

**Burton Subdivision
Water Quality Testing Summary
Lewes Board of Public Works
Lewes, Delaware**

The Lewes Board of Public Works recently had water samples tested by a third party (Envirocorp Laboratories, Inc.) for their iron concentration from the area surrounding the Burton Subdivision including parts of W. 4th Street, Park Avenue, Burton Avenue, Johnson Avenue, Paynter Avenue, and DuPont Avenue (see image of test locations below – water meter sample locations are shown in yellow and fire hydrant sample location are shown in blue).



Six (6) samples were taken from existing water meters, and four (4) samples were taken from existing fire hydrants in the vicinity. The results of the Envirocorp Laboratories, Inc. iron concentration testing are summarized in the tables below.

The State of Delaware Secondary Maximum Contaminant Level (guidance level) is 0.3 milligrams per liter (mg/l). All six (6) BPW samples taken from water meters serving residences were significantly below the State maximum contaminant level.

Two (2) of the four (4) BPW samples taken from fire hydrants were below the State maximum contaminant level and two (2) were above the level. It is expected that water quality test results from a fire hydrant will have a higher iron concentration. When a hydrant is opened, the velocity of water is intentionally very high for fire-fighting purposes. The higher velocity of water will scour the pipes, picking up mineral deposits causing the water to be rust-colored and affecting the iron concentration measurement. The source of iron from the hydrants is naturally occurring from deposits in the iron pipes that make up the underground water distribution system.

**Burton Subdivision
 Water Quality Testing Summary
 Lewes Board of Public Works
 Lewes, Delaware**

<u>Water Meter Location</u>	State of Delaware Iron Secondary Maximum Contaminant Level	<u>Test Result</u>	<u>Type of Sample</u>	<u>Date of Sample and Testing</u>
427 Paynter Avenue	0.3 mg/l	0.0583 mg/l	Grab Sample at Water Meter	5/9/2024
402 W. 4th Street	0.3 mg/l	0.0266 mg/l	Grab Sample at Water Meter	5/9/2024
408 Paynter Avenue	0.3 mg/l	0.232 mg/l	Grab Sample at Water Meter	5/9/2024
420 Burton Avenue	0.3 mg/l	0.0575 mg/l	Grab Sample at Water Meter	5/9/2024
405 Johnson Avenue	0.3 mg/l	0.0362 mg/l	Grab Sample at Water Meter	5/9/2024
423 Park Avenue	0.3 mg/l	0.0448 mg/l	Grab Sample at Water Meter	5/9/2024

<u>Fire Hydrant Location</u>	State of Delaware Iron Secondary Maximum Contaminant Level	<u>Test Result</u>	<u>Type of Sample</u>	<u>Date of Sample and Testing</u>
Smith Park	0.3 mg/l	0.102 mg/l	Grab Sample at Fire Hydrant	5/9/2024
424 Johnson Avenue	0.3 mg/l	0.0636 mg/l	Grab Sample at Fire Hydrant	5/9/2024
421 Park Avenue	0.3 mg/l	5.87 mg/l	Grab Sample at Fire Hydrant	5/9/2024
427 Johnson Avenue	0.3 mg/l	3.46 mg/l	Grab Sample at Fire Hydrant	5/9/2024

Note: mg/l = milligrams per liter or parts per million



ENVIROCORP LABORATORIES INC.

51 CLARK STREET, HARRINGTON, DE 19952
302-398-4313
www.envirocorplabs.com



ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER



May 13, 2024

Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

RE: Iron Testing

Enclosed are the results of analyses for samples received by our laboratory on 5/9/2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachael Short
Project Manager

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:55

Sample Summary

Lab ID	Sample	Matrix	Sampled	Received
2404170-01	Smith Park - Hydrant	Drinking Water	5/9/2024 9:30	05/09/24 11:28

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)

Project: Iron Testing

107 Franklin Street

Project Number: Iron Testing

Lewes, DE 19958

Reported: 05/13/2024 15:55

(TOC - Case Narratives -

Case Narrative

Iron is a Secondary EPA Parameter.
EPA Secondary Limit is :0.30mg/L

Analysis Case Narrative

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:55

Analytical Results

Sample ID: Smith Park - Hydrant **Sample Start:** 05/09/24 09:30
Lab ID: 2404170-01
Matrix: Drinking Water **Received:** 05/09/24 11:28
Sample Type: Grab

Analyte	Result	Units	Reporting Limit	Qualifier	Method	Date Prepared	Date Analyzed	Analyst
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Metals

Iron	0.102	mg/L	0.00100		EPA 200.7	5/10/24 10:45	5/10/24 12:43	JMW
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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)

Project: Iron Testing

107 Franklin Street

Project Number: Iron Testing

Lewes, DE 19958

Reported: 05/13/2024 15:55

Notes and Definitions

Item	Definition
Dry-WT	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
Reporting Limit	Lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

#8



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER MONITORING



Chain of Custody

Client: Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

Phone: 302-645-6512
Email: ewharton@lewesbpw.com

Comments: EI will add HNO3 to 8oz unpreserved at lab.

WORK ORDER #

2404170
City of Lewes (Drinking Water)
Iron Testing

Project: Iron Testing

Sample #: 8 **Address:** Smith Park **Source:** Hydrant **Drinking Water** **Grab**
Collection Date/Time: 5/9/24 0930 **Collected By:** EW

Container	Qty	Analysis	Comments
Plastic - 8oz Unp	1	Fe 200.7	

[Signature] 5/9/24 0926
Relinquished By Date/Time

[Signature] 5/9/24 1128
Received By Date/Time

Relinquished By Date/Time

Received By Date/Time

8.9
Temp. at Lab



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER



May 13, 2024

Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

RE: Iron Testing

Enclosed are the results of analyses for samples received by our laboratory on 5/9/2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Rachael Short'. The signature is written in a cursive, flowing style.

Rachael Short
Project Manager

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:55

Sample Summary

Lab ID	Sample	Matrix	Sampled	Received
2404171-01	424 Johnson - Hydrant	Drinking Water	5/9/2024 9:35	05/09/24 11:28

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:55

TOC - Case Narratives -

Case Narrative

Iron is a Secondary EPA Parameter.
EPA Secondary Limit is :0.30mg/L

Analysis Case Narrative

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)

Project: Iron Testing

107 Franklin Street

Project Number: Iron Testing

Lewes, DE 19958

Reported: 05/13/2024 15:55

Analytical Results

Sample ID: 424 Johnson - Hydrant

Sample Start: 05/09/24 09:35

Lab ID: 2404171-01

Matrix: Drinking Water

Received: 05/09/24 11:28

Sample Type: Grab

Analyte	Result	Units	Reporting Limit	Qualifier	Method	Date Prepared	Date Analyzed	Analyst
Metals								
Iron	0.0636	mg/L	0.00100		EPA 200.7	5/10/24 10:45	5/10/24 12:50	JMW

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)

Project: Iron Testing

107 Franklin Street

Project Number: Iron Testing

Lewes, DE 19958

Reported: 05/13/2024 15:55

Notes and Definitions

Item	Definition
Dry-WT	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
Reporting Limit	Lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

#9



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER MONITORING



Chain of Custody

Client: Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

WORK ORDER #



2404171
City of Lewes (Drinking Water)
Iron Testing

Phone:302-645-6512
Email:ewharton@lewesbpw.com

Comments:EI will add HNO3 to 8oz unpreserved at lab.

Project: Iron Testing

Sample #: Address 424 Johnson Source HXfront Drinking Water Grab
Collection Date/Time: 5/9/24 0935 Collected By: EW

Table with 4 columns: Container, Qty, Analysis, Comments. Row 1: Plastic - 8oz Unp, 1, Fe 200.7

Relinquished By [Signature] Date/Time 5/9/24 0935

Received By [Signature] Date/Time 5/9/24 1128

Relinquished By Date/Time

Received By Date/Time

Temp. at Lab 8.9



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER



May 13, 2024

Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

RE: Iron Testing

Enclosed are the results of analyses for samples received by our laboratory on 5/9/2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Rachael Short'. The signature is written in a cursive, flowing style.

Rachael Short
Project Manager

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:54

Sample Summary

Lab ID	Sample	Matrix	Sampled	Received
2404169-01	421 Park - Hydrant	Drinking Water	5/9/2024 9:25	05/09/24 11:28

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:54

TOC - Case Narratives -

Case Narrative

Iron is a Secondary EPA Parameter.
EPA Secondary Limit is :0.30mg/L

Analysis Case Narrative

ENVIROCORP LABORATORIES INC.



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:54

Analytical Results

Sample ID: 421 Park - Hydrant **Sample Start:** 05/09/24 09:25
Lab ID: 2404169-01
Matrix: Drinking Water **Received:** 05/09/24 11:28
Sample Type: Grab

Analyte	Result	Units	Reporting Limit	Qualifier	Method	Date Prepared	Date Analyzed	Analyst
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Metals								
Iron	5.87	mg/L	0.00100		EPA 200.7	5/10/24 10:45	5/10/24 12:36	JMW

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:54

Notes and Definitions

Item	Definition
Dry-WT	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
Reporting Limit	Lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER MONITORING



Chain of Custody

WORK ORDER #



2404169
City of Lewes (Drinking Water)
Iron Testing

Client: Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

Phone: 302-645-6512
Email: ewharton@lewesbpw.com

Comments: EI will add HNO3 to 8oz unpreserved at lab.

Project: Iron Testing

Sample #: 7 Address 421 Park Source Hydrant Drinking Water Grab
Collection Date/Time: 5/9/24 09:15 Collected By: EW

Table with 4 columns: Container, Qty, Analysis, Comments. Row 1: Plastic - 8oz Unp, 1, Fe 200.7

Relinquished By [Signature] Date/Time 5/9/24 09:15

Received By [Signature] Date/Time 5/9/24 11:28

Relinquished By _____ Date/Time _____

Received By _____ Date/Time _____

Temp. at Lab 8.9 Page 7 of 7



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER



May 13, 2024

Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

RE: Iron Testing

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A handwritten signature in black ink that reads 'Rachael Short'.

Rachael Short
Project Manager

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:56

Sample Summary

Lab ID	Sample	Matrix	Sampled	Received
2404172-01	427 Johnson - Hydrant	Drinking Water	5/9/2024 9:40	05/09/24 11:28

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:56

ITOC - Case Narratives -

Case Narrative

Iron is a Secondary EPA Parameter.
EPA Secondary Limit is :0.30mg/L

Analysis Case Narrative

ENVIROCORP LABORATORIES INC.



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)	Project: Iron Testing
107 Franklin Street	Project Number: Iron Testing
Lewes, DE 19958	Reported: 05/13/2024 15:56

Analytical Results

Sample ID: 427 Johnson - Hydrant **Sample Start:** 05/09/24 09:40
Lab ID: 2404172-01
Matrix: Drinking Water **Received:** 05/09/24 11:28
Sample Type: Grab

Analyte	Result	Units	Reporting Limit	Qualifier	Method	Date Prepared	Date Analyzed	Analyst
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Metals								
Iron	3.46	mg/L	0.00100		EPA 200.7	5/10/24 10:45	5/10/24 12:57	JMW

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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER

City of Lewes (Drinking Water)

Project: Iron Testing

107 Franklin Street

Project Number: Iron Testing

Lewes, DE 19958

Reported: 05/13/2024 15:56

Notes and Definitions

Item	Definition
Dry-WT	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
Reporting Limit	Lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.



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ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER MONITORING



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#10

Chain of Custody

Client: Eric Wharton
City of Lewes (Drinking Water)
107 Franklin Street
Lewes, DE 19958

Phone: 302-645-6512

Email: ewharton@lewesbpw.com

WORK ORDER #



2404172

City of Lewes (Drinking Water)

Iron Testing

Comments: EI will add HNO3 to 8oz unpreserved at lab.

Project: Iron Testing

Sample #: _____	Address: <u>427 JOHNSON</u>	Source: <u>AWANT</u>	Drinking Water	Grab
Collection Date/Time: <u>5/9/24 0940</u>			Collected By: <u>EW</u>	
Container	Qty	Analysis	Comments	
Plastic - 8oz Unp	1	Fe 200.7		

EW
Relinquished By _____
Date/Time 5/9/24 0940

Relinquished By _____
Date/Time _____

EW
Received By _____
Date/Time 5/9/24 1128

Received By _____
Date/Time _____

8.9
Temp. at Lab _____

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