

**Annual Report - General Order No. R5-2007-0035**

Reporting period 01/01/2023 to 12/31/2023.

**DAIRY FACILITY INFORMATION****A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY:** Dry River Dairy

Physical address of dairy:

12718 Avenue 25

Number and Street

Chowchilla

City

Madera

County

93610

Zip Code

Street and nearest cross street (if no address): \_\_\_\_\_

Date facility was originally placed in operation: 01/01/2022Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0025-0140-0004-00000025-0140-0007-00000025-0150-0011-00000025-0150-0012-00000025-0150-0013-00000025-0150-0014-00000025-0150-0015-00000025-0150-0016-0000**B. OPERATORS****Ribeiro, Domingos**Operator name: Ribeiro, Domingos

Telephone no.:

(559) 479-0940

Landline

Cellular

12718 Avenue 25

Mailing Address Number and Street

Chowchilla

City

CA

State

93610

Zip Code

**Ribeiro, Nellie**Operator name: Ribeiro, Nellie

Telephone no.:

(559) 479-0942

Landline

Cellular

12718 Avenue 25

Mailing Address Number and Street

Chowchilla

City

CA

State

93610

Zip Code

**Soares, Ashley**Operator name: Soares, Ashley

Telephone no.:

(559) 479-0941

Landline

Cellular

12718 Avenue 25

Mailing Address Number and Street

Chowchilla

City

CA

State

93610

Zip Code

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Soares, Leo

Operator name: Soares, Leo	Telephone no.:	(559) 647-4004
	Landline	Cellular
12718 Avenue 25	Chowchilla	CA
Mailing Address Number and Street	City	State
		93610
		Zip Code

**This operator is responsible for paying permit fees.****C. OWNERS**

Ribeiro, Domingos

Legal owner name: Ribeiro, Domingos	Telephone no.:	(559) 479-0940
	Landline	Cellular
12718 Avenue 25	Chowchilla	CA
Mailing Address Number and Street	City	State
		93610
		Zip Code

Ribeiro, Nellie

Legal owner name: Ribeiro, Nellie	Telephone no.:	(559) 479-0942
	Landline	Cellular
12718 Avenue 25	Chowchilla	CA
Mailing Address Number and Street	City	State
		93610
		Zip Code

Soares, Ashley

Legal owner name: Soares, Ashley	Telephone no.:	(559) 479-0941
	Landline	Cellular
12718 Avenue 25	Chowchilla	CA
Mailing Address Number and Street	City	State
		93610
		Zip Code

Soares, Leo

Legal owner name: Soares, Leo	Telephone no.:	(559) 647-4004
	Landline	Cellular
12718 Avenue 25	Chowchilla	CA
Mailing Address Number and Street	City	State
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**This owner is responsible for paying permit fees.**

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**AVAILABLE NUTRIENTS**

**A. HERD INFORMATION**

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	85	345	285	100	130
Number under roof	960	0	0	0	0	0
Maximum number	970	90	350	300	105	140
Average number	965	80	350	280	100	125
Avg live weight (lbs)	1,400	1,400	890	600		

Predominant milk cow breed: Holstein

Average milk production: 85 pounds per cow per day

**B. MANURE GENERATED**

Total manure excreted by the herd: 34,487.19 tons per reporting period

Total nitrogen from manure: 431,737.60 lbs per reporting period

After ammonia losses (30% loss applied): 302,216.32 lbs per reporting period

Total phosphorus from manure: 71,732.70 lbs per reporting period

Total potassium from manure: 194,316.48 lbs per reporting period

Total salt from manure: 472,766.25 lbs per reporting period

**C. PROCESS WASTEWATER GENERATED**

Process wastewater generated: 6,192,000 gallons

Total nitrogen generated: 25,491.00 lbs

Total phosphorus generated: 5,026.63 lbs

Total potassium generated: 40,473.78 lbs

Total salt generated: 203,588.63 lbs

	6,192,000 gallons applied
+	0 gallons exported
-	0 gallons imported
=	6,192,000 gallons generated

**D. FRESH WATER SOURCES**

Source Description	Type
Bethel Canal	Surface water
Eastman Canal	Surface water

**E. SUBSURFACE (TILE) DRAINAGE SOURCES**

*No subsurface (tile) drainage sources entered.*

**F. NUTRIENT IMPORTS**

*No dry manure nutrient imports entered.*

*No process wastewater nutrient imports entered.*

*No commercial or other nutrient imports entered.*

**G. NUTRIENT EXPORTS**

*No solid nutrient exports entered.*

*No liquid nutrient exports entered.*

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**APPLICATION AREA**

**A. LIST OF LAND APPLICATION AREAS**

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
Field 1	28	28	2	both	0025-0140-0007-0000
Field 2	40	40	2	both	0025-0140-0004-0000 0025-0140-0007-0000
Field 3	67	36	2	both	0025-0140-0007-0000
Field 4	117	117	2	both	0025-0150-0011-0000 0025-0150-0012-0000 0025-0150-0013-0000 0025-0150-0014-0000 0025-0150-0015-0000 0025-0150-0016-0000
Totals for areas that were used for application	252	221	8		
Totals for areas that were not used for application					
Land application area totals	252	221	8		

**B. CROPS AND HARVESTS**

Field 1										
Field name: <u>Field 1</u>										
10/21/2022: Wheat, silage, soft dough										
Crop: <u>Wheat, silage, soft dough</u>						Acres planted: <u>28</u>		Plant date: <u>10/21/2022</u>		
Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)	
04/21/2023	411.00 ton	Dry-weight		77.0	23,600.00	5,400.00	33,000.00		0.00	
	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)					
Anticipated harvest content	18.00	198.00	30.60	149.40	0.00					
Total actual harvest content	14.68	159.35	36.46	222.82	0.00					

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## Field 1

05/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 28 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/21/2023	828.00 ton	Dry-weight		73.0	16,400.00	3,400.00	19,300.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	29.57	261.88	54.29	308.19	0.00

## Field 2

Field name: Field 2

10/21/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 40 Plant date: 10/21/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/21/2023	778.00 ton	Dry-weight		76.0	18,400.00	4,700.00	30,800.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	0.00
Total actual harvest content	19.45	171.78	43.88	287.55	0.00

05/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 40 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/20/2023	1,527.00 ton	Dry-weight		73.0	15,200.00	2,900.00	17,600.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	38.18	313.34	59.78	362.82	0.00

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## Field 3

Field name: Field 3

10/21/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough

Acres planted: 36 Plant date: 10/21/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/21/2023	487.00 ton	Dry-weight		62.0	18,400.00	4,200.00	30,050.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	0.00
Total actual harvest content	13.53	189.17	43.18	308.95	0.00

05/01/2023: Corn, silage

Crop: Corn, silage

Acres planted: 36 Plant date: 05/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/19/2023	945.00 ton	Dry-weight		75.0	14,900.00	3,000.00	16,800.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	26.25	195.56	39.38	220.50	0.00

## Field 4

Field name: Field 4

11/14/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough

Acres planted: 117 Plant date: 11/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/26/2023	2,321.00 ton	Dry-weight		55.0	19,000.00	2,900.00	20,800.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	0.00
Total actual harvest content	19.84	339.22	51.78	371.36	0.00

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**Field 4**

06/15/2023: Corn, silage

Crop: Corn, silage Acres planted: 117 Plant date: 06/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/13/2023	3,097.00 <i>ton</i>	Dry-weight		64.0	13,700.00	2,500.00	16,700.00		0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	26.47	261.10	47.65	318.28	0.00



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## NUTRIENT BUDGET

### A. LAND APPLICATIONS

Field 1 - 10/21/2022: Wheat, silage, soft dough

Field name: Field 1

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022

Application date	Application method		Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/27/2023	Surface (irrigation)		No precipitation		No precipitation		No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	46.13	9.70	73.04	338.19	288,000.00 <i>gal</i>
Application event totals			46.13	9.70	73.04	338.19	
03/04/2023	Surface (irrigation)		No precipitation		No precipitation		No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	46.13	9.70	73.04	338.19	288,000.00 <i>gal</i>
Application event totals			46.13	9.70	73.04	338.19	

Field 1 - 05/01/2023: Corn, silage

Field name: Field 1

Crop: Corn, silage

Plant date: 05/01/2023

Application date	Application method		Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following		
05/26/2023	Plow/disc		No precipitation	No precipitation		No precipitation		
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure			Corral solids	45.64	12.86	43.50	0.00	30.00 <i>ton</i>
Application event totals				45.64	12.86	43.50	0.00	
06/22/2023	Surface (irrigation)		No precipitation	No precipitation		No precipitation		
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal			Surface water	0.12	0.00	0.00	116.23	3,900,000.00 <i>gal</i>
Application event totals				0.12	0.00	0.00	116.23	

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## Field 1 - 05/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
06/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	39.87	7.47	63.43	338.19	288,000.00 <i>gal</i>
Application event totals		39.87	7.47	63.43	338.19	
07/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.12	0.00	0.00	116.23	3,900,000.00 <i>gal</i>
Application event totals		0.12	0.00	0.00	116.23	
07/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.12	0.00	0.00	116.23	3,900,000.00 <i>gal</i>
Application event totals		0.12	0.00	0.00	116.23	
07/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	39.87	7.47	63.43	338.19	288,000.00 <i>gal</i>
Application event totals		39.87	7.47	63.43	338.19	
08/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.12	0.00	0.00	116.23	3,900,000.00 <i>gal</i>
Application event totals		0.12	0.00	0.00	116.23	

## Field 2 - 10/21/2022: Wheat, silage, soft dough

Field name: Field 2

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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**Field 2 - 10/21/2022: Wheat, silage, soft dough**

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following
01/29/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	32.29	6.79	51.13	236.73	288,000.00 <i>gal</i>
Application event totals			32.29	6.79	51.13	236.73	
03/06/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	32.29	6.79	51.13	236.73	288,000.00 <i>gal</i>
Application event totals			32.29	6.79	51.13	236.73	

**Field 2 - 05/01/2023: Corn, silage**

Field name: Field 2

Crop: Corn, silage

Plant date: 05/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/26/2023	Plow/disc	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure	Corral solids	46.86	13.20	44.66	0.00	44.00 <i>ton</i>
Application event totals		46.86	13.20	44.66	0.00	
06/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.19	0.00	0.00	187.76	9,000,000.00 <i>gal</i>
Application event totals		0.19	0.00	0.00	187.76	
06/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	27.91	5.23	44.40	236.73	288,000.00 <i>gal</i>
Application event totals		27.91	5.23	44.40	236.73	

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**Field 2 - 05/01/2023: Corn, silage**

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following		
07/03/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Eastman Canal			Surface water	0.19	0.00	0.00	187.76	9,000,000.00 <i>gal</i>	
Application event totals				0.19	0.00	0.00	187.76		
07/21/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Eastman Canal			Surface water	0.19	0.00	0.00	187.76	9,000,000.00 <i>gal</i>	
Application event totals				0.19	0.00	0.00	187.76		
07/21/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Lagoon			Process wastewater	27.91	5.23	44.40	236.73	288,000.00 <i>gal</i>	
Application event totals				27.91	5.23	44.40	236.73		
08/07/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Eastman Canal			Surface water	0.19	0.00	0.00	187.76	9,000,000.00 <i>gal</i>	
Application event totals				0.19	0.00	0.00	187.76		

**Field 3 - 10/21/2022: Wheat, silage, soft dough**

Field name: Field 3

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following			
01/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation			
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	35.88	7.54	56.81	263.03	288,000.00 <i>gal</i>
Application event totals			35.88	7.54	56.81	263.03	

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## Field 3 - 10/21/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
03/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	35.88	7.54	56.81	263.03	288,000.00 <i>gal</i>
Application event totals		35.88	7.54	56.81	263.03	

## Field 3 - 05/01/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 05/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/26/2023	Plow/disc	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure	Corral solids	47.33	13.33	45.11	0.00	40.00 <i>ton</i>
Application event totals		47.33	13.33	45.11	0.00	
06/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.13	0.00	0.00	125.18	5,400,000.00 <i>gal</i>
Application event totals		0.13	0.00	0.00	125.18	
06/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	31.01	5.81	49.34	263.03	288,000.00 <i>gal</i>
Application event totals		31.01	5.81	49.34	263.03	
07/01/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.13	0.00	0.00	125.18	5,400,000.00 <i>gal</i>
Application event totals		0.13	0.00	0.00	125.18	

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**Field 3 - 05/01/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
07/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.13	0.00	0.00	125.18	5,400,000.00 <i>gal</i>
Application event totals		0.13	0.00	0.00	125.18	
07/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	31.01	5.81	49.34	263.03	288,000.00 <i>gal</i>
Application event totals		31.01	5.81	49.34	263.03	
08/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Eastman Canal	Surface water	0.13	0.00	0.00	125.18	5,400,000.00 <i>gal</i>
Application event totals		0.13	0.00	0.00	125.18	

**Field 4 - 11/14/2022: Wheat, silage, soft dough**

Field name: Field 4

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
02/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	27.60	5.80	43.70	202.33	720,000.00 <i>gal</i>
Application event totals		27.60	5.80	43.70	202.33	
04/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	28.62	5.36	45.54	242.80	864,000.00 <i>gal</i>
Application event totals		28.62	5.36	45.54	242.80	

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Reporting period 01/01/2023 to 12/31/2023.

Field 4 - 06/15/2023: Corn, silage

Field name: Field 4

Crop: Corn, silage

Plant date: 06/15/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/26/2023	Plow/disc	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Manure	Corral solids	83.02	23.38	79.12	0.00	228.00 <i>ton</i>
Application event totals		83.02	23.38	79.12	0.00	
07/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Bethel Canal	Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>
Application event totals		0.29	0.00	0.00	87.94	
07/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	28.62	5.36	45.54	242.80	864,000.00 <i>gal</i>
Application event totals		28.62	5.36	45.54	242.80	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Bethel Canal	Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>
Application event totals		0.29	0.00	0.00	87.94	
08/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Bethel Canal	Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>
Application event totals		0.29	0.00	0.00	87.94	
08/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	9.54	1.79	15.18	80.93	288,000.00 <i>gal</i>
Application event totals		9.54	1.79	15.18	80.93	

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*Reporting period 01/01/2023 to 12/31/2023.*

**Field 4 - 06/15/2023: Corn, silage**

Application date	Application method		Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
08/29/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
Bethel Canal		Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>		
Application event totals			0.29	0.00	0.00	87.94			
09/15/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
Bethel Canal		Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>		
Application event totals			0.29	0.00	0.00	87.94			
09/28/2023	Surface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
Bethel Canal		Surface water	0.29	0.00	0.00	87.94	20,550,000.00 <i>gal</i>		
Application event totals			0.29	0.00	0.00	87.94			



# Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

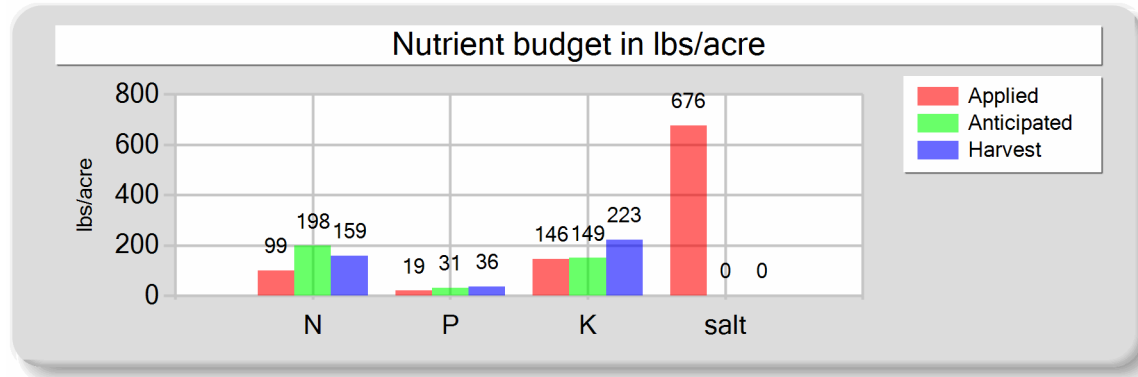
## B. NUTRIENT BUDGET

Field 1 - 10/21/2022: Wheat, silage, soft dough

Field name: Field 1

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	0.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	0.00 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	0.00 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	92.25	19.40	146.09	676.37	Process wastewater applied
Fresh water	0.00	0.00	0.00	0.00	576,000.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	21.21 acre-inches
Total nutrients applied	99.25	19.40	146.09	676.37	0.76 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	0.00	
Actual crop nutrient removal	159.35	36.46	222.82	0.00	Total harvests for the crop
Nutrient balance	-60.10	-17.06	-76.73	676.37	1 harvests
Applied to removed ratio	0.62	0.53	0.66	0.00	

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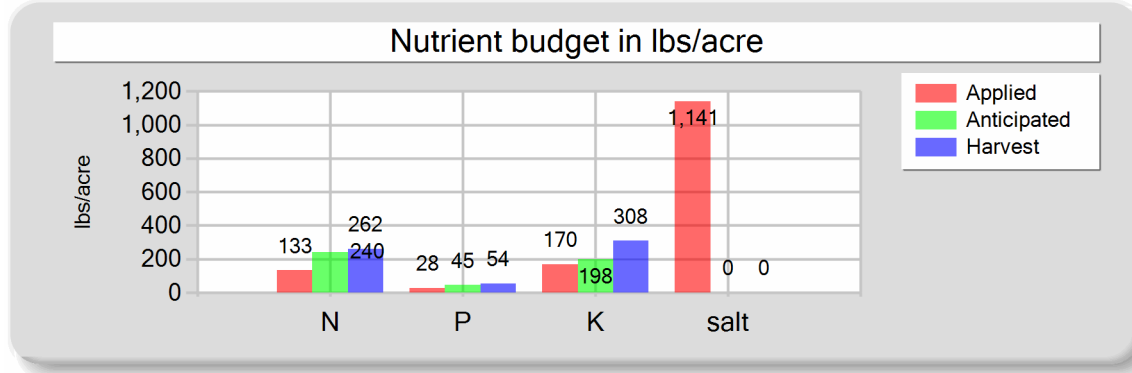
Reporting period 01/01/2023 to 12/31/2023.

Field 1 - 05/01/2023: Corn, silage

Field name: Field 1

Crop: Corn, silage

Plant date: 05/01/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	45.64	12.86	43.50	0.00
Process wastewater	79.74	14.94	126.86	676.37
Fresh water	0.46	0.00	0.00	464.94
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	132.85	27.79	170.36	1,141.31
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	261.88	54.29	308.19	0.00
Nutrient balance	-129.04	-26.50	-137.83	1,141.31
Applied to removed ratio	0.51	0.51	0.55	0.00

Fresh water applied
15,600,000.00 <i>gallons</i>
574.49 <i>acre-inches</i>
20.52 <i>inches/acre</i>

Process wastewater applied
576,000.00 <i>gallons</i>
21.21 <i>acre-inches</i>
0.76 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

# Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

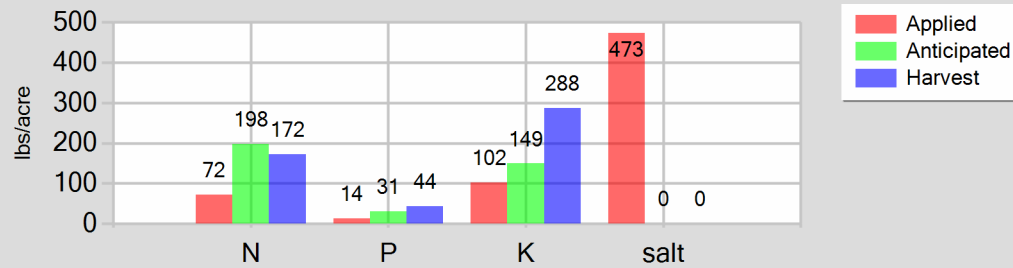
Field 2 - 10/21/2022: Wheat, silage, soft dough

Field name: Field 2

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	64.58	13.58	102.26	473.46
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	71.58	13.58	102.26	473.46
Anticipated crop nutrient removal	198.00	30.60	149.40	0.00
Actual crop nutrient removal	171.78	43.88	287.55	0.00
Nutrient balance	-100.20	-30.30	-185.29	473.46
Applied to removed ratio	0.42	0.31	0.36	0.00

Fresh water applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre
Process wastewater applied
576,000.00 gallons
21.21 acre-inches
0.53 inches/acre
Total harvests for the crop
1 harvests

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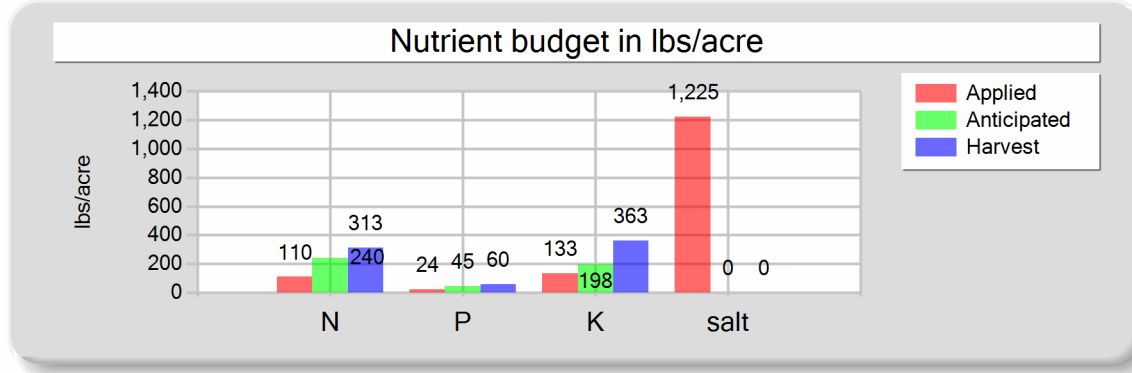
Reporting period 01/01/2023 to 12/31/2023.

Field 2 - 05/01/2023: Corn, silage

Field name: Field 2

Crop: Corn, silage

Plant date: 05/01/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	36,000,000.00 <i>gallons</i>
Plowdown credit	0.00	0.00	0.00	0.00	1,325.76 <i>acre-inches</i>
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	33.14 <i>inches/acre</i>
Dry manure	46.86	13.20	44.66	0.00	
Process wastewater	55.82	10.45	88.80	473.46	
Fresh water	0.75	0.00	0.00	751.05	
Atmospheric deposition	7.00	0.00	0.00	0.00	
Total nutrients applied	110.43	23.65	133.46	1,224.51	
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00	
Actual crop nutrient removal	313.34	59.78	362.82	0.00	
Nutrient balance	-202.91	-36.13	-229.35	1,224.51	
Applied to removed ratio	0.35	0.40	0.37	0.00	
					Process wastewater applied
					576,000.00 <i>gallons</i>
					21.21 <i>acre-inches</i>
					0.53 <i>inches/acre</i>
					Total harvests for the crop
					1 <i>harvests</i>

# Annual Report - General Order No. R5-2007-0035

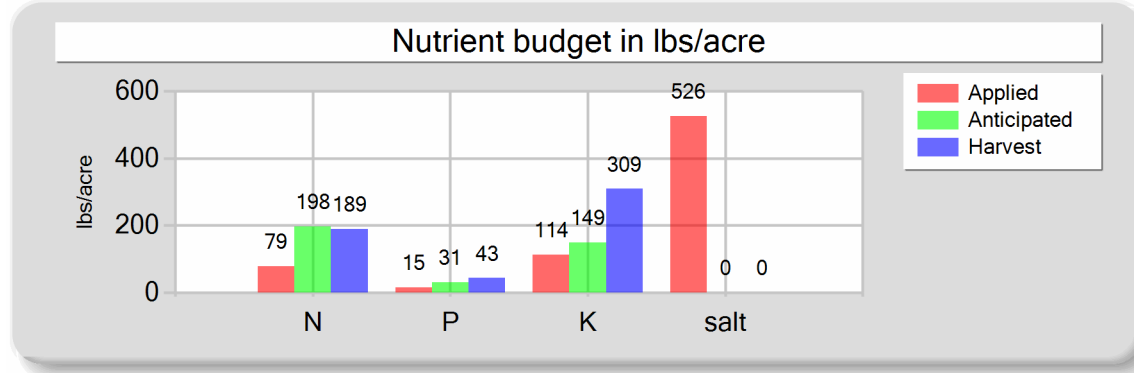
Reporting period 01/01/2023 to 12/31/2023.

Field 3 - 10/21/2022: Wheat, silage, soft dough

Field name: Field 3

Crop: Wheat, silage, soft dough

Plant date: 10/21/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	71.75	15.09	113.63	526.07
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	78.75	15.09	113.63	526.07
Anticipated crop nutrient removal	198.00	30.60	149.40	0.00
Actual crop nutrient removal	189.17	43.18	308.95	0.00
Nutrient balance	-110.42	-28.09	-195.32	526.07
Applied to removed ratio	0.42	0.35	0.37	0.00

Fresh water applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

Process wastewater applied
576,000.00 <i>gallons</i>
21.21 <i>acre-inches</i>
0.59 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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Reporting period 01/01/2023 to 12/31/2023.

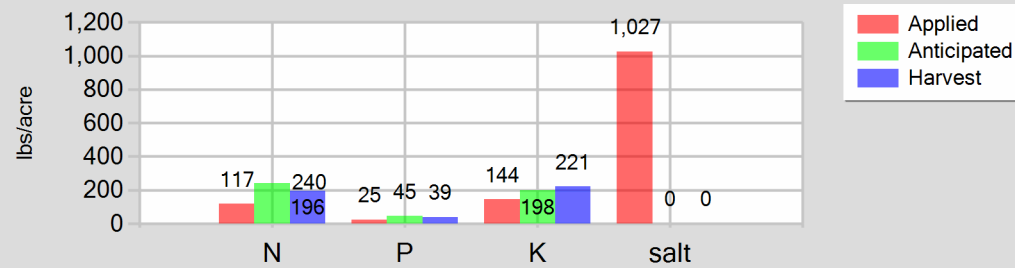
Field 3 - 05/01/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 05/01/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	47.33	13.33	45.11	0.00
Process wastewater	62.02	11.62	98.67	526.07
Fresh water	0.50	0.00	0.00	500.70
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	116.85	24.95	143.78	1,026.77
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	195.56	39.38	220.50	0.00
Nutrient balance	-78.71	-14.43	-76.72	1,026.77
Applied to removed ratio	0.60	0.63	0.65	0.00

Fresh water applied
21,600,000.00 <i>gallons</i>
795.45 <i>acre-inches</i>
22.10 <i>inches/acre</i>

Process wastewater applied
576,000.00 <i>gallons</i>
21.21 <i>acre-inches</i>
0.59 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

# Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

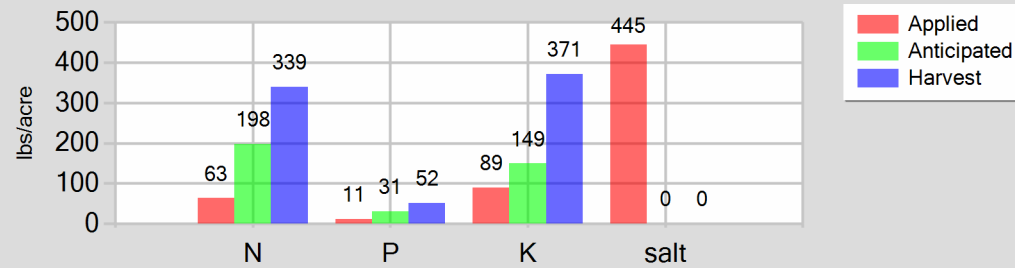
Field 4 - 11/14/2022: Wheat, silage, soft dough

Field name: Field 4

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	56.22	11.16	89.24	445.14
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	63.22	11.16	89.24	445.14
Anticipated crop nutrient removal	198.00	30.60	149.40	0.00
Actual crop nutrient removal	339.22	51.78	371.36	0.00
Nutrient balance	-276.00	-40.61	-282.12	445.14
Applied to removed ratio	0.19	0.22	0.24	0.00

Fresh water applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre
Process wastewater applied
1,584,000.00 gallons
58.33 acre-inches
0.50 inches/acre
Total harvests for the crop
1 harvests

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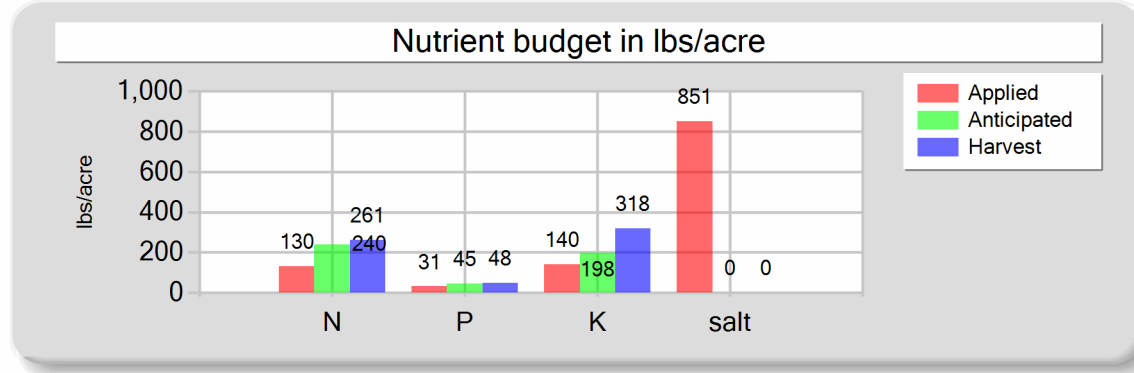
Reporting period 01/01/2023 to 12/31/2023.

Field 4 - 06/15/2023: Corn, silage

Field name: Field 4

Crop: Corn, silage

Plant date: 06/15/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	123,300,000.00 <i>gallons</i>
Plowdown credit	0.00	0.00	0.00	0.00	4,540.72 <i>acre-inches</i>
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	38.81 <i>inches/acre</i>
Dry manure	83.02	23.38	79.12	0.00	
Process wastewater	38.17	7.15	60.72	323.73	
Fresh water	1.76	0.00	0.00	527.66	
Atmospheric deposition	7.00	0.00	0.00	0.00	
Total nutrients applied	129.94	30.53	139.84	851.40	
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00	
Actual crop nutrient removal	261.10	47.65	318.28	0.00	
Nutrient balance	-131.16	-17.11	-178.44	851.40	
Applied to removed ratio	0.50	0.64	0.44	0.00	
					Process wastewater applied
					1,152,000.00 <i>gallons</i>
					42.42 <i>acre-inches</i>
					0.36 <i>inches/acre</i>
					Total harvests for the crop
					1 <i>harvests</i>



## Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

## NUTRIENT ANALYSES

## A. MANURE ANALYSES

## Manure

Sample and source description: Manure

Sample date: 04/25/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 30.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,300.00	6,000.00	20,300.00							
DL	100.00	100.00	30.00							

## Manure

Sample and source description: Manure

Sample date: 10/13/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 23.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,900.00	4,500.00	14,000.00							
DL	100.00	100.00	30.00							

## B. PROCESS WASTEWATER ANALYSES

## Lagoon

Sample and source description: Lagoon

Sample date: 03/30/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.40

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	536.00	403.00		1.40	113.00	851.00								8,160.00	3,940
DL	0.70	0.20		0.01	0.02	0.20								1.00	10

# Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

## Lagoon

Sample and source description: Lagoon

Sample date: 06/30/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.40

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	464.00	322.00		0.50	87.00	739.00								7,280.00	3,940
<b>DL</b>	0.70	0.20		0.01	0.02	0.20								1.00	10

## Lagoon

Sample and source description: Lagoon

Sample date: 10/13/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.30

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	249.00	188.00		0.60	64.00	355.00								4,480.00	2,550
<b>DL</b>	0.70	0.20		0.01	0.02	0.20								1.00	10

## C. FRESH WATER ANALYSES

### Bethel Canal

#### Bethel Canal

Sample description: Bethel Canal

Sample date: 06/30/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	0.20		0.20								52.30	60
<b>DL</b>	0.01		0.01								1.00	10

### Eastman Canal

**Annual Report - General Order No. R5-2007-0035**

Reporting period 01/01/2023 to 12/31/2023.

**Eastman Canal**

**Eastman Canal**

Sample description: Eastman Canal

Sample date: 06/30/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	0.10		0.10								52.70	100
<b>DL</b>	0.01		0.01								1.00	10

**D. SOIL ANALYSES**

*No soil analyses entered.*

**E. PLANT TISSUE ANALYSES**

**Field 1 - 10/21/2022: Wheat, silage, soft dough**

**Field 1**

Sample and source description: Field 1

Sample date: 04/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 77.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	23,600.00	5,400.00	33,000.00		
<b>DL</b>	100.00	100.00	100.00		

**Field 1 - 05/01/2023: Corn, silage**

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**Field 1 - 05/01/2023: Corn, silage****Field 1**Sample and source description: Field 1Sample date: 08/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 73.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	16,400.00	3,400.00	19,300.00		
<b>DL</b>	100.00	100.00	100.00		

**Field 2 - 10/21/2022: Wheat, silage, soft dough****Field 2**Sample and source description: Field 2Sample date: 04/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 76.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	18,400.00	4,700.00	30,800.00		
<b>DL</b>	100.00	100.00	100.00		

**Field 2 - 05/01/2023: Corn, silage****Field 2**Sample and source description: Field 2Sample date: 08/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 73.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	15,200.00	2,900.00	17,600.00		
<b>DL</b>	100.00	100.00	100.00		

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**Field 3 - 10/21/2022: Wheat, silage, soft dough****Field 3**Sample and source description: Field 3Sample date: 04/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 62.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	18,400.00	4,200.00	30,050.00		
<b>DL</b>	100.00	100.00	100.00		

**Field 3 - 05/01/2023: Corn, silage****Field 3**Sample and source description: Field 3Sample date: 08/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 75.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	14,900.00	3,000.00	16,800.00		
<b>DL</b>	100.00	100.00	100.00		

**Field 4 - 11/14/2022: Wheat, silage, soft dough****Field 4 East**Sample and source description: Field 4 EastSample date: 05/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 55.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	19,000.00	2,900.00	20,800.00		
<b>DL</b>	100.00	100.00	100.00		

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Field 4 - 11/14/2022: Wheat, silage, soft dough

## Field 4 West

Sample and source description: Field 4 WestSample date: 05/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 56.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	18,600.00	3,500.00	21,700.00		
<b>DL</b>	100.00	100.00	100.00		

Field 4 - 06/15/2023: Corn, silage

## Field 4 East

Sample and source description: Field 4 EastSample date: 10/12/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 64.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	13,700.00	2,500.00	16,700.00		
<b>DL</b>	100.00	100.00	100.00		

## Field 4 West

Sample and source description: Field 4 WestSample date: 10/12/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 66.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	13,500.00	2,000.00	14,800.00		
<b>DL</b>	100.00	100.00	100.00		

**F. SUBSURFACE (TILE) DRAINAGE ANALYSES***No subsurface (tile) drainage analyses entered.*

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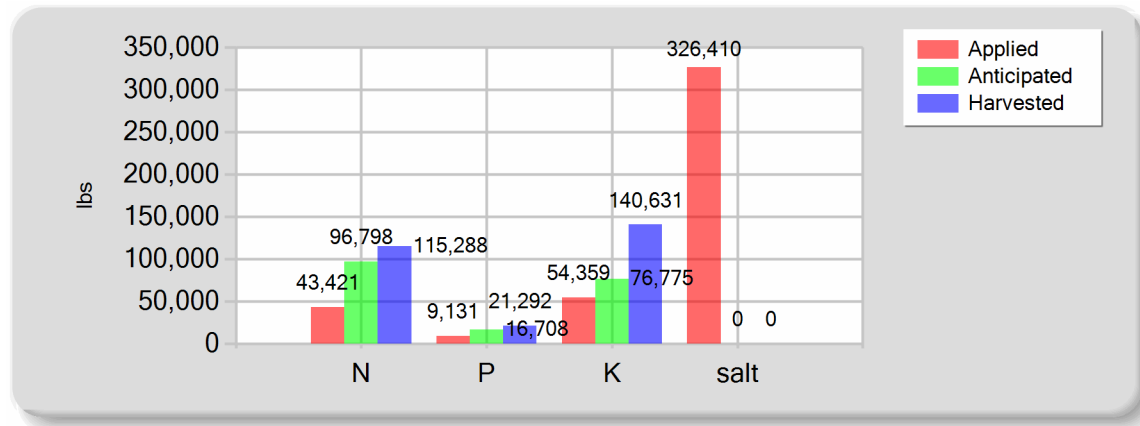
Reporting period 01/01/2023 to 12/31/2023.

**NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE**

**A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE**

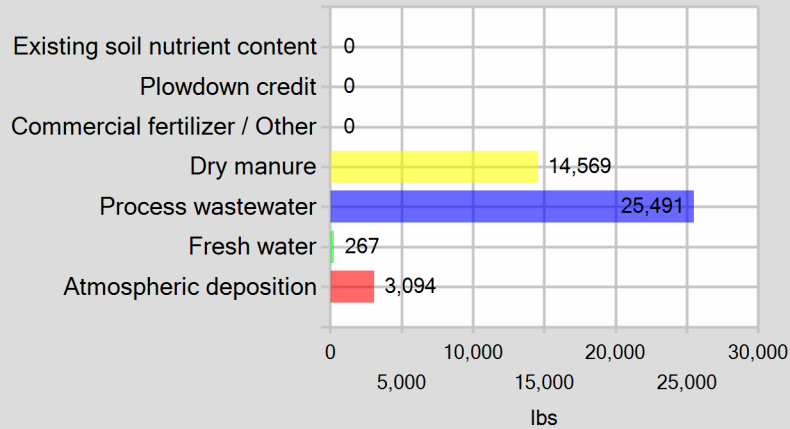
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	14,569.20	4,104.00	13,885.20	0.00
Process wastewater	25,491.00	5,026.63	40,473.78	203,588.63
Fresh water	266.87	0.00	0.00	122,821.71
Atmospheric deposition	3,094.00	0.00	0.00	0.00
Total nutrients applied	43,421.07	9,130.63	54,358.98	326,410.34
Anticipated crop nutrient removal	96,798.00	16,707.60	76,775.40	0.00
Actual crop nutrient removal	115,287.86	21,292.00	140,630.51	0.00
Nutrient balance	-71,866.79	-12,161.37	-86,271.53	326,410.34
Applied to removed ratio	0.38	0.43	0.39	0.00

**B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL**

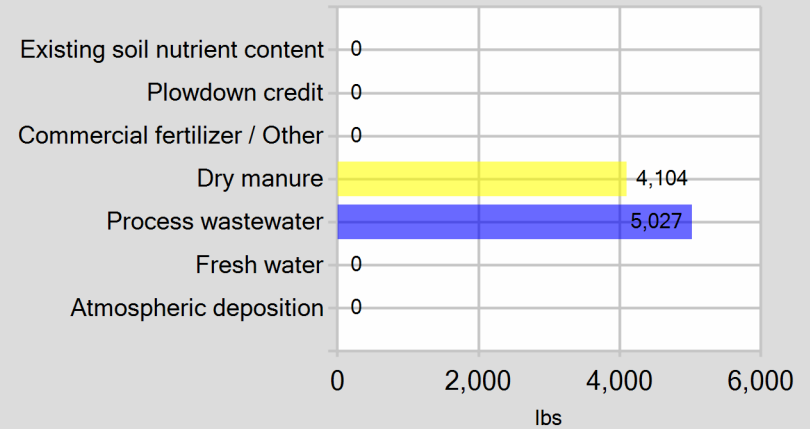


## C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

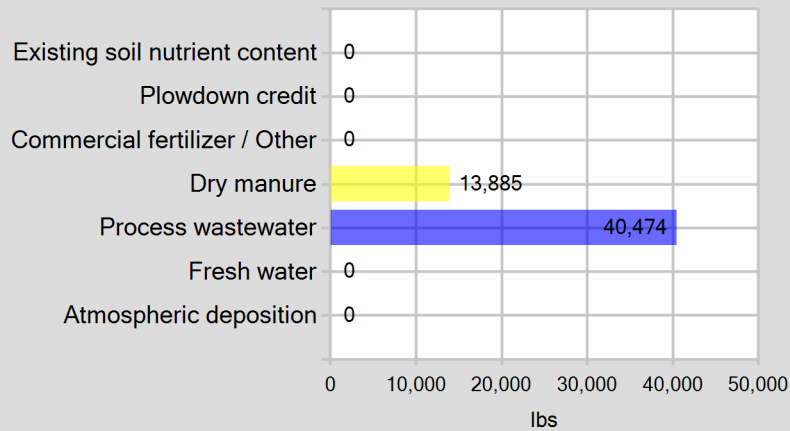
Pounds of nitrogen applied



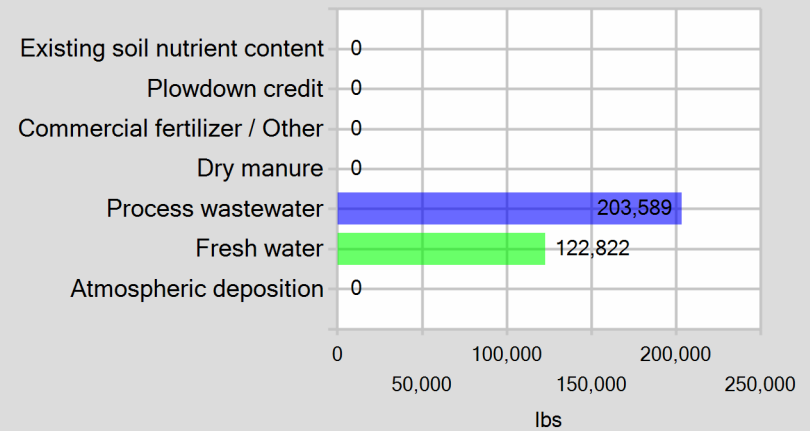
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied





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*Reporting period 01/01/2023 to 12/31/2023.*

**EXCEPTION REPORTING**

**A. MANURE, PROCESS WASTEWATER, AND OTHER DAIRY WASTE DISCHARGES**

The following is a summary of all manure and process wastewater discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan.

*No manure or process wastewater discharges occurred during the reporting period.*

**B. STORM WATER DISCHARGES**

The following is a summary of all storm water discharges from the production area to surface water during the reporting period when not in accordance with the facility 's Nutrient Management Plan.

*No stormwater discharges occurred during the reporting period.*

**C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES**

The following is a summary of all discharges from the land application area to surface water that have occurred during the reporting period when not in accordance with the facility's Nutrient Management Plan.

*No land application area to surface water discharges occurred during the reporting period.*

**NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS**

**A. NUTRIENT MANAGEMENT PLAN STATEMENTS**

Was the facility's NMP updated in the reporting period? Yes

Was the facility's NMP developed by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? Yes

Was the facility's NMP approved by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? Yes

**B. EXPORT AGREEMENT STATEMENT**

Are there any written agreements with third parties to receive manure or process wastewater that are new or were revised within the reporting period? No

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*Reporting period 01/01/2023 to 12/31/2023.*

ADDITIONAL NOTES

**A. NOTES**

*No notes entered for this annual report.*

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE OF OWNER OF FACILITY

Leo Soares

PRINT OR TYPE NAME

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE

DATE

**Annual Report - General Order No. R5-2007-0035**

*Reporting period 01/01/2023 to 12/31/2023.*

**ATTACHMENTS**

**A. REQUIRED ATTACHMENTS**

The following lists the required documents that should be attached to the Annual Report when submitted .

**Annual Dairy Facility Assessment**

Provide an Annual Dairy Facility Assessment (an update to the Preliminary Dairy Facility Assessment in Attachment A) for each reporting period. On the PDFa Final page, click on the ADFA Report button to generate an ADFA report after updating information as needed .

**Manure/Process Wastewater Tracking Manifests**

Provide copies of all manure/process wastewater tracking manifests for the reporting period, signed by both the owner/operator and the hauler.

**Corrective Actions Documents**

Provide records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements of the General Order. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.

**Groundwater Monitoring**

Dischargers that monitor supply wells or subsurface (tile) drainage systems, or that have monitoring well systems must submit monitoring results as directed in the General Order, Groundwater Reporting Section starting on page MRP-13.

**Storm Water Monitoring**

Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

CERTIFICATION

**A. OWNER AND/OR OPERATOR CERTIFICATION**

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*



SIGNATURE OF OWNER OF FACILITY

Leo Soares

PRINT OR TYPE NAME

6-28-2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

6-28-2024

DATE