

Vinyl Chloride Water Report Summary

This is a summary of the Vinyl Chloride Water Report showing the effectiveness of the Sentry Wellness System against vinyl chloride.

You can view the full report on pages 2-11.

Summit Environmental Technologies, Inc. tested three samples of water from East Palestine, Ohio in May 2023. Sample 1 is a lab-controlled sample spiked with vinyl chloride not treated with the Sentry Wellness System. Samples 2 and 3 were treated with the Sentry Wellness System and then spiked with vinyl chloride to show the lab's ability to recover vinyl chloride. Sample 4 was non-spiked water treated with the Sentry Wellness System.

This testing shows that no amounts of vinyl chloride were detected in the non-spiked East Palestine water sample using the Sentry Wellness System.

WATER SAMPLE TESTED FOR VINYL CHLORIDE	AMOUNT OF VINYL CHLORIDE FOUND IN SAMPLE	MAXIMUM ACCEPTABLE CONTAMINANT LEVEL	PERCENTAGE OF ACCEPTABLE CONTAMINANT LEVEL REACHED
Sample 1 - Untreated, Spiked Lab Control	4.04 µg/L	5.0 µg/L	80.8%
Sample 2 - Treated then Spiked	5.28 µg/L	5.0 µg/L	106%
Sample 3 - Treated then Spiked	5.22 µg/L	5.0 µg/L	104%
Sample 4 - Treated, NOT Spiked	ND (Not Detected)	5.0 µg/L	0%

Still have questions about this report? We're happy to help!

Please send us an email at CleanWater@SentryH2O.com or call us at 1-833-377-3817 Monday-Friday 8am-4pm AZ Time.





Summit Environmental Technologies, Inc.
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TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

May 10, 2023

Nelson McIlveen
Sentry H2O
329 S. Rockford Drive Suite 103
Tempe, AZ 85281
TEL: (480) 560-5260
FAX:

RE: East Palestine Vinyl Chloride Test

Dear Nelson McIlveen:

Order No.: 23050358

Summit Environmental Technologies, Inc. received 1 sample(s) on 5/2/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Brian J. Fackelman

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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Case Narrative

WO#: 23050358
Date: 5/10/2023

CLIENT: Sentry H2O
Project: East Palestine Vinyl Chloride Test

WorkOrder Narrative:

23050358: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

WorkOrder Comments:

23050358: Ohio DW; data is for private use.

Original



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Workorder
Sample Summary
WO#: **23050358**
10-May-23

CLIENT: Sentry H2O
Project: East Palestine Vinyl Chloride Test

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23050358-001	42523 East Palestine Vinyl Chloride Test		5/2/2023 8:30:00 AM	5/2/2023 12:45:00 PM	Drinking Water



SUMMIT
 ENVIRONMENTAL TECHNOLOGIES, INC.
 Analytical Laboratories

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DATES REPORT

WO#: **23050358**
10-May-23

Client: Sentry H2O
Project: East Palestine Vinyl Chloride Test

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23050358-001A	42523 East Palestine Vinyl Chloride Test	5/2/2023 8:30:00 AM	Drinking Water	VOC-GC/MS (524.2)			5/9/2023 6:54:00 PM

Original



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Analytical Report

(consolidated)

WO#: 23050358

Date Reported: 5/10/2023

CLIENT: Sentry H2O **Collection Date:** 5/2/2023 8:30:00 AM
Project: East Palestine Vinyl Chloride Test
Lab ID: 23050358-001 **Matrix:** DRINKING WATER
Client Sample ID: 42523 East Palestine Vinyl Chloride Test*

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOC-GC/MS (524.2)					E524.2	Analyst: ALS
Vinyl chloride	ND	0.500	U	µg/L	1	5/9/2023 6:54:00 PM
Surr: 1,2-Dichlorobenzene-d4	85.3	70 - 130		%Rec	1	5/9/2023 6:54:00 PM
Surr: 4-Bromofluorobenzene	90.0	70 - 130		%Rec	1	5/9/2023 6:54:00 PM

*Sample tested after Sentry Wellness System treatment

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	RL	Reporting Detection Limit	U	Samples with CalcVal < MDL
	W	Sample container temperature is out of limit as specified at testcode		

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QC SUMMARY REPORT

WO#: 23050358
 10-May-23

Client: Sentry H2O
Project: East Palestine Vinyl Chloride Test

BatchID: R163402

Sample ID: LCS*	SampType: LCS	TestCode: VOC_DW(524) Units: µg/L	Prep Date:	RunNo: 163402							
Client ID: LCSW	Batch ID: R163402	TestNo: E524.2	Analysis Date: 5/9/2023	SeqNo: 4345101							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.04	0.500	5.000	0	80.8	70	130				
Surr: 1,2-Dichlorobenzene-d4	9.43		10.00		94.3	70	130				
Surr: 4-Bromofluorobenzene	9.51		10.00		95.1	70	130				

*Sample tested without treatment

Sample ID: MB*	SampType: MBLK	TestCode: VOC_DW(524) Units: µg/L	Prep Date:	RunNo: 163402							
Client ID: PBW	Batch ID: R163402	TestNo: E524.2	Analysis Date: 5/9/2023	SeqNo: 4345102							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.500									U
Surr: 1,2-Dichlorobenzene-d4	8.99		10.00		89.9	70	130				
Surr: 4-Bromofluorobenzene	9.41		10.00		94.1	70	130				

*Laboratory blank control

Sample ID: 23050454-002CMS*	SampType: MS	TestCode: VOC_DW(524) Units: µg/L	Prep Date:	RunNo: 163402							
Client ID: BatchQC	Batch ID: R163402	TestNo: E524.2	Analysis Date: 5/10/2023	SeqNo: 4345116							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	5.28	0.500	5.000	0	106	70	130				
Surr: 1,2-Dichlorobenzene-d4	8.93		10.00		89.3	70	130				
Surr: 4-Bromofluorobenzene	9.14		10.00		91.4	70	130				

*Sample tested without treatment

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original



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QC SUMMARY REPORT

WO#: **23050358**
10-May-23

Client: Sentry H2O
Project: East Palestine Vinyl Chloride Test

BatchID: R163402

Sample ID: 23050454-002CMSD	SampType: MSD	TestCode: VOC_DW(524)	Units: µg/L	Prep Date:	RunNo: 163402						
Client ID: BatchQC	Batch ID: R163402	TestNo: E524.2	Analysis Date: 5/10/2023	SeqNo: 4345117							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	5.22	0.500	5.000	0	104	70	130	5.281	1.10	25	
Surr: 1,2-Dichlorobenzene-d4	9.54		10.00		95.4	70	130		0	25	
Surr: 4-Bromofluorobenzene	9.59		10.00		95.9	70	130		0	25	

*Sample tested without treatment

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analy
	J Analyte detected below quantitation limits	M Manual Integration used to determine area response	MC Value is below Minimum Compound
	ND Not Detected	OG1	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B/MB+	The analyte was detected in the associated blank.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	RL	Reporting Limit
QC	Quality Control	MDL	Method Detection Limit
MB	Method Blank	LOD	Level of Detection
LCS	Laboratory Control Sample	LOQ	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	PQL	Practical Quantitation Limit
QCS	Quality Control Sample	CRQL	Contract Required Quantitation Limit
DUP	Duplicate	PL	Permit Limit
MS	Matrix Spike	RegLvl	Regulatory Limit
MSD	Matrix Spike Duplicate	MCL	Maximum Contamination Limit
RPD	Relative Percent Different	MinCL	Minimum Compound Limit
ICV	Initial Calibration Verification	RA	Reanalysis
ICB	Initial Calibration Blank	RE	Reextraction
CCV	Continuing Calibration Verification	TIC	Tentatively Identified Compound
CCB	Continuing Calibration Blank	RT	Retention Time
RLC	Reporting Limit Check	CF	Calibration Factor
DF	Dilution Factor	RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.



Analysis Request / Chain of Custody

23050358

Client Name: **State IGO**
 Client Address: **329 S Rockford Dr Ste 103, Tampa AZ 85281**
 Client Phone: **480 560-5404**
 Contact Person: **Richard McBeath**
 Email: **richm@state.igo.gov**

Project Name: **East Palestine Viny Chloride Test**
 Project Address: **140 N Walnut St, East Palestine, OH 44413**
 Project Phone: **419-392-1111**
 Project Email: **info@epa.gov**

Reference: **5/2/23**

Analysis Requested: **Vinyl Chloride**

ID	Sample ID	Analyte Identification	Units	Time	Notes
1	42523	East Palestine Vinyl Chloride Test	5/2	8:00 AM	✓

Relinquished to: **George B. [Signature]** Date: **5-2-23** Time: **8:52**

Received by: **[Signature]** Date: **5/1/23** Time: **8:52**

Method Requested: **SET**

Method: **5.3 °C**

Notes: **headspace in vials**



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Sample Log-In Check List

Client Name: **SEN-AZ-85281**

Work Order Number: **23050358**

RcptNo: **1**

Logged by:	Christina N. Gemma	5/2/2023 12:45:00 PM	
Completed By:	Brian J. Fackelman	5/5/2023 3:44:33 PM	
Reviewed By:	Brian J. Fackelman	5/5/2023 3:44:35 PM	

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? Summit

Log In

3. Coolers are present? Yes No NA
 4. Shipping container/cooler in good condition? Yes No
 Custody seals intact on shipping container/cooler? Yes No Not Present
 No. Seal Date: Signed By:
 5. Was an attempt made to cool the samples? Yes No NA
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 7. Sample(s) in proper container(s)? Yes No
 8. Sufficient sample volume for indicated test(s)? Yes No
 9. Are samples (except VOA and ONG) properly preserved? Yes No
 10. Was preservative added to bottles? Yes No NA
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes No No VOA Vials
 12. Were any sample containers received broken? Yes No
 13. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 14. Are matrices correctly identified on Chain of Custody? Yes No
 15. Is it clear what analyses were requested? Yes No
 16. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:
 Headspace in vials

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good				