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Page 1 of 10

Inhibitor or Stabilizer Used (✓)	phosphate	silica	calcium carbonate
✓	☐	☐	☐

Sample Collector (V):	☒	Public Water System	☒	Accredited Lab	☐	3 rd Party Contractor	LAB ID #:	AL 0200561
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[illegible]

1. Acknowledge that information on this form is true and correct, and attests selected for sampling, follow the instructions in the <i>TCREQ Monitoring and Sample Collection Guidance for Water Quality Parameters</i>. This includes, but is not limited to the measurement of pH and temperature immediately upon collection. Falsification of this form or tampering with water samples is a crime punishable under state and/or federal law. (Texas Penal Code, Title 8, Chapter 37, Section 37.10)	☒	Samples received unpreserved?	☒	Iced	☐	Ambient
	☐					

Relinquished By Sampler (Signature)	Date/Time:	Relinquished By Courier (Signature)	Date/Time:
			HM02 2322405

Received By Courier (Signature)	<i>James Jans</i>	3/12/21	Received By Lab (Signature)	<i>Jim B.</i>	3/12/21 15:10
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2/1/24 11:25	Amel	2/1/24 15:10
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February 09, 2024

PWS_0200501_AC_20240131_WQP Analysis Report

LABORATORY REPORT

Brittany Cannon
BASF Corporation
602 Copper Road
Freeport, TX 77541

Report ID: 20240209084539RUW

RE: BASF Freeport - Biweekly WQP EntryPoint

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted. These analytical results related to the sample(s) tested. This report may not be reproduced or duplicated except in full without written approval of NWDLS.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Ruth Wills
Water Quality Project Manager



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Laboratory Sample Results

Lab Sample ID	24A0921-01	Sample Matrix	Drinking Water
Facility ID	PBCU001	Sampled	01/31/2024 23:08
Sample Point ID	EWQP	Collected by	Lonnie Lewis
Sample Location	602 COPPER RD ENTRY POINT PWWQP 18	Received	02/01/2024 15:10
Sample Type	Grab		

Method	Analyte	*	Result Units	DF	MRL	Batch	Analyzed	Analyst	DQ
SM 2320 B	Alkalinity as CaCO3	A	108 mg/L	1	10.0	BHB0270	02/02/2024 11:29	AKA	
EPA 200.7	Calcium	A	35.4 mg/L	1	1.00	BHB0560	02/06/2024 13:32	FAA	
EPA 300.0	Chloride	A	55.6 mg/L	1	1.00	BHB0018	02/01/2024 22:32	ORP	
SM 2510 B	Conductivity	A	515 umhos/cm @ 25 °C	1	2.00	BHB0270	02/02/2024 11:29	AKA	
EPA 200.8	Copper	A	0.0189 mg/L	1	0.00200	BHB0248	02/06/2024 14:54	JKC	
EPA 200.7	Iron	A	<0.0300 mg/L	1	0.0300	BHB0560	02/06/2024 13:32	FAA	U
EPA 200.8	Lead	A	<0.000500 mg/L	1	0.000500	BHB0248	02/06/2024 13:01	JKC	U
EPA 200.7	Magnesium	A	8.28 mg/L	1	1.00	BHB0560	02/06/2024 13:32	FAA	
EPA 200.7	Manganese	A	<0.0100 mg/L	1	0.0100	BHB0560	02/06/2024 13:32	FAA	U
EPA 300.0	Orthophosphate as P	A	0.704 mg/L	1	0.250	BHB0018	02/01/2024 22:32	ORP	
SM 4500-H+ B	pH	N	7.76 pH Units @ 25 °C	1	1.00	BHB0223	01/31/2024 23:08	CLNT	
SM 2540 C	Residue-filterable (TDS)	A	244 mg/L	1	10.0	BHB0268	02/05/2024 16:01	BP	
EPA 200.7	Silica as SiO2	A	7.60 mg/L	5	0.250	BHB0560	02/06/2024 13:35	FAA	
EPA 200.7	Sodium	A	55.8 mg/L	1	4.00	BHB0560	02/06/2024 13:32	FAA	
EPA 300.0	Sulfate	A	54.5 mg/L	1	1.00	BHB0018	02/01/2024 22:32	ORP	
SM 2550 B	Temperature °C Field	N	17.8 °C	1	1.00	BHB0223	01/31/2024 23:08	CLNT	



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Laboratory Sample Results (Continued)

Lab Sample ID	24A0921-01	Sample Matrix	Drinking Water
Facility ID	PBCU001	Sampled	01/31/2024 23:08
Sample Point ID	EWQP	Collected by	Lonnie Lewis
Sample Location	602 COPPER RD ENTRY POINT PWWQP 18	Received	02/01/2024 15:10
Sample Type	Grab		

Method	Analyte	*	Result Units	DF	MRL	Batch	Analyzed	Analyst	DQ
SM 2340 B	Total hardness as CaCO ₃		123 mg/L	1	6.62	[CALC]	02/06/2024 13:32	FAA	



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB0248 - EPA 200.8										
Blank (BHB0248-BLK1)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	<0.000500	U	0.000500	mg/L						
Blank (BHB0248-BLK2)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Copper	<0.00200	U	0.00200	mg/L						
LCS (BHB0248-BS1)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	0.0497		0.000500	mg/L	0.0500		99.3	85-115		
LCS (BHB0248-BS2)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Copper	0.103		0.00200	mg/L	0.100		103	85-115		
Duplicate (BHB0248-DUP1)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	5.20E-5	U	0.000500	mg/L		5.50E-5			5.61	20
Duplicate (BHB0248-DUP2)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	0.000109	U	0.000500	mg/L		0.000113			3.60	20
Duplicate (BHB0248-DUP3)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Copper	0.0100		0.00200	mg/L		0.00982			2.29	20
Duplicate (BHB0248-DUP4)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Copper	0.00393		0.00200	mg/L		0.00391			0.511	20
Matrix Spike (BHB0248-MS1)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	0.0505		0.000500	mg/L	0.0500	5.50E-5	101	75-125		
Matrix Spike (BHB0248-MS2)					Prepared: 02/02/2024 Analyzed: 02/06/2024					
Lead	0.0454		0.000500	mg/L	0.0500	0.000113	90.6	75-125		



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB0248 - EPA 200.8 (Continued)

Matrix Spike (BHB0248-MS3)

Source: 24B1137-02

Prepared: 02/02/2024 Analyzed: 02/06/2024

Copper	0.113	A	0.0100	mg/L	0.100	0.00982	103	75-125
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Matrix Spike (BHB0248-MS4)

Source: 24B1226-02

Prepared: 02/02/2024 Analyzed: 02/06/2024

Copper	0.103		0.00200	mg/L	0.100	0.00391	99.3	75-125
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Batch: BHB0560 - EPA 200.7

Blank (BHB0560-BLK1)

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	<1.00	U	1.00	mg/L
Iron	<0.0300	U	0.0300	mg/L
Magnesium	<1.00	U	1.00	mg/L
Manganese	<0.0100	U	0.0100	mg/L
Silica as SiO2	<0.0500	U	0.0500	mg/L
Sodium	<4.00	U	4.00	mg/L

LCS (BHB0560-BS1)

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	49.0		1.00	mg/L	50.0	98.1	85-115
Iron	1.46		0.0300	mg/L	1.50	97.3	85-115
Magnesium	48.4		1.00	mg/L	50.0	96.9	85-115
Manganese	0.243		0.0100	mg/L	0.250	97.3	85-115
Silica as SiO2	2.44		0.0500	mg/L	2.50	97.7	85-115
Sodium	96.9		4.00	mg/L	100	96.9	85-115

Duplicate (BHB0560-DUP1)

Source: 24A0921-01

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	35.8		1.00	mg/L	35.4	0.948	20
Iron	0.0245	U	0.0300	mg/L	0.0295	18.4	20
Magnesium	8.39		1.00	mg/L	8.28	1.32	20
Manganese	0.00775	U	0.0100	mg/L	0.00767	1.04	20
Silica as SiO2	7.77		0.250	mg/L	7.60	2.30	20
Sodium	56.8		4.00	mg/L	55.8	1.83	20



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB0560 - EPA 200.7 (Continued)

MRL Check (BHB0560-MRL1)

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	1.05		1.00	mg/L	1.00		105	50-150		
Iron	0.0317		0.0300	mg/L	0.0300		106	50-150		
Magnesium	1.05		1.00	mg/L	1.00		105	50-150		
Manganese	0.0104		0.0100	mg/L	0.0100		104	50-150		
Silica as SiO2	0.0524		0.0500	mg/L	0.0500		105	50-150		
Sodium	4.73		4.00	mg/L	4.00		118	50-150		

Matrix Spike (BHB0560-MS1)

Source: 24A0921-01

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	83.8		1.00	mg/L	50.0	35.4	96.8	70-130		
Iron	1.46		0.0300	mg/L	1.50	0.0295	95.6	70-130		
Magnesium	56.2		1.00	mg/L	50.0	8.28	95.9	70-130		
Manganese	0.248		0.0100	mg/L	0.250	0.00767	96.2	70-130		
Silica as SiO2	10.2		0.250	mg/L	2.50	7.60	104	70-130		
Sodium	155		4.00	mg/L	100	55.8	98.7	70-130		

Post Spike (BHB0560-PS1)

Source: 24A0921-01

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	82800			ug/L	50000	34500	96.5	85-115		
Iron	1490			ug/L	1500	28.7	97.2	85-115		
Magnesium	56600			ug/L	50000	8070	97.1	85-115		
Manganese	249			ug/L	250	7.48	96.8	85-115		
Silica as SiO2	9910			ug/L	2500	7410	100	85-115		
Sodium	154000			ug/L	100000	54400	99.1	85-115		

Dilution Check (BHB0560-SRL1)

Source: 24A0921-01

Prepared: 02/05/2024 Analyzed: 02/06/2024

Calcium	35.6		5.00	mg/L		35.4		0.476	10	
Iron	0.0290	U	0.150	mg/L		0.0295		1.81	10	
Magnesium	8.40		5.00	mg/L		8.28		1.42	10	
Manganese	0.00735	U	0.0500	mg/L		0.00767		4.26	10	
Silica as SiO2	7.60		0.250	mg/L		7.60		0.00	10	
Sodium	57.3		20.0	mg/L		55.8		2.56	10	



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB0018 - EPA 300.0										
Duplicate (BHB0018-DUP1)			Source: 24A0415-01		Prepared & Analyzed: 02/01/2024					
Chloride	50.5		1.00	mg/L		50.4			0.180	15
Sulfate	11.3		1.00	mg/L		11.4			0.379	15
Orthophosphate as P	<0.250	U	0.250	mg/L		<0.250				15
Duplicate (BHB0018-DUP2)			Source: 24B1232-03		Prepared & Analyzed: 02/01/2024					
Sulfate	32.0		1.00	mg/L		32.0			0.122	15
Orthophosphate as P	<0.250	U	0.250	mg/L		<0.250				15
Chloride	42.6		10.0	mg/L		43.7			2.36	15
MRL Check (BHB0018-MRL1)					Prepared & Analyzed: 02/01/2024					
Orthophosphate as P	0.327		0.250	mg/L	0.250		131	50-150		
Chloride	1.07		1.00	mg/L	1.00		107	50-150		
Sulfate	1.22		1.00	mg/L	1.00		122	50-150		
Matrix Spike (BHB0018-MS1)			Source: 24A0415-01		Prepared & Analyzed: 02/01/2024					
Orthophosphate as P	5.21		0.278	mg/L	5.56	<0.278	93.8	80-120		
Chloride	64.5	J1	1.11	mg/L	11.1	50.4	127	80-120		
Sulfate	33.8		1.11	mg/L	22.2	11.4	101	80-120		
Matrix Spike (BHB0018-MS2)			Source: 24B1232-03		Prepared & Analyzed: 02/01/2024					
Orthophosphate as P	5.38		0.278	mg/L	5.56	<0.278	96.8	80-120		
Sulfate	56.2		1.11	mg/L	22.2	32.0	109	80-120		
Chloride	51.2	J1	11.1	mg/L	11.1	43.7	68.0	80-120		
Batch: BHB0268 - TDS										
Blank (BHB0268-BLK1)					Prepared: 02/02/2024 Analyzed: 02/05/2024					
Residue-filterable (TDS)	<10.0	U	10.0	mg/L						



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Quality Control (Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB0268 - TDS (Continued)										
LCS (BHB0268-BS1)										
Residue-filterable (TDS)	141		10.0	mg/L	150		94.0	90-110		
Prepared: 02/02/2024 Analyzed: 02/05/2024										
Duplicate (BHB0268-DUP1)										
Residue-filterable (TDS)	468		10.0	mg/L		470			0.426	10
Prepared: 02/02/2024 Analyzed: 02/05/2024										
Duplicate (BHB0268-DUP2)										
Residue-filterable (TDS)	514		10.0	mg/L		516			0.388	10
Prepared: 02/02/2024 Analyzed: 02/05/2024										
Batch: BHB0270 - Alkalinity										
Blank (BHB0270-BLK1)										
Conductivity	<2.00	U	2.00	umhos/cm @ 25 °C						
Prepared & Analyzed: 02/02/2024										
LCS (BHB0270-BS1)										
Conductivity	1400			umhos/cm @ 25 °C	1410		99.4	90-110		
Prepared & Analyzed: 02/02/2024										
QSC (BHB0270-BS2)										
Conductivity	507			umhos/cm @ 25 °C	500		101	90-110		
Prepared & Analyzed: 02/02/2024										
LCS (BHB0270-BS4)										
Alkalinity as CaCO3	101			mg/L	100		101	90-110		
Prepared & Analyzed: 02/02/2024										
Duplicate (BHB0270-DUP1)										
Alkalinity as CaCO3	113		10.0	mg/L		114			0.485	15
Conductivity	464		2.00	umhos/cm @ 25 °C		463			0.216	15
Prepared & Analyzed: 02/02/2024										
Duplicate (BHB0270-DUP2)										
Alkalinity as CaCO3	86.8		10.0	mg/L		83.9			3.36	15
Conductivity	797		2.00	umhos/cm @ 25 °C		789			1.01	15
Prepared & Analyzed: 02/02/2024										



PWS_0200501_AC_20240131_WQP Analysis Report

BASF Corporation
602 Copper Road
Freeport, TX 77541

Project: **BASF Freeport - Biweekly WQP EntryPoint**
PWS TX ID: 0200501
Project Manager: Brittany Cannon

Reported:
02/09/2024 08:45

Term and Qualifier Definitions

Item	Definition
A	Detection limit elevated due to abundance of non-target analyte.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
U	Non-detected compound.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.