet Caltest internal acceptance criteria. The sample passes all pertinent method criteria. |



ENVIRONMENTAL ANALYSES

ANALYTICAL RESULTS

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Lab ID	P050364001	Date Collected	5/7/2014 08:00	Matrix	Water				
Sample ID	NOVATO EFFLUENT E-002	Date Received	5/7/2014 16:40						
Parameters	Result Units	R. L.	MDL	DF Prepared	Batch	Analyzed	Batch	Qual	
Organophosphorous Pesticides	Prep Method:	EPA 614		Prep by:	ECB				
	Analytical Method:	EPA 614				Analyzed by:	NTA		
Azinphos methyl (Guthion)	ND ug/L	0.05	0.04	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449	1	
Chlorpyrifos	ND ug/L	0.01	0.005	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Demeton -O and -S	ND ug/L	0.1	0.09	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Diazinon	ND ug/L	0.02	0.007	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Disulfoton (Di-Syston)	ND ug/L	0.1	0.08	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Ethion	ND ug/L	0.02	0.005	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Malathion	ND ug/L	0.05	0.005	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Parathion (Parathion ethyl)	ND ug/L	0.05	0.008	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Parathion methyl	ND ug/L	0.1	0.08	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Thiobencarb	ND ug/L	0.05	0.008	1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Dichlofenthion (SS)	90 %	45-105		1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449		
Triphenylphosphate (SS)	55 %	61-120		1 05/09/14 12:24	SPR 6442	05/20/14 15:02	SMS 3449	2	



ENVIRONMENTAL ANALYSES

QUALITY CONTROL DATA

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Analysis Description:	Organophosphorous Pesticides	QC Batch:	SPR/6442
Analysis Method:	EPA 614	QC Batch Method:	EPA 614

METHOD BLANK: 581910

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Azinphos methyl (Guthion)	ND	2.0	0.04	ug/L	
Chlorpyrifos	ND	0.05	0.005	ug/L	
Demeton -O and -S	ND	0.5	0.09	ug/L	
Diazinon	ND	0.05	0.007	ug/L	
Disulfoton (Di-Syston)	ND	1.0	0.08	ug/L	
Ethion	ND	0.50	0.005	ug/L	
Malathion	ND	0.05	0.005	ug/L	
Parathion (Parathion ethyl)	ND	0.50	0.008	ug/L	
Parathion methyl	ND	1.0	0.08	ug/L	
Thiobencarb	ND	0.20	0.008	ug/L	
Dichlofenthion (SS)	105	45-105		%	
Triphenylphosphate (SS)	117	61-120		%	

LABORATORY CONTROL SAMPLE: 581911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Azinphos methyl (Guthion)	ug/L	3	2.9	96	52-123	
Chlorpyrifos	ug/L	3	2.7	89	45-127	
Demeton -O and -S	ug/L	3	1.8	60	10-100	
Diazinon	ug/L	3	2.5	83	50-121	
Disulfoton (Di-Syston)	ug/L	3	2.2	74	10-114	
Ethion	ug/L	3	2.6	87	47-138	
Malathion	ug/L	3	2.8	94	48-132	
Parathion (Parathion ethyl)	ug/L	3	2.6	85	44-139	
Parathion methyl	ug/L	3	2.7	89	49-124	
Thiobencarb	ug/L	3	2.3	77	40-150	
Dichlofenthion (SS)	%			87	45-105	
Triphenylphosphate (SS)	%			74	61-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 581913 581914

Parameter	Units	P050391001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Azinphos methyl (Guthion)	ug/L	0	3.3	0.79	0.97	24	31	52-123	20	50	4
Chlorpyrifos	ug/L	0	3.3	1.9	2.5	56	81	45-127	31	50	
Demeton -O and -S	ug/L	0	3.3	1.1	1.9	33	61	10-100	55	50	3
Diazinon	ug/L	0	3.3	1.6	2.5	47	80	50-121	46	50	4
Disulfoton (Di-Syston)	ug/L	0	3.3	1.4	2.2	42	69	10-114	44	50	
Ethion	ug/L	0	3.3	1.8	2.3	54	72	47-138	24	50	
Malathion	ug/L	0	3.3	1.5	2.3	46	75	48-132	43	50	4
Parathion (Parathion ethyl)	ug/L	0	3.3	1.4	2.1	44	67	44-139	36	50	

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REPORT OF LABORATORY ANALYSIS

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1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com





ENVIRONMENTAL ANALYSES

QUALITY CONTROL DATA

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Analysis Description:	Organophosphorous Pesticides	QC Batch:	SPR/6442
Analysis Method:	EPA 614	QC Batch Method:	EPA 614

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 581913 581914

Parameter	Units	P050391001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Parathion methyl	ug/L	0	3.3	1.4	2.1	41	66	49-124	41	50	4
Thiobencarb	ug/L	0	3.3	1.5	2.1	46	67	40-150	33	50	
Dichlofenthion (SS)	%					55	78	45-105	30		
Triphenylphosphate (SS)	%					38	53	61-120	28		2



ENVIRONMENTAL ANALYSES

QUALITY CONTROL DATA QUALIFIERS

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

- 2 Surrogates did not meet Caltest internal acceptance criteria. The sample passes all pertinent method criteria.
- 3 MS/MSD RPD above control limits. LCS and MS/MSD recoveries are in control.
- 4 Matrix Spike recovery(ies) outside control limits: LCS(LCSD) recoveries and RPD are in control. Possible Matrix interference in QC sample.



ENVIRONMENTAL ANALYSES




QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: P050364
Project ID: EPA 614 MAY 7, 2014

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
P050364001	NOVATO EFFLUENT E-002	EPA 614	SPR/6442	EPA 614	SMS/3449

SAMPLE CHAIN OF CUSTODY

[illegible][illegible]

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
	5-7-14 / 1515			5-7-14 / 1640	
	/			/	

FOR LAB USE ONLY													
Samples:	WC	MICRO	BIO	AA	SV	VOA	pH?	Y/N	TEMP:	SEALED:	Y/N	INFACT:	Y/N
BD:	BIO	WC	AA							COMMENTS:			
CC:	AA	SV	VOA										
SIL:	HP	PT	QT	VOA									
W/HNO ₃		H ₂ SO ₄		NaOH									
PIL:	HNO ₃		H ₂ SO ₄	NaOH		HCL							

R _____ PR _____ M _____ F _____

04/30/14

*MATERIAL: AQ = Aqueous Nondrinking Water,
 Digested Metals: FE = Low R.L.S. Aqueous
 Nondrinking Water. Digested Metals: DW = Drinking
 Water. SL = Soil Sludge. Solid . FP = Free Product
****CONTAINER TYPES:** AL = Amber Litr, AHL = 500
 ml Amber. PT = Pint (Plastic). QT = Quart (Plastic). HG
 = Half Gallon (Plastic). SJ = Soil Jar. B4 = 4oz BACT.
 BT = Brass Tube. VOA = 40mL VOA. OTC - Other
 Type Container