

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:** Daniel Brasil Dairy

Physical address of dairy:

18280 Fairfax AVE

Number and Street

Lemoore

City

Kings

County

93245

Zip Code

Street and nearest cross street (if no address): _____

Date facility was originally placed in operation: 06/01/1956Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X004-X200-X054-XXXX**B. OPERATORS**

Brasil, Daniel

Operator name: Brasil, DanielTelephone no.: (559) 589-6039(559) 410-1384

Landline

Cellular

2260 Fernwood DR

Mailing Address Number and Street

Hanford

City

CA

State

93230

Zip Code

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

Rodrigues, Nelson or Rodney

Legal owner name: Rodrigues, Nelson or Rodney

Telephone no.:

(559) 633-0230

Landline

Cellular

18280 Farifax AVE

Mailing Address Number and Street

Lemoore

City

CA

State

93245

Zip Code

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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	75	105	175	70	5
Number under roof	500	0	0	0	0	0
Maximum number	510	80	115	185	75	10
Average number	500	75	105	175	70	5
Avg live weight (lbs)	1,400	1,450	1,000	750		

Predominant milk cow breed: Holstein

Average milk production: 75 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 17,260.07 tons per reporting period

Total nitrogen from manure: 215,618.20 lbs per reporting period

After ammonia losses (30% loss applied): 150,932.74 lbs per reporting period

Total phosphorus from manure: 35,668.84 lbs per reporting period

Total potassium from manure: 97,397.11 lbs per reporting period

Total salt from manure: 252,671.25 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 24,140,667 gallons

Total nitrogen generated: 102,462.77 lbs

Total phosphorus generated: 32,435.63 lbs

Total potassium generated: 191,645.38 lbs

Total salt generated: 805,215.36 lbs

24,140,667 gallons applied
+ 0 gallons exported
- 0 gallons imported
= 24,140,667 gallons generated

D. FRESH WATER SOURCES

Source Description	Type
AG-10	Ground water
AG-11	Ground water
AG-12	Ground water
AG-4	Ground water
AG-5	Ground water

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Source Description	Type
AG-6	Ground water
AG-7	Ground water
AG-8	Ground water
AG-9	Ground water
Canal	Surface water
D-1	Ground water
D-2	Ground water
D-3	Ground 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 3	66	66	2	both	X004-X200-X053-XXXX
Field 4	39	39	2	both	X004-X200-X045-XXXX
Field 5	12	12	2	both	X004-X200-X028-XXXX
Field 6	37	37	2	both	X004-X200-X015-XXXX
Field 7	32	32	2	both	X004-X200-X010-XXXX
Field 8	20	20	2	both	X004-X200-X020-XXXX
Field 9E.	8	8	2	process wastewater	X004-X200-X022-XXXX
Field 9W.	8	8	2	process wastewater	X004-X200-X021-XXXX
Totals for areas that were used for application	222	222	16		
Totals for areas that were not used for application					
Land application area totals	222	222	16		

B. CROPS AND HARVESTS

Field 3										
Field name: <u>Field 3</u>										
11/13/2022: Wheat, silage, soft dough										
Crop: <u>Wheat, silage, soft dough</u>						Acres planted: <u>66</u>		Plant date: <u>11/13/2022</u>		
Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)	
05/15/2023	1,345.00 ton	Dry-weight		51.1	15,600.00	3,100.00	18,400.00		6.90	
	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	1,494.00					
Total actual harvest content	20.38	310.92	61.78	366.72	1,375.20					

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Field 3

06/10/2023: Corn, silage

Crop: Corn, silage Acres planted: 66 Plant date: 06/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	1,875.00 ton	Dry-weight		71.8	12,500.00	3,400.00	12,200.00		6.31

	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	1,500.00
Total actual harvest content	28.41	200.28	54.48	195.48	1,011.03

Field 4

Field name: Field 4

11/12/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 39 Plant date: 11/12/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	783.00 ton	Dry-weight		51.5	15,300.00	3,100.00	18,700.00		6.90

	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	1,494.00
Total actual harvest content	20.08	297.96	60.37	364.18	1,343.75

06/11/2023: Corn, silage

Crop: Corn, silage Acres planted: 39 Plant date: 06/11/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/27/2023	1,155.00 ton	Dry-weight		70.0	10,000.00	2,800.00	6,600.00		4.57

	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	1,500.00
Total actual harvest content	29.62	177.69	49.75	117.28	812.05

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Field 5

Field name: Field 5

11/12/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 12 Plant date: 11/12/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	260.00 <i>ton</i>	Dry-weight		48.2	13,400.00	3,800.00	24,500.00		7.10

	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	1,494.00
Total actual harvest content	21.67	300.79	85.30	549.94	1,593.71

06/11/2023: Corn, silage

Crop: Corn, silage Acres planted: 12 Plant date: 06/11/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/27/2023	345.00 <i>ton</i>	Dry-weight		70.7	9,200.00	2,800.00	7,900.00		4.48

	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	1,500.00
Total actual harvest content	28.75	155.00	47.17	133.10	754.77

Field 6

Field name: Field 6

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

Crop: Wheat, silage, soft dough Acres planted: 37 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 (%)
05/15/2023	748.00 <i>ton</i>	Dry-weight		63.3	15,800.00	3,700.00	21,900.00		8.90

	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	1,494.00
Total actual harvest content	20.22	234.45	54.90	324.97	1,320.64

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Field 6

06/12/2023: Corn, silage

Crop: Corn, silage Acres planted: 37 Plant date: 06/12/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/27/2023	1,073.00 ton	Dry-weight		71.3	7,900.00	2,600.00	10,600.00		4.49

	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	1,500.00
Total actual harvest content	29.00	131.50	43.28	176.45	747.41

Field 7

Field name: Field 7

11/15/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 32 Plant date: 11/15/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	640.00 ton	Dry-weight		58.5	14,800.00	3,500.00	24,000.00		9.00

	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	1,494.00
Total actual harvest content	20.00	245.68	58.10	398.40	1,494.00

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 32 Plant date: 06/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	930.00 ton	Dry-weight		61.7	12,700.00	2,500.00	7,400.00		5.13

	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	1,500.00
Total actual harvest content	29.06	282.73	55.65	164.74	1,142.03

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Field 8

Field name: Field 8

11/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 20 Plant date: 11/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	420.00 <i>ton</i>	Dry-weight		59.5	15,600.00	3,600.00	24,200.00		9.30

	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	1,494.00
Total actual harvest content	21.00	265.36	61.24	411.64	1,581.93

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 20 Plant date: 06/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	585.00 <i>ton</i>	Dry-weight		63.0	11,700.00	2,200.00	6,700.00		5.15

	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	1,500.00
Total actual harvest content	29.25	253.25	47.62	145.02	1,114.72

Field 9E.

Field name: Field 9E.

11/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 8 Plant date: 11/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	160.00 <i>ton</i>	Dry-weight		59.3	10,400.00	1,900.00	13,100.00		6.00

	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	1,494.00
Total actual harvest content	20.00	169.31	30.93	213.27	976.80

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Field 9E.

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 8 Plant date: 06/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/27/2023	230.00 ton	Dry-weight		70.1	12,000.00	2,800.00	8,600.00		4.72

	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	1,500.00
Total actual harvest content	28.75	206.31	48.14	147.86	811.49

Field 9W.

Field name: Field 9W.

11/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 8 Plant date: 11/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/15/2023	160.00 ton	Dry-weight		59.3	10,400.00	1,900.00	13,100.00		6.00

	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	1,494.00
Total actual harvest content	20.00	169.31	30.93	213.27	976.80

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 8 Plant date: 06/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/27/2023	230.00 ton	Dry-weight		70.7	8,900.00	2,900.00	8,800.00		4.33

	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	1,500.00
Total actual harvest content	28.75	149.94	48.86	148.26	729.50

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NUTRIENT BUDGET

A. LAND APPLICATIONS

Field 3 - 11/13/2022: Wheat, silage, soft dough

Field name: Field 3

Crop: Wheat, silage, soft dough

Plant date: 11/13/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
09/12/2022	Broadcast/incorporate	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Solid Manure		Corral solids	124.41	58.36	133.01	1,438.63	198.00 <i>ton</i>
Application event totals			124.41	58.36	133.01	1,438.63	
10/02/2022	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	96.24	27.14	159.98	1,244.46	1,412,098.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	38.40	10,123,378.00 <i>gal</i>
Application event totals			96.24	27.14	159.98	1,282.86	
03/10/2023	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
Lagoon		Process wastewater	65.96	18.26	109.89	556.66	875,259.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	45.54	12,006,266.00 <i>gal</i>
Application event totals			65.96	18.26	109.89	602.20	
04/09/2023	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	60.74	16.82	101.20	512.64	806,049.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	40.71	10,733,378.00 <i>gal</i>
Application event totals			60.74	16.82	101.20	553.35	

Field 3 - 06/10/2023: Corn, silage

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Field 3 - 06/10/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 06/10/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/19/2023	Pipeline	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	65.63	22.76	133.36	357.50	1,104,469.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	48.12	12,685,871.00 <i>gal</i>
Application event totals		65.63	22.76	133.36	405.62	
06/28/2023	Pipeline	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	47.51	12,526,266.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	47.51	
07/12/2023	Pipeline	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	81.49	28.26	165.58	443.87	1,371,308.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	48.31	12,735,476.00 <i>gal</i>
Application event totals		81.49	28.26	165.58	492.18	
07/28/2023	Pipeline	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	110.18	38.21	223.88	600.14	1,854,073.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	45.01	11,865,476.00 <i>gal</i>
Application event totals		110.18	38.21	223.88	645.14	
08/14/2023	Pipeline	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	46.46	12,248,637.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	46.46	

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Field 3 - 06/10/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/30/2023	Pipeline	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.00	0.00	0.00	39.43	10,394,168.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	39.43	

Field 4 - 11/12/2022: Wheat, silage, soft dough

Field name: Field 4

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
09/12/2022	Broadcast/incorporate	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Solid Manure		Corral solids	124.41	58.36	133.01	1,438.63	117.00 <i>ton</i>	
Application event totals			124.41	58.36	133.01	1,438.63		
10/10/2022	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	103.27	29.12	171.66	1,335.37	895,380.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	41.90	6,527,905.00 <i>gal</i>	
Application event totals			103.27	29.12	171.66	1,377.28		
03/08/2023	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	135.05	37.39	225.01	1,139.76	1,058,967.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	40.89	6,369,699.00 <i>gal</i>	
Application event totals			135.05	37.39	225.01	1,180.65		

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Field 4 - 11/12/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/10/2023	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
Canal	Surface water	0.00	0.00	0.00	40.84	6,362,009.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	40.84	

Field 4 - 06/11/2023: Corn, silage

Field name: Field 4

Crop: Corn, silage

Plant date: 06/11/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
05/21/2023	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	70.53	24.46	143.30	384.14	701,277.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	43.22	6,733,285.00 <i>gal</i>	
Application event totals			70.53	24.46	143.30	427.36		
06/30/2023	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	80.36	27.87	163.29	437.71	799,071.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	40.13	6,251,492.00 <i>gal</i>	
Application event totals			80.36	27.87	163.29	477.84		
07/13/2023	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	
Canal		Surface water	0.00	0.00	0.00	40.49	6,307,389.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	40.49		

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Field 4 - 06/11/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
07/30/2023	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	
Canal		Surface water	0.00	0.00	0.00	43.23	6,733,802.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	43.23		
08/14/2023	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	73.13	25.36	148.59	398.33	727,174.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	40.45	6,302,009.00 <i>gal</i>	
Application event totals			73.13	25.36	148.59	438.78		
09/02/2023	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	
Canal		Surface water	0.00	0.00	0.00	40.49	6,307,905.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	40.49		

Field 5 - 11/12/2022: Wheat, silage, soft dough

Field name: Field 5

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/12/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Solid Manure	Corral solids	124.41	58.36	133.01	1,438.63	36.00 <i>ton</i>
Application event totals		124.41	58.36	133.01	1,438.63	

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Field 5 - 11/12/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
10/22/2022	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	114.09	32.17	189.66	1,475.33	304,377.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	38.02	1,822,432.00 <i>gal</i>	
Application event totals			114.09	32.17	189.66	1,513.35		
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	128.90	35.69	214.76	1,087.87	311,003.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	40.89	1,959,849.00 <i>gal</i>	
Application event totals			128.90	35.69	214.76	1,128.76		
04/10/2023	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	
Canal		Surface water	0.00	0.00	0.00	40.10	1,922,098.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	40.10		

Field 5 - 06/11/2023: Corn, silage

Field name: Field 5

Crop: Corn, silage

Plant date: 06/11/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	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	73.99	25.66	150.34	403.01	226,377.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	40.05	1,919,849.00 <i>gal</i>
Application event totals		73.99	25.66	150.34	443.06	

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Field 5 - 06/11/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
06/30/2023	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
Canal	Surface water	0.00	0.00	0.00	41.57	1,992,432.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	41.57	
07/13/2023	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	63.90	22.16	129.84	348.05	195,502.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	37.60	1,802,432.00 <i>gal</i>
Application event totals		63.90	22.16	129.84	385.65	
07/28/2023	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
Lagoon	Process wastewater	65.70	22.78	133.49	357.84	201,003.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	44.08	2,113,101.00 <i>gal</i>
Application event totals		65.70	22.78	133.49	401.92	
08/15/2023	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
Canal	Surface water	0.00	0.00	0.00	40.79	1,955,016.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	40.79	
09/01/2023	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
Canal	Surface water	0.00	0.00	0.00	41.36	1,982,432.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	41.36	

Field 6 - 11/14/2022: Wheat, silage, soft dough

Field name: Field 6

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

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Field 6 - 11/14/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
09/12/2022	Broadcast/incorporate	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Solid Manure		Corral solids	124.41	58.36	133.01	1,438.63	111.00 <i>ton</i>
Application event totals			124.41	58.36	133.01	1,438.63	
10/03/2022	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	83.94	23.67	139.54	1,085.47	690,496.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	36.66	5,417,500.00 <i>gal</i>
Application event totals			83.94	23.67	139.54	1,122.13	
03/08/2023	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	86.45	23.93	144.03	729.57	643,097.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	38.92	5,752,161.00 <i>gal</i>
Application event totals			86.45	23.93	144.03	768.49	
04/10/2023	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
Canal		Surface water	0.00	0.00	0.00	40.11	5,927,500.00 <i>gal</i>
Application event totals			0.00	0.00	0.00	40.11	

Field 6 - 06/12/2023: Corn, silage

Field name: Field 6

Crop: Corn, silage

Plant date: 06/12/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Field 6 - 06/12/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/20/2023	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	68.19	23.65	138.55	371.41	643,263.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	43.34	6,405,635.00 <i>gal</i>
Application event totals		68.19	23.65	138.55	414.75	
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
Canal	Surface water	0.00	0.00	0.00	43.52	6,432,627.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	43.52	
07/14/2023	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	56.32	19.53	114.43	306.74	531,263.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	41.96	6,201,695.00 <i>gal</i>
Application event totals		56.32	19.53	114.43	348.70	
08/02/2023	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	47.95	16.63	97.43	261.17	452,330.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	40.61	6,001,695.00 <i>gal</i>
Application event totals		47.95	16.63	97.43	301.78	
08/25/2023	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
Canal	Surface water	0.00	0.00	0.00	41.29	6,102,161.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	41.29	

Field 7 - 11/15/2022: Wheat, silage, soft dough

Field name: Field 7

Crop: Wheat, silage, soft dough

Plant date: 11/15/2022

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Field 7 - 11/15/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
09/12/2022	Broadcast/incorporate	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Solid Manure	Corral solids	124.41	58.36	133.01	1,438.63	96.00 <i>ton</i>
Application event totals		124.41	58.36	133.01	1,438.63	
10/03/2022	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	97.18	27.40	161.54	1,256.61	691,338.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	43.20	5,521,603.00 <i>gal</i>
Application event totals		97.18	27.40	161.54	1,299.81	
03/08/2023	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	104.40	28.90	173.93	881.05	671,672.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	39.91	5,101,938.00 <i>gal</i>
Application event totals		104.40	28.90	173.93	920.97	
04/10/2023	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
Canal	Surface water	0.00	0.00	0.00	42.68	5,455,382.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	42.68	

Field 7 - 06/13/2023: Corn, silage

Field name: Field 7

Crop: Corn, silage Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Field 7 - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
05/20/2023	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	77.42	26.85	157.32	421.70	631,672.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	40.20	5,138,493.00 <i>gal</i>
Application event totals			77.42	26.85	157.32	461.90	
06/30/2023	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	88.88	30.82	180.59	484.09	725,117.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	42.65	5,451,938.00 <i>gal</i>
Application event totals			88.88	30.82	180.59	526.74	
07/13/2023	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	99.39	34.47	201.95	541.35	810,896.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	46.64	5,961,603.00 <i>gal</i>
Application event totals			99.39	34.47	201.95	587.99	
07/28/2023	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
Lagoon		Process wastewater	74.55	25.85	151.48	406.05	608,227.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	40.07	5,122,272.00 <i>gal</i>
Application event totals			74.55	25.85	151.48	446.13	
08/14/2023	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
Canal		Surface water	0.00	0.00	0.00	42.52	5,435,048.00 <i>gal</i>
Application event totals			0.00	0.00	0.00	42.52	

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Field 7 - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/28/2023	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
Canal	Surface water	0.00	0.00	0.00	41.47	5,300,265.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	41.47	

Field 8 - 11/16/2022: Wheat, silage, soft dough

Field name: Field 8

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
09/12/2022	Broadcast/incorporate	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Solid Manure		Corral solids	124.41	58.36	133.01	1,438.63	60.00 <i>ton</i>	
Application event totals			124.41	58.36	133.01	1,438.63		
10/03/2022	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	90.14	25.39	149.65	1,164.15	400,295.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	46.55	3,718,502.00 <i>gal</i>	
Application event totals			90.14	25.39	149.65	1,210.70		
03/05/2023	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	
Lagoon		Process wastewater	96.20	26.63	160.28	811.88	386,836.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	49.21	3,931,420.00 <i>gal</i>	
Application event totals			96.20	26.63	160.28	861.09		

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Field 8 - 11/16/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/09/2023	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
Canal	Surface water	0.00	0.00	0.00	43.29	3,458,502.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	43.29	

Field 8 - 06/13/2023: Corn, silage

Field name: Field 8

Crop: Corn, silage

Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/20/2023	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	89.12	30.91	181.09	485.42	454,448.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	42.67	3,408,502.00 <i>gal</i>
Application event totals		89.12	30.91	181.09	528.09	
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
Lagoon	Process wastewater	110.10	38.19	223.72	599.72	561,448.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	40.81	3,259,890.00 <i>gal</i>
Application event totals		110.10	38.19	223.72	640.52	
07/14/2023	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	68.39	23.72	138.97	372.53	348,754.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	41.58	3,321,420.00 <i>gal</i>
Application event totals		68.39	23.72	138.97	414.10	

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Field 8 - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
07/29/2023	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	55.73	22.73	146.48	874.81	373,060.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	43.18	3,449,961.00 <i>gal</i>
Application event totals		55.73	22.73	146.48	917.99	
08/14/2023	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
Canal	Surface water	0.00	0.00	0.00	48.89	3,905,655.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	48.89	
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
Canal	Surface water	0.00	0.00	0.00	41.98	3,354,054.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	41.98	

Field 9E. - 11/16/2022: Wheat, silage, soft dough

Field name: Field 9E.

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
10/15/2022	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	114.57	32.31	190.46	1,481.59	203,779.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	42.51	1,358,511.00 <i>gal</i>
Application event totals			114.57	32.31	190.46	1,524.10	

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Field 9E. - 11/16/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
03/07/2023	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
Lagoon		Process wastewater	96.74	26.78	161.19	816.48	155,612.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	41.48	1,325,401.00 <i>gal</i>
Application event totals			96.74	26.78	161.19	857.96	
04/09/2023	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
Canal		Surface water	0.00	0.00	0.00	48.77	1,558,511.00 <i>gal</i>
Application event totals			0.00	0.00	0.00	48.77	

Field 9E. - 06/13/2023: Corn, silage

Field name: Field 9E.

Crop: Corn, silage

Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
05/20/2023	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	96.69	33.53	196.47	526.67	197,224.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	43.87	1,401,956.00 <i>gal</i>	
Application event totals			96.69	33.53	196.47	570.54		
06/29/2023	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	
Canal		Surface water	0.00	0.00	0.00	46.54	1,487,123.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	46.54		

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Field 9E. - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
07/13/2023	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	86.18	29.89	175.11	469.40	175,779.00 gal
Canal	Surface water	0.00	0.00	0.00	47.27	1,510,568.00 gal
Application event totals		86.18	29.89	175.11	516.67	
08/01/2023	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
Lagoon	Process wastewater	84.00	29.13	170.68	457.53	171,334.00 gal
Canal	Surface water	0.00	0.00	0.00	51.02	1,630,401.00 gal
Application event totals		84.00	29.13	170.68	508.55	
08/15/2023	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
Canal	Surface water	0.00	0.00	0.00	48.62	1,553,678.00 gal
Application event totals		0.00	0.00	0.00	48.62	
09/01/2023	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
Canal	Surface water	0.00	0.00	0.00	43.87	1,401,956.00 gal
Application event totals		0.00	0.00	0.00	43.87	

Field 9W. - 11/16/2022: Wheat, silage, soft dough

Field name: Field 9W.

Crop: Wheat, silage, soft dough Plant date: 11/16/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Reporting period 01/01/2023 to 12/31/2023.

Field 9W. - 11/16/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
10/15/2022	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	74.25	20.94	123.43	960.13	132,057.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	51.02	1,630,234.00 <i>gal</i>
Application event totals		74.25	20.94	123.43	1,011.15	
03/07/2023	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
Lagoon	Process wastewater	75.09	20.79	125.11	633.72	120,779.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	31.34	1,001,622.00 <i>gal</i>
Application event totals		75.09	20.79	125.11	665.06	
04/09/2023	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	67.52	18.69	112.50	569.88	108,612.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	42.42	1,355,401.00 <i>gal</i>
Application event totals		67.52	18.69	112.50	612.29	

Field 9W. - 06/13/2023: Corn, silage

Field name: Field 9W.

Crop: Corn, silage

Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/20/2023	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	53.25	18.47	108.20	290.04	108,612.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	36.10	1,153,678.00 <i>gal</i>
Application event totals		53.25	18.47	108.20	326.14	

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Field 9W. - 06/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
06/29/2023	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	
Canal		Surface water	0.00	0.00	0.00	49.01	1,566,262.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	49.01		
07/13/2023	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	76.37	26.49	155.18	415.99	155,779.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	48.52	1,550,568.00 <i>gal</i>	
Application event totals			76.37	26.49	155.18	464.52		
08/01/2023	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	
Lagoon		Process wastewater	70.35	24.40	142.95	383.21	143,501.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	44.02	1,406,789.00 <i>gal</i>	
Application event totals			70.35	24.40	142.95	427.23		
08/15/2023	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	
Canal		Surface water	0.00	0.00	0.00	48.77	1,558,511.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	48.77		
09/01/2023	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	
Canal		Surface water	0.00	0.00	0.00	43.66	1,395,066.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	43.66		

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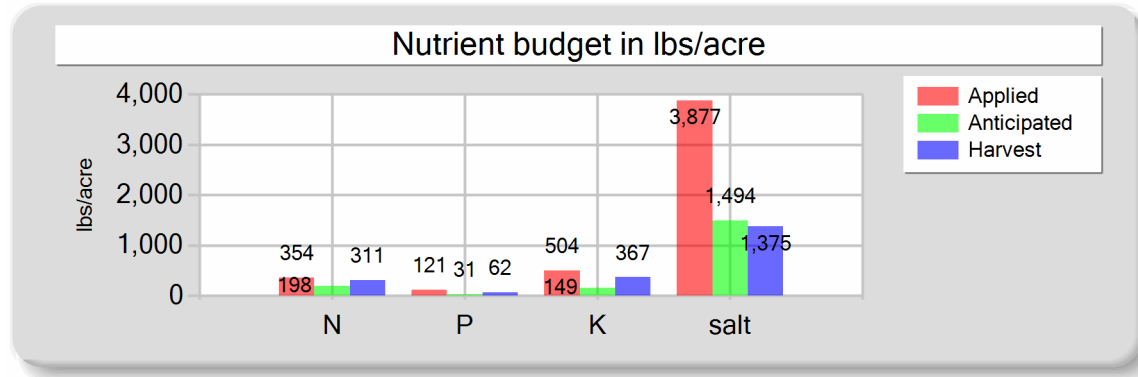
B. NUTRIENT BUDGET

Field 3 - 11/13/2022: Wheat, silage, soft dough

Field name: Field 3

Crop: Wheat, silage, soft dough

Plant date: 11/13/2022



	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	32,863,022.00 <i>gallons</i>
Plowdown credit	0.00	0.00	0.00	0.00	1,210.23 <i>acre-inches</i>
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	18.34 <i>inches/acre</i>
Dry manure	124.41	58.36	133.01	1,438.63	
Process wastewater	222.94	62.22	371.07	2,313.75	
Fresh water	0.00	0.00	0.00	124.66	
Atmospheric deposition	7.00	0.00	0.00	0.00	
Total nutrients applied	354.35	120.57	504.08	3,877.04	
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00	
Actual crop nutrient removal	310.92	61.78	366.72	1,375.20	
Nutrient balance	43.43	58.79	137.36	2,501.84	
Applied to removed ratio	1.14	1.95	1.37	2.82	
					Process wastewater applied
					3,093,406.00 <i>gallons</i>
					113.92 <i>acre-inches</i>
					1.73 <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.

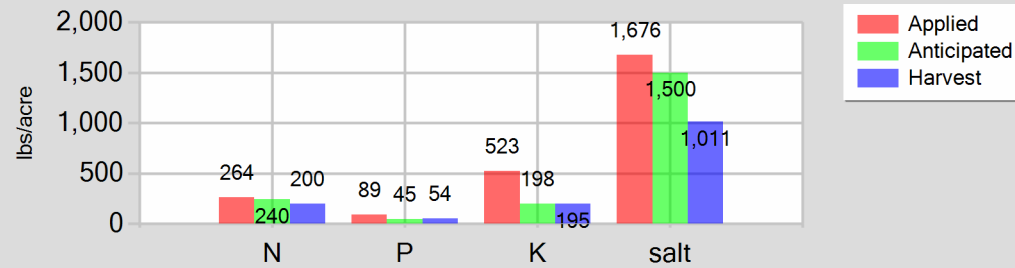
Field 3 - 06/10/2023: Corn, silage

Field name: Field 3

Crop: Corn, silage

Plant date: 06/10/2023

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	0.00	0.00	0.00	0.00
Process wastewater	257.31	89.24	522.83	1,401.51
Fresh water	0.00	0.00	0.00	274.84
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	264.31	89.24	522.83	1,676.35
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	200.28	54.48	195.48	1,011.03
Nutrient balance	64.02	34.76	327.35	665.31
Applied to removed ratio	1.32	1.64	2.67	1.66

Fresh water applied
72,455,894.00 gallons
2,668.30 acre-inches
40.43 inches/acre
Process wastewater applied
4,329,850.00 gallons
159.45 acre-inches
2.42 inches/acre
Total harvests for the crop
1 harvests

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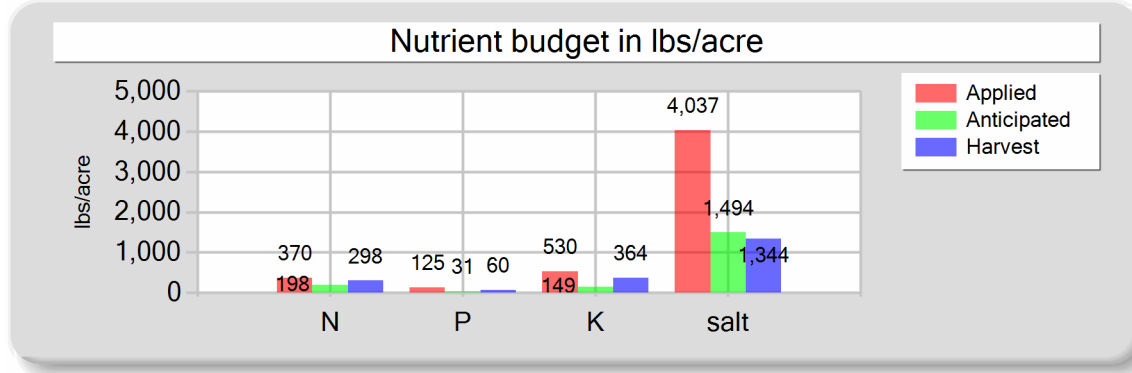
Reporting period 01/01/2023 to 12/31/2023.

Field 4 - 11/12/2022: Wheat, silage, soft dough

Field name: Field 4

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022



	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	124.41	58.36	133.01	1,438.63
Process wastewater	238.31	66.51	396.67	2,475.13
Fresh water	0.00	0.00	0.00	123.63
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	369.72	124.87	529.67	4,037.39
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	297.96	60.37	364.18	1,343.75
Nutrient balance	71.76	64.50	165.50	2,693.64
Applied to removed ratio	1.24	2.07	1.45	3.00

Fresh water applied
19,259,613.00 <i>gallons</i>
709.27 <i>acre-inches</i>
18.19 <i>inches/acre</i>

Process wastewater applied
1,954,347.00 <i>gallons</i>
71.97 <i>acre-inches</i>
1.85 <i>inches/acre</i>

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

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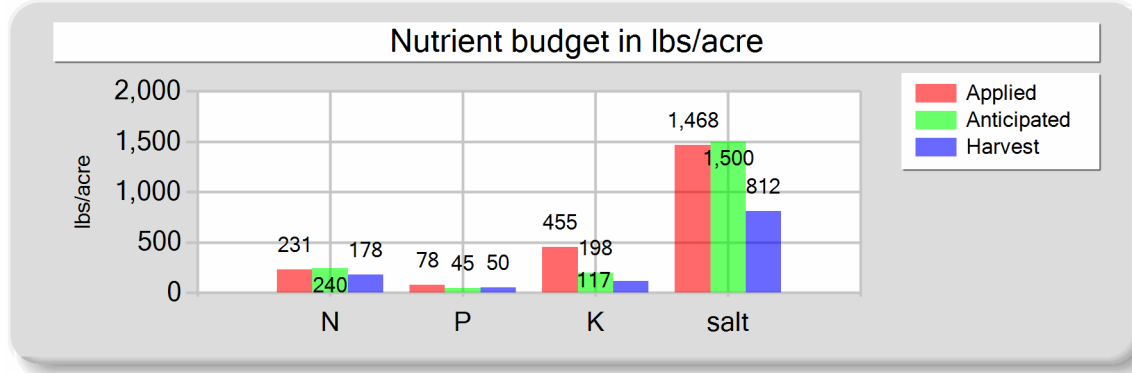
Reporting period 01/01/2023 to 12/31/2023.

Field 4 - 06/11/2023: Corn, silage

Field name: Field 4

Crop: Corn, silage

Plant date: 06/11/2023



	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	38,635,882.00 <i>gallons</i>
Plowdown credit	0.00	0.00	0.00	0.00	1,422.83 <i>acre-inches</i>
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	36.48 <i>inches/acre</i>
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	224.02	77.69	455.18	1,220.18	Process wastewater applied
Fresh water	0.00	0.00	0.00	248.01	2,227,522.00 <i>gallons</i>
Atmospheric deposition	7.00	0.00	0.00	0.00	82.03 <i>acre-inches</i>
Total nutrients applied	231.02	77.69	455.18	1,468.19	2.10 <i>inches/acre</i>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00	
Actual crop nutrient removal	177.69	49.75	117.28	812.05	Total harvests for the crop
Nutrient balance	53.33	27.94	337.91	656.14	1 <i>harvests</i>
Applied to removed ratio	1.30	1.56	3.88	1.81	

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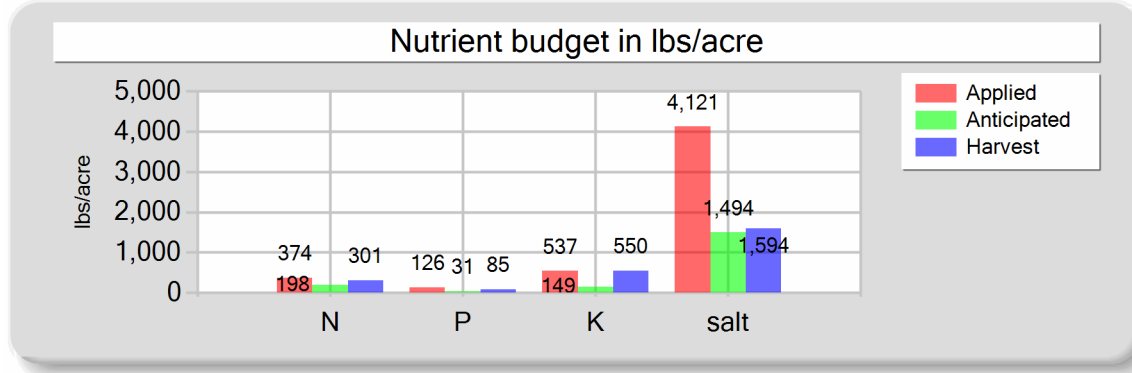
Reporting period 01/01/2023 to 12/31/2023.

Field 5 - 11/12/2022: Wheat, silage, soft dough

Field name: Field 5

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022



	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	124.41	58.36	133.01	1,438.63
Process wastewater	242.99	67.86	404.42	2,563.20
Fresh water	0.00	0.00	0.00	119.01
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	374.40	126.22	537.42	4,120.84
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	300.79	85.30	549.94	1,593.71
Nutrient balance	73.62	40.92	-12.52	2,527.13
Applied to removed ratio	1.24	1.48	0.98	2.59

Fresh water applied
5,704,379.00 <i>gallons</i>
210.07 <i>acre-inches</i>
17.51 <i>inches/acre</i>

Process wastewater applied
615,380.00 <i>gallons</i>
22.66 <i>acre-inches</i>
1.89 <i>inches/acre</i>

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

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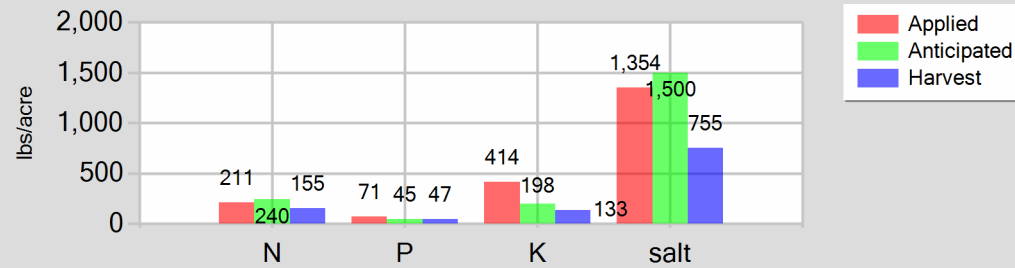
Field 5 - 06/11/2023: Corn, silage

Field name: Field 5

Crop: Corn, silage

Plant date: 06/11/2023

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	0.00	0.00	0.00	0.00
Process wastewater	203.59	70.61	413.67	1,108.90
Fresh water	0.00	0.00	0.00	245.45
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	210.59	70.61	413.67	1,354.35
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	155.00	47.17	133.10	754.77
Nutrient balance	55.59	23.43	280.57	599.58
Applied to removed ratio	1.36	1.50	3.11	1.79

Fresh water applied
11,765,262.00 <i>gallons</i>
433.27 <i>acre-inches</i>
36.11 <i>inches/acre</i>
Process wastewater applied
622,882.00 <i>gallons</i>
22.94 <i>acre-inches</i>
1.91 <i>inches/acre</i>
Total harvests for the crop
1 <i>harvests</i>

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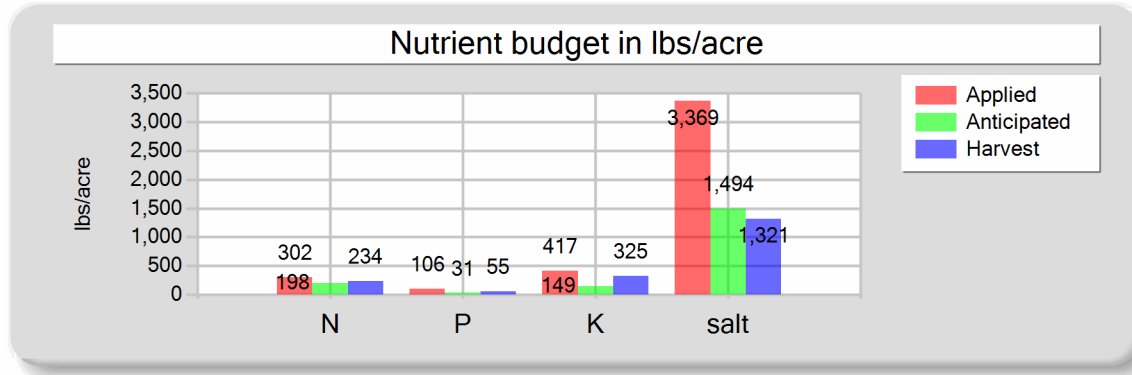
Reporting period 01/01/2023 to 12/31/2023.

Field 6 - 11/14/2022: Wheat, silage, soft dough

Field name: Field 6

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022



	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	124.41	58.36	133.01	1,438.63
Process wastewater	170.39	47.60	283.57	1,815.05
Fresh water	0.00	0.00	0.00	115.68
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	301.80	105.96	416.57	3,369.36
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	234.45	54.90	324.97	1,320.64
Nutrient balance	67.35	51.06	91.61	2,048.72
Applied to removed ratio	1.29	1.93	1.28	2.55

Fresh water applied
17,097,161.00 <i>gallons</i>
629.63 <i>acre-inches</i>
17.02 <i>inches/acre</i>

Process wastewater applied
1,333,593.00 <i>gallons</i>
49.11 <i>acre-inches</i>
1.33 <i>inches/acre</i>

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

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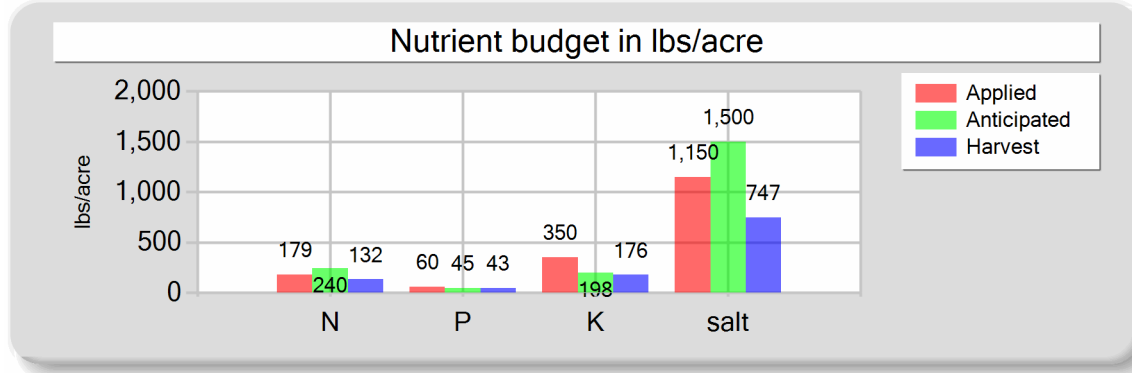
Reporting period 01/01/2023 to 12/31/2023.

Field 6 - 06/12/2023: Corn, silage

Field name: Field 6

Crop: Corn, silage

Plant date: 06/12/2023



	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	0.00	0.00	0.00	0.00
Process wastewater	172.45	59.81	350.41	939.32
Fresh water	0.00	0.00	0.00	210.73
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	179.45	59.81	350.41	1,150.05
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	131.50	43.28	176.45	747.41
Nutrient balance	47.95	16.53	173.96	402.64
Applied to removed ratio	1.36	1.38	1.99	1.54

Fresh water applied
31,143,813.00 <i>gallons</i>
1,146.92 <i>acre-inches</i>
31.00 <i>inches/acre</i>

Process wastewater applied
1,626,856.00 <i>gallons</i>
59.91 <i>acre-inches</i>
1.62 <i>inches/acre</i>

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

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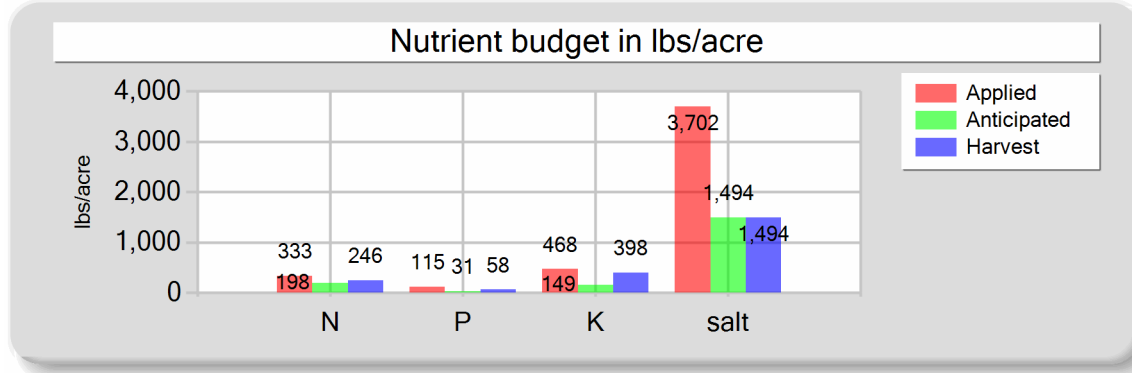
Reporting period 01/01/2023 to 12/31/2023.

Field 7 - 11/15/2022: Wheat, silage, soft dough

Field name: Field 7

Crop: Wheat, silage, soft dough

Plant date: 11/15/2022



	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	124.41	58.36	133.01	1,438.63
Process wastewater	201.57	56.31	335.47	2,137.66
Fresh water	0.00	0.00	0.00	125.79
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	332.98	114.66	468.48	3,702.08
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	245.68	58.10	398.40	1,494.00
Nutrient balance	87.30	56.56	70.08	2,208.08
Applied to removed ratio	1.36	1.97	1.18	2.48

Fresh water applied
16,078,923.00 <i>gallons</i>
592.13 <i>acre-inches</i>
18.50 <i>inches/acre</i>

Process wastewater applied
1,363,010.00 <i>gallons</i>
50.20 <i>acre-inches</i>
1.57 <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.

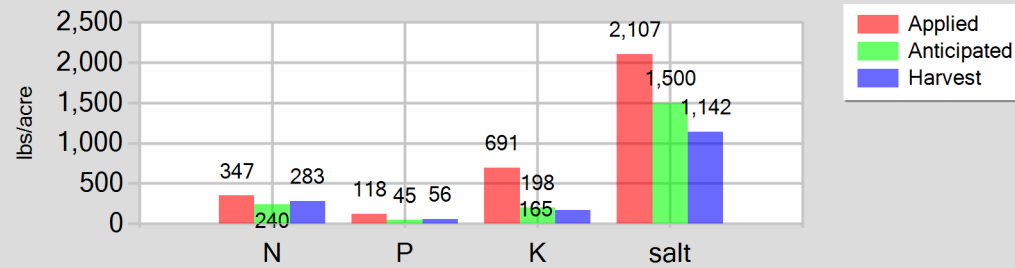
Field 7 - 06/13/2023: Corn, silage

Field name: Field 7

Crop: Corn, silage

Plant date: 06/13/2023

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	0.00	0.00	0.00	0.00
Process wastewater	340.24	118.00	691.33	1,853.20
Fresh water	0.00	0.00	0.00	253.55
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	347.24	118.00	691.33	2,106.75
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	282.73	55.65	164.74	1,142.03
Nutrient balance	64.51	62.34	526.59	964.72
Applied to removed ratio	1.23	2.12	4.20	1.84

Fresh water applied
32,409,619.00 <i>gallons</i>
1,193.54 <i>acre-inches</i>
37.30 <i>inches/acre</i>
Process wastewater applied
2,775,912.00 <i>gallons</i>
102.23 <i>acre-inches</i>
3.19 <i>inches/acre</i>
Total harvests for the crop
1 <i>harvests</i>

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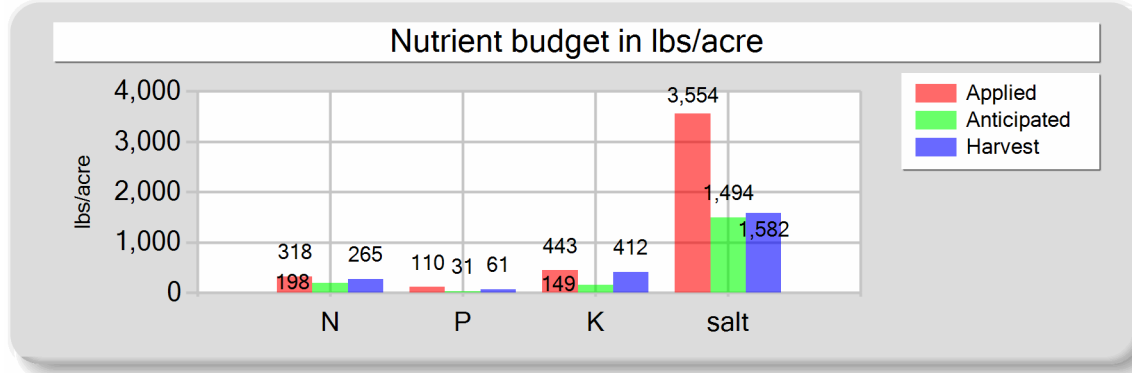
Reporting period 01/01/2023 to 12/31/2023.

Field 8 - 11/16/2022: Wheat, silage, soft dough

Field name: Field 8

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022



	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	124.41	58.36	133.01	1,438.63
Process wastewater	186.34	52.02	309.93	1,976.03
Fresh water	0.00	0.00	0.00	139.05
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	317.75	110.38	442.94	3,553.71
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	265.36	61.24	411.64	1,581.93
Nutrient balance	52.40	49.14	31.29	1,971.78
Applied to removed ratio	1.20	1.80	1.08	2.25

Fresh water applied
11,108,424.00 <i>gallons</i>
409.09 <i>acre-inches</i>
20.45 <i>inches/acre</i>

Process wastewater applied
787,131.00 <i>gallons</i>
28.99 <i>acre-inches</i>
1.45 <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.

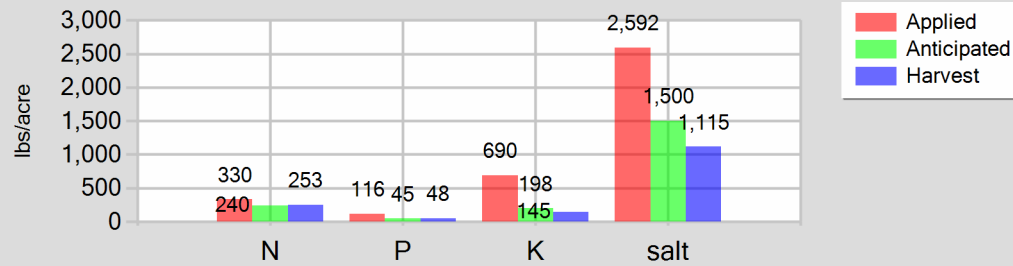
Field 8 - 06/13/2023: Corn, silage

Field name: Field 8

Crop: Corn, silage

Plant date: 06/13/2023

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	0.00	0.00	0.00	0.00
Process wastewater	323.34	115.54	690.25	2,332.47
Fresh water	0.00	0.00	0.00	259.11
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	330.34	115.54	690.25	2,591.58
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	253.25	47.62	145.02	1,114.72
Nutrient balance	77.10	67.92	545.23	1,476.86
Applied to removed ratio	1.30	2.43	4.76	2.32

Fresh water applied
20,699,482.00 <i>gallons</i>
762.29 <i>acre-inches</i>
38.11 <i>inches/acre</i>

Process wastewater applied
1,737,710.00 <i>gallons</i>
63.99 <i>acre-inches</i>
3.20 <i>inches/acre</i>

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

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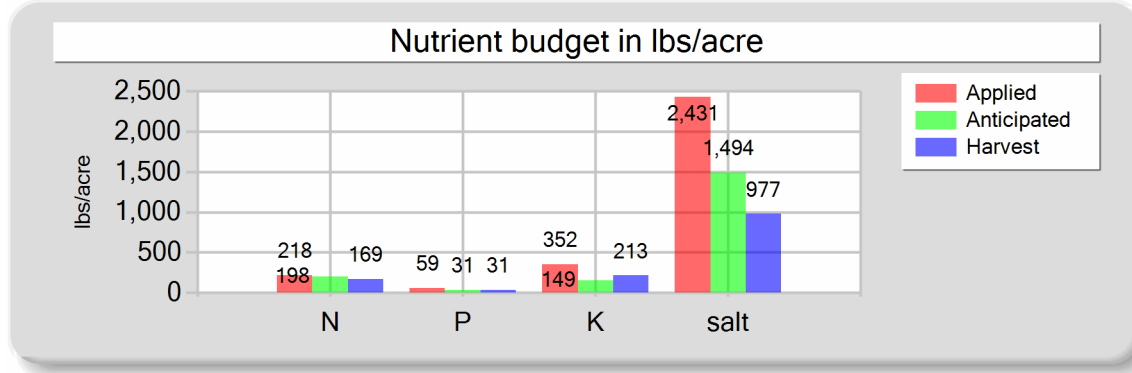
Reporting period 01/01/2023 to 12/31/2023.

Field 9E. - 11/16/2022: Wheat, silage, soft dough

Field name: Field 9E.

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022



	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	211.32	59.09	351.65	2,298.08
Fresh water	0.00	0.00	0.00	132.76
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	218.32	59.09	351.65	2,430.84
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	169.31	30.93	213.27	976.80
Nutrient balance	49.01	28.16	138.38	1,454.04
Applied to removed ratio	1.29	1.91	1.65	2.49

Fresh water applied
4,242,423.00 <i>gallons</i>
156.23 <i>acre-inches</i>
19.53 <i>inches/acre</i>

Process wastewater applied
359,391.00 <i>gallons</i>
13.24 <i>acre-inches</i>
1.65 <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.

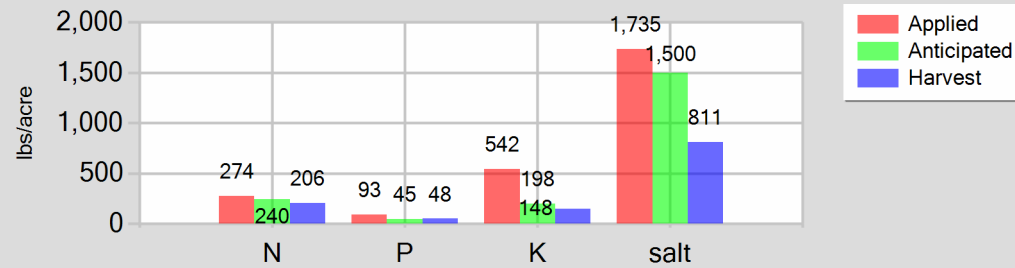
Field 9E. - 06/13/2023: Corn, silage

Field name: Field 9E.

Crop: Corn, silage

Plant date: 06/13/2023

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	0.00	0.00	0.00	0.00
Process wastewater	266.87	92.55	542.26	1,453.60
Fresh water	0.00	0.00	0.00	281.20
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	273.87	92.55	542.26	1,734.79
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	206.31	48.14	147.86	811.49
Nutrient balance	67.56	44.41	394.40	923.31
Applied to removed ratio	1.33	1.92	3.67	2.14

Fresh water applied
8,985,682.00 <i>gallons</i>
330.91 <i>acre-inches</i>
41.36 <i>inches/acre</i>
Process wastewater applied
544,337.00 <i>gallons</i>
20.05 <i>acre-inches</i>
2.51 <i>inches/acre</i>
Total harvests for the crop
1 <i>harvests</i>

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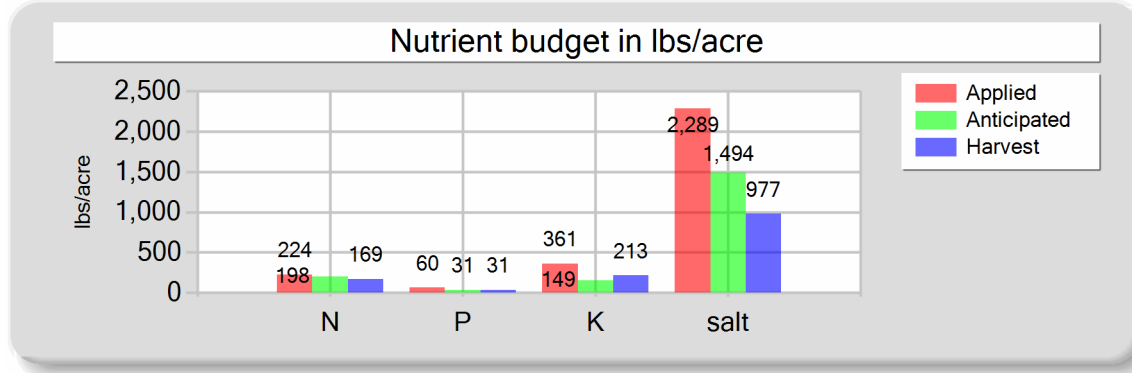
Reporting period 01/01/2023 to 12/31/2023.

Field 9W. - 11/16/2022: Wheat, silage, soft dough

Field name: Field 9W.

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022



	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	216.86	60.42	361.03	2,163.73
Fresh water	0.00	0.00	0.00	124.78
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	223.86	60.42	361.03	2,288.50
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	169.31	30.93	213.27	976.80
Nutrient balance	54.55	29.49	147.77	1,311.70
Applied to removed ratio	1.32	1.95	1.69	2.34

Fresh water applied
3,987,257.00 <i>gallons</i>
146.84 <i>acre-inches</i>
18.35 <i>inches/acre</i>

Process wastewater applied
361,448.00 <i>gallons</i>
13.31 <i>acre-inches</i>
1.66 <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.

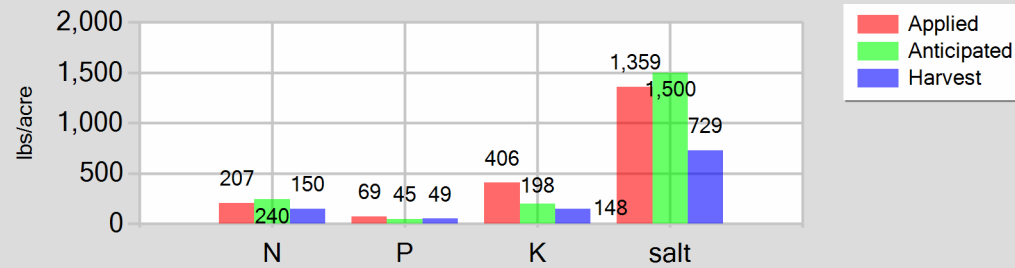
Field 9W. - 06/13/2023: Corn, silage

Field name: Field 9W.

Crop: Corn, silage

Plant date: 06/13/2023

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	0.00	0.00	0.00	0.00
Process wastewater	199.98	69.35	406.34	1,089.23
Fresh water	0.00	0.00	0.00	270.09
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	206.98	69.35	406.34	1,359.33
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	149.94	48.86	148.26	729.50
Nutrient balance	57.03	20.50	258.08	629.83
Applied to removed ratio	1.38	1.42	2.74	1.86

Fresh water applied
8,630,874.00 <i>gallons</i>
317.85 <i>acre-inches</i>
39.73 <i>inches/acre</i>
Process wastewater applied
407,892.00 <i>gallons</i>
15.02 <i>acre-inches</i>
1.88 <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: 11/15/2022 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 24.6 %

	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	27,500.00	12,900.00	29,400.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 05/01/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 14.5 %

	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	26,000.00	12,700.00	31,600.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 10/09/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 13.2 %

	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	28,700.00	14,200.00	34,400.00							
DL	0.01	0.01	0.01							

B. PROCESS WASTEWATER ANALYSES

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: 11/15/2022 Material type: Process wastewater Source of analysis: Lab analysis pH:

	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	539.00	450.00	0.00	0.00	152.00	896.00								10,500.00	6,970
DL	10.00	2.00	0.20	0.20	0.20	0.50								10.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 02/23/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.20

	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	596.00	315.00	0.00	0.00	165.00	993.00								7,570.00	5,030
DL	10.00	2.00	0.20	0.20	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 05/01/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	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	470.00	379.00	0.00	0.00	163.00	955.00								3,850.00	2,560
DL	10.00	2.00	0.20	0.20	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 08/01/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	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	358.00	352.00	0.00	0.00	146.00	941.00								8,460.00	5,620
DL	10.00	2.00	0.20	0.20	0.20	0.50								100.00	10

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

Lagoon

Sample and source description: Lagoon

Sample date: 11/15/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	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	234.00	143.00			60.10	370.00								3,260.00	2,160
DL	10.00	2.00			0.20	0.50								100.00	10

C. FRESH WATER ANALYSES

Canal

Lemoore ID

Sample description: Lemoore ID

Sample date: 07/18/2023 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)
Value	0.00	0.00	0.00								27.00	30
DL	0.50	0.10	0.20								1.00	20

D-1

Domestic Well

Sample description: Domestic Well

Sample date: 10/26/2023 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)
Value	0.00	0.00	0.00								318.00	
DL	0.10	0.10	0.10								0.10	

D-2

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

D-2

Domestic WellSample description: Domestic WellSample date: 10/26/2023 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)
Value	0.00	0.00	0.00								306.00	
DL	0.10	0.10	0.10								0.10	

D-3

Domestic WellSample description: Domestic WellSample date: 10/26/2023 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)
Value	0.00	0.00	0.00								305.00	
DL	0.10	0.10	0.10								0.10	

D. SOIL ANALYSES*No soil analyses entered.***E. PLANT TISSUE ANALYSES**

Field 3 - 11/13/2022: Wheat, silage, soft dough

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

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

Field 3 - 11/13/2022: Wheat, silage, soft dough

Field 3

Sample and source description: Field 3

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 51.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,600.00	3,100.00	18,400.00		6.90
DL	500.00	200.00	200.00		0.05

Field 3 - 06/10/2023: Corn, silage

Field 3

Sample and source description: Field 3

Sample date: 09/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,500.00	3,400.00	12,200.00		6.31
DL	500.00	200.00	200.00		0.05

Field 4 - 11/12/2022: Wheat, silage, soft dough

Field 4

Sample and source description: Field 4

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 51.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,300.00	3,100.00	18,700.00		6.90
DL	500.00	200.00	200.00		0.05

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

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

Field 4 - 06/11/2023: Corn, silage

Field 4

Sample and source description: Field 4

Sample date: 09/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,000.00	2,800.00	6,600.00		4.57
DL	500.00	200.00	200.00		0.05

Field 5 - 11/12/2022: Wheat, silage, soft dough

Field 5

Sample and source description: Field 5

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 48.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,400.00	3,800.00	24,500.00		7.10
DL	500.00	200.00	200.00		0.05

Field 5 - 06/11/2023: Corn, silage

Field 5

Sample and source description: Field 5

Sample date: 09/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	9,200.00	2,800.00	7,900.00		4.48
DL	500.00	200.00	200.00		0.05

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

Field 6 - 11/14/2022: Wheat, silage, soft dough

Field 6

Sample and source description: Field 6

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,800.00	3,700.00	21,900.00		8.90
DL	500.00	200.00	200.00		0.05

Field 6 - 06/12/2023: Corn, silage

Field 6

Sample and source description: Field 6

Sample date: 09/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	7,900.00	2,600.00	10,600.00		4.49
DL	500.00	200.00	200.00		0.05

Field 7 - 11/15/2022: Wheat, silage, soft dough

Field 7

Sample and source description: Field 7

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 58.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,800.00	3,500.00	24,000.00		9.00
DL	500.00	200.00	200.00		0.05

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

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

Field 7 - 06/13/2023: Corn, silage

Field 7

Sample and source description: Field 7

Sample date: 09/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,700.00	2,500.00	7,400.00		5.13
DL	500.00	200.00	200.00		0.05

Field 8 - 11/16/2022: Wheat, silage, soft dough

Field 8

Sample and source description: Field 8

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 59.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,600.00	3,600.00	24,200.00		9.30
DL	500.00	200.00	200.00		0.05

Field 8 - 06/13/2023: Corn, silage

Field 8

Sample and source description: Field 8

Sample date: 09/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,700.00	2,200.00	6,700.00		5.15
DL	500.00	200.00	200.00		0.05

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

Field 9E. - 11/16/2022: Wheat, silage, soft dough

Field 9E

Sample and source description: Field 9E

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 59.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,400.00	1,900.00	13,100.00		6.00
DL	500.00	200.00	200.00		0.05

Field 9E. - 06/13/2023: Corn, silage

Field 9E

Sample and source description: Field 9E

Sample date: 09/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,000.00	2,800.00	8,600.00		4.72
DL	500.00	200.00	200.00		0.05

Field 9W. - 11/16/2022: Wheat, silage, soft dough

Field 9W

Sample and source description: Field 9W

Sample date: 05/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 59.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,400.00	1,900.00	13,100.00		6.00
DL	500.00	200.00	200.00		0.05

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

Field 9W. - 06/13/2023: Corn, silage

Field 9W

Sample and source description: Field 9W

Sample date: 09/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	8,900.00	2,900.00	8,800.00		4.33
DL	500.00	200.00	200.00		0.05

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

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

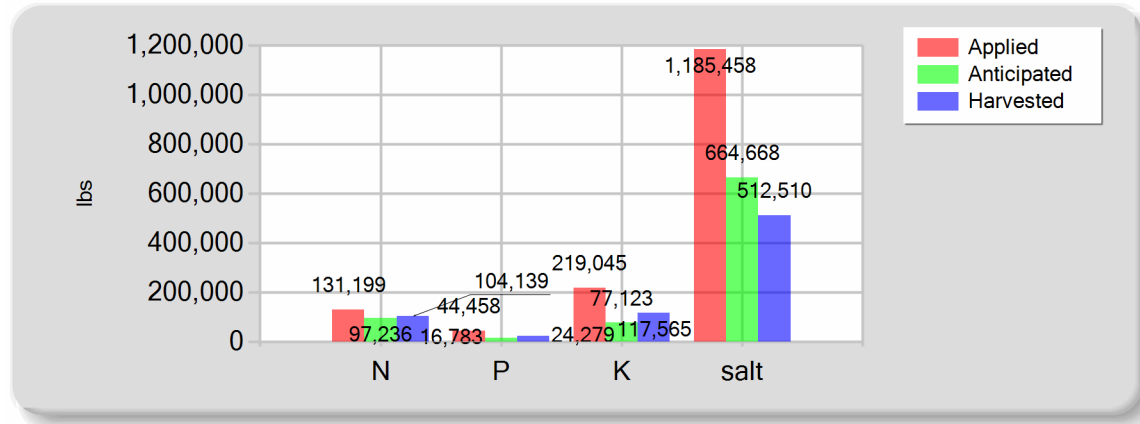
Reporting period 01/01/2023 to 12/31/2023.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

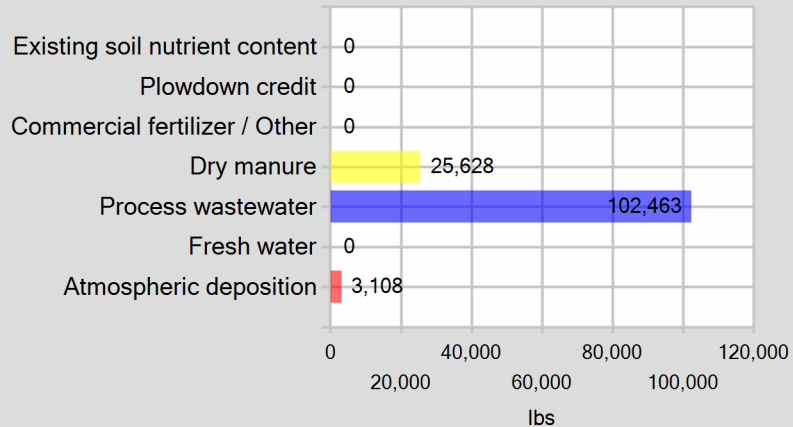
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	25,628.46	12,022.08	27,399.15	296,358.19
Process wastewater	102,462.77	32,435.63	191,645.38	805,215.36
Fresh water	0.00	0.00	0.00	83,884.20
Atmospheric deposition	3,108.00	0.00	0.00	0.00
Total nutrients applied	131,199.23	44,457.71	219,044.54	1,185,457.75
Anticipated crop nutrient removal	97,236.00	16,783.20	77,122.80	664,668.00
Actual crop nutrient removal	104,139.42	24,278.70	117,565.38	512,510.16
Nutrient balance	27,059.81	20,179.02	101,479.15	672,947.59
Applied to removed ratio	1.26	1.83	1.86	2.31

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

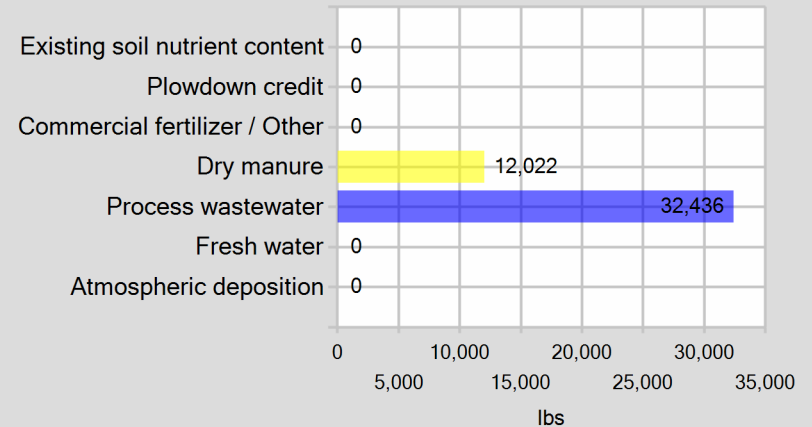


C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

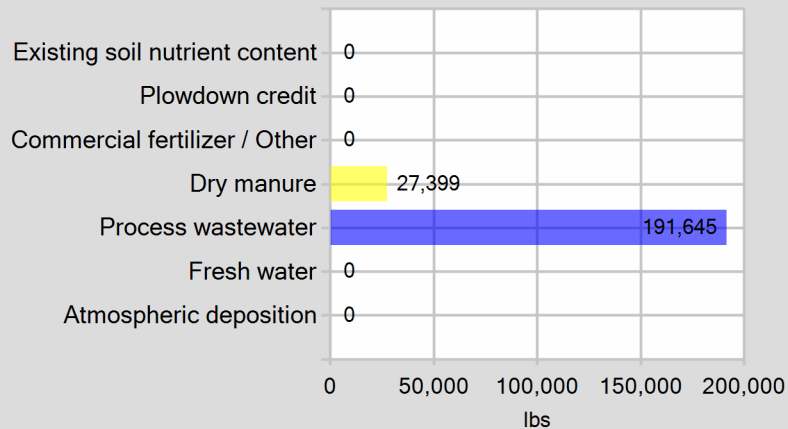
Pounds of nitrogen applied



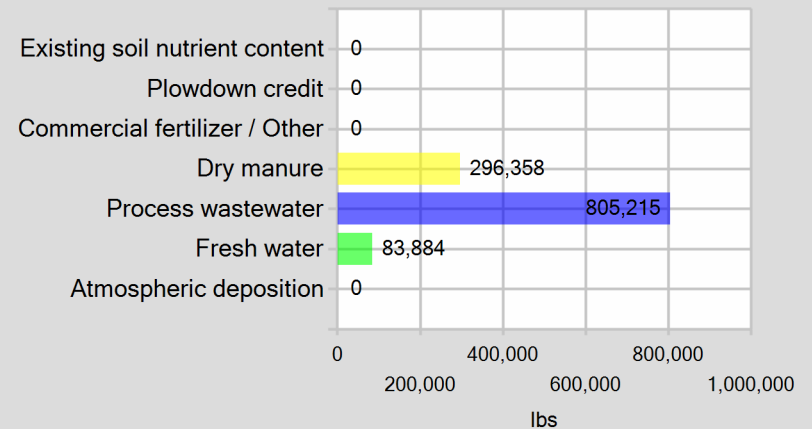
Pounds of phosphorus applied



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

Annual Report - General Order No. R5-2007-0035
Reporting period 01/01/2023 to 12/31/2023.

ADDITIONAL NOTES

A. NOTES

Wells 4, 5, 6, 7, 8, 9, 10, 11, and 12 were out of service in 2023.

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

Nelson or Rodney Rodrigues

PRINT OR TYPE NAME

6-20-24

DATE



SIGNATURE OF OPERATOR OF FACILITY

Daniel Brasil

PRINT OR TYPE NAME

6-20-24

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.

August 11, 2023

Sentry Ag Services
 Attn: Monique Baldiviez
 P.O. Box 7750
 Visalia, CA 93290

Lab No. : VI 2344652
Customer No. : 4019696
Reference : 3059

Laboratory Report

Introduction: This report package contains a total of 3 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
Lemoore I.D.	07/18/2023	07/18/2023	VI 2344652-001	AGW

Sampling and Receipt Information:

The Sample was received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. The Sample was received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the associated Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to established quality control criteria. Any exceptions are noted in the Quality Control Section of this report.

Test Summary

EPA 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

Certification: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above and in the QC Section. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature. This report shall not be reproduced except in full, without the written approval of the laboratory.

KD: EHB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2023-08-14

August 11, 2023

Sentry Ag Services

Attn: Monique Baldiviez
 P.O. Box 7750
 Visalia, CA 93290

Description : Lemoore I.D.
 Project : Lemoore I.D.

Lab No. : VI 2344652-001
 Customer No. : 4019696
 Reference : 3059
 Sampled On : July 18, 2023 at 10:15
 Sampled By : Jeremy
 Received On : July 18, 2023 at 15:17
 Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	EPA 351.2	08/10/2023	17:23	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:11	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	Calc.	08/10/2023	17:23	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:11	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	EPA 351.2	08/10/2023	17:23	lcr
Conductivity	27	1	umhos/cm		1		07/31/2023	14:51	amm	SM 4500-H+B	07/31/2023	18:22	amm
Solids, Total Dissolved (TDS)	30	20	mg/L		1		07/20/2023	10:40	ctl	SM 2540 C	07/21/2023	11:10	ctl

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution

Corporate Offices & Laboratory

853 Corporation Street
 Santa Paula, CA 93060
 TEL: (805)392-2000
 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
 CA ELAP Certification No. 1573

Office & Laboratory

2500 Stagecoach Road
 Stockton, CA 95215
 TEL: (209)942-0182
 FAX: (209)942-0423
 CA ELAP Certification No. 1563

Office & Laboratory

563 E. Lindo Avenue
 Chico, CA 95926
 TEL: (530)343-5818
 FAX: (530)343-3807
 CA ELAP Certification No. 2670

Office & Laboratory

3442 Empresa Drive, Suite D
 San Luis Obispo, CA 93401
 TEL: (805)783-2940
 FAX: (805)783-2912
 CA ELAP Certification No. 2775

Office & Laboratory

9415 W. Goshen Avenue
 Visalia, CA 93291
 TEL: (559)734-9473
 FAX: (559)734-8435
 CA ELAP Certification No. 2810

August 11, 2023
Sentry Ag Service

Lab No. : VI 2344652
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2344788-008)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	07/20/2023:207946CTL (SP 2312188-006) (SP 2312188-006)	Blank	mg/L	993.7	ND	<20	
			LCS	mg/L		98.8%	90-110	
			Dup	mg/L		0.9%	5	
			Dup	mg/L		1.38%	5	
Nitrogen, Total Kjeldahl	351.2	08/08/2023:208707STA (VI 2344654-002) (VI 2344644-003)	Blank	mg/L	12.00	ND	<0.5	
			LCS	mg/L		91.3%	73-124	
			MS	mg/L		85.5%	54-136	
			MSD	mg/L		85.3%	54-136	
			MSRPD	mg/L		0.3%	≤27	
			MS	mg/L		82.8%	54-136	
			MSD	mg/L		82.5%	54-136	
			MSRPD	mg/L		0.3%	≤27	
Nitrate + Nitrite as N	4500NO3F	07/19/2023:207926LFS (STK2339515-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		97.8%	80-120	
			MS	mg/L		91.9%	66-125	
			MSD	mg/L		94.5%	66-125	
			MSRPD	mg/L		1.2%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/19/2023:207926LFS (STK2339515-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		97.8%	80-120	
			MS	mg/L		91.9%	66-125	
			MSD	mg/L		94.5%	66-125	
			MSRPD	mg/L		1.2%	≤30.4	

Definition

- Blank** : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- DQO** : Data Quality Objective - This is the criteria against which the quality control data is compared.
- Dup** : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
- LCS** : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS** : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD** : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD** : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND** : Non-detect - Result was below the DQO listed for the analyte.



2344652

Laboratory Analysis Work Order

3059

SITE NAME: Lemoore F.D.LABORATORY: VF | FGL 4-19696Billing: Sentry AG Services, LLC
P.O. Box 7750, Visalia, CA 93290Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO₃N (Dom)
 W2 EC, NO₃N, TDS, TN (Irr)
 W3 NH₄-N (Ammonium)
 W4 EC, NO₃N, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl, TDS (Dom, GM)
 W5 EC, NO₃N, TDS, TN, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Irr, GM)
 W6 NO₃N, NO₂ (Dom ILRP, Annually)
 W7 Ca, Mg, Na, K, HCO₃, CO₃, SO₄, Cl + Lab Filtering (GWM)
 W8 Other: _____

Plant Tissue

- P1 TN, NO₃N, PO₄P, K (Mid Season - Wheat)
 P2 TN, P, K (Mid-season - Corn)
 P3 TN, TP, TK, Ash, %M (At Harvest)
 P4 TN, %M
 P5 % Moisture
 P6 NIR
 P7 Other: _____

Process Waste Water (lagoon)

- L1 EC, NH₄N, TKN, TP, TK, TDS (Quarterly)
 L2 EC, NO₃N, NH₄N, TKN, TP, TK, TDS, pH (Annually)
 L3 Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Biennially)
 L4 Other: _____

Manure

- M1 TN, TP, TK, %M (2/year)
 M2 TN, TP, K, %M, Ca, Mg, Na, S, Cl, ash (Biennially)
 M3 Other: _____

Soil

- S1 SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO₃N, PO₄P, K-AA, Zn, Mn, Fe, Cu, SO₄S
 S2 S1 + CEC, CaCO₃, OM, C:N, TN
 S3 NO₃N, NH₄N
 S4 Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
						NH ₃ N *	pH	Temp
1	Lemoore F.D.	Canal	W2	7/18/23 10:15	Benemj	—		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

* Field Test of ammonium nitrogen may only be made by a trained technician. Positive test to be analyzed for ammonium nitrogen by the laboratory.

All samples are to follow the procedures noted in the Sampling & Analysis Plan of the NMP and the RWQCB specifications. Any samples taken outside of these procedures shall provide the procedures on the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1 st		SAS		7/18/23 3:17pm
2 nd	SRO	FGL	7/18/23 1517	
3 rd	SRO	FGL		7/18/23 1730
4 th		GLS	7/18/23 1730	

LABORATORY USE ONLY

Logged In By: _____ Total Samples: _____ Laboratory No.: _____

R01
5.300GLS 7/19/23
MLC 1100

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # OTC

2. Were samples received in a chilled condition? Temps: 20 / 5.3 / / /
Surface water SWTR bact samples: A sample that has a temperature upon receipt of $>10^{\circ}\text{C}$, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

- | | | | |
|---|------------|----|------------|
| 3. Do the number of bottles received agree with the COC? | <u>Yes</u> | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <u>Yes</u> | No | |
| 5. VOAs checked for Headspace? | Yes | No | <u>N/A</u> |
| 6. Were sample custody seals intact? | Yes | No | <u>N/A</u> |
| 7. If required, was sample split for pH analysis? | Yes | No | <u>N/A</u> |
| 8. Were all analyses within holding times at time of receipt? | <u>Yes</u> | No | |
| 9. Verify sample date, time and sampler name | <u>Yes</u> | No | |

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.

Sample Receipt Review completed by (initials): SRO

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 3 / / / /

Acceptable is above freezing to 6°C . If many packages are received at one time check for tests/H.T.'s/rushes/

2. Shipping tracking numbers: 559787246

6815

- | | | | |
|---|------------|----|------------|
| 3. Do the number of bottles received agree with the COC? | <u>Yes</u> | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <u>Yes</u> | No | |
| 5. Were sample custody seals intact? | Yes | No | <u>N/A</u> |

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- | | | | |
|---|------------|----|------------|
| 1. Were all requested analyses understood and acceptable? | <u>Yes</u> | No | |
| 2. Did bottle labels correspond with the client's ID's? | <u>Yes</u> | No | |
| 3. Were all bottles requiring sample preservation properly preserved? | <u>Yes</u> | No | N/A FGL |
| [Exception: Oil & Grease, VOA and CrVI verified in lab] | | | |
| 4. VOAs checked for Headspace? | Yes | No | <u>N/A</u> |
| 5. Have rush or project due dates been checked and accepted? | Yes | No | <u>N/A</u> |
| 6. Were all analyses within holding times at time of receipt? | <u>Yes</u> | No | |

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): WTC

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____
Resolution: _____

2. Person Contacted: _____
Initiated By: _____
Problem: _____
Resolution: _____

(4019696)
Sentry Ag Service
VI 2344652

iv 07/19/2023 08:11:44



VI 2344652

(Please use the back of this sheet for additional co contacts)

November 13, 2023

Sentry Ag Services
 Attn: Monique Baldiviez
 P.O. Box 7750
 Visalia, CA 93290

Lab No. : VI 2347286
Customer No. : 4019696
Reference : 3324

Laboratory Report

Introduction: This report package contains a total of 5 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(3 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
D-1	10/26/2023	10/26/2023	VI 2347286-001	DW
D-2	10/26/2023	10/26/2023	VI 2347286-002	DW
D-3	10/26/2023	10/26/2023	VI 2347286-003	DW

Sampling and Receipt Information:

All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the associated Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to established quality control criteria. Any exceptions are noted in the Quality Control Section of this report.

Test Summary

SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

Certification: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above and in the QC Section. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature. This report shall not be reproduced except in full, without the written approval of the laboratory.

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2023-11-14

November 13, 2023

Sentry Ag Services

Attn: Monique Baldiviez
 P.O. Box 7750
 Visalia, CA 93290

Description : D-1
 Project : Daniel Brasil

Lab No. : VI 2347286-001
 Customer No. : 4019696
 Reference : 3324
 Sampled On : October 26, 2023 at 10:00
 Sampled By : Jeremy
 Received On : October 26, 2023 at 15:30
 Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	10/27/2023	13:00	lfs	SM 4500-NO3 F	10/27/2023	14:11	lfs
Conductivity	318	1	umhos/cm	1600 ²	1		11/02/2023	09:02	krh	SM 4500-H+B	11/02/2023	12:12	krh

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

Corporate Offices & Laboratory

853 Corporation Street
 Santa Paula, CA 93060
 TEL: (805)392-2000
 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
 CA ELAP Certification No. 1573

Office & Laboratory

2500 Stagecoach Road
 Stockton, CA 95215
 TEL: (209)942-0182
 FAX: (209)942-0423
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9415 W. Goshen Avenue
 Visalia, CA 93291
 TEL: (559)734-9473
 FAX: (559)734-8435
 CA ELAP Certification No. 2810

November 13, 2023

Sentry Ag Services

Attn: Monique Baldiviez
 P.O. Box 7750
 Visalia, CA 93290

Description : D-2
 Project : Daniel Brasil

Lab No. : VI 2347286-002
 Customer No. : 4019696
 Reference : 3324
 Sampled On : October 26, 2023 at 10:05
 Sampled By : Jeremy
 Received On : October 26, 2023 at 15:30
 Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	10/27/2023	13:00	lfs	SM 4500-NO3 F	10/27/2023	14:14	lfs
Conductivity	306	1	umhos/cm	1600 ²	1		11/03/2023	07:56	krh	SM 4500-H+B	11/03/2023	10:58	krh

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

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November 13, 2023

Sentry Ag Services

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : D-3
 Project : Daniel Brasil

Lab No. : VI 2347286-003
 Customer No. : 4019696
 Reference : 3324
 Sampled On : October 26, 2023 at 09:55
 Sampled By : Jeremy
 Received On : October 26, 2023 at 15:30
 Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	10/27/2023	13:00	lfs	SM 4500-NO3 F	10/27/2023	14:16	lfs
Conductivity	305	1	umhos/cm	1600 ²	1		11/02/2023	09:02	krh	SM 4500-H+B	11/02/2023	13:24	krh

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

Corporate Offices & Laboratory

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TEL: (559)734-9473

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CA ELAP Certification No. 2810

November 13, 2023
Sentry Ag Service

Lab No. : VI 2347286
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(CH 2378562-001)	Dup	umhos/cm		0.3%	5	
	2320B	(VI 2347281-001)	Dup	umhos/cm		0.1%	5	
Nitrate Nitrogen	4500NO3F	10/27/2023:212209LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	101%	80-120	
			MS	mg/L	5.609	89.4%	66-125	
			MSD	mg/L	5.609	93.5%	66-125	
			MSRPD	mg/L		1.3%	≤30.4	

Definition

- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
- Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.



Laboratory Analysis Work Order

3324

SITE NAME: Daniel Brasil

2347286

LABORATORY: VT | FGL 4-19696

Billing: Sentry Ag Services, LLC
P.O. Box 7750, Visalia, CA 93290

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO₃N (Dom)
W2 EC, NO₃N, TDS, TN (Irr)
W3 NH₄-N (Ammonium)
W4 EC, NO₃N, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl, TDS (Dom, GM)
W5 EC, NO₃N, TDS, TN, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Irr, GM)
W6 NO₃N, NO₂ (Dom ILRP, Annually)
W7 Ca, Mg, Na, K, HCO₃, CO₃, SO₄, Cl + Lab Filtering (GWM)
W8 Other: _____

Plant Tissue

- P1 TN, NO₃N, PO₄P, K (Mid Season - Wheat)
P2 TN, P, K (Mid-season - Corn)
P3 TN, TP, TK, Ash, %M (At Harvest)
P4 TN, %M
P5 % Moisture
P6 NIR
P7 Other: _____

Process Waste Water (lagoon)

- L1 EC, NH₄N, TKN, TP, TK, TDS (Quarterly)
L2 EC, NO₃N, NH₄N, TKN, TP, TK, TDS, pH (Annually)
L3 Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Biennially)
L4 Other: _____

Manure

- M1 TN, TP, TK, %M (2/year)
M2 TN, TP, K, %M, Ca, Mg, Na, S, Cl, ash (Biennially)
M3 Other: _____

Soil

- S1 SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO₃N, PO₄P, K-AA, Zn, Mn, Fe, Cu, SO₄S
S2 S1 + CEC, CaCO₃, OM, C:N, TN
S3 NO₃N, NH₄N
S4 Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
						NH ₃ N *	pH	Temp
1	D-1	DW	W1	10/26/23 10:00	Jeremy	0		
2	D-2	DW	W1	10/26/23 10:05	↓	0		
3	D-3	DW	W1	10/26/23 9:55	↓	0		
4								
5								
6								
7								
8								
9								
10								
11								
12								

* Field Test of ammonium nitrogen may only be made by a trained technician. Positive test to be analyzed for ammonium nitrogen by the laboratory.

All samples are to follow the procedures noted in the Sampling & Analysis Plan of the NMP and the RWQCB specifications. Any samples taken outside of these procedures shall provide the procedures on the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES: ROI 6.8°C ID#TH407

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1 st	<u>[Signature]</u>	<u>SAS</u>		<u>10/26/23 15:30</u>
2 nd	<u>SRO</u>	<u>FGL</u>	<u>10-26-23 1530</u>	
3 rd	<u>SRO</u>	<u>FGL</u>		<u>10-26-23 1730</u>
4 th		<u>GLS</u>	<u>10-26-23 1730</u>	

LABORATORY USE ONLY

Logged In By: _____ Total Samples: _____ Laboratory No.: _____

GLS

10/27/23 12:30

JAW

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: CC CH STK VI

1. Number of ice chests/packages received: 1 Shipping tracking #(s): 0tc

2. Temp IR Gun ID #: TH407

3. Were samples received on ice? Yes No Temps: 6-8°C / _____ / _____ / _____
Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

4. Do the number of bottles received agree with the COC? Yes No N/A

5. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No

6. VOAs checked for Headspace? Yes No N/A

7. Were all analyses within holding times at time of receipt? Yes No

8. Verify sample date, time and sampler name Yes No

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.

Sample Receipt Review completed by (initials): SRO

Sample Receipt at SP:

1. Number of ice chests/packages received: 3 Shipping tracking #(s): 5U03U7222

2. Temp IR Gun ID #: TH 241

3. Were samples received on ice? Yes No Temps: 3C / 4C / 16C / _____
Acceptable is above freezing to 6°C. If many packages are received at one time check for tests/H.T.'s/rushes/

4. Do the number of bottles received agree with the COC? Yes No N/A

5. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No

2. Did bottle labels correspond with the client's ID's? Yes No

3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
[Exception: Oil & Grease, VOA and CrVI verified in lab]

4. VOAs checked for Headspace? Yes No N/A

5. Have rush or project due dates been checked and accepted? Yes No N/A

6. Were all analyses within holding times at time of receipt? Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): YAW

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____

Initiated By: _____ Date: _____

Problem: _____

Resolution: _____

2. Person Contacted: _____

Initiated By: _____

Problem: _____

Resolution: _____

(4019696)
Sentry Ag Service
VI 2347286

iv 10/27/2023 09:10:13



VI 2347286

2347286