

**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:** Sierra Blanca Ranch

Physical address of dairy:

15673 5th 1/2 AVE

Number and Street

Hanford

City

Kings

County

93230

Zip Code

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

Date facility was originally placed in operation: 03/01/1990Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X028-X070-X004-XXXX X028-X070-X019-XXXX**B. OPERATORS**

TeVelde, Adam

Operator name: TeVelde, Adam

Telephone no.:

(559) 410-3456

Landline

Cellular

2911 Hanford-Armona RD

Mailing Address Number and Street

Hanford

City

CA

State

93230

Zip Code

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

TeVelde, Jacob

Operator name: TeVelde, Jacob

Telephone no.:

(559) 786-6757

Landline

Cellular

2911 Hanford-Armona RD

Mailing Address Number and Street

Hanford

City

CA

State

93230

Zip Code

**C. OWNERS**

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TeVelde, Adam

Legal owner name: <u>TeVelde, Adam</u>	Telephone no.:	<u>(559) 410-3456</u>	
		Landline	Cellular
<u>2911 Hanford-Armona RD</u>	<u>Hanford</u>	<u>CA</u>	<u>93230</u>
Mailing Address Number and Street	City	State	Zip Code

**This owner is responsible for paying permit fees.**

TeVelde, Jacob

Legal owner name: <u>TeVelde, Jacob</u>	Telephone no.:	<u>(559) 786-6757</u>	
		Landline	Cellular
<u>2911 Hanford-Armona RD</u>	<u>Hanford</u>	<u>CA</u>	<u>93230</u>
Mailing Address Number and Street	City	State	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	3,300	500	100	0	0	800
Number under roof	0	0	0	0	0	0
Maximum number	3,350	525	150	0	0	850
Average number	3,300	500	100	0	0	800
Avg live weight (lbs)	1,400	1,450	1,000	0		

Predominant milk cow breed: Holstein

Average milk production: 75 pounds per cow per day

**B. MANURE GENERATED**

Total manure excreted by the herd: 97,722.85 tons per reporting period

Total nitrogen from manure: 1,273,692.92 lbs per reporting period

After ammonia losses (30% loss applied): 891,585.04 lbs per reporting period

Total phosphorus from manure: 208,564.04 lbs per reporting period

Total potassium from manure: 642,820.95 lbs per reporting period

Total salt from manure: 1,668,780.00 lbs per reporting period

**C. PROCESS WASTEWATER GENERATED**

Process wastewater generated: 173,365,882 gallons

Total nitrogen generated: 296,562.40 lbs

Total phosphorus generated: 54,272.48 lbs

Total potassium generated: 721,750.94 lbs

Total salt generated: 2,018,108.74 lbs

173,365,882 gallons applied
+ 0 gallons exported
- 0 gallons imported
= 173,365,882 gallons generated

**D. FRESH WATER SOURCES**

Source Description	Type
1	Ground water
12	Ground water
13D	Ground water
14	Ground water
14D	Ground water

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Source Description	Type
18	Ground water
1A	Ground water
1A DWN	Ground water
1AE	Ground water
2	Ground water
25	Ground water
26 Office	Ground water
26 W. Office	Ground water
27 Dairy W.	Ground water
28 Dairy S.	Ground water
29 Calves	Ground water
3	Ground water
30 Eq. Yard	Ground water
3S	Ground water
4	Ground water
4D	Ground water
6E	Ground water
6W	Ground water
7	Ground water
9	Ground water
People's Ditch- Hanford	Surface water
Shop	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
10	18	18	1	none	X028-X180-X002-XXXX
11A	8	8	1	none	X028-X180-X014-XXXX
11B	8	8	1	none	X028-X180-X013-XXXX
12	39	39	2	process wastewater	X028-X070-X018-XXXX
13	35	35	2	process wastewater	X028-X070-X018-XXXX
14	60	60	2	process wastewater	X028-X070-X018-XXXX X028-X070-X019-XXXX
15	67	67	2	process wastewater	X028-X070-X018-XXXX
18	70	70	2	process wastewater	X028-X180-X016-XXXX
19	91	91	1	process wastewater	X028-X180-X016-XXXX
1A	60	60	2	process wastewater	X028-X070-X003-XXXX
1B	76	76	2	process wastewater	X028-X070-X003-XXXX
2	98	98	1	none	X028-X180-X003-XXXX
25	80	80	2	process wastewater	X028-X060-X003-XXXX
26	68	68	2	process wastewater	X028-X070-X007-XXXX
3	100	100	1	none	X028-X180-X003-XXXX
4	98	98	1	none	X028-X180-X003-XXXX X028-X180-X004-XXXX
5	10	10	1	none	X028-X180-X002-XXXX
6	75	75	1	none	X028-X180-X002-XXXX
7	52	52	1	none	X028-X180-X002-XXXX
8	77	77	1	none	X028-X180-X002-XXXX
9	40	40	1	none	X028-X180-X002-XXXX
Totals for areas that were used for application	646	646	19		
Totals for areas that were not used for application	584	584	11		
Land application area totals	1,230	1,230	30		

**B. CROPS AND HARVESTS**

10
Field name: <u>10</u>

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10

11/23/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 18 Plant date: 11/23/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	163.00 ton	Dry-weight		11.5	26,700.00	2,200.00	14,300.00		9.78

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.06	427.96	35.26	229.21	1,567.57

11A

Field name: 11A

04/05/2023: Tomato

Crop: Tomato Acres planted: 8 Plant date: 04/05/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/02/2023	560.00 ton	Dry-weight		94.3	30,100.00	4,000.00	39,700.00		10.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	50.00	125.00	45.00	285.00	3,000.00
Total actual harvest content	70.00	240.20	31.92	316.81	869.82

11B

Field name: 11B

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11B

04/05/2023: Tomato

Crop: Tomato Acres planted: 8 Plant date: 04/05/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/05/2023	568.00 ton	Dry-weight		93.3	28,600.00	3,600.00	37,500.00		11.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	45.00	16.20	102.60	1,080.00
Total actual harvest content	71.00	272.10	34.25	356.78	1,056.05

12

Field name: 12

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

Crop: Wheat, silage, soft dough Acres planted: 39 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 (%)
05/18/2023	920.00 ton	Dry-weight		68.1	14,600.00	4,900.00	20,700.00		11.30

	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	23.59	219.73	73.75	311.54	1,700.68

06/17/2023: Corn, silage

Crop: Corn, silage Acres planted: 39 Plant date: 06/17/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/19/2023	1,092.00 ton	Dry-weight		64.9	12,500.00	3,100.00	12,000.00		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	28.00	245.70	60.93	235.87	1,240.29

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13

Field name: 13

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

Crop: Wheat, silage, soft dough Acres planted: 35 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 (%)
05/18/2023	843.00 ton	Dry-weight		68.1	14,600.00	4,900.00	20,700.00		11.30

	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	24.09	224.35	75.30	318.09	1,736.44

06/18/2023: Corn, silage

Crop: Corn, silage Acres planted: 35 Plant date: 06/18/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/19/2023	959.00 ton	Dry-weight		68.1	13,100.00	3,100.00	11,600.00		6.05

	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	27.40	229.00	54.19	202.78	1,057.61

14

Field name: 14

11/19/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 60 Plant date: 11/19/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/20/2023	1,398.00 ton	Dry-weight		64.5	14,100.00	3,800.00	15,400.00		12.60

	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	23.30	233.26	62.86	254.76	2,084.42

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14

06/17/2023: Corn, silage

Crop: Corn, silage Acres planted: 60 Plant date: 06/17/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/03/2023	1,692.00 ton	Dry-weight		63.6	10,800.00	2,400.00	17,200.00		6.48

	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	28.20	221.72	49.27	353.11	1,330.32

15

Field name: 15

11/10/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 67 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/27/2023	1,434.00 ton	Dry-weight		73.7	19,300.00	4,800.00	20,300.00		11.20

	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	21.40	217.28	54.04	228.54	1,260.89

06/19/2023: Corn, silage

Crop: Corn, silage Acres planted: 67 Plant date: 06/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/27/2023	1,889.00 ton	Dry-weight		72.9	10,100.00	2,000.00	15,700.00		6.51

	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	28.19	154.34	30.56	239.91	994.80

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18

Field name: 18

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

Crop: Wheat, silage, soft dough Acres planted: 70 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 (%)
05/21/2023	1,680.00 ton	Dry-weight		66.8	16,700.00	3,400.00	15,700.00		12.10

	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	24.00	266.13	54.18	250.20	1,928.26

06/15/2023: Corn, silage

Crop: Corn, silage Acres planted: 70 Plant date: 06/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/27/2023	1,974.00 ton	Dry-weight		70.6	10,600.00	2,500.00	14,300.00		5.89

	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	28.20	175.76	41.45	237.12	976.66

19

Field name: 19

06/19/2023: Corn, silage

Crop: Corn, silage Acres planted: 91 Plant date: 06/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/27/2023	2,575.00 ton	Dry-weight		71.3	10,900.00	2,500.00	13,600.00		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	28.30	177.04	40.61	220.90	1,024.89

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1A

Field name: 1A

11/19/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 60 Plant date: 11/19/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/20/2023	1,404.00 ton	Dry-weight		68.4	17,900.00	5,100.00	16,800.00		14.80

	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	23.40	264.72	75.42	248.45	2,188.74

06/14/2023: Corn, silage

Crop: Corn, silage Acres planted: 60 Plant date: 06/14/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/19/2023	1,692.00 ton	Dry-weight		67.6	14,300.00	3,200.00	20,300.00		8.07

	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	28.20	261.31	58.48	370.95	1,474.68

1B

Field name: 1B

11/20/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 76 Plant date: 11/20/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/20/2023	1,801.00 ton	Dry-weight		65.8	16,200.00	3,000.00	19,400.00		11.40

	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	23.70	262.59	48.63	314.45	1,847.83

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1B

06/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 76 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 (%)
10/19/2023	2,151.00 ton	Dry-weight		73.6	13,200.00	3,400.00	18,800.00		6.52

	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	28.30	197.26	50.81	280.94	974.34

2

Field name: 2

03/15/2023: Tomato

Crop: Tomato Acres planted: 98 Plant date: 03/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/22/2023	7,742.00 ton	Dry-weight		92.4	30,500.00	4,000.00	40,200.00		13.50

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	50.00	125.00	45.00	285.00	3,000.00
Total actual harvest content	79.00	366.24	48.03	482.72	1,621.08

25

Field name: 25

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25

11/19/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 80 Plant date: 11/19/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	1,920.00 ton	Dry-weight		63.5	15,700.00	2,900.00	14,400.00		8.99

	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	24.00	275.06	50.81	252.29	1,575.05

06/15/2023: Corn, silage

Crop: Corn, silage Acres planted: 80 Plant date: 06/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/07/2023	2,248.00 ton	Dry-weight		66.9	10,600.00	3,000.00	10,200.00		5.47

	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	28.10	197.18	55.81	189.74	1,017.54

26

Field name: 26

11/13/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 68 Plant date: 11/13/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	1,598.00 ton	Dry-weight		63.5	15,700.00	2,900.00	14,400.00		8.99

	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	23.50	269.33	49.75	247.03	1,542.23

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26

06/17/2023: Corn, silage

Crop: Corn, silage Acres planted: 68 Plant date: 06/17/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/07/2023	1,924.00 ton	Dry-weight		73.6	15,000.00	3,700.00	22,800.00		8.45

	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	28.29	224.09	55.28	340.62	1,262.37

3

Field name: 3

03/15/2023: Tomato

Crop: Tomato Acres planted: 100 Plant date: 03/15/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	8,000.00 ton	Dry-weight		93.2	29,400.00	3,800.00	41,000.00		10.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	50.00	125.00	45.00	285.00	3,000.00
Total actual harvest content	80.00	319.87	41.34	446.08	1,109.76

4

Field name: 4

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4

03/25/2023: Tomato

Crop: Tomato Acres planted: 98 Plant date: 03/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/05/2023	7,350.00 ton	Dry-weight		91.6	28,200.00	2,800.00	38,600.00		10.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	50.00	125.00	45.00	285.00	3,000.00
Total actual harvest content	75.00	355.32	35.28	486.36	1,360.80

5

Field name: 5

11/20/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 10 Plant date: 11/20/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	90.00 ton	Dry-weight		8.7	28,900.00	2,100.00	14,700.00		10.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.00	474.94	34.51	241.58	1,758.44

6

Field name: 6

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6

11/21/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 75 Plant date: 11/21/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	675.00 ton	Dry-weight		10.3	27,500.00	2,400.00	13,700.00		10.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.00	444.02	38.75	221.20	1,743.77

7

Field name: 7

11/20/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 52 Plant date: 11/20/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	470.00 ton	Dry-weight		11.3	28,500.00	2,900.00	14,800.00		11.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.04	456.98	46.50	237.31	1,779.80

8

Field name: 8

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8

11/22/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 77 Plant date: 11/22/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	695.00 ton	Dry-weight		10.2	29,400.00	2,900.00	14,500.00		8.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.03	476.59	47.01	235.05	1,410.33

9

Field name: 9

11/23/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 40 Plant date: 11/23/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/30/2023	365.00 ton	Dry-weight		10.2	27,500.00	2,400.00	16,700.00		10.50

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	9.13	450.68	39.33	273.69	1,720.79

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**NUTRIENT BUDGET**

**A. LAND APPLICATIONS**

10 - 11/23/2019: Alfalfa, hay

Field name: 10

Crop: Alfalfa, hay

Plant date: 11/23/2019

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
04/15/2023	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
9	Ground water	9.34	0.00	0.00	228.40	1,955,016.00 <i>gal</i>
Application event totals		9.34	0.00	0.00	228.40	
05/10/2023	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
9	Ground water	10.46	0.00	0.00	255.90	2,190,396.00 <i>gal</i>
Application event totals		10.46	0.00	0.00	255.90	
06/09/2023	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
9	Ground water	11.70	0.00	0.00	286.28	2,450,396.00 <i>gal</i>
Application event totals		11.70	0.00	0.00	286.28	
07/05/2023	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
9	Ground water	13.19	0.00	0.00	322.75	2,762,524.00 <i>gal</i>
Application event totals		13.19	0.00	0.00	322.75	
08/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	13.91	0.00	0.00	340.28	2,912,639.00 <i>gal</i>
Application event totals		13.91	0.00	0.00	340.28	

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**10 - 11/23/2019: Alfalfa, hay**

Application date	Application method		Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
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
9			Ground water	13.54	0.00	0.00	331.19	2,834,773.00 <i>gal</i>
Application event totals				13.54	0.00	0.00	331.19	
10/01/2023	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
9			Ground water	12.38	0.00	0.00	302.88	2,592,524.00 <i>gal</i>
Application event totals				12.38	0.00	0.00	302.88	

**11A - 04/05/2023: Tomato**

Field name: 11A

Crop: Tomato

Plant date: 04/05/2023

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following		
04/15/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9			Ground water	5.83	0.00	0.00	142.75	543,060.00 <i>gal</i>	
Application event totals				5.83	0.00	0.00	142.75		
05/01/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9			Ground water	5.83	0.00	0.00	142.75	543,060.00 <i>gal</i>	
Application event totals				5.83	0.00	0.00	142.75		
05/16/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description			Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9			Ground water	7.00	0.00	0.00	171.30	651,672.00 <i>gal</i>	
Application event totals				7.00	0.00	0.00	171.30		

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**11A - 04/05/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
06/01/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	7.00	0.00	0.00	171.30	651,672.00 <i>gal</i>
Application event totals			7.00	0.00	0.00	171.30	
06/14/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals			8.17	0.00	0.00	199.85	
06/28/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals			8.17	0.00	0.00	199.85	
07/12/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals			9.34	0.00	0.00	228.40	
07/25/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals			9.34	0.00	0.00	228.40	
08/08/2023	Subsurface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals			9.34	0.00	0.00	228.40	

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**11A - 04/05/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
08/21/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	

**11B - 04/05/2023: Tomato**

Field name: 11B

Crop: Tomato

Plant date: 04/05/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following
04/20/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	7.00	0.00	0.00	171.30	651,672.00 <i>gal</i>
Application event totals			7.00	0.00	0.00	171.30	
05/03/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	7.00	0.00	0.00	171.30	651,672.00 <i>gal</i>
Application event totals			7.00	0.00	0.00	171.30	
05/20/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	7.00	0.00	0.00	171.30	651,672.00 <i>gal</i>
Application event totals			7.00	0.00	0.00	171.30	
06/04/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals			8.17	0.00	0.00	199.85	

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**11B - 04/05/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
06/20/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	
07/02/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	
07/16/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals		9.34	0.00	0.00	228.40	
07/28/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals		9.34	0.00	0.00	228.40	
08/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	9.34	0.00	0.00	228.40	868,896.00 <i>gal</i>
Application event totals		9.34	0.00	0.00	228.40	
08/23/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	760,284.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	

**12 - 11/16/2022: Wheat, silage, soft dough**

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12 - 11/16/2022: Wheat, silage, soft dough

Field name: 12

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	
10/22/2022	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	65.03	9.90	602.73	929.48	1,482,554.00 <i>gal</i>
12		Ground water	0.46	0.00	0.00	222.97	4,341,765.00 <i>gal</i>
Application event totals			65.50	9.90	602.73	1,152.45	
03/14/2023	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	104.84	13.94	83.80	0.00	1,756,141.00 <i>gal</i>
12		Ground water	0.58	0.00	0.00	277.35	5,400,732.00 <i>gal</i>
Application event totals			105.42	13.94	83.80	277.35	
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
Lagoon		Process wastewater	94.34	12.54	75.40	0.00	1,580,244.00 <i>gal</i>
12		Ground water	0.47	0.00	0.00	223.58	4,353,802.00 <i>gal</i>
Application event totals			94.80	12.54	75.40	223.58	

12 - 06/17/2023: Corn, silage

Field name: 12

Crop: Corn, silage

Plant date: 06/17/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	50.72	14.07	102.79	368.56	1,580,244.00 <i>gal</i>
12	Ground water	0.56	0.00	0.00	270.11	5,259,699.00 <i>gal</i>
Application event totals		51.28	14.07	102.79	638.67	

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12 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
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	54.38	15.08	110.21	395.18	1,694,347.00 <i>gal</i>
12		Ground water	0.65	0.00	0.00	310.37	6,043,802.00 <i>gal</i>
Application event totals			55.03	15.08	110.21	705.55	
07/18/2023	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	57.14	15.85	115.80	415.21	1,780,244.00 <i>gal</i>
12		Ground water	0.66	0.00	0.00	314.57	6,125,595.00 <i>gal</i>
Application event totals			57.79	15.85	115.80	729.78	
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	47.58	13.20	96.44	345.78	1,482,554.00 <i>gal</i>
12		Ground water	0.67	0.00	0.00	321.16	6,253,802.00 <i>gal</i>
Application event totals			48.25	13.20	96.44	666.94	
08/16/2023	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	61.20	10.75	64.77	665.49	1,388,450.00 <i>gal</i>
12		Ground water	0.65	0.00	0.00	313.66	6,107,905.00 <i>gal</i>
Application event totals			61.85	10.75	64.77	979.15	
09/04/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	47.46	8.34	50.22	516.04	1,076,657.00 <i>gal</i>
12		Ground water	0.61	0.00	0.00	290.56	5,657,915.00 <i>gal</i>
Application event totals			48.06	8.34	50.22	806.60	

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## 12 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
09/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
12	Ground water	0.63	0.00	0.00	304.54	5,930,215.00 <i>gal</i>
Application event totals		0.63	0.00	0.00	304.54	

## 13 - 11/16/2022: Wheat, silage, soft dough

Field name: 13

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		
10/20/2022	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	90.70	13.80	840.61	1,296.32	1,855,603.00 <i>gal</i>
12	Ground water	0.45	0.00	0.00	217.53	3,801,420.00 <i>gal</i>
Application event totals		91.15	13.80	840.61	1,513.84	
03/15/2023	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
Lagoon	Process wastewater	101.48	13.49	81.11	0.00	1,525,532.00 <i>gal</i>
12	Ground water	0.48	0.00	0.00	229.01	4,002,130.00 <i>gal</i>
Application event totals		101.96	13.49	81.11	229.01	
04/11/2023	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	77.37	10.29	61.84	0.00	1,163,121.00 <i>gal</i>
12	Ground water	0.49	0.00	0.00	234.17	4,092,201.00 <i>gal</i>
Application event totals		77.86	10.29	61.84	234.17	

## 13 - 06/18/2023: Corn, silage

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13 - 06/18/2023: Corn, silage

Field name: 13

Crop: Corn, silage

Plant date: 06/18/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
06/01/2023	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	48.48	13.45	98.25	352.29	1,355,532.00 <i>gal</i>
12	Ground water	0.64	0.00	0.00	306.27	5,352,201.00 <i>gal</i>
Application event totals		49.12	13.45	98.25	658.55	
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
12	Ground water	0.67	0.00	0.00	320.29	5,597,166.00 <i>gal</i>
Application event totals		0.67	0.00	0.00	320.29	
07/18/2023	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	48.66	13.49	98.61	353.58	1,360,497.00 <i>gal</i>
12	Ground water	0.63	0.00	0.00	300.83	5,257,236.00 <i>gal</i>
Application event totals		49.28	13.49	98.61	654.41	
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	54.38	15.08	110.21	395.18	1,520,568.00 <i>gal</i>
12	Ground water	0.64	0.00	0.00	305.69	5,342,130.00 <i>gal</i>
Application event totals		55.02	15.08	110.21	700.87	
08/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.35	11.48	69.16	710.59	1,330,497.00 <i>gal</i>
12	Ground water	0.61	0.00	0.00	293.10	5,122,130.00 <i>gal</i>
Application event totals		65.96	11.48	69.16	1,003.69	

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**13 - 06/18/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
09/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	70.02	12.30	74.10	761.35	1,425,532.00 <i>gal</i>
12	Ground water	0.65	0.00	0.00	309.69	5,412,059.00 <i>gal</i>
Application event totals		70.66	12.30	74.10	1,071.04	
09/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
12	Ground water	0.52	0.00	0.00	250.16	4,371,633.00 <i>gal</i>
Application event totals		0.52	0.00	0.00	250.16	

**14 - 11/19/2022: Wheat, silage, soft dough**

Field name: 14

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following			
03/16/2023	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	102.98	13.69	82.31	0.00	2,653,770.00 <i>gal</i>
12		Ground water	7.41	0.00	0.00	284.15	6,190,884.00 <i>gal</i>
Application event totals			110.38	13.69	82.31	284.15	
04/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation			
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	91.22	12.13	72.91	0.00	2,350,852.00 <i>gal</i>
12		Ground water	0.45	0.00	0.00	217.53	6,516,720.00 <i>gal</i>
Application event totals			91.68	12.13	72.91	217.53	

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**14 - 11/19/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/26/2023	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	65.03	9.90	602.73	929.48	2,280,852.00 <i>gal</i>
12	Ground water	0.41	0.00	0.00	195.78	5,865,048.00 <i>gal</i>
Application event totals		65.44	9.90	602.73	1,125.25	

**14 - 06/17/2023: Corn, silage**

Field name: 14

Crop: Corn, silage

Plant date: 06/17/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
06/01/2023	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	56.11	15.56	113.72	407.75	2,689,606.00 <i>gal</i>	
12		Ground water	0.62	0.00	0.00	299.59	8,975,080.00 <i>gal</i>	
Application event totals			56.74	15.56	113.72	707.33		
07/03/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
12		Ground water	0.66	0.00	0.00	315.71	9,457,998.00 <i>gal</i>	
Application event totals			0.66	0.00	0.00	315.71		
07/20/2023	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	64.75	17.96	131.23	470.53	3,103,770.00 <i>gal</i>	
12		Ground water	0.67	0.00	0.00	323.29	9,685,080.00 <i>gal</i>	
Application event totals			65.43	17.96	131.23	793.82		

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## 14 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
08/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	80.53	14.15	85.23	875.71	2,810,852.00 <i>gal</i>
12	Ground water	0.68	0.00	0.00	326.29	9,775,080.00 <i>gal</i>
Application event totals		81.21	14.15	85.23	1,202.00	
08/23/2023	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	70.02	12.30	74.10	761.35	2,443,770.00 <i>gal</i>
12	Ground water	0.69	0.00	0.00	330.20	9,892,162.00 <i>gal</i>
Application event totals		70.70	12.30	74.10	1,091.55	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
12	Ground water	0.68	0.00	0.00	325.76	9,759,244.00 <i>gal</i>
Application event totals		0.68	0.00	0.00	325.76	

## 15 - 11/10/2022: Wheat, silage, soft dough

Field name: 15

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
10/20/2022	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	81.27	12.37	753.28	1,161.63	3,183,101.00 <i>gal</i>
12		Ground water	0.40	0.00	0.00	190.34	6,367,378.00 <i>gal</i>
Application event totals			81.67	12.37	753.28	1,351.97	

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**15 - 11/10/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
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	94.83	12.61	75.79	0.00	2,728,876.00 <i>gal</i>
12		Ground water	0.44	0.00	0.00	212.09	7,095,079.00 <i>gal</i>
Application event totals			95.27	12.61	75.79	212.09	
04/12/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	75.86	10.09	60.64	0.00	2,183,101.00 <i>gal</i>
12		Ground water	0.45	0.00	0.00	217.53	7,277,004.00 <i>gal</i>
Application event totals			76.32	10.09	60.64	217.53	

**15 - 06/19/2023: Corn, silage**

Field name: 15

Crop: Corn, silage

Plant date: 06/19/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
06/02/2023	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	55.28	15.33	112.03	401.70	2,958,877.00 <i>gal</i>	
12		Ground water	0.64	0.00	0.00	309.55	10,355,506.00 <i>gal</i>	
Application event totals			55.93	15.33	112.03	711.26		
07/05/2023	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	
12		Ground water	0.67	0.00	0.00	322.59	10,791,656.00 <i>gal</i>	
Application event totals			0.67	0.00	0.00	322.59		

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**15 - 06/19/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
07/23/2023	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	48.44	13.43	98.17	351.99	2,592,727.00 <i>gal</i>	
12		Ground water	0.69	0.00	0.00	329.04	11,007,431.00 <i>gal</i>	
Application event totals			49.12	13.43	98.17	681.03		
08/09/2023	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	
12		Ground water	0.68	0.00	0.00	326.23	10,913,581.00 <i>gal</i>	
Application event totals			0.68	0.00	0.00	326.23		
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	
Lagoon		Process wastewater	73.05	12.84	77.30	794.29	2,846,951.00 <i>gal</i>	
12		Ground water	0.67	0.00	0.00	321.51	10,755,506.00 <i>gal</i>	
Application event totals			73.72	12.84	77.30	1,115.80		
09/14/2023	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	
12		Ground water	0.65	0.00	0.00	311.17	10,409,731.00 <i>gal</i>	
Application event totals			0.65	0.00	0.00	311.17		
10/02/2023	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	
12		Ground water	0.64	0.00	0.00	305.85	10,231,659.00 <i>gal</i>	
Application event totals			0.64	0.00	0.00	305.85		

**18 - 11/14/2022: Wheat, silage, soft dough**

Field name: 18

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

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**18 - 11/14/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
10/23/2022	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	85.56	13.02	793.02	1,222.91	3,501,065.00 <i>gal</i>
12	Ground water	0.41	0.00	0.00	195.78	6,842,556.00 <i>gal</i>
Application event totals		85.97	13.02	793.02	1,418.69	
03/16/2023	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	101.16	13.45	80.85	0.00	3,041,278.00 <i>gal</i>
12	Ground water	0.44	0.00	0.00	212.09	7,412,769.00 <i>gal</i>
Application event totals		101.60	13.45	80.85	212.09	
04/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	82.18	10.93	65.69	0.00	2,470,923.00 <i>gal</i>
12	Ground water	0.46	0.00	0.00	218.96	7,652,840.00 <i>gal</i>
Application event totals		82.64	10.93	65.69	218.96	

**18 - 06/15/2023: Corn, silage**

Field name: 18

Crop: Corn, silage

Plant date: 06/15/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/30/2023	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	43.65	12.11	88.47	317.21	2,441,136.00 <i>gal</i>
12	Ground water	0.67	0.00	0.00	319.72	11,174,473.00 <i>gal</i>
Application event totals		44.32	12.11	88.47	636.93	

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18 - 06/15/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
07/04/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
12		Ground water	0.67	0.00	0.00	322.00	11,254,402.00 <i>gal</i>
Application event totals			0.67	0.00	0.00	322.00	
07/21/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	54.56	15.13	110.57	396.47	3,051,065.00 <i>gal</i>
12		Ground water	0.69	0.00	0.00	333.45	11,654,260.00 <i>gal</i>
Application event totals			55.25	15.13	110.57	729.91	
08/07/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	73.70	12.95	78.00	801.44	3,001,207.00 <i>gal</i>
12		Ground water	0.66	0.00	0.00	316.42	11,059,280.00 <i>gal</i>
Application event totals			74.36	12.95	78.00	1,117.86	
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
Lagoon		Process wastewater	50.61	8.89	53.56	550.37	2,060,994.00 <i>gal</i>
12		Ground water	0.63	0.00	0.00	300.83	10,514,189.00 <i>gal</i>
Application event totals			51.24	8.89	53.56	851.19	
09/10/2023	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
12		Ground water	0.61	0.00	0.00	292.81	10,234,118.00 <i>gal</i>
Application event totals			0.61	0.00	0.00	292.81	

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**18 - 06/15/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/01/2023	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
12	Ground water	0.61	0.00	0.00	292.24	10,214,189.00 <i>gal</i>
Application event totals		0.61	0.00	0.00	292.24	

**19 - 06/19/2023: Corn, silage**

Field name: 19

Crop: Corn, silage

Plant date: 06/19/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	54.42	15.09	110.30	395.47	3,956,384.00 <i>gal</i>
12	Ground water	0.64	0.00	0.00	307.52	13,972,630.00 <i>gal</i>
Application event totals		55.06	15.09	110.30	702.99	
07/05/2023	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
12	Ground water	0.67	0.00	0.00	320.60	14,566,815.00 <i>gal</i>
Application event totals		0.67	0.00	0.00	320.60	
07/23/2023	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	52.28	14.50	105.95	379.89	3,800,569.00 <i>gal</i>
12	Ground water	0.65	0.00	0.00	310.89	14,125,538.00 <i>gal</i>
Application event totals		52.93	14.50	105.95	690.78	

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## 19 - 06/19/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
08/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	46.57	8.18	49.28	506.37	2,465,108.00 gal
12	Ground water	0.67	0.00	0.00	319.82	14,531,353.00 gal
Application event totals		47.23	8.18	49.28	826.19	
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
Lagoon	Process wastewater	62.57	11.00	66.22	680.38	3,312,199.00 gal
12	Ground water	0.65	0.00	0.00	310.23	14,095,538.00 gal
Application event totals		63.22	11.00	66.22	990.60	
09/14/2023	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
12	Ground water	0.65	0.00	0.00	310.16	14,092,630.00 gal
Application event totals		0.65	0.00	0.00	310.16	
10/02/2023	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
12	Ground water	0.65	0.00	0.00	310.42	14,104,261.00 gal
Application event totals		0.65	0.00	0.00	310.42	

## 1A - 11/19/2022: Wheat, silage, soft dough

Field name: 1A

Crop: Wheat, silage, soft dough Plant date: 11/19/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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**1A - 11/19/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
10/20/2022	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	84.30	12.83	781.33	1,204.89	2,956,688.00 <i>gal</i>
1AE	Ground water	0.72	0.00	0.00	120.48	5,775,080.00 <i>gal</i>
Application event totals		85.02	12.83	781.33	1,325.37	
03/20/2023	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	92.11	12.25	73.62	0.00	2,373,770.00 <i>gal</i>
1AE	Ground water	0.77	0.00	0.00	129.16	6,190,884.00 <i>gal</i>
Application event totals		92.89	12.25	73.62	129.16	
04/15/2023	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
Lagoon	Process wastewater	84.19	11.20	67.29	0.00	2,169,606.00 <i>gal</i>
1AE	Ground water	0.84	0.00	0.00	140.13	6,716,720.00 <i>gal</i>
Application event totals		85.03	11.20	67.29	140.13	

**1A - 06/14/2023: Corn, silage**

Field name: 1A

Crop: Corn, silage

Plant date: 06/14/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
05/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	64.81	17.97	131.35	470.98	3,106,688.00 <i>gal</i>
1AE	Ground water	1.16	0.00	0.00	193.02	9,252,162.00 <i>gal</i>
Application event totals		65.97	17.97	131.35	664.00	

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**1A - 06/14/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
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
1AE	Ground water	1.22	0.00	0.00	203.09	9,734,654.00 <i>gal</i>
Application event totals		1.22	0.00	0.00	203.09	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	54.85	15.21	111.17	398.59	2,629,180.00 <i>gal</i>
1AE	Ground water	1.22	0.00	0.00	203.60	9,759,244.00 <i>gal</i>
Application event totals		56.07	15.21	111.17	602.19	
08/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.92	11.58	69.76	716.82	2,300,852.00 <i>gal</i>
1AE	Ground water	1.21	0.00	0.00	202.26	9,695,080.00 <i>gal</i>
Application event totals		67.14	11.58	69.76	919.09	
09/05/2023	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	68.87	12.10	72.88	748.89	2,403,770.00 <i>gal</i>
1AE	Ground water	1.25	0.00	0.00	208.70	10,003,834.00 <i>gal</i>
Application event totals		70.12	12.10	72.88	957.59	
09/30/2023	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
1AE	Ground water	1.20	0.00	0.00	200.53	9,612,162.00 <i>gal</i>
Application event totals		1.20	0.00	0.00	200.53	

**1B - 11/20/2022: Wheat, silage, soft dough**

Field name: 1B

Crop: Wheat, silage, soft dough

Plant date: 11/20/2022

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**1B - 11/20/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
10/25/2022	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	83.33	12.68	772.29	1,190.95	3,701,805.00 <i>gal</i>	
1AE		Ground water	0.69	0.00	0.00	115.56	7,016,335.00 <i>gal</i>	
Application event totals			84.02	12.68	772.29	1,306.51		
03/17/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Lagoon		Process wastewater	89.09	11.85	71.21	0.00	2,908,168.00 <i>gal</i>	
1AE		Ground water	0.77	0.00	0.00	129.16	7,841,786.00 <i>gal</i>	
Application event totals			89.87	11.85	71.21	129.16		
04/18/2023	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	84.33	11.21	67.40	0.00	2,752,716.00 <i>gal</i>	
1AE		Ground water	0.83	0.00	0.00	137.60	8,354,512.00 <i>gal</i>	
Application event totals			85.15	11.21	67.40	137.60		

**1B - 06/13/2023: Corn, silage**

Field name: 1B

Crop: Corn, silage

Plant date: 06/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/31/2023	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	59.01	16.37	119.59	428.80	3,582,716.00 <i>gal</i>
1AE	Ground water	1.16	0.00	0.00	194.16	11,788,131.00 <i>gal</i>
Application event totals		60.17	16.37	119.59	622.95	

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**1B - 06/13/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
07/05/2023	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
1AE	Ground water	1.17	0.00	0.00	194.50	11,809,042.00 <i>gal</i>
Application event totals		1.17	0.00	0.00	194.50	
07/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	50.98	14.14	103.33	370.48	3,095,442.00 <i>gal</i>
1AE	Ground water	1.20	0.00	0.00	199.37	12,104,494.00 <i>gal</i>
Application event totals		52.18	14.14	103.33	569.84	
08/06/2023	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	74.68	13.12	79.04	812.11	3,301,805.00 <i>gal</i>
1AE	Ground water	1.20	0.00	0.00	200.14	12,151,768.00 <i>gal</i>
Application event totals		75.89	13.12	79.04	1,012.25	
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
Lagoon	Process wastewater	65.35	11.48	69.16	710.59	2,889,079.00 <i>gal</i>
1AE	Ground water	1.18	0.00	0.00	197.03	11,962,680.00 <i>gal</i>
Application event totals		66.53	11.48	69.16	907.62	
09/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
1AE	Ground water	1.16	0.00	0.00	193.74	11,762,680.00 <i>gal</i>
Application event totals		1.16	0.00	0.00	193.74	

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**1B - 06/13/2023: Corn, silage**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
1AE	Ground water	1.18	0.00	0.00	197.03	11,962,680.00 <i>gal</i>
Application event totals		1.18	0.00	0.00	197.03	

**2 - 03/15/2023: Tomato**

Field name: 2

Crop: Tomato

Plant date: 03/15/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
04/01/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9		Ground water	2.33	0.00	0.00	57.10	2,660,994.00 <i>gal</i>	
Application event totals			2.33	0.00	0.00	57.10		
04/22/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9		Ground water	3.03	0.00	0.00	74.23	3,459,292.00 <i>gal</i>	
Application event totals			3.03	0.00	0.00	74.23		
05/10/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9		Ground water	3.50	0.00	0.00	85.65	3,991,491.00 <i>gal</i>	
Application event totals			3.50	0.00	0.00	85.65		
05/25/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
9		Ground water	4.67	0.00	0.00	114.20	5,321,988.00 <i>gal</i>	
Application event totals			4.67	0.00	0.00	114.20		

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**2 - 03/15/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
06/08/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	5.83	0.00	0.00	142.75	6,652,485.00 <i>gal</i>
Application event totals		5.83	0.00	0.00	142.75	
06/24/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	7.00	0.00	0.00	171.30	7,982,982.00 <i>gal</i>
Application event totals		7.00	0.00	0.00	171.30	
07/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	
07/28/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	
08/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	9.34	0.00	0.00	228.40	10,643,976.00 <i>gal</i>
Application event totals		9.34	0.00	0.00	228.40	
08/25/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	

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## 2 - 03/15/2023: Tomato

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
09/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	7.00	0.00	0.00	171.30	7,982,982.00 <i>gal</i>
Application event totals		7.00	0.00	0.00	171.30	

## 25 - 11/19/2022: Wheat, silage, soft dough

Field name: 25

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
10/25/2022	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	75.08	11.43	695.89	1,073.13	3,511,136.00 <i>gal</i>
25	Ground water	7.45	0.00	0.00	261.71	7,602,840.00 <i>gal</i>
Application event totals		82.54	11.43	695.89	1,334.84	
03/16/2023	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	94.83	12.61	75.79	0.00	3,258,360.00 <i>gal</i>
25	Ground water	8.09	0.00	0.00	284.15	8,254,512.00 <i>gal</i>
Application event totals		102.92	12.61	75.79	284.15	
04/20/2023	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	82.69	11.00	66.09	0.00	2,841,136.00 <i>gal</i>
25	Ground water	8.62	0.00	0.00	302.54	8,788,960.00 <i>gal</i>
Application event totals		91.30	11.00	66.09	302.54	

## 25 - 06/15/2023: Corn, silage

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25 - 06/15/2023: Corn, silage

Field name: 25

Crop: Corn, silage

Plant date: 06/15/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
05/31/2023	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	40.03	11.10	81.13	290.89	2,558,360.00 <i>gal</i>
25		Ground water	12.34	0.00	0.00	433.22	12,585,112.00 <i>gal</i>
Application event totals			52.37	11.10	81.13	724.11	
07/03/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
25		Ground water	12.32	0.00	0.00	432.63	12,567,888.00 <i>gal</i>
Application event totals			12.32	0.00	0.00	432.63	
07/19/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	44.19	12.25	89.55	321.08	2,823,912.00 <i>gal</i>
25		Ground water	12.85	0.00	0.00	451.06	13,103,440.00 <i>gal</i>
Application event totals			57.03	12.25	89.55	772.14	
08/03/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
25		Ground water	11.92	0.00	0.00	418.45	12,156,216.00 <i>gal</i>
Application event totals			11.92	0.00	0.00	418.45	
08/22/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon		Process wastewater	65.35	11.48	69.16	710.59	3,041,136.00 <i>gal</i>
25		Ground water	11.98	0.00	0.00	420.52	12,216,216.00 <i>gal</i>
Application event totals			77.33	11.48	69.16	1,131.11	

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**25 - 06/15/2023: Corn, silage**

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following		
09/05/2023	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		
25		Ground water	12.27	0.00	0.00	430.89	12,517,515.00 <i>gal</i>		
Application event totals			12.27	0.00	0.00	430.89			
09/20/2023	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		
25		Ground water	11.93	0.00	0.00	418.74	12,164,544.00 <i>gal</i>		
Application event totals			11.93	0.00	0.00	418.74			

**26 - 11/13/2022: Wheat, silage, soft dough**

Field name: 26

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		
10/20/2022	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	84.00	12.78	778.53	1,200.57	3,338,887.00 <i>gal</i>
12	Ground water	0.42	0.00	0.00	201.21	6,831,695.00 <i>gal</i>
Application event totals		84.42	12.78	778.53	1,401.78	
03/16/2023	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	97.91	13.02	78.26	0.00	2,859,606.00 <i>gal</i>
12	Ground water	0.44	0.00	0.00	212.09	7,200,976.00 <i>gal</i>
Application event totals		98.35	13.02	78.26	212.09	

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**26 - 11/13/2022: Wheat, silage, soft dough**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
04/15/2023	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
Lagoon		Process wastewater	85.77	11.40	68.55	0.00	2,504,966.00 <i>gal</i>
12		Ground water	0.46	0.00	0.00	222.97	7,570,256.00 <i>gal</i>
Application event totals			86.23	11.40	68.55	222.97	

**26 - 06/17/2023: Corn, silage**

Field name: 26

Crop: Corn, silage

Plant date: 06/17/2023

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
06/01/2023	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	54.38	15.08	110.21	395.18	2,954,246.00 <i>gal</i>	
12		Ground water	0.65	0.00	0.00	309.98	10,524,503.00 <i>gal</i>	
Application event totals			55.03	15.08	110.21	705.15		
07/05/2023	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	
12		Ground water	0.66	0.00	0.00	315.42	10,709,143.00 <i>gal</i>	
Application event totals			0.66	0.00	0.00	315.42		
07/23/2023	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	50.98	14.14	103.33	370.48	2,769,606.00 <i>gal</i>	
12		Ground water	0.68	0.00	0.00	326.29	11,078,424.00 <i>gal</i>	
Application event totals			51.66	14.14	103.33	696.77		

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## 26 - 06/17/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
08/11/2023	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	67.24	11.82	71.15	731.11	2,659,606.00 <i>gal</i>
12	Ground water	0.67	0.00	0.00	320.85	10,893,784.00 <i>gal</i>
Application event totals		67.90	11.82	71.15	1,051.96	
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
Lagoon	Process wastewater	69.63	12.24	73.68	757.13	2,754,246.00 <i>gal</i>
12	Ground water	0.67	0.00	0.00	322.62	10,953,784.00 <i>gal</i>
Application event totals		70.30	12.24	73.68	1,079.75	
09/08/2023	Subsurface (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	51.35	9.02	54.34	558.32	2,031,044.00 <i>gal</i>
12	Ground water	0.63	0.00	0.00	304.54	10,339,862.00 <i>gal</i>
Application event totals		51.98	9.02	54.34	862.86	
09/21/2023	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
12	Ground water	0.62	0.00	0.00	299.10	10,155,222.00 <i>gal</i>
Application event totals		0.62	0.00	0.00	299.10	

## 3 - 03/15/2023: Tomato

Field name: 3

Crop: Tomato

Plant date: 03/15/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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**3 - 03/15/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
04/02/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	3.50	0.00	0.00	85.65	4,072,950.00 <i>gal</i>
Application event totals		3.50	0.00	0.00	85.65	
04/26/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	4.08	0.00	0.00	99.93	4,751,775.00 <i>gal</i>
Application event totals		4.08	0.00	0.00	99.93	
05/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	4.67	0.00	0.00	114.20	5,430,600.00 <i>gal</i>
Application event totals		4.67	0.00	0.00	114.20	
05/25/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	5.83	0.00	0.00	142.75	6,788,250.00 <i>gal</i>
Application event totals		5.83	0.00	0.00	142.75	
06/11/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	7.00	0.00	0.00	171.30	8,145,900.00 <i>gal</i>
Application event totals		7.00	0.00	0.00	171.30	
06/27/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,503,550.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	

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**3 - 03/15/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following		
07/14/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
9		Ground water	8.17	0.00	0.00	199.85	9,503,550.00 <i>gal</i>		
Application event totals			8.17	0.00	0.00	199.85			
07/28/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
9		Ground water	9.34	0.00	0.00	228.40	10,861,200.00 <i>gal</i>		
Application event totals			9.34	0.00	0.00	228.40			
08/12/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
9		Ground water	8.17	0.00	0.00	199.85	9,503,550.00 <i>gal</i>		
Application event totals			8.17	0.00	0.00	199.85			
08/27/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
9		Ground water	8.17	0.00	0.00	199.85	9,503,550.00 <i>gal</i>		
Application event totals			8.17	0.00	0.00	199.85			
09/14/2023	Subsurface (irrigation)		No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount		
9		Ground water	7.00	0.00	0.00	171.30	8,145,900.00 <i>gal</i>		
Application event totals			7.00	0.00	0.00	171.30			

**4 - 03/25/2023: Tomato**

Field name: 4

Crop: Tomato

Plant date: 03/25/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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**4 - 03/25/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
04/10/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	4.67	0.00	0.00	114.20	5,321,988.00 <i>gal</i>
Application event totals		4.67	0.00	0.00	114.20	
05/01/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	4.67	0.00	0.00	114.20	5,321,988.00 <i>gal</i>
Application event totals		4.67	0.00	0.00	114.20	
05/14/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	5.83	0.00	0.00	142.75	6,652,485.00 <i>gal</i>
Application event totals		5.83	0.00	0.00	142.75	
05/28/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	7.00	0.00	0.00	171.30	7,982,982.00 <i>gal</i>
Application event totals		7.00	0.00	0.00	171.30	
06/11/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	
06/25/2023	Subsurface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals		8.17	0.00	0.00	199.85	

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**4 - 03/25/2023: Tomato**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following
07/08/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	9.34	0.00	0.00	228.40	10,643,976.00 <i>gal</i>
Application event totals			9.34	0.00	0.00	228.40	
07/23/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	9.34	0.00	0.00	228.40	10,643,976.00 <i>gal</i>
Application event totals			9.34	0.00	0.00	228.40	
08/05/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	8.17	0.00	0.00	199.85	9,313,479.00 <i>gal</i>
Application event totals			8.17	0.00	0.00	199.85	
08/20/2023	Subsurface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	7.00	0.00	0.00	171.30	7,982,982.00 <i>gal</i>
Application event totals			7.00	0.00	0.00	171.30	

**5 - 11/20/2019: Alfalfa, hay**

Field name: 5

Crop: Alfalfa, hay

Plant date: 11/20/2019

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	10.77	0.00	0.00	263.59	1,253,415.00 <i>gal</i>
Application event totals		10.77	0.00	0.00	263.59	

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**5 - 11/20/2019: Alfalfa, hay**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
05/05/2023	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
9		Ground water	11.30	0.00	0.00	276.51	1,314,874.00 <i>gal</i>
Application event totals			11.30	0.00	0.00	276.51	
06/04/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.83	0.00	0.00	338.40	1,609,180.00 <i>gal</i>
Application event totals			13.83	0.00	0.00	338.40	
07/04/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	14.06	0.00	0.00	344.11	1,636,333.00 <i>gal</i>
Application event totals			14.06	0.00	0.00	344.11	
08/03/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.48	0.00	0.00	329.68	1,567,721.00 <i>gal</i>
Application event totals			13.48	0.00	0.00	329.68	
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
9		Ground water	13.60	0.00	0.00	332.69	1,582,027.00 <i>gal</i>
Application event totals			13.60	0.00	0.00	332.69	
10/02/2023	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
9		Ground water	13.36	0.00	0.00	326.98	1,554,874.00 <i>gal</i>
Application event totals			13.36	0.00	0.00	326.98	

**6 - 11/21/2019: Alfalfa, hay**

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6 - 11/21/2019: Alfalfa, hay

Field name: 6

Crop: Alfalfa, hay

Plant date: 11/21/2019

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
04/02/2023	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
9		Ground water	13.17	0.00	0.00	322.26	11,493,317.00 <i>gal</i>
Application event totals			13.17	0.00	0.00	322.26	
05/04/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.39	0.00	0.00	327.56	11,682,375.00 <i>gal</i>
Application event totals			13.39	0.00	0.00	327.56	
06/03/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.77	0.00	0.00	336.79	12,011,555.00 <i>gal</i>
Application event totals			13.77	0.00	0.00	336.79	
07/02/2023	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
9		Ground water	13.31	0.00	0.00	325.68	11,615,202.00 <i>gal</i>
Application event totals			13.31	0.00	0.00	325.68	
08/04/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	12.44	0.00	0.00	304.42	10,856,965.00 <i>gal</i>
Application event totals			12.44	0.00	0.00	304.42	
09/05/2023	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
9		Ground water	12.61	0.00	0.00	308.55	11,004,260.00 <i>gal</i>
Application event totals			12.61	0.00	0.00	308.55	

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**6 - 11/21/2019: Alfalfa, hay**

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
10/02/2023	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
9		Ground water	12.84	0.00	0.00	314.06	11,200,612.00 <i>gal</i>
Application event totals			12.84	0.00	0.00	314.06	

**7 - 11/20/2019: Alfalfa, hay**

Field name: 7

Crop: Alfalfa, hay

Plant date: 11/20/2019

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following
04/05/2023	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
9		Ground water	12.82	0.00	0.00	313.60	7,754,562.00 <i>gal</i>
Application event totals			12.82	0.00	0.00	313.60	
05/06/2023	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
9		Ground water	13.31	0.00	0.00	325.52	8,049,345.00 <i>gal</i>
Application event totals			13.31	0.00	0.00	325.52	
06/04/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.65	0.00	0.00	333.97	8,258,149.00 <i>gal</i>
Application event totals			13.65	0.00	0.00	333.97	
07/02/2023	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
9		Ground water	13.87	0.00	0.00	339.32	8,390,540.00 <i>gal</i>
Application event totals			13.87	0.00	0.00	339.32	

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**7 - 11/20/2019: Alfalfa, hay**

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following
08/04/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.49	0.00	0.00	329.92	8,158,149.00 <i>gal</i>
Application event totals			13.49	0.00	0.00	329.92	
09/05/2023	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
9		Ground water	13.86	0.00	0.00	339.03	8,383,367.00 <i>gal</i>
Application event totals			13.86	0.00	0.00	339.03	
10/03/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	12.84	0.00	0.00	314.06	7,765,758.00 <i>gal</i>
Application event totals			12.84	0.00	0.00	314.06	

**8 - 11/22/2019: Alfalfa, hay**

Field name: 8

Crop: Alfalfa, hay

Plant date: 11/22/2019

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
04/05/2023	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
9		Ground water	12.79	0.00	0.00	312.82	11,453,905.00 <i>gal</i>
Application event totals			12.79	0.00	0.00	312.82	
05/06/2023	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
9		Ground water	12.86	0.00	0.00	314.65	11,521,139.00 <i>gal</i>
Application event totals			12.86	0.00	0.00	314.65	

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

**8 - 11/22/2019: Alfalfa, hay**

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following
06/03/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.53	0.00	0.00	330.94	12,117,452.00 <i>gal</i>
Application event totals			13.53	0.00	0.00	330.94	
07/02/2023	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
9		Ground water	13.56	0.00	0.00	331.69	12,144,868.00 <i>gal</i>
Application event totals			13.56	0.00	0.00	331.69	
08/03/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9		Ground water	13.71	0.00	0.00	335.41	12,281,139.00 <i>gal</i>
Application event totals			13.71	0.00	0.00	335.41	
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
9		Ground water	12.17	0.00	0.00	297.77	10,902,983.00 <i>gal</i>
Application event totals			12.17	0.00	0.00	297.77	
10/01/2023	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
9		Ground water	12.84	0.00	0.00	314.06	11,499,295.00 <i>gal</i>
Application event totals			12.84	0.00	0.00	314.06	

**9 - 11/23/2019: Alfalfa, hay**

Field name: 9

Crop: Alfalfa, hay

Plant date: 11/23/2019

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.*

9 - 11/23/2019: Alfalfa, hay

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
9	Ground water	12.84	0.00	0.00	314.20	5,976,436.00 <i>gal</i>
Application event totals		12.84	0.00	0.00	314.20	
05/08/2023	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
9	Ground water	13.07	0.00	0.00	319.77	6,082,272.00 <i>gal</i>
Application event totals		13.07	0.00	0.00	319.77	
06/05/2023	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
9	Ground water	13.46	0.00	0.00	329.38	6,265,048.00 <i>gal</i>
Application event totals		13.46	0.00	0.00	329.38	
07/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	13.77	0.00	0.00	336.82	6,406,720.00 <i>gal</i>
Application event totals		13.77	0.00	0.00	336.82	
08/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation		
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
9	Ground water	12.85	0.00	0.00	314.51	5,982,272.00 <i>gal</i>
Application event totals		12.85	0.00	0.00	314.51	
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
9	Ground water	12.48	0.00	0.00	305.34	5,807,824.00 <i>gal</i>
Application event totals		12.48	0.00	0.00	305.34	

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9 - 11/23/2019: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/02/2023	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
9	Ground water	12.60	0.00	0.00	308.35	5,865,048.00 <i>gal</i>
Application event totals		12.60	0.00	0.00	308.35	

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

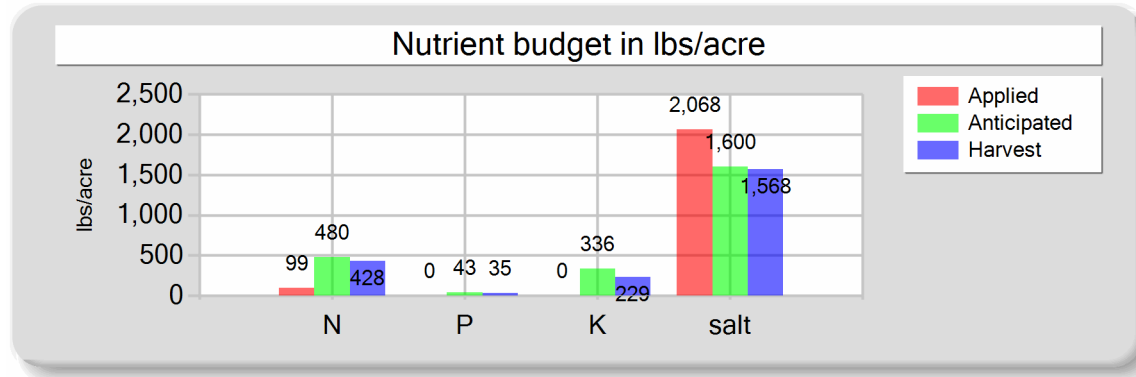
## B. NUTRIENT BUDGET

10 - 11/23/2019: Alfalfa, hay

Field name: 10

Crop: Alfalfa, hay

Plant date: 11/23/2019



	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	17,698,268.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	651.77 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	36.21 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	0.00	0.00	0.00	0.00	
Fresh water	84.51	0.00	0.00	2,067.69	
Atmospheric deposition	14.00	0.00	0.00	0.00	
Total nutrients applied	98.51	0.00	0.00	2,067.69	
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00	
Actual crop nutrient removal	427.96	35.26	229.21	1,567.57	
Nutrient balance	-329.44	-35.26	-229.21	500.12	
Applied to removed ratio	0.23	0.00	0.00	1.32	
					Process wastewater applied
					0.00 gallons
					0.00 acre-inches
					0.00 inches/acre
					Total harvests for the crop
					1 harvests

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

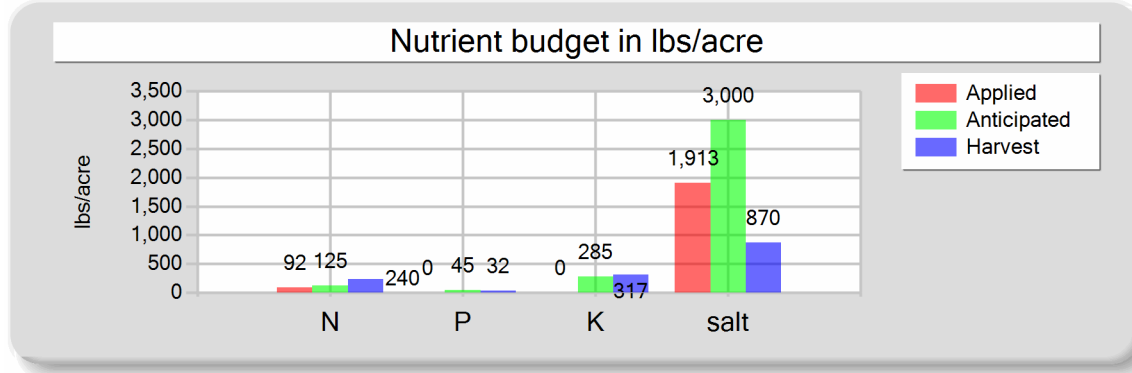
Reporting period 01/01/2023 to 12/31/2023.

11A - 04/05/2023: Tomato

Field name: 11A

Crop: Tomato

Plant date: 04/05/2023



	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	0.00	0.00	0.00	0.00
Fresh water	78.19	0.00	0.00	1,912.89
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	92.19	0.00	0.00	1,912.89
Anticipated crop nutrient removal	125.00	45.00	285.00	3,000.00
Actual crop nutrient removal	240.20	31.92	316.81	869.82
Nutrient balance	-148.01	-31.92	-316.81	1,043.07
Applied to removed ratio	0.38	0.00	0.00	2.20

Fresh water applied
7,277,004.00 gallons
267.99 acre-inches
33.50 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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

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

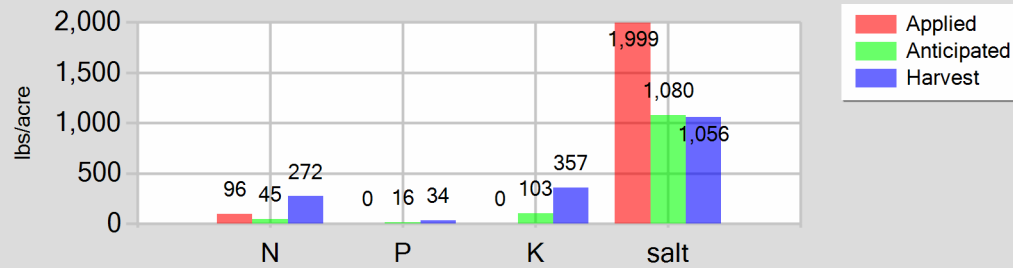
11B - 04/05/2023: Tomato

Field name: 11B

Crop: Tomato

Plant date: 04/05/2023

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	0.00	0.00	0.00	0.00
Fresh water	81.69	0.00	0.00	1,998.54
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	95.69	0.00	0.00	1,998.54
Anticipated crop nutrient removal	45.00	16.20	102.60	1,080.00
Actual crop nutrient removal	272.10	34.25	356.78	1,056.05
Nutrient balance	-176.41	-34.25	-356.78	942.49
Applied to removed ratio	0.35	0.00	0.00	1.89

Fresh water applied
7,602,840.00 gallons
279.99 acre-inches
35.00 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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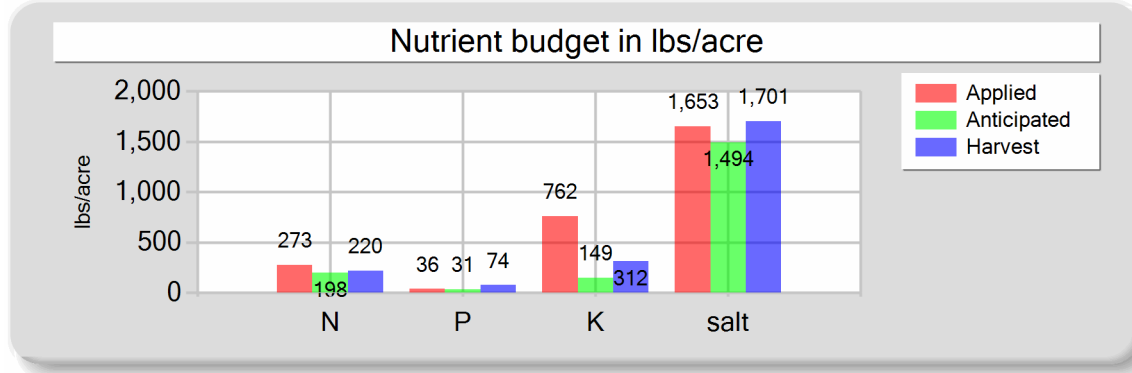
Reporting period 01/01/2023 to 12/31/2023.

12 - 11/16/2022: Wheat, silage, soft dough

Field name: 12

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	264.21	36.38	761.93	929.48
Fresh water	1.51	0.00	0.00	723.90
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>272.72</b>	<b>36.38</b>	<b>761.93</b>	<b>1,653.38</b>
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	219.73	73.75	311.54	1,700.68
<b>Nutrient balance</b>	<b>52.98</b>	<b>-37.36</b>	<b>450.39</b>	<b>-47.30</b>
Applied to removed ratio	1.24	0.49	2.45	0.97

Fresh water applied
14,096,299.00 <i>gallons</i>
519.12 <i>acre-inches</i>
13.31 <i>inches/acre</i>

Process wastewater applied
4,818,939.00 <i>gallons</i>
177.47 <i>acre-inches</i>
4.55 <i>inches/acre</i>

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

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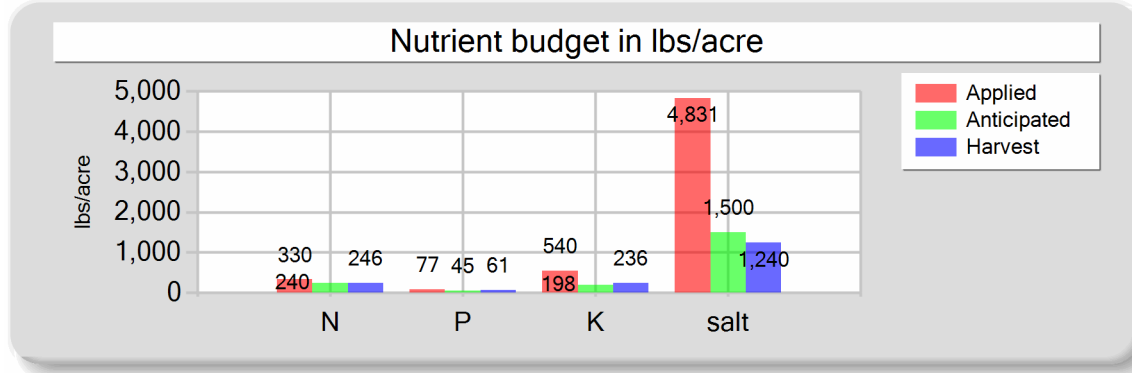
Reporting period 01/01/2023 to 12/31/2023.

12 - 06/17/2023: Corn, silage

Field name: 12

Crop: Corn, silage

Plant date: 06/17/2023



	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	318.48	77.29	540.23	2,706.26
Fresh water	4.43	0.00	0.00	2,124.97
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>329.91</b>	<b>77.29</b>	<b>540.23</b>	<b>4,831.23</b>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	245.70	60.93	235.87	1,240.29
<b>Nutrient balance</b>	<b>84.21</b>	<b>16.35</b>	<b>304.36</b>	<b>3,590.93</b>
Applied to removed ratio	1.34	1.27	2.29	3.90

Fresh water applied
41,378,933.00 <i>gallons</i>
1,523.85 <i>acre-inches</i>
39.07 <i>inches/acre</i>

Process wastewater applied
9,002,496.00 <i>gallons</i>
331.53 <i>acre-inches</i>
8.50 <i>inches/acre</i>

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

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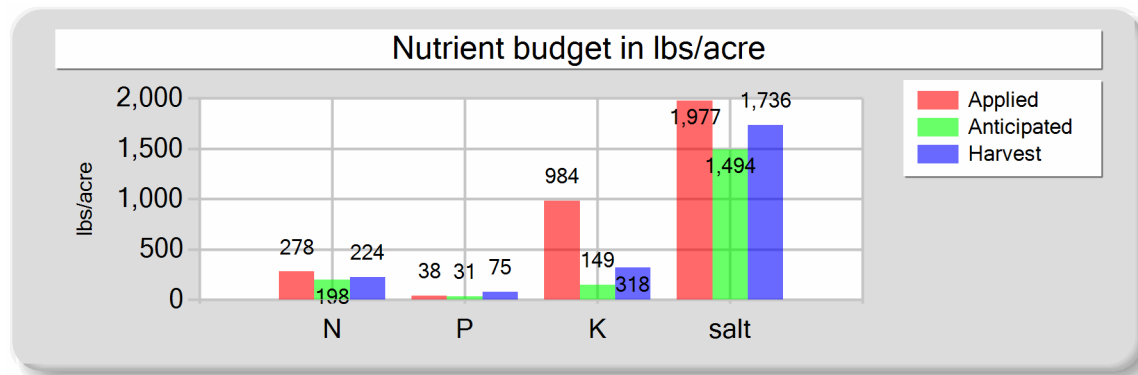
Reporting period 01/01/2023 to 12/31/2023.

13 - 11/16/2022: Wheat, silage, soft dough

Field name: 13

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	269.55	37.59	983.57	1,296.32
Fresh water	1.42	0.00	0.00	680.71
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	277.97	37.59	983.57	1,977.03
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	224.35	75.30	318.09	1,736.44
Nutrient balance	53.62	-37.71	665.48	240.59
Applied to removed ratio	1.24	0.50	3.09	1.14

Fresh water applied
11,895,751.00 <i>gallons</i>
438.08 <i>acre-inches</i>
12.52 <i>inches/acre</i>

Process wastewater applied
4,544,256.00 <i>gallons</i>
167.35 <i>acre-inches</i>
4.78 <i>inches/acre</i>

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

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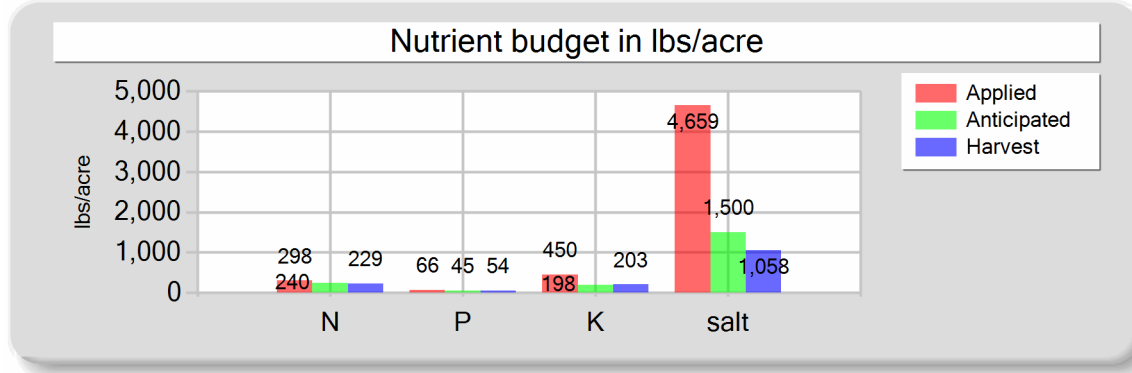
Reporting period 01/01/2023 to 12/31/2023.

13 - 06/18/2023: Corn, silage

Field name: 13

Crop: Corn, silage

Plant date: 06/18/2023



	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	286.88	65.81	450.33	2,572.98
Fresh water	4.35	0.00	0.00	2,086.03
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>298.23</b>	<b>65.81</b>	<b>450.33</b>	<b>4,659.01</b>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	229.00	54.19	202.78	1,057.61
<b>Nutrient balance</b>	<b>69.23</b>	<b>11.62</b>	<b>247.55</b>	<b>3,601.40</b>
Applied to removed ratio	1.30	1.21	2.22	4.41

Fresh water applied
36,454,555.00 <i>gallons</i>
1,342.50 <i>acre-inches</i>
38.36 <i>inches/acre</i>

Process wastewater applied
6,992,626.00 <i>gallons</i>
257.51 <i>acre-inches</i>
7.36 <i>inches/acre</i>

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

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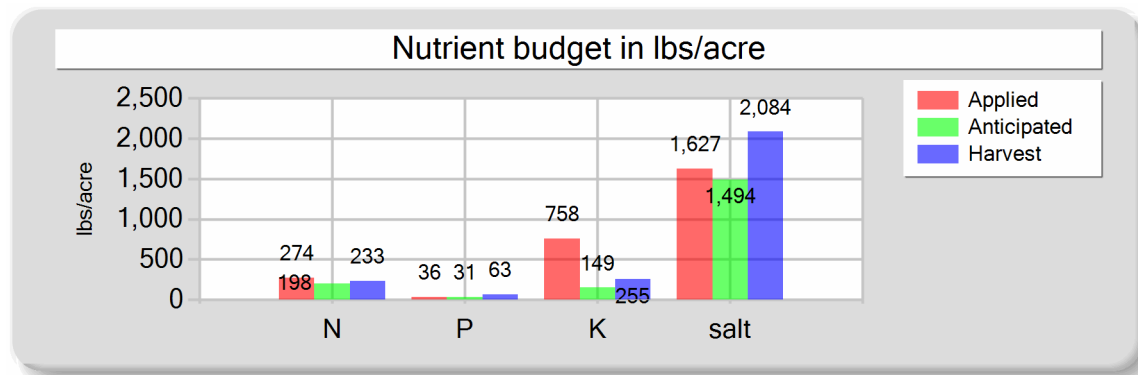
Reporting period 01/01/2023 to 12/31/2023.

14 - 11/19/2022: Wheat, silage, soft dough

Field name: 14

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022



	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	259.23	35.72	757.96	929.48
Fresh water	8.27	0.00	0.00	697.45
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	274.50	35.72	757.96	1,626.93
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	233.26	62.86	254.76	2,084.42
Nutrient balance	41.24	-27.14	503.19	-457.49
Applied to removed ratio	1.18	0.57	2.98	0.78

Fresh water applied
18,572,652.00 gallons
683.97 acre-inches
11.40 inches/acre

Process wastewater applied
7,285,474.00 gallons
268.30 acre-inches
4.47 inches/acre

Total harvests for the crop
1 harvests

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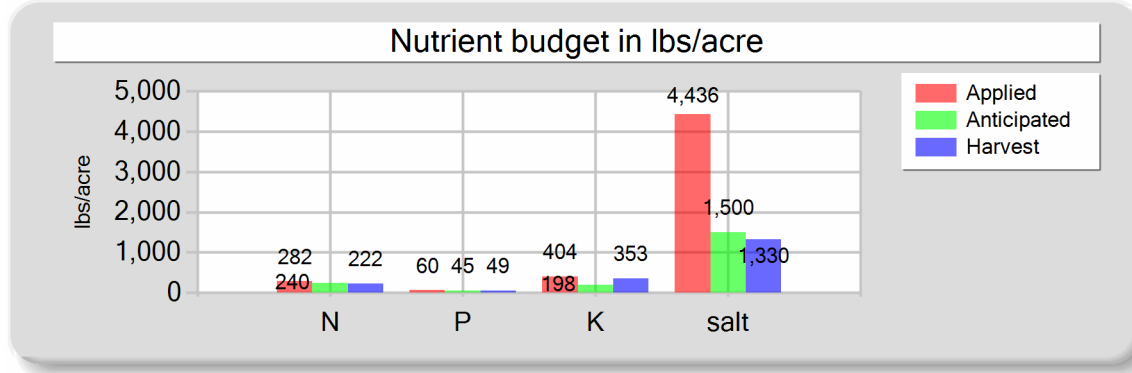
Reporting period 01/01/2023 to 12/31/2023.

14 - 06/17/2023: Corn, silage

Field name: 14

Crop: Corn, silage

Plant date: 06/17/2023



	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	271.42	59.98	404.27	2,515.34
Fresh water	4.00	0.00	0.00	1,920.84
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>282.42</b>	<b>59.98</b>	<b>404.27</b>	<b>4,436.18</b>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	221.72	49.27	353.11	1,330.32
<b>Nutrient balance</b>	<b>60.70</b>	<b>10.70</b>	<b>51.16</b>	<b>3,105.86</b>
Applied to removed ratio	1.27	1.22	1.14	3.33

Fresh water applied
57,544,644.00 gallons
2,119.17 acre-inches
35.32 inches/acre

Process wastewater applied
11,047,998.00 gallons
406.86 acre-inches
6.78 inches/acre

Total harvests for the crop
1 harvests

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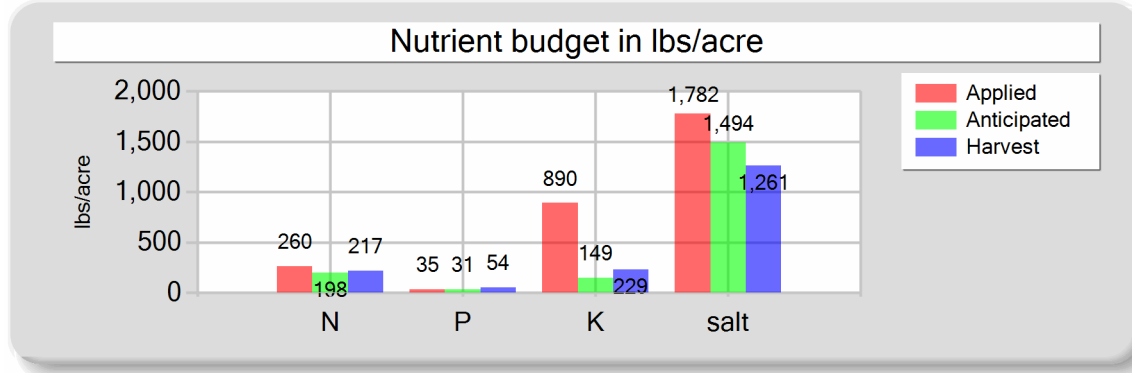
Reporting period 01/01/2023 to 12/31/2023.

15 - 11/10/2022: Wheat, silage, soft dough

Field name: 15

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022



	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	251.97	35.07	889.71	1,161.63
Fresh water	1.29	0.00	0.00	619.96
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	260.26	35.07	889.71	1,781.59
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	217.28	54.04	228.54	1,260.89
Nutrient balance	42.98	-18.97	661.17	520.70
Applied to removed ratio	1.20	0.65	3.89	1.41

Fresh water applied
20,739,461.00 <i>gallons</i>
763.76 <i>acre-inches</i>
11.40 <i>inches/acre</i>

Process wastewater applied
8,095,078.00 <i>gallons</i>
298.11 <i>acre-inches</i>
4.45 <i>inches/acre</i>

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

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

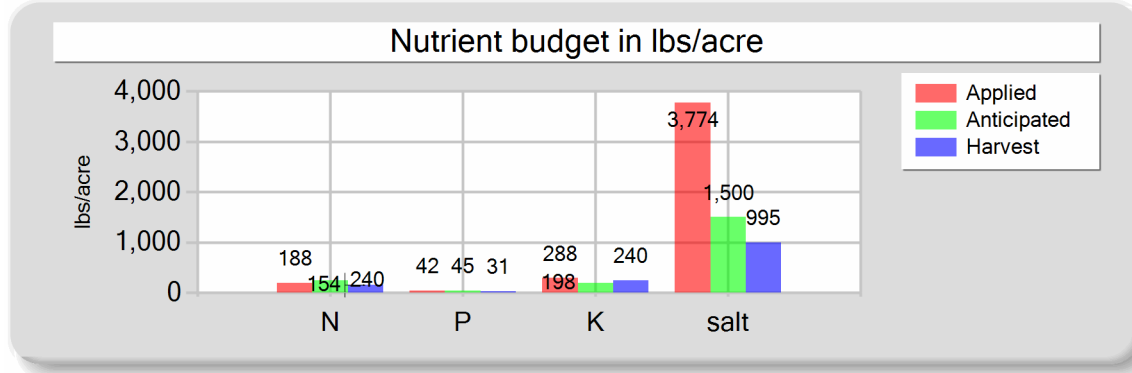
Reporting period 01/01/2023 to 12/31/2023.

15 - 06/19/2023: Corn, silage

Field name: 15

Crop: Corn, silage

Plant date: 06/19/2023



	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	176.77	41.60	287.51	1,547.99
Fresh water	4.64	0.00	0.00	2,225.95
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>188.40</b>	<b>41.60</b>	<b>287.51</b>	<b>3,773.94</b>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	154.34	30.56	239.91	994.80
<b>Nutrient balance</b>	<b>34.06</b>	<b>11.04</b>	<b>47.59</b>	<b>2,779.13</b>
Applied to removed ratio	1.22	1.36	1.20	3.79

Fresh water applied
74,465,070.00 <i>gallons</i>
2,742.30 <i>acre-inches</i>
40.93 <i>inches/acre</i>

Process wastewater applied
8,398,555.00 <i>gallons</i>
309.29 <i>acre-inches</i>
4.62 <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.

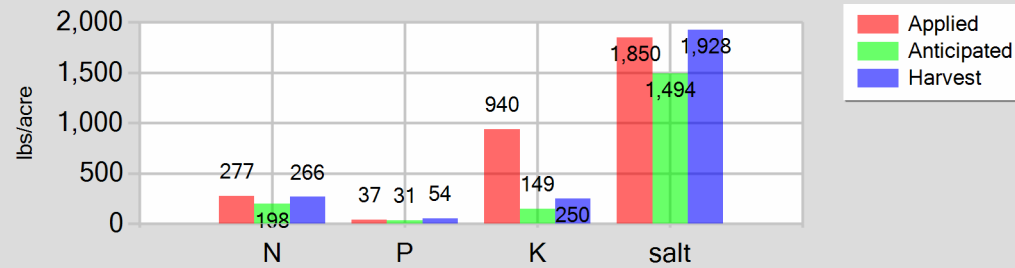
18 - 11/14/2022: Wheat, silage, soft dough

Field name: 18

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	268.90	37.40	939.56	1,222.91
Fresh water	1.31	0.00	0.00	626.82
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	277.21	37.40	939.56	1,849.74
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	266.13	54.18	250.20	1,928.26
Nutrient balance	11.08	-16.78	689.36	-78.52
Applied to removed ratio	1.04	0.69	3.76	0.96

Fresh water applied
21,908,165.00 gallons
806.80 acre-inches
11.53 inches/acre
Process wastewater applied
9,013,266.00 gallons
331.93 acre-inches
4.74 inches/acre
Total harvests for the crop
1 harvests

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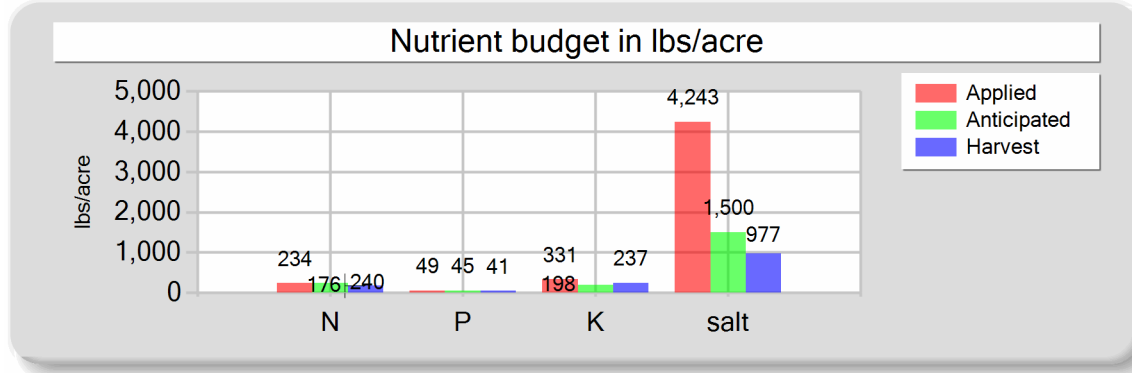
Reporting period 01/01/2023 to 12/31/2023.

18 - 06/15/2023: Corn, silage

Field name: 18

Crop: Corn, silage

Plant date: 06/15/2023



	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	222.53	49.08	330.60	2,065.49
Fresh water	4.54	0.00	0.00	2,177.47
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>234.07</b>	<b>49.08</b>	<b>330.60</b>	<b>4,242.96</b>
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	175.76	41.45	237.12	976.66
<b>Nutrient balance</b>	<b>58.30</b>	<b>7.63</b>	<b>93.49</b>	<b>3,266.30</b>
Applied to removed ratio	1.33	1.18	1.39	4.34

Fresh water applied
76,104,911.00 <i>gallons</i>
2,802.69 <i>acre-inches</i>
40.04 <i>inches/acre</i>

Process wastewater applied
10,554,402.00 <i>gallons</i>
388.68 <i>acre-inches</i>
5.55 <i>inches/acre</i>

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

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

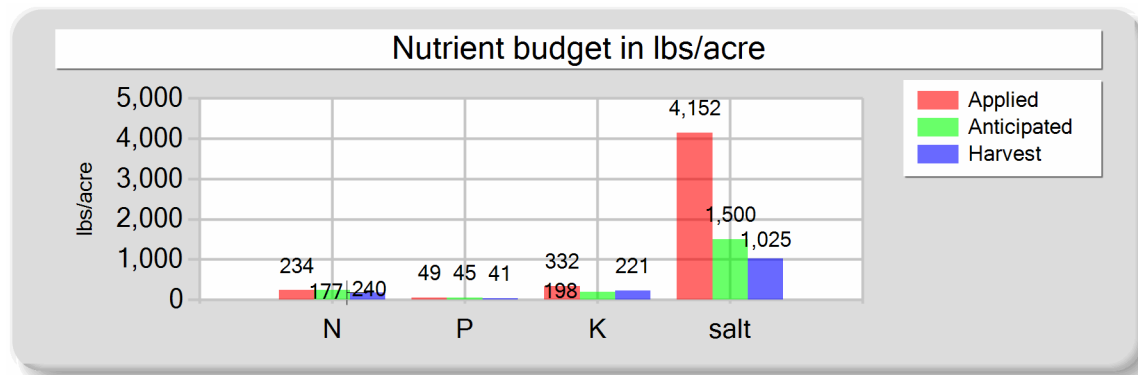
Reporting period 01/01/2023 to 12/31/2023.

19 - 06/19/2023: Corn, silage

Field name: 19

Crop: Corn, silage

Plant date: 06/19/2023



	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	215.84	48.77	331.74	1,962.11
Fresh water	4.56	0.00	0.00	2,189.63
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	234.40	48.77	331.74	4,151.73
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	177.04	40.61	220.90	1,024.89
Nutrient balance	57.36	8.16	110.85	3,126.84
Applied to removed ratio	1.32	1.20	1.50	4.05

Fresh water applied
99,488,765.00 gallons
3,663.83 acre-inches
40.26 inches/acre

Process wastewater applied
13,534,260.00 gallons
498.42 acre-inches
5.48 inches/acre

Total harvests for the crop
1 harvests

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

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

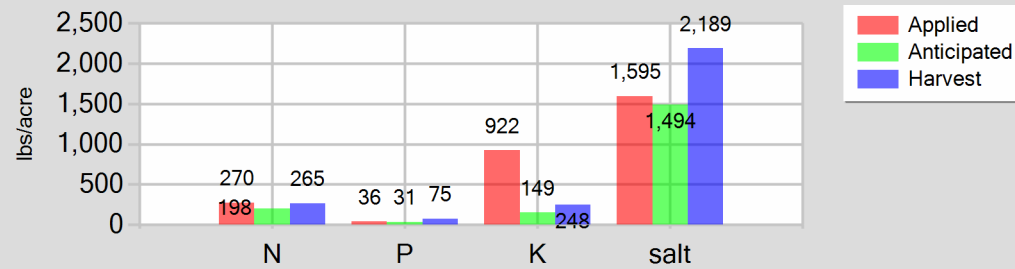
1A - 11/19/2022: Wheat, silage, soft dough

Field name: 1A

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	260.60	36.27	922.24	1,204.89
Fresh water	2.34	0.00	0.00	389.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	269.94	36.27	922.24	1,594.66
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	264.72	75.42	248.45	2,188.74
Nutrient balance	5.22	-39.15	673.79	-594.08
Applied to removed ratio	1.02	0.48	3.71	0.73

Fresh water applied
18,682,684.00 gallons
688.02 acre-inches
11.47 inches/acre

Process wastewater applied
7,500,064.00 gallons
276.20 acre-inches
4.60 inches/acre

Total harvests for the crop
1 harvests

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

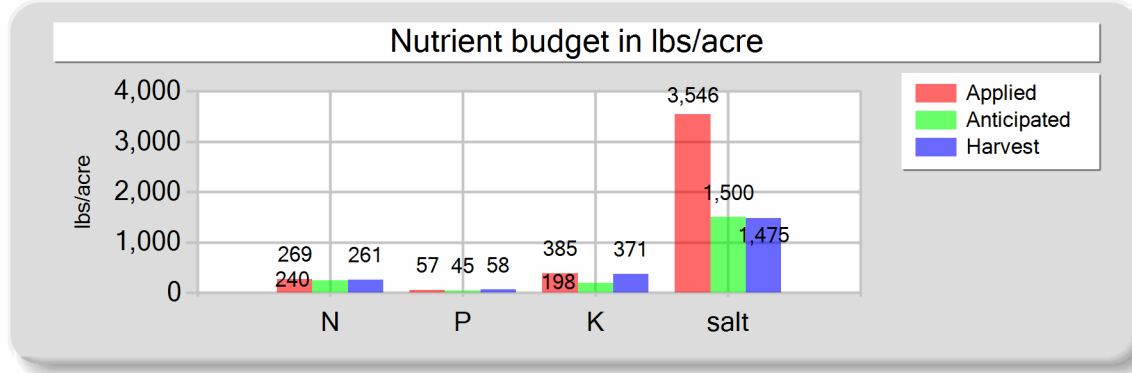
Reporting period 01/01/2023 to 12/31/2023.

1A - 06/14/2023: Corn, silage

Field name: 1A

Crop: Corn, silage

Plant date: 06/14/2023



	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	254.46	56.87	385.17	2,335.27
Fresh water	7.27	0.00	0.00	1,211.22
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	268.72	56.87	385.17	3,546.49
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	261.31	58.48	370.95	1,474.68
Nutrient balance	7.41	-1.60	14.21	2,071.81
Applied to removed ratio	1.03	0.97	1.04	2.40

Fresh water applied
58,057,136.00 <i>gallons</i>
2,138.05 <i>acre-inches</i>
35.63 <i>inches/acre</i>

Process wastewater applied
10,440,490.00 <i>gallons</i>
384.49 <i>acre-inches</i>
6.41 <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.

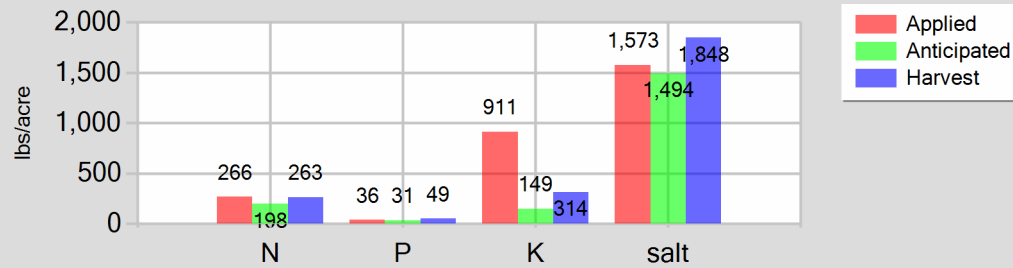
1B - 11/20/2022: Wheat, silage, soft dough

Field name: 1B

Crop: Wheat, silage, soft dough

Plant date: 11/20/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	256.75	35.74	910.90	1,190.95
Fresh water	2.29	0.00	0.00	382.32
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	266.04	35.74	910.90	1,573.27
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	262.59	48.63	314.45	1,847.83
Nutrient balance	3.45	-12.88	596.45	-274.55
Applied to removed ratio	1.01	0.74	2.90	0.85

Fresh water applied
23,212,633.00 gallons
854.84 acre-inches
11.25 inches/acre
Process wastewater applied
9,362,689.00 gallons
344.80 acre-inches
4.54 inches/acre
Total harvests for the crop
1 harvests

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

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

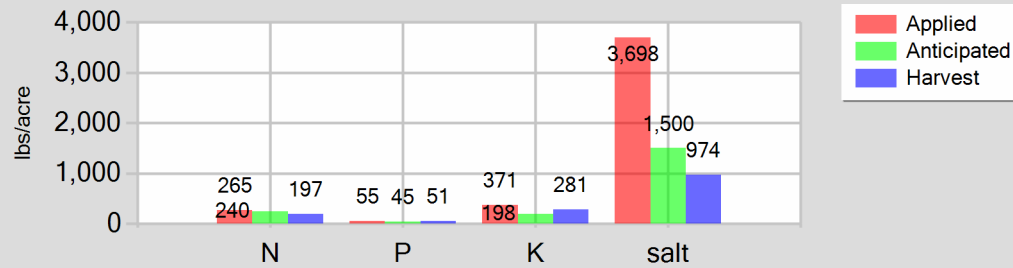
1B - 06/13/2023: Corn, silage

Field name: 1B

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	250.03	55.11	371.11	2,321.97
Fresh water	8.26	0.00	0.00	1,375.96
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	265.28	55.11	371.11	3,697.93
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	197.26	50.81	280.94	974.34
Nutrient balance	68.02	4.30	90.16	2,723.60
Applied to removed ratio	1.34	1.08	1.32	3.80

Fresh water applied
83,541,475.00 gallons
3,076.55 acre-inches
40.48 inches/acre
Process wastewater applied
12,869,042.00 gallons
473.92 acre-inches
6.24 inches/acre
Total harvests for the crop
1 harvests

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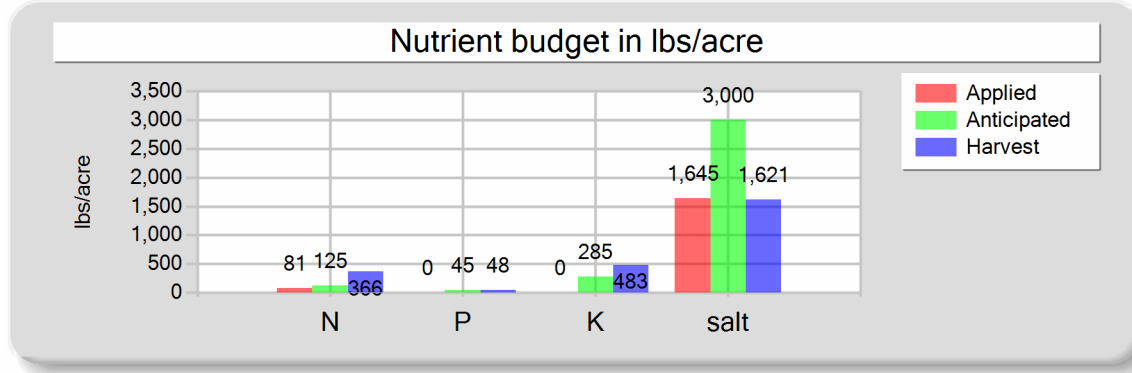
Reporting period 01/01/2023 to 12/31/2023.

2 - 03/15/2023: Tomato

Field name: 2

Crop: Tomato

Plant date: 03/15/2023



	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	0.00	0.00	0.00	0.00
Fresh water	67.22	0.00	0.00	1,644.51
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	81.22	0.00	0.00	1,644.51
Anticipated crop nutrient removal	125.00	45.00	285.00	3,000.00
Actual crop nutrient removal	366.24	48.03	482.72	1,621.08
Nutrient balance	-285.03	-48.03	-482.72	23.43
Applied to removed ratio	0.22	0.00	0.00	1.01

Fresh water applied
76,636,627.00 <i>gallons</i>
2,822.27 <i>acre-inches</i>
28.80 <i>inches/acre</i>

Process wastewater applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

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

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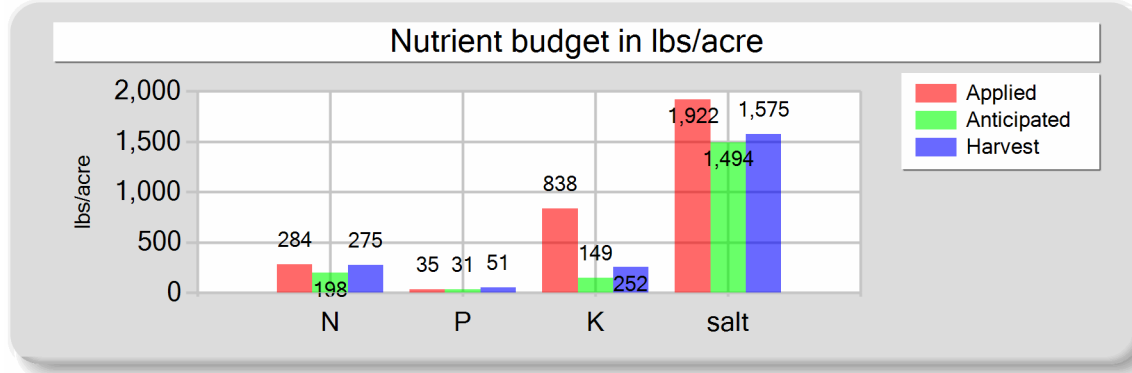
Reporting period 01/01/2023 to 12/31/2023.

25 - 11/19/2022: Wheat, silage, soft dough

Field name: 25

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022



	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	252.60	35.03	837.77	1,073.13
Fresh water	24.17	0.00	0.00	848.40
Atmospheric deposition	7.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>283.76</b>	<b>35.03</b>	<b>837.77</b>	<b>1,921.53</b>
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	275.06	50.81	252.29	1,575.05
<b>Nutrient balance</b>	<b>8.70</b>	<b>-15.78</b>	<b>585.48</b>	<b>346.48</b>
Applied to removed ratio	1.03	0.69	3.32	1.22

Fresh water applied
24,646,312.00 <i>gallons</i>
907.64 <i>acre-inches</i>
11.35 <i>inches/acre</i>

Process wastewater applied
9,610,632.00 <i>gallons</i>
353.93 <i>acre-inches</i>
4.42 <i>inches/acre</i>

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

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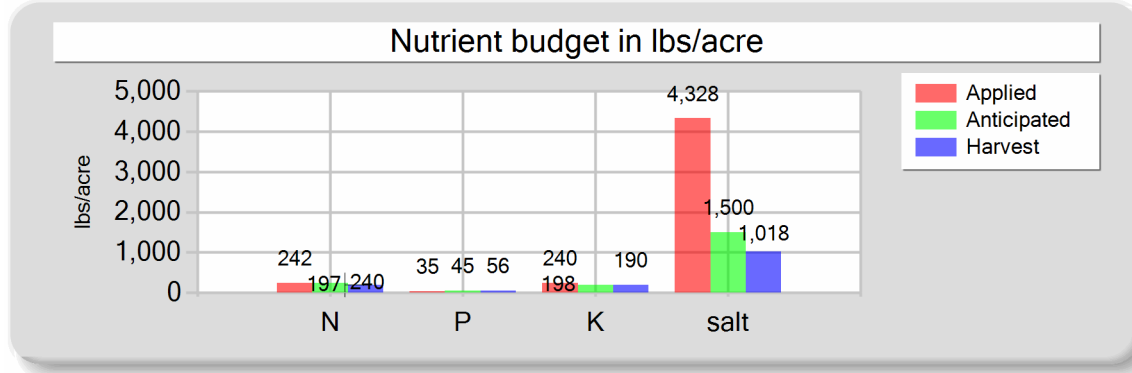
Reporting period 01/01/2023 to 12/31/2023.

25 - 06/15/2023: Corn, silage

Field name: 25

Crop: Corn, silage

Plant date: 06/15/2023



	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	149.56	34.84	239.83	1,322.56
Fresh water	85.61	0.00	0.00	3,005.52
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	242.18	34.84	239.83	4,328.07
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	197.18	55.81	189.74	1,017.54
Nutrient balance	44.99	-20.97	50.09	3,310.53
Applied to removed ratio	1.23	0.62	1.26	4.25

Fresh water applied
87,310,931.00 <i>gallons</i>
3,215.36 <i>acre-inches</i>
40.19 <i>inches/acre</i>

Process wastewater applied
8,423,408.00 <i>gallons</i>
310.21 <i>acre-inches</i>
3.88 <i>inches/acre</i>

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

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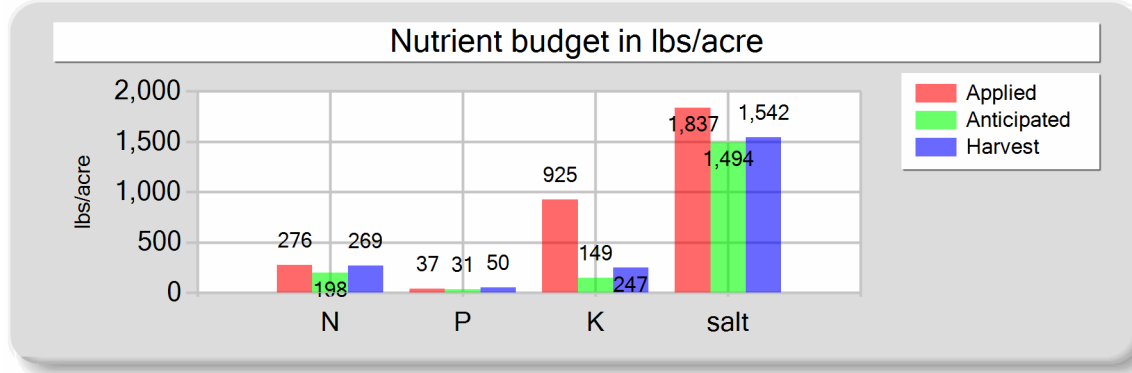
Reporting period 01/01/2023 to 12/31/2023.

26 - 11/13/2022: Wheat, silage, soft dough

Field name: 26

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)
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	267.68	37.21	925.34	1,200.57
Fresh water	1.33	0.00	0.00	636.27
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	276.00	37.21	925.34	1,836.84
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	269.33	49.75	247.03	1,542.23
Nutrient balance	6.67	-12.54	678.30	294.60
Applied to removed ratio	1.02	0.75	3.75	1.19

Fresh water applied
21,602,927.00 <i>gallons</i>
795.56 <i>acre-inches</i>
11.70 <i>inches/acre</i>

Process wastewater applied
8,703,459.00 <i>gallons</i>
320.52 <i>acre-inches</i>
4.71 <i>inches/acre</i>

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

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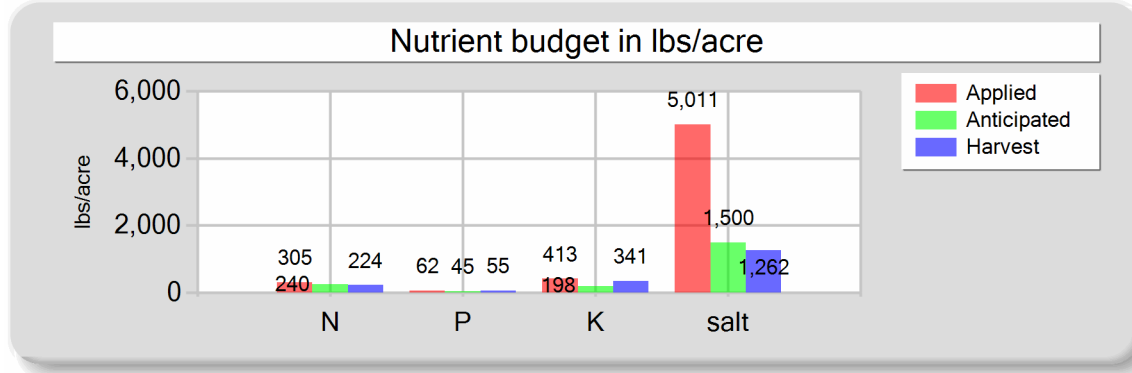
Reporting period 01/01/2023 to 12/31/2023.

26 - 06/17/2023: Corn, silage

Field name: 26

Crop: Corn, silage

Plant date: 06/17/2023



	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	293.58	62.30	412.71	2,812.21
Fresh water	4.58	0.00	0.00	2,198.80
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	305.16	62.30	412.71	5,011.01
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	224.09	55.28	340.62	1,262.37
Nutrient balance	81.07	7.02	72.10	3,748.64
Applied to removed ratio	1.36	1.13	1.21	3.97

Fresh water applied
74,654,722.00 gallons
2,749.28 acre-inches
40.43 inches/acre

Process wastewater applied
13,168,748.00 gallons
484.96 acre-inches
7.13 inches/acre

Total harvests for the crop
1 harvests

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

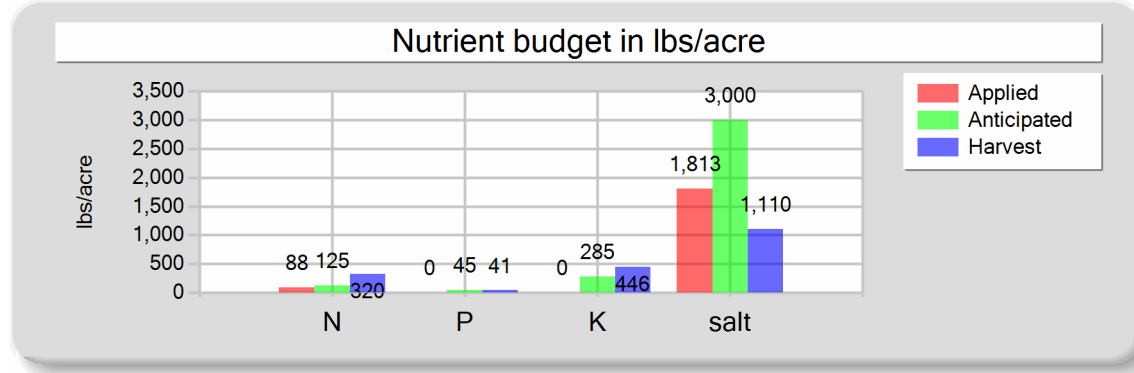
Reporting period 01/01/2023 to 12/31/2023.

3 - 03/15/2023: Tomato

Field name: 3

Crop: Tomato

Plant date: 03/15/2023



	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	0.00	0.00	0.00	0.00
Fresh water	74.10	0.00	0.00	1,812.96
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	88.10	0.00	0.00	1,812.96
Anticipated crop nutrient removal	125.00	45.00	285.00	3,000.00
Actual crop nutrient removal	319.87	41.34	446.08	1,109.76
Nutrient balance	-231.77	-41.34	-446.08	703.20
Applied to removed ratio	0.28	0.00	0.00	1.63

Fresh water applied
86,210,775.00 gallons
3,174.85 acre-inches
31.75 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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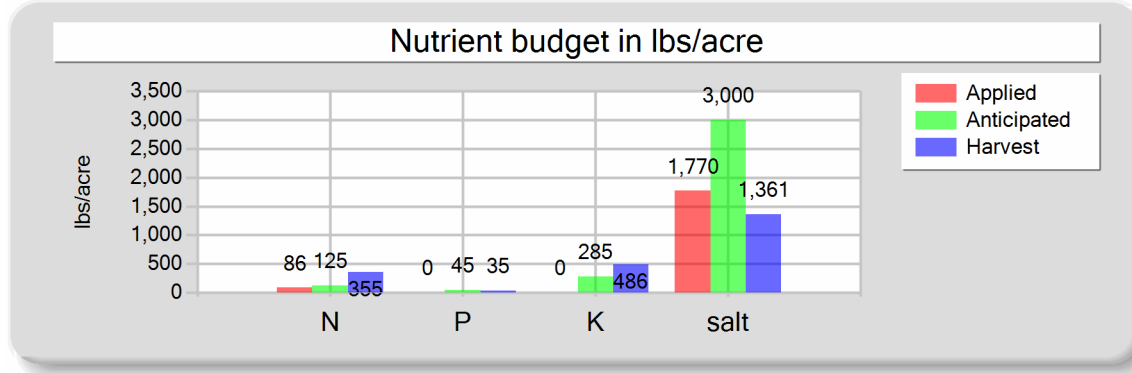
Reporting period 01/01/2023 to 12/31/2023.

4 - 03/25/2023: Tomato

Field name: 4

Crop: Tomato

Plant date: 03/25/2023



	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	0.00	0.00	0.00	0.00
Fresh water	72.35	0.00	0.00	1,770.14
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	86.35	0.00	0.00	1,770.14
Anticipated crop nutrient removal	125.00	45.00	285.00	3,000.00
Actual crop nutrient removal	355.32	35.28	486.36	1,360.80
Nutrient balance	-268.97	-35.28	-486.36	409.34
Applied to removed ratio	0.24	0.00	0.00	1.30

Fresh water applied
82,490,814.00 <i>gallons</i>
3,037.86 <i>acre-inches</i>
31.00 <i>inches/acre</i>

Process wastewater applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <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.

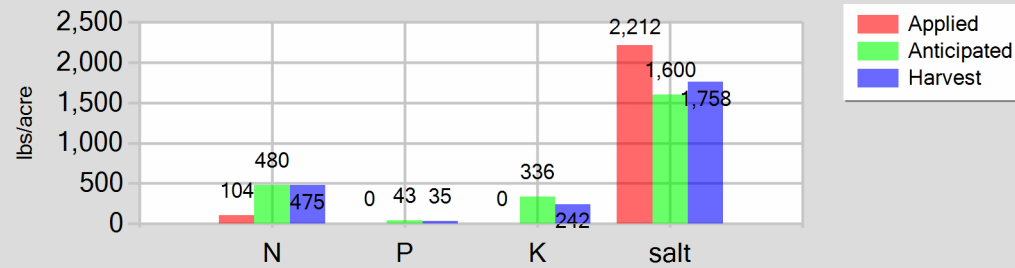
5 - 11/20/2019: Alfalfa, hay

Field name: 5

Crop: Alfalfa, hay

Plant date: 11/20/2019

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	0.00	0.00	0.00	0.00
Fresh water	90.41	0.00	0.00	2,211.96
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	104.41	0.00	0.00	2,211.96
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	474.94	34.51	241.58	1,758.44
Nutrient balance	-370.53	-34.51	-241.58	453.52
Applied to removed ratio	0.22	0.00	0.00	1.26

Fresh water applied
10,518,424.00 gallons
387.36 acre-inches
38.74 inches/acre
Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre
Total harvests for the crop
1 harvests

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

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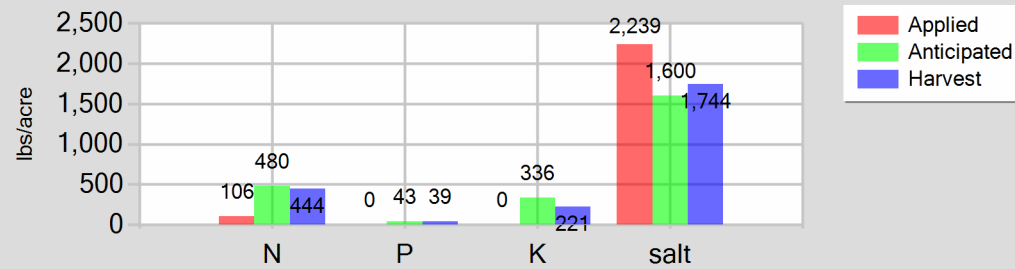
6 - 11/21/2019: Alfalfa, hay

Field name: 6

Crop: Alfalfa, hay

Plant date: 11/21/2019

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	0.00	0.00	0.00	0.00
Fresh water	91.53	0.00	0.00	2,239.33
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	105.53	0.00	0.00	2,239.33
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	444.02	38.75	221.20	1,743.77
Nutrient balance	-338.49	-38.75	-221.20	495.56
Applied to removed ratio	0.24	0.00	0.00	1.28

Fresh water applied
79,864,286.00 gallons
2,941.13 acre-inches
39.22 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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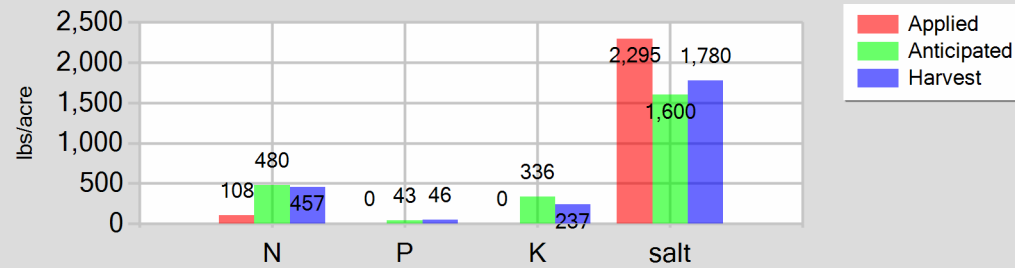
7 - 11/20/2019: Alfalfa, hay

Field name: 7

Crop: Alfalfa, hay

Plant date: 11/20/2019

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	0.00	0.00	0.00	0.00
Fresh water	93.82	0.00	0.00	2,295.43
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	107.82	0.00	0.00	2,295.43
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	456.98	46.50	237.31	1,779.80
Nutrient balance	-349.15	-46.50	-237.31	515.64
Applied to removed ratio	0.24	0.00	0.00	1.29

Fresh water applied
56,759,870.00 gallons
2,090.27 acre-inches
40.20 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

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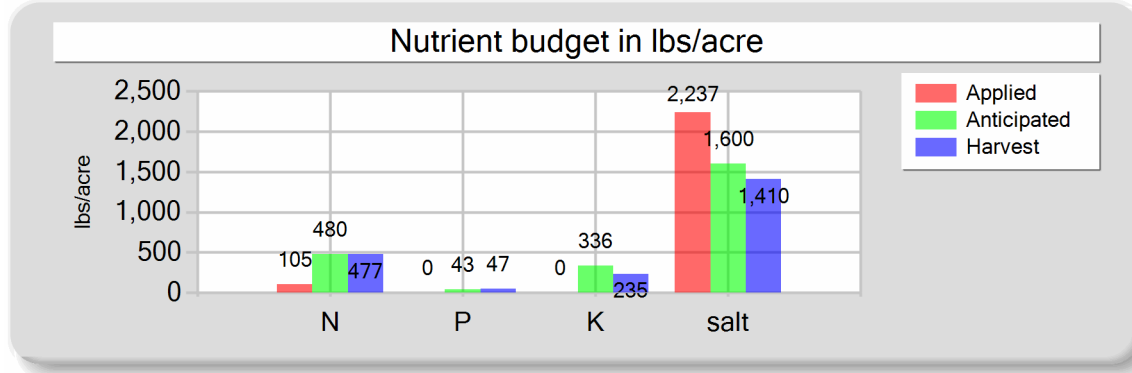
Reporting period 01/01/2023 to 12/31/2023.

8 - 11/22/2019: Alfalfa, hay

Field name: 8

Crop: Alfalfa, hay

Plant date: 11/22/2019



	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	0.00	0.00	0.00	0.00
Fresh water	91.45	0.00	0.00	2,237.33
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	105.45	0.00	0.00	2,237.33
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	476.59	47.01	235.05	1,410.33
Nutrient balance	-371.15	-47.01	-235.05	827.00
Applied to removed ratio	0.22	0.00	0.00	1.59

Fresh water applied
81,920,781.00 <i>gallons</i>
3,016.86 <i>acre-inches</i>
39.18 <i>inches/acre</i>

Process wastewater applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

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

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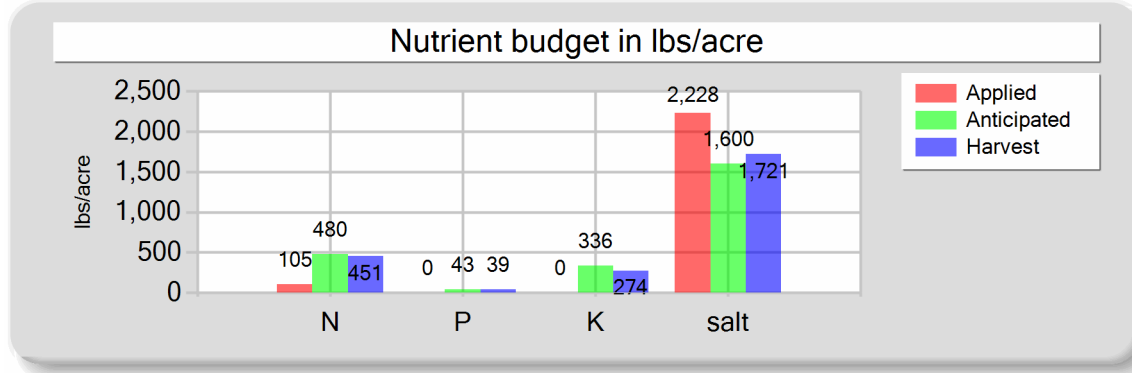
Reporting period 01/01/2023 to 12/31/2023.

9 - 11/23/2019: Alfalfa, hay

Field name: 9

Crop: Alfalfa, hay

Plant date: 11/23/2019



	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	0.00	0.00	0.00	0.00
Fresh water	91.08	0.00	0.00	2,228.36
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	105.08	0.00	0.00	2,228.36
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	450.68	39.33	273.69	1,720.79
Nutrient balance	-345.60	-39.33	-273.69	507.57
Applied to removed ratio	0.23	0.00	0.00	1.29

Fresh water applied
42,385,620.00 gallons
1,560.92 acre-inches
39.02 inches/acre

Process wastewater applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop
1 harvests

## 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: 05/03/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 12.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	24,200.00	8,700.00	31,900.00							
DL	100.00	200.00	200.00							

## Manure

Sample and source description: Manure

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

Moisture: 13.1 %

	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	23,700.00	7,900.00	23,800.00							
DL	100.00	200.00	200.00							

## B. PROCESS WASTEWATER ANALYSES

## Lagoon

Sample and source description: Lagoon

Sample date: 12/21/2022 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	205.00	108.00			31.20	1,900.00	42.40	37.40	139.00	1,050.00	0.00	56.70	120.00	4,410.00	2,930
DL	10.00	2.00			0.20	0.50	2.00	2.00	2.00	2.00	5.00	2.00	2.00	10.00	10

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## Lagoon

Sample and source description: Lagoon

Sample date: 02/23/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 6.90

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	279.00	104.00	0.00	0.00	37.10	223.00								3,270.00	
<b>DL</b>	10.00	2.00	0.20	0.20	0.20	0.50								100.00	

## Lagoon

Sample and source description: Lagoon

Sample date: 05/03/2023 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)
<b>Value</b>	150.00	128.00			41.60	304.00								1,640.00	1,090
<b>DL</b>	10.00	2.00			0.20	0.50								100.00	10

## Lagoon

Sample and source description: Lagoon

Sample date: 08/02/2023 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)
<b>Value</b>	206.00	145.00			36.20	218.00								3,380.00	2,240
<b>DL</b>	10.00	2.00			0.20	0.50								100.00	10

## Lagoon

Sample and source description: Lagoon

Sample date: 11/10/2023 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)
<b>Value</b>	310.00	306.00			55.90	363.00								4,950.00	3,290
<b>DL</b>	10.00	2.00			0.20	0.50								100.00	10

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C. FRESH WATER ANALYSES

12

12

Sample description: 12

Sample date: 07/20/2023 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	0.50		0.50	5.00	0.00	68.00	80.00	0.00	2.80	75.00	415.00	240
DL	0.50		0.20	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

13D

13D

Sample description: 13D

Sample date: 12/06/2023 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			17.90								634.00	
DL			0.10								1.00	

14D

14D

Sample description: 14D

Sample date: 12/06/2023 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			7.90								357.00	
DL			0.10								1.00	

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**1A DWN**

**1A DWN**

Sample description: 1A DWN

Sample date: 12/06/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>			22.70								555.00	
<b>DL</b>			0.20								1.00	

**1AE**

**1AE**

Sample description: 1AE

Sample date: 09/11/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	0.90		0.90	4.00	0.00	41.00	90.00	0.00	4.60	11.00	223.00	150
<b>DL</b>	0.10		0.10	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

**25**

**25**

Sample description: 25

Sample date: 07/20/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>	9.40		9.40								487.00	330
<b>DL</b>	0.50		0.40								1.00	20

**26 Office**

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

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

**26 Office**

**26 Office**

Sample description: 26 Office

Sample date: 12/06/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>			27.10	66.00	3.00	91.00	170.00	0.00	28.90	52.00	807.00	520
<b>DL</b>			0.30	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

**28 Dairy S.**

**28 Dairy S.**

Sample description: 28 Dairy S.

Sample date: 12/06/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>			25.70								758.00	
<b>DL</b>			0.40								1.00	

**29 Calves**

**29 Calves**

Sample description: 29 Calves

Sample date: 12/06/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
<b>Value</b>			25.40								716.00	
<b>DL</b>			0.40								1.00	

**30 Eq. Yard**

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## 30 Eq. Yard

## 30 Eq. Yard

Sample description: 30 Eq. Yard

Sample date: 12/06/2023 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			6.00								401.00	
DL			0.10								1.00	

## 4D

## 4D

Sample description: 4D

Sample date: 12/06/2023 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			29.00								1,030.00	
DL			0.10								1.00	

## 9

## 9

Sample description: 9

Sample date: 09/11/2023 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	10.30		10.30								382.00	252
DL	0.50		0.40								1.00	20

## People's Ditch- Hanford

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

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

## People's Ditch- Hanford

### People's Ditch - Hanford

Sample description: People's Ditch - Hanford

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)
<b>Value</b>	0.00		0.00								31.00	40
<b>DL</b>	0.50		0.40								1.00	20

## D. SOIL ANALYSES

*No soil analyses entered.*

## E. PLANT TISSUE ANALYSES

### 10 - 11/23/2019: Alfalfa, hay

#### 10

Sample and source description: 10

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 11.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	26,700.00	2,200.00	14,300.00		9.78
<b>DL</b>	500.00	200.00	200.00		0.05

### 11A - 04/05/2023: Tomato

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

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

**11A - 04/05/2023: Tomato**

11

Sample and source description: 11

Sample date: 09/02/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 94.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	30,100.00	4,000.00	39,700.00		10.90
<b>DL</b>	500.00	200.00	200.00		0.05

**11B - 04/05/2023: Tomato**

11

Sample and source description: 11

Sample date: 09/05/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 93.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	28,600.00	3,600.00	37,500.00		11.10
<b>DL</b>	500.00	200.00	200.00		0.05

**12 - 11/16/2022: Wheat, silage, soft dough**

12

Sample and source description: 12

Sample date: 05/18/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	14,600.00	4,900.00	20,700.00		11.30
<b>DL</b>	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.*

12 - 06/17/2023: Corn, silage

12

Sample and source description: 12

Sample date: 10/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	12,500.00	3,100.00	12,000.00		6.31
<b>DL</b>	500.00	200.00	200.00		0.05

13 - 11/16/2022: Wheat, silage, soft dough

13

Sample and source description: 13

Sample date: 05/18/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	14,600.00	4,900.00	20,700.00		11.30
<b>DL</b>	500.00	200.00	200.00		0.05

13 - 06/18/2023: Corn, silage

13

Sample and source description: 13

Sample date: 10/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	13,100.00	3,100.00	11,600.00		6.05
<b>DL</b>	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.*

14 - 11/19/2022: Wheat, silage, soft dough

14

Sample and source description: 14

Sample date: 05/20/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	14,100.00	3,800.00	15,400.00		12.60
<b>DL</b>	100.00	200.00	200.00		0.05

14 - 06/17/2023: Corn, silage

14

Sample and source description: 14

Sample date: 10/03/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	10,800.00	2,400.00	17,200.00		6.48
<b>DL</b>	500.00	200.00	200.00		0.05

15 - 11/10/2022: Wheat, silage, soft dough

15

Sample and source description: 15

Sample date: 05/22/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 73.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	19,300.00	4,800.00	20,300.00		11.20
<b>DL</b>	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.*

15 - 06/19/2023: Corn, silage

15

Sample and source description: 15

Sample date: 10/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	10,100.00	2,000.00	15,700.00		6.51
<b>DL</b>	500.00	200.00	200.00		0.05

18 - 11/14/2022: Wheat, silage, soft dough

18

Sample and source description: 18

Sample date: 05/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	16,700.00	3,400.00	15,700.00		12.10
<b>DL</b>	100.00	200.00	200.00		0.05

18 - 06/15/2023: Corn, silage

18

Sample and source description: 18

Sample date: 10/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	10,600.00	2,500.00	14,300.00		5.89
<b>DL</b>	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.

19 - 06/19/2023: Corn, silage

19

Sample and source description: 19

Sample date: 10/27/2023 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	10,900.00	2,500.00	13,600.00		6.31
DL	500.00	200.00	200.00		0.05

1A - 11/19/2022: Wheat, silage, soft dough

1A

Sample and source description: 1A

Sample date: 05/20/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	5,100.00	16,800.00		14.80
DL	100.00	200.00	200.00		0.05

1A - 06/14/2023: Corn, silage

1A

Sample and source description: 1A

Sample date: 10/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,300.00	3,200.00	20,300.00		8.07
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.

1B - 11/20/2022: Wheat, silage, soft dough

1B

Sample and source description: 1B

Sample date: 05/20/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	5,100.00	16,800.00		14.80
DL	100.00	200.00	200.00		0.05

1B - 06/13/2023: Corn, silage

1B

Sample and source description: 1B

Sample date: 10/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 73.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,200.00	3,400.00	18,800.00		6.52
DL	500.00	200.00	200.00		0.05

2 - 03/15/2023: Tomato

2

Sample and source description: 2

Sample date: 09/22/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 92.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	30,500.00	4,000.00	40,200.00		13.50
DL	500.00	200.00	200.00		0.05

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

25 - 11/19/2022: Wheat, silage, soft dough

25

Sample and source description: 25

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	15,700.00	2,900.00	14,400.00		8.99
<b>DL</b>	100.00	200.00	200.00		0.05

25 - 06/15/2023: Corn, silage

25

Sample and source description: 25

Sample date: 10/07/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	10,600.00	3,000.00	10,200.00		5.47
<b>DL</b>	500.00	200.00	200.00		0.05

26 - 11/13/2022: Wheat, silage, soft dough

26

Sample and source description: 26

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	15,700.00	2,900.00	14,400.00		8.99
<b>DL</b>	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.*

26 - 06/17/2023: Corn, silage

26

Sample and source description: 26

Sample date: 10/07/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 73.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	15,000.00	3,700.00	22,800.00		8.45
<b>DL</b>	500.00	200.00	200.00		0.05

3 - 03/15/2023: Tomato

3

Sample and source description: 3

Sample date: 09/25/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 93.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	29,400.00	3,800.00	41,000.00		10.20
<b>DL</b>	500.00	200.00	200.00		0.05

4 - 03/25/2023: Tomato

4

Sample and source description: 4

Sample date: 09/05/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 91.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	28,200.00	2,800.00	38,600.00		10.80
<b>DL</b>	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.*

5 - 11/20/2019: Alfalfa, hay

5

Sample and source description: 5

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 8.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	28,900.00	2,100.00	14,700.00		10.70
<b>DL</b>	500.00	200.00	200.00		0.05

6 - 11/21/2019: Alfalfa, hay

6

Sample and source description: 6

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 10.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	27,500.00	2,400.00	13,700.00		10.80
<b>DL</b>	500.00	200.00	200.00		0.05

7 - 11/20/2019: Alfalfa, hay

7

Sample and source description: 7

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 11.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	28,500.00	2,900.00	14,800.00		11.10
<b>DL</b>	500.00	200.00	200.00		0.05

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

8 - 11/22/2019: Alfalfa, hay

8

Sample and source description: 8

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 10.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	29,400.00	2,900.00	14,500.00		8.70
DL	500.00	200.00	200.00		0.05

9 - 11/23/2019: Alfalfa, hay

9

Sample and source description: 9

Sample date: 10/30/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 10.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	27,500.00	2,400.00	16,700.00		10.50
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**

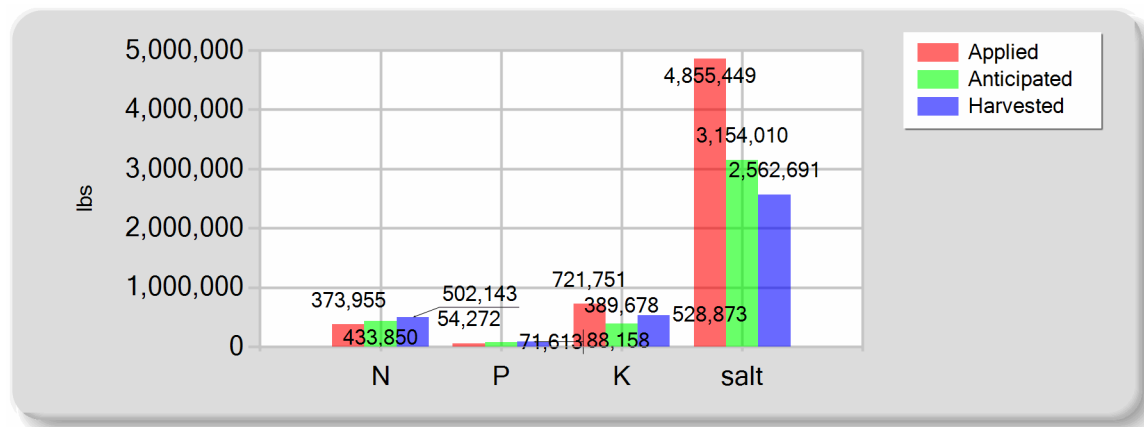
Reporting period 01/01/2023 to 12/31/2023.

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

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

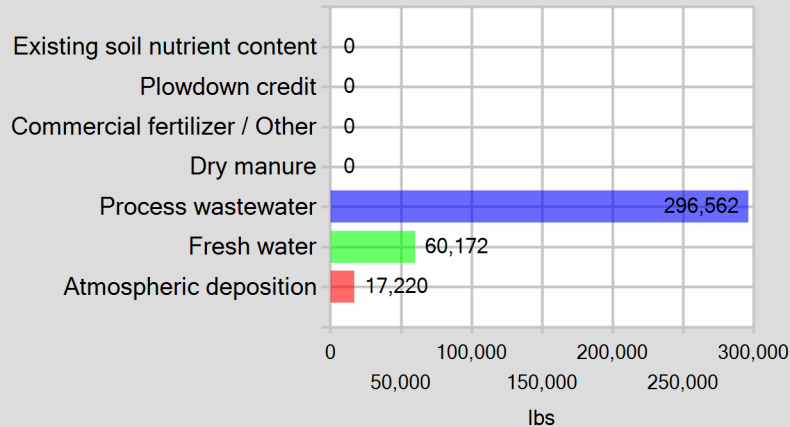
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	296,562.40	54,272.48	721,750.94	2,018,108.74
Fresh water	60,172.50	0.00	0.00	2,837,340.57
Atmospheric deposition	17,220.00	0.00	0.00	0.00
Total nutrients applied	373,954.90	54,272.48	721,750.94	4,855,449.31
Anticipated crop nutrient removal	433,850.00	71,613.00	389,677.80	3,154,010.00
Actual crop nutrient removal	502,142.87	88,158.03	528,873.32	2,562,690.92
Nutrient balance	-128,187.98	-33,885.55	192,877.62	2,292,758.39
Applied to removed ratio	0.74	0.62	1.36	1.89

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

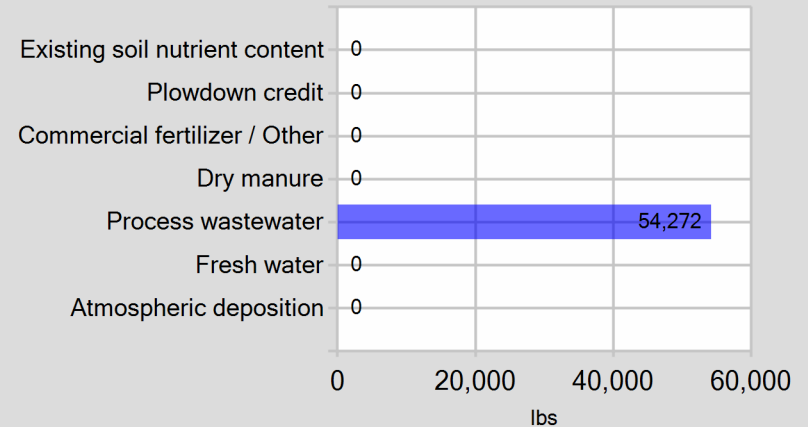


## C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

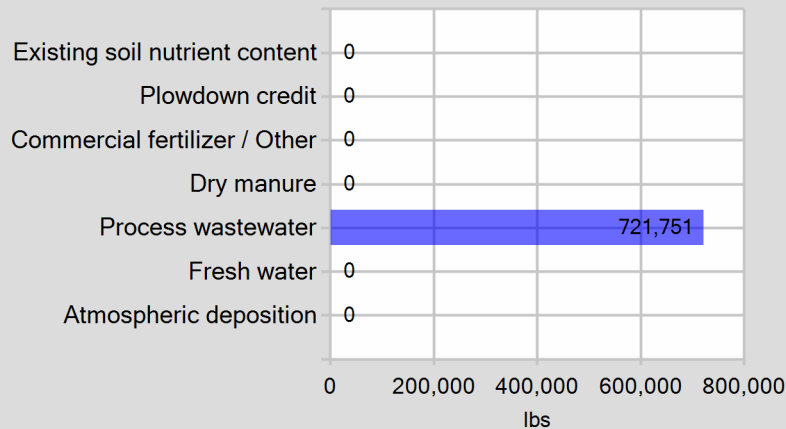
Pounds of nitrogen applied



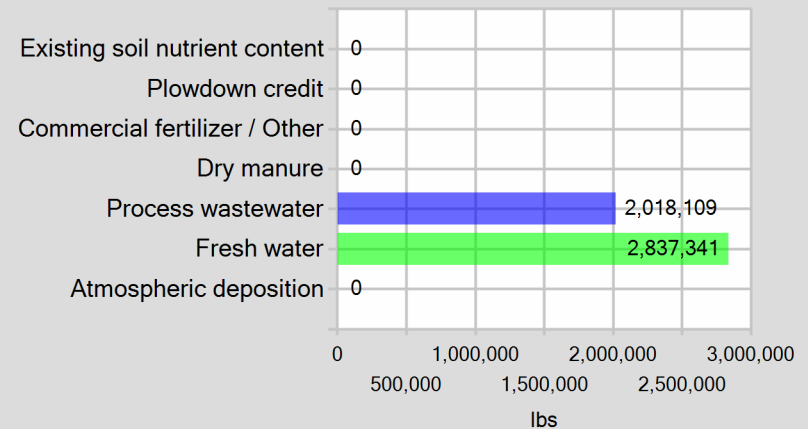
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied



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

*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**

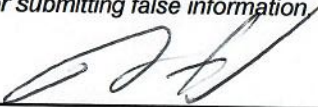
Wells 1, 14, 18, 1A, 2, 26W Office, 27 Dairy W, 3, 3S, 4, 6E, 6W, 7, and Shop were out of service in 2023.

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

Adam TeVelde

PRINT OR TYPE NAME

6-13-24

DATE



SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

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 16, 2023

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

**Lab No. : VI 2344744**  
**Customer No. : 4019696**  
**Reference : 3066**

### Laboratory Report

**Introduction:** This report package contains a total of 9 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(4 pages)	: Results for each sample submitted.
Quality Control	(4 pages)	: 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
12	07/20/2023	07/20/2023	VI 2344744-001	AGW
24 N	07/20/2023	07/20/2023	VI 2344744-002	AGW
24 S	07/20/2023	07/20/2023	VI 2344744-003	AGW
25	07/20/2023	07/20/2023	VI 2344744-004	AGW

### 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

EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
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: 2023-08-16

August 16, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 12

Project : Sierra Blanca

Lab No. : VI 2344744-001

Customer No. : 4019696

Reference : 3066

Sampled On : July 20, 2023 at 08:20

Sampled By : Jeremy

Received On : July 20, 2023 at 13:17

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
Alkalinity (as CaCO <sub>3</sub> )	70	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	23:51	amm
Bicarbonate	80	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	23:51	amm
Carbonate	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	23:51	amm
Hydroxide	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	23:51	amm
Chloride	75	1	mg/L		1	l	07/28/2023	11:38	ldm	EPA 300.0	07/28/2023	20:12	ldm
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	14:58	lcr
Nitrate Nitrogen	0.5	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO <sub>3</sub> F	07/21/2023	15:35	lfs
Nitrogen, Total as Nitrogen	0.5	0.5	mg/L		1	U	08/10/2023	14:22	sta	Calc.	08/12/2023	14:58	lcr
Nitrate + Nitrite as N	0.5	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO <sub>3</sub> F	07/21/2023	15:35	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	14:58	lcr
Conductivity	415	1	umhos/cm		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	23:51	amm
Sulfate Sulfur	2.80	0.17	mg/L		1		07/28/2023	11:38	ldm	EPA 300.0	07/28/2023	20:12	ldm
Solids, Total Dissolved (TDS)	240	20	mg/L		1		07/24/2023	12:50	ctl	SM 2540 C	07/25/2023	10:50	ctl
Calcium	5	1	mg/L		1		07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:47	ac
Magnesium	ND	1	mg/L		1	J	07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:47	ac
Sodium	68	1	mg/L		1		07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:47	ac

**DQF Flags Definition:**

U Constituent results were non-detect.

l The MS/MSD did not meet QC criteria.

J Reported value is estimated; detected at a concentration below the RL and above the laboratory MDL.

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

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**Office & Laboratory**

2500 Stagecoach Road

Stockton, CA 95215

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CA ELAP Certification No. 2810

August 16, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 25

Project : Sierra Blanca

Lab No. : VI 2344744-004

Customer No. : 4019696

Reference : 3066

Sampled On : July 20, 2023 at 09:10

Sampled By : Jeremy

Received On : July 20, 2023 at 13:17

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	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	17:13	lcr
Nitrate Nitrogen	9.4	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:42	lfs
Nitrogen, Total as Nitrogen	9.4	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/12/2023	17:13	lcr
Nitrate + Nitrite as N	9.4	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:42	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	17:13	lcr
Conductivity	487	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	00:26	amm
Solids, Total Dissolved (TDS)	330	20	mg/L		1		07/24/2023	12:50	ctl	SM 2540 C	07/25/2023	10:50	ctl

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level \* RL adusted for dilution, Dil.=Dilution

**Corporate Offices & Laboratory**

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Visalia, CA 93291

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FAX: (559)734-8435

CA ELAP Certification No. 2810

August 16, 2023  
**Sentry Ag Service**

Lab No. : VI 2344744  
Customer No. : 4019696

**Quality Control - Metals**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Metals</b> Calcium	200.7	07/25/2023:208117EJC  (SP 2312586-001)  (SP 2312587-001)	Blank	mg/L		ND	<1	406
			LCS	mg/L	12.00	105%	85-115	
			MS	mg/L	12.00	125%	75-125	
			MSD	mg/L	12.00	112%	75-125	
			MSRPD	mg/L		0.9%	≤20.0	
			MS	mg/L	12.00	2710%	<¼	
			MSD	mg/L	12.00	2410%	<1/4	
			MSRPD	mg/L		2.3%	≤20.0	
			Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	99.3%	85-115	
Magnesium	200.7	07/26/2023:208188EJC  (SP 2312627-001)  (STK2339623-007)	MS	mg/L	12.00	96.3%	75-125	406
			MSD	mg/L	12.00	90.7%	75-125	
			MSRPD	mg/L		2.2%	≤20.0	
			MS	mg/L	12.00	79.6%	75-125	
			MSD	mg/L	12.00	75.3%	75-125	
			MSRPD	mg/L		0.6%	≤20.0	
			Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	111%	85-115	
			MS	mg/L	12.00	108%	75-125	
			MSD	mg/L	12.00	104%	75-125	
Sodium	200.7	07/25/2023:208117EJC  (SP 2312586-001)  (SP 2312587-001)	MSRPD	mg/L		0.7%	≤20	406
			MS	mg/L	12.00	130%	<¼	
			MSD	mg/L	12.00	150%	<1/4	
			MSRPD	mg/L		1.7%	≤20	
			Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	99.5%	85-115	
			MS	mg/L	12.00	101%	75-125	
			MSD	mg/L	12.00	98.8%	75-125	
			MSRPD	mg/L		1.5%	≤20	
			MS	mg/L	12.00	95.4%	75-125	
Sodium	200.7	07/26/2023:208188EJC  (SP 2312627-001)  (STK2339623-007)	MSD	mg/L	12.00	94.6%	75-125	406
			MSRPD	mg/L		0.3%	≤20	
			Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	108%	85-115	
			MS	mg/L	12.00	240%	<¼	
			MSD	mg/L	12.00	219%	<1/4	
			MSRPD	mg/L		1.8%	≤20.0	
			MS	mg/L	12.00	10400%	<¼	
			MSD	mg/L	12.00	9180%	<1/4	
			MSRPD	mg/L		2.4%	≤20.0	
Sodium	200.7	07/26/2023:208188EJC  (SP 2312627-001)	MS	mg/L	12.00	95.8%	85-115	406
			MS	mg/L	12.00	93.3%	75-125	
			MSD	mg/L	12.00	92.1%	75-125	
			MSRPD	mg/L		0.5%	≤20.0	
			MS	mg/L	12.00	68.4%	<¼	

### Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
		(STK2339623-007)	MSD	mg/L	12.00	28.8%	<1/4	
			MSRPD	mg/L		2.1%	≤20.0	

#### 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.
- 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.

#### Explanation

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO <sub>3</sub> )	2320B	07/29/2023:208395AMM	ND	mg/L		0.09%	10	406
Bicarbonate	2320B	(SP 2312805-002)	Dup	mg/L		0.07%	10	
E. C.	2320B	(SP 2312805-002)	Dup	umhos/cm		0.2%	5	
	2320B	(VI 2344724-001)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	07/24/2023:208076CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	98.4 %	90-110	
		(SP 2312486-005)	Dup	mg/L		2.1%	5	
		(SP 2312486-005)	Dup	mg/L		1.5%	5	
	2540CE	07/25/2023:208161CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	97.0%	90-110	
		(VI 2344710-002)	Dup	mg/L		1.67%	5	
		(VI 2344710-002)	Dup	mg/L		0.8%	5	
Chloride	300.0	07/27/2023:208333LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	103 %	90-110	
			MS	mg/L	50.00	101 %	85-121	
		(VI 2344590-003)	MSD	mg/L	50.00	98.7 %	85-121	
			MSRPD	mg/L	10.00	1.5%	≤19	
			MS	mg/L	50.00	104 %	85-121	
		(STK2339674-004)	MSD	mg/L	50.00	104 %	85-121	
			MSRPD	mg/L	10.00	0.4%	≤19	
		07/28/2023:208413LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	50.00	96.0 %	90-110	
	300.0		MS	mg/L	50.00	105 %	85-121	
		(SP 2312807-001)	MSD	mg/L	50.00	99.5 %	85-121	
			MSRPD	mg/L	10.00	4.6%	≤19	
			MS	mg/L	50.00	67.8 %	85-121	435
		(VI 2344744-001)	MSD	mg/L	50.00	70.6 %	85-121	435
			MSRPD	mg/L	10.00	1.3%	≤19	
Sulfate Sulfur	300.0	07/27/2023:208333LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	50.00	105 %	90-110	
			MS	mg/L	100.0	104 %	82-124	
		(VI 2344590-003)	MSD	mg/L	100.0	102 %	82-124	
			MSRPD	mg/L	10.00	1.6%	≤23	
			MS	mg/L	100.0	105 %	82-124	
		(STK2339674-004)	MSD	mg/L	100.0	105 %	82-124	
			MSRPD	mg/L	10.00	0.2%	≤23	
		07/28/2023:208413LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	100.0	96.8 %	90-110	
	300.0		MS	mg/L	100.0	106 %	82-124	
		(SP 2312807-001)	MSD	mg/L	100.0	101 %	82-124	
			MSRPD	mg/L	10.00	5.3%	≤23	
			MS	mg/L	100.0	105 %	82-124	
		(VI 2344744-001)	MSD	mg/L	100.0	101 %	82-124	
			MSRPD	mg/L	10.00	2.7%	≤23	
Nitrogen, Total Kjeldahl	351.2	08/10/2023:208886STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	88.3%	73-124	
			MS	mg/L	12.00	93.5%	54-136	
		(CH 2375698-002)	MSD	mg/L	12.00	92.2%	54-136	
			MSRPD	mg/L		0.9%	≤27	
			MS	mg/L	12.00	91.3%	54-136	

### Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
		(CH 2375698-003)	MSD	mg/L	12.00	96.0%	54-136	
			MSRPD	mg/L		4.8%	≤27	
			Blank	mg/L		ND	<0.5	
		(VI 2344744-001)	LCS	mg/L	12.00	88.3%	73-124	
			MS	mg/L	12.00	91.6%	54-136	
			MSD	mg/L	12.00	92.6%	54-136	
			MSRPD	mg/L		1.1%	≤27	
		(VI 2344744-003)	MS	mg/L	12.00	88.1%	54-136	
			MSD	mg/L	12.00	88.0%	54-136	
			MSRPD	mg/L		0.1%	≤27	
Nitrate + Nitrite as N	4500NO3F	07/21/2023:208010LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
		(CH 2375628-001)	MS	mg/L	5.609	95.8%	66-125	
			MSD	mg/L	5.609	97.2%	66-125	
			MSRPD	mg/L		1.5%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/21/2023:208010LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
		(CH 2375628-001)	MS	mg/L	5.609	95.8%	66-125	
			MSD	mg/L	5.609	97.2%	66-125	
			MSRPD	mg/L		1.5%	≤30.4	

#### Definition

Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
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.

#### Explanation

406	: Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.



2344744

## Laboratory Analysis Work Order

3066

SITE NAME: Sierra BlancaLABORATORY: 47 | 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, NO<sub>3</sub>N (Dom)  
 W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)  
 W3 NH<sub>4</sub>-N (Ammonium)  
 W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM)  
 W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)  
 W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)  
 W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM)  
 W8 Other: \_\_\_\_\_

## Plant Tissue

- P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, 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, NH<sub>4</sub>N, TKN, TP, TK, TDS (Quarterly)  
 L2 EC, NO<sub>3</sub>N, NH<sub>4</sub>N, TKN, TP, TK, TDS, pH (Annually)  
 L3 Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, 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, NO<sub>3</sub>N, PO<sub>4</sub>P, K-AA, Zn, Mn, Fe, Cu, SO<sub>4</sub>S  
 S2 S1 + CEC, CaCO<sub>3</sub>, OM, C:N, TN  
 S3 NO<sub>3</sub>N, NH<sub>4</sub>N  
 S4 Other: \_\_\_\_\_

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
						NH <sub>3</sub> N *	pH	Temp
1	12	IW	W5	7/20/23 8:20	Jeremy	0		
2	24 N	IW	W5	7/20/23 8:35		0		
3	24 S	IW	W5	7/20/23 8:50		0		
4	25	IW	W2	7/20/23 9:10		0		
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 &amp; 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 <sup>st</sup>	<i>[Signature]</i>	SAS		7/20/23 1:31 PM
2 <sup>nd</sup>	SRO	FGL	7-20-23 1317	
3 <sup>rd</sup>	SRO	FGL		7-20-23 1730
4 <sup>th</sup>		GLS	7-20-23 1730	

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_ Total Samples: \_\_\_\_\_ Laboratory No.: \_\_\_\_\_

ROL  
2-6°CGLS  
MC7/21/23  
1120

**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: ROI / 2.6°C / / /

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? **Yes** No N/A

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

5. VOAs checked for Headspace? Yes No **N/A**

6. Were sample custody seals intact? Yes No **N/A**

7. If required, was sample split for pH analysis? Yes No **N/A**

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

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

Acceptable is above freezing to  $6^{\circ}\text{C}$ . If many packages are received at one time check for tests/H.T.'s/rushes/

2. Shipping tracking numbers: 559803345 3297

3542 3359

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

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

5. Were sample custody seals intact? Yes No **N/A**

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): MTC

**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: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Initiated By: \_\_\_\_\_

Problem: \_\_\_\_\_

Resolution: \_\_\_\_\_

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

(4019696)  
**Sentry Ag Service**  
**VI 2344744**

iv 07/21/2023 10:43:52



VI 2344744

August 11, 2023

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

**Lab No. : VI 2344656**  
**Customer No. : 4019696**  
**Reference : 3058**

### 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
People's Ditch - Hanford	07/18/2023	07/18/2023	VI 2344656-001	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 : People's Ditch - Hanford

Project : People's Ditch - Hanford

Lab No. : VI 2344656-001

Customer No. : 4019696

Reference : 3058

Sampled On : July 18, 2023 at 12:45

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	17:11	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	13:53	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	Calc.	08/10/2023	17:11	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	13:53	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	EPA 351.2	08/10/2023	17:11	lcr
Conductivity	31	1	umhos/cm		1		07/31/2023	14:51	amm	SM 4500-H+B	07/31/2023	17:48	amm
Solids, Total Dissolved (TDS)	40	20	mg/L		1		07/20/2023	16:15	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

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CA ELAP Certification No. 2810

August 11, 2023  
Sentry Ag Service

Lab No. : VI 2344656  
Customer No. : 4019696

### Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
E. C.	2320B	(VI 2344788-008)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	07/20/2023:207946CTL (STK2339578-001) (STK2339578-001)	Blank	mg/L	993.7	ND	<20	
			LCS	mg/L		102%	90-110	
			Dup	mg/L		0.4%	5	
			Dup	mg/L		1.98%	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 (SP 2312214-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		97.7%	80-120	
			MS	mg/L		90.8%	66-125	
			MSD	mg/L		92.7%	66-125	
			MSRPD	mg/L		1.0%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/19/2023:207926LFS (SP 2312214-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		97.7%	80-120	
			MS	mg/L		90.8%	66-125	
			MSD	mg/L		92.7%	66-125	
			MSRPD	mg/L		1.0%	≤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

3058

SITE NAME: People's Ditch - Hartford

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, NO<sub>3</sub>N (Dom)
- W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)
- W3 NH<sub>4</sub>-N (Ammonium)
- W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM)
- W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)
- W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)
- W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM)
- W8 Other: \_\_\_\_\_

### Plant Tissue

- P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, 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, NH<sub>4</sub>N, TKN, TP, TK, TDS (Quarterly)
- L2 EC, NO<sub>3</sub>N, NH<sub>4</sub>N, TKN, TP, TK, TDS, pH (Annually)
- L3 Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, 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, NO<sub>3</sub>N, PO<sub>4</sub>P, K-AA, Zn, Mn, Fe, Cu, SO<sub>4</sub>S
- S2 S1 + CEC, CaCO<sub>3</sub>, OM, C:N, TN
- S3 NO<sub>3</sub>N, NH<sub>4</sub>N
- S4 Other: \_\_\_\_\_

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
						NH <sub>3</sub> N *	pH	Temp
1	People's Ditch - Hartford	Canal	W2	7/18/23 12:45	Jeremy	—		
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 <sup>st</sup>	<i>W D. H.</i>	SAS		7/18/23 3:27 pm
2 <sup>nd</sup>	SRO	FGL	7/18/23 1517	
3 <sup>rd</sup>	SRO	FGL		7/18/23 1730
4 <sup>th</sup>		GLS	7/18/23 1730	

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_ Total Samples: \_\_\_\_\_ Laboratory No.: \_\_\_\_\_

ROI 5.3°C GLS 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: 201 / 5.3°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.

- |   |            |    |            |
|---|------------|----|------------|
| 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): SPO

#### Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 30 /        /        /        /         
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?<br><small>[Exception: Oil &amp; Grease, VOA and CrVI verified in lab]</small> | <u>Yes</u> | No | N/A FGL    |
| 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): MX

#### 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: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
Initiated By: \_\_\_\_\_  
Problem: \_\_\_\_\_  
Resolution: \_\_\_\_\_

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

(4019696)  
**Sentry Ag Service**  
**VI 2344656**

iv 07/19/2023 08:11:30



VI 2344656

October 12, 2023

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

**Lab No. : VI 2346140**  
**Customer No. : 4019696**  
**Reference : 3150**

### Laboratory Report

**Introduction:** This report package contains a total of 6 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(3 pages)	: 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
1-AE	09/11/2023	09/11/2023	VI 2346140-001	AGW
9	09/11/2023	09/11/2023	VI 2346140-002	AGW

### 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

EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
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: JRD

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


 Digitally signed by Kelly A. Dunnahoo, B.S.  
 Title: Laboratory Director  
 Date: 2023-10-12

Section: Case Narrative

Page 1 of 6

Page 1 of 6

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 CA ELAP Certification No. 2810

October 12, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 1-AE

Project : Sierra Blanca

Lab No. : VI 2346140-001

Customer No. : 4019696

Reference : 3150

Sampled On : September 11, 2023 at 09:20

Sampled By : Jeremy

Received On : September 11, 2023 at 15:20

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
Alkalinity (as CaCO <sub>3</sub> )	70	10	mg/L		1		09/18/2023	16:19	amm	SM 4500-H+B	09/19/2023	04:43	amm
Bicarbonate	90	10	mg/L		1		09/18/2023	16:19	amm	SM 4500-H+B	09/19/2023	04:43	amm
Carbonate	ND	10	mg/L		1	U	09/18/2023	16:19	amm	SM 4500-H+B	09/19/2023	04:43	amm
Hydroxide	ND	10	mg/L		1	U	09/18/2023	16:19	amm	SM 4500-H+B	09/19/2023	04:43	amm
Chloride	11	1	mg/L		1		09/12/2023	14:47	ldm	EPA 300.0	09/13/2023	01:53	ldm
Nitrate Nitrogen	0.9	0.1	mg/L		1		09/12/2023	14:47	ldm	EPA 300.0	09/13/2023	01:53	ldm
Conductivity	223	1	umhos/cm		1		09/18/2023	16:19	amm	SM 4500-H+B	09/19/2023	04:43	amm
Sulfate Sulfur	4.60	0.17	mg/L		1		09/12/2023	14:47	ldm	EPA 300.0	09/13/2023	01:53	ldm
Solids, Total Dissolved (TDS)	150	20	mg/L		1		09/13/2023	10:20	ctl	SM 2540 C	09/14/2023	11:40	ctl
Calcium	4	1	mg/L		1	l	09/14/2023	06:45	ejc	EPA 200.7	09/14/2023	17:17	ac
Magnesium	ND	1	mg/L		1	U	09/14/2023	06:45	ejc	EPA 200.7	09/14/2023	17:17	ac
Potassium	ND	1	mg/L		1	U	09/14/2023	06:45	ejc	EPA 200.7	09/14/2023	17:17	ac
Sodium	41	1	mg/L		1		09/14/2023	06:45	ejc	EPA 200.7	09/14/2023	17:17	ac

**DQF Flags Definition:**

- U Constituent results were non-detect.
- l The MS/MSD did not meet QC criteria.

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

**Corporate Offices & Laboratory**

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 Santa Paula, CA 93060  
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 CA ELAP Certification No. 2775

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 FAX: (559)734-8435  
 CA ELAP Certification No. 2810

October 12, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 9

Project : Sierra Blanca

Lab No. : VI 2346140-002

Customer No. : 4019696

Reference : 3150

Sampled On : September 11, 2023 at 09:30

Sampled By : Jeremy

Received On : September 11, 2023 at 15:20

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	UI	09/21/2023	09:23	sta	EPA 351.2	09/25/2023	20:38	lcr
Nitrate Nitrogen	10.3	0.4	mg/L		1		09/12/2023	12:35	lfs	SM 4500-NO3 F	09/12/2023	14:08	lfs
Nitrogen, Total as Nitrogen	10.3	0.5	mg/L		1	1	09/21/2023	09:23	sta	Calc.	09/25/2023	20:38	lcr
Nitrate + Nitrite as N	10.3	0.4	mg/L		1		09/12/2023	12:35	lfs	SM 4500-NO3 F	09/12/2023	14:08	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	09/21/2023	09:23	sta	EPA 351.2	09/25/2023	20:38	lcr
Conductivity	382	1	umhos/cm		1		09/15/2023	09:09	krh	SM 4500-H+B	09/15/2023	10:06	krh
Solids, Total Dissolved (TDS)	250	20	mg/L		1		09/13/2023	10:20	ctl	SM 2540 C	09/14/2023	11:40	ctl

**DQF Flags Definition:**

- U Constituent results were non-detect.
- 1 The MS/MSD did not meet QC criteria.

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

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 FAX: (559)734-8435  
 CA ELAP Certification No. 2810

October 12, 2023  
**Sentry Ag Service**

Lab No. : VI 2346140  
Customer No. : 4019696

### Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Calcium	200.7	09/14/2023:210310EJC  (STK2352400-005)	Blank	mg/L		ND	<1	435
			LCS	mg/L	12.00	97.3%	85-115	
			MS	mg/L	12.00	105%	75-125	
			MSD	mg/L	12.00	71.3%	75-125	
			MSRPD	mg/L		17.6%	≤20.0	
			MS	mg/L	12.00	107%	75-125	
			MSD	mg/L	12.00	94.4%	75-125	
			MSRPD	mg/L		6.4%	≤20.0	
Magnesium	200.7	09/14/2023:210310EJC  (STK2352400-005)	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	102%	85-115	
			MS	mg/L	12.00	106%	75-125	
			MSD	mg/L	12.00	1.63%	<1/4	
			MSRPD	mg/L		17.5%	≤20	
			MS	mg/L	12.00	113%	75-125	
			MSD	mg/L	12.00	72.6%	<1/4	
			MSRPD	mg/L		5.0%	≤20	
Potassium	200.7	09/14/2023:210310EJC  (STK2352400-005)	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	97.1%	85-115	
			MS	mg/L	12.00	104%	75-125	
			MSD	mg/L	12.00	75.0%	75-125	
			MSRPD	mg/L		17.6%	≤20.0	
			MS	mg/L	12.00	108%	75-125	
			MSD	mg/L	12.00	95.7%	75-125	
			MSRPD	mg/L		6.0%	≤20.0	
Sodium	200.7	09/14/2023:210310EJC  (STK2352400-005)	Blank	mg/L		ND	<1	406
			LCS	mg/L	12.00	97.8%	85-115	
			MS	mg/L	12.00	186%	<1/4	
			MSD	mg/L	12.00	-167%	<1/4	
			MSRPD	mg/L		18.5%	≤20.0	
			MS	mg/L	12.00	200%	<1/4	
			MSD	mg/L	12.00	86.0%	75-125	
			MSRPD	mg/L		3.4%	≤20.0	

#### 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.
- 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.

#### Explanation

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.
- 435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO <sub>3</sub> )	2320B	09/18/2023:210413AMM	ND	mg/L		0.4%	10	435
Bicarbonate	2320B	(CH 2377803-001)	Dup	mg/L		0.4%	10	
Carbonate	2320B	(CH 2377803-001)	Dup	mg/L			10	
E. C.	2320B	(VI 2346608-002)	Dup	umhos/cm		0.2%	5	
	2320B	(CH 2377803-001)	Dup	umhos/cm		0.6%	5	
Solids, Total Dissolved	2540CE	09/13/2023:210246CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	101%	90-110	
		(VI 2346141-005)	Dup	mg/L		1.75%	5	
		(VI 2346141-005)	Dup	mg/L		2.07%	5	
Chloride	300.0	09/12/2023:210259LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	103 %	90-110	
			MS	mg/L	50.00	103 %	67-117	
		(STK2352408-001)	MSD	mg/L	50.00	103 %	67-117	
			MSRPD	mg/L	10.00	0.1%	≤7	
			MS	mg/L	50.00	100 %	67-117	
		(VI 2346141-002)	MSD	mg/L	50.00	100 %	67-117	
			MSRPD	mg/L	10.00	0.3%	≤7	
Nitrate Nitrogen	300.0	09/12/2023:210259LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	104 %	90-110	
			MS	mg/L	40.00	105 %	86-112	
		(STK2352408-001)	MSD	mg/L	40.00	105 %	86-112	
			MSRPD	mg/L	10.00	0.06%	≤7	
			MS	mg/L	40.00	89.1 %	86-112	
		(VI 2346141-002)	MSD	mg/L	40.00	88.6 %	86-112	
			MSRPD	mg/L	10.00	0.3%	≤7	
Sulfate Sulfur	300.0	09/12/2023:210259LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	50.00	104 %	90-110	
			MS	mg/L	100.0	104 %	18-165	
		(STK2352408-001)	MSD	mg/L	100.0	103 %	18-165	
			MSRPD	mg/L	10.00	0.1%	≤7	
			MS	mg/L	100.0	103 %	18-165	
		(VI 2346141-002)	MSD	mg/L	100.0	103 %	18-165	
			MSRPD	mg/L	10.00	0.3%	≤7	
Nitrogen, Total Kjeldahl	351.2	09/21/2023:210595STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	91.7%	73-124	
			MS	mg/L	12.00	89.3%	90-110	435
		(STK2352400-001)	MSD	mg/L	12.00	88.1%	90-110	435
			MSRPD	mg/L		1.2%	≤20	
			MS	mg/L	12.00	89.7%	90-110	435
		(STK2352400-004)	MSD	mg/L	12.00	93.6%	90-110	
			MSRPD	mg/L		3.8%	≤20	
Nitrate + Nitrite as N	4500NO3F	09/12/2023:210228LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	100%	80-120	
			MS	mg/L	5.609	98.1%	66-125	
		(VI 2346501-002)	MSD	mg/L	5.609	99.0%	66-125	
			MSRPD	mg/L		0.9%	≤30.4	
Nitrate Nitrogen	4500NO3F	09/12/2023:210228LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	100%	80-120	
			MS	mg/L	5.609	98.1%	66-125	
		(VI 2346501-002)	MSD	mg/L	5.609	99.0%	66-125	

### Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
			MSRPD	mg/L		0.9%	≤30.4	

#### Definition

Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
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.

#### Explanation

435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
-----	--



# Laboratory Analysis Work Order

3150

SITE NAME: Sierra Blanca 2346140

LABORATORY: VF | 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, NO<sub>3</sub>N (Dom)  
W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)  
W3 NH<sub>4</sub>-N (Ammonium)  
W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM)  
W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)  
W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)  
W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM)  
W8 Other: \_\_\_\_\_

### Plant Tissue

- P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, 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, NH<sub>4</sub>N, TKN, TP, TK, TDS (Quarterly)  
L2 EC, NO<sub>3</sub>N, NH<sub>4</sub>N, TKN, TP, TK, TDS, pH (Annually)  
L3 Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, 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, NO<sub>3</sub>N, PO<sub>4</sub>P, K-AA, Zn, Mn, Fe, Cu, SO<sub>4</sub>S  
S2 S1 + CEC, CaCO<sub>3</sub>, OM, C:N, TN  
S3 NO<sub>3</sub>N, NH<sub>4</sub>N  
S4 Other: \_\_\_\_\_

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH <sub>3</sub> N *	pH	Temp
1	1-AE	W4	9/11/23 9:20	Ceremy	0		
2	9	W2	9/11/23 9:30	il	0		
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 <sup>st</sup>	<i>[Signature]</i>	SAS	9/11/23 1500	9/11/23 3:20p
2 <sup>nd</sup>	<i>[Signature]</i>	AGL	9/11/23 1500	9/11/23 1730
3 <sup>rd</sup>	<i>[Signature]</i>	Y	9/11/23 1730	
4 <sup>th</sup>	<i>[Signature]</i>			

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_ Total Samples: \_\_\_\_\_ Laboratory No.: \_\_\_\_\_

GLS 9/12/23  
ML 1217

### 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 # 67C

2. Were samples received in a chilled condition? Temps: 61 14.6 / 1 / 1

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? Yes No N/A

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

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

6. Were sample custody seals intact? Yes No N/A

7. If required, was sample split for pH analysis? Yes No N/A

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

9. 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): ADH

### Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 26 / 1 / 1 / 1

Acceptable is above freezing to  $6^{\circ}\text{C}$ . If many packages are received at one time check for tests/H.T.'s/rushes/

2. Shipping tracking numbers: 560100237 243  
255

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

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

5. Were sample custody seals intact? Yes No N/A

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): MC

### 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: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Initiated By: \_\_\_\_\_

Problem: \_\_\_\_\_

Resolution: \_\_\_\_\_

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

(4019696)  
Sentry Ag Service  
VI 2346140

cda 09/12/2023 07:49:51



VI 2346140

December 22, 2023

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

**Lab No. : VI 2348243**  
**Customer No. : 4019696**  
**Reference : 3455**

## Laboratory Report

**Introduction:** This report package contains a total of 13 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(8 pages)	: Results for each sample submitted.
Quality Control	(3 pages)	: 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
26 Office	12/06/2023	12/06/2023	VI 2348243-001	DW
IA DWN	12/06/2023	12/06/2023	VI 2348243-002	DW
4D	12/06/2023	12/06/2023	VI 2348243-003	DW
13D	12/06/2023	12/06/2023	VI 2348243-004	DW
14D	12/06/2023	12/06/2023	VI 2348243-005	DW
28 Dairy S	12/06/2023	12/06/2023	VI 2348243-006	DW
29 Calves	12/06/2023	12/06/2023	VI 2348243-007	DW
30 Eq YD	12/06/2023	12/06/2023	VI 2348243-008	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

EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	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: 2023-12-24

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 26 Office

Project : Sierra Blanca

Lab No. : VI 2348243-001

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 09:30

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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
Alkalinity (as CaCO <sub>3</sub> )	140	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:21	amm
Bicarbonate	170	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:21	amm
Carbonate	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:21	amm
Hydroxide	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:21	amm
Chloride	52	1	mg/L	500 <sup>2</sup>	1		12/07/2023	10:59	ldm	EPA 300.0	12/07/2023	20:43	ldm
Nitrate Nitrogen	27.1	0.3*	mg/L	10	3		12/07/2023	10:59	ldm	EPA 300.0	12/07/2023	21:43	ldm
Conductivity	807	1	umhos/cm	1600 <sup>2</sup>	1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:21	amm
Sulfate Sulfur	28.9	0.17	mg/L		1		12/07/2023	10:59	ldm	EPA 300.0	12/07/2023	20:43	ldm
Solids, Total Dissolved (TDS)	520	20	mg/L	1000 <sup>2</sup>	1		12/08/2023	09:50	ctl	SM 2540 C	12/11/2023	11:30	ctl
Calcium	66	1	mg/L		1	h	12/20/2023	07:00	ac	EPA 200.7	12/20/2023	18:21	ac
Magnesium	3	1	mg/L		1		12/20/2023	07:00	ac	EPA 200.7	12/20/2023	18:21	ac
Potassium	ND	1	mg/L		1	U	12/20/2023	07:00	ac	EPA 200.7	12/20/2023	18:21	ac
Sodium	91	1	mg/L		1	hl	12/20/2023	07:00	ac	EPA 200.7	12/20/2023	18:21	ac

**DQF Flags Definition:**

- U Constituent results were non-detect.
- h The MS/MSD did not meet QC criteria.
- l The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, 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  
 FAX: (559)734-8435  
 CA ELAP Certification No. 2810

December 22, 2023

**Sentry Ag Services**

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

Description : IA DWN  
 Project : Sierra Blanca

Lab No. : VI 2348243-002  
 Customer No. : 4019696  
 Reference : 3455  
 Sampled On : December 6, 2023 at 09:40  
 Sampled By : Jeremy  
 Received On : December 6, 2023 at 12:47  
 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	22.7	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:31	lfs
Conductivity	555	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	11:50	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 4D

Project : Sierra Blanca

Lab No. : VI 2348243-003

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 09:50

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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	29.0	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:33	lfs
Conductivity	1030	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	11:53	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 13D

Project : Sierra Blanca

Lab No. : VI 2348243-004

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 10:07

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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	17.9	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:36	lfs
Conductivity	634	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	11:59	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 14D

Project : Sierra Blanca

Lab No. : VI 2348243-005

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 10:23

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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	7.9	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:38	lfs
Conductivity	357	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	12:02	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 28 Dairy S

Project : Sierra Blanca

Lab No. : VI 2348243-006

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 10:35

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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	25.7	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:40	lfs
Conductivity	758	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	12:05	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

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

Description : 29 Calves  
 Project : Sierra Blanca

Lab No. : VI 2348243-007  
 Customer No. : 4019696  
 Reference : 3455  
 Sampled On : December 6, 2023 at 10:47  
 Sampled By : Jeremy  
 Received On : December 6, 2023 at 12:47  
 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	25.4	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:43	lfs
Conductivity	716	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	12:08	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldiviez

P.O. Box 7750

Visalia, CA 93290

Description : 30 Eq YD

Project : Sierra Blanca

Lab No. : VI 2348243-008

Customer No. : 4019696

Reference : 3455

Sampled On : December 6, 2023 at 10:58

Sampled By : Jeremy

Received On : December 6, 2023 at 12:47

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	6.0	0.4	mg/L	10	1		12/07/2023	12:00	lfs	SM 4500-NO3 F	12/07/2023	15:46	lfs
Conductivity	401	1	umhos/cm	1600 <sup>2</sup>	1		12/08/2023	10:31	krh	SM 4500-H+B	12/08/2023	12:11	krh

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level \* RL adjusted for dilution, Dil.=Dilution

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

December 22, 2023  
**Sentry Ag Service**

Lab No. : VI 2348243  
Customer No. : 4019696

### Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Metals</b>								
Calcium	200.7	12/20/2023:214322AC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	102%	85-115	
			MS	mg/L	12.00	135%	<¼	406
			MSD	mg/L	12.00	108%	75-125	
		(VI 2348243-001)	MSRPD	mg/L		4.0%	≤20.0	
			MS	mg/L	12.00	153%	75-125	435
			MSD	mg/L	12.00	88.7%	75-125	
			MSRPD	mg/L		15.2%	≤20.0	
Magnesium	200.7	12/20/2023:214322AC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	98.7%	85-115	
			MS	mg/L	12.00	102%	75-125	
			MSD	mg/L	12.00	95.7%	75-125	
		(VI 2348243-001)	MSRPD	mg/L		5.1%	≤20	
			MS	mg/L	12.00	114%	75-125	
			MSD	mg/L	12.00	104%	75-125	
			MSRPD	mg/L		6.0%	≤20	
Potassium	200.7	12/20/2023:214322AC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	101%	85-115	
			MS	mg/L	12.00	105%	75-125	
			MSD	mg/L	12.00	100%	75-125	
		(VI 2348243-001)	MSRPD	mg/L		4.9%	≤20.0	
			MS	mg/L	12.00	111%	75-125	
			MSD	mg/L	12.00	104%	75-125	
			MSRPD	mg/L		5.0%	≤20.0	
Sodium	200.7	12/20/2023:214322AC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	95.8%	85-115	
			MS	mg/L	12.00	130%	<¼	406
			MSD	mg/L	12.00	91.8%	75-125	
		(VI 2348243-001)	MSRPD	mg/L		4.4%	≤20.0	
			MS	mg/L	12.00	154%	75-125	435
			MSD	mg/L	12.00	69.1%	75-125	435
			MSRPD	mg/L		18.5%	≤20.0	

#### 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.
- 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.

#### Explanation

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.
- 435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO <sub>3</sub> )	2320B	12/09/2023:213884AMM	ND	mg/L		0.2%	10	435
Bicarbonate	2320B	(STK2356553-007)	Dup	mg/L		0.2%	10	
E. C.	2320B	(VI 2348247-001)	Dup	umhos/cm		1.04%	5	
	2320B	(STK2356553-007)	Dup	umhos/cm		0.06%	5	
Solids, Total Dissolved	2540CE	12/08/2023:213823CTL	Blank	mg/L		ND	<20	
		(SP 2320140-001)	LCS	mg/L	991.5	99.5%	90-110	
		(SP 2320140-001)	Dup	mg/L		0.6%	5	
			Dup	mg/L		0.2%	5	
Chloride	300.0	12/07/2023:213855LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	103%	90-110	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-004)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-005)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
Nitrate Nitrogen	300.0	12/07/2023:213855LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	105%	90-110	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-004)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-005)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
Sulfate Sulfur	300.0	12/07/2023:213855LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	50.00	103%	90-110	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-004)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L	0.000	0.0%	<¼	
		(VI 2348127-005)	MSD	mg/L	0.000	0.0%	<¼	
			MSRPD	mg/L		0.0%	≤7	
Nitrate Nitrogen	4500NO <sub>3</sub> F	12/07/2023:213812LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.5%	80-120	
			MS	mg/L	5.609	99.4%	66-125	
		(STK2356730-001)	MSD	mg/L	5.609	102%	66-125	
			MSRPD	mg/L		1.5%	≤30.4	

**Definition**

<¼	: High Sample Background - Spike concentration was less than one forth of the sample concentration.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
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.

**Explanation**

435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.



# Laboratory Analysis Work Order

2348243

3455

SITE NAME: Sierra Blanca

LABORATORY: VF | 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, NO<sub>3</sub>N (Dom)  
W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)  
W3 NH<sub>4</sub>-N (Ammonium)  
W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM) *7.80 c ROR*  
W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)  
W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)  
W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM) *TH 401*  
W8 Other: \_\_\_\_\_

### Process Waste Water (lagoon)

- L1 EC, NH<sub>4</sub>N, TKN, TP, TK, TDS (Quarterly)  
L2 EC, NO<sub>3</sub>N, NH<sub>4</sub>N, TKN, TP, TK, TDS, pH (Annually)  
L3 Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, 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: \_\_\_\_\_

### Plant Tissue

- P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, 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: \_\_\_\_\_

### Soil

- S1 SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO<sub>3</sub>N, PO<sub>4</sub>P, K-AA, Zn, Mn, Fe, Cu, SO<sub>4</sub>S  
S2 S1 + CEC, CaCO<sub>3</sub>, OM, C:N, TN  
S3 NO<sub>3</sub>N, NH<sub>4</sub>N  
S4 Other: \_\_\_\_\_

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
						NH <sub>3</sub> N*	pH	Temp
1	26 Office	DW	W4	12/6/23 9:30	Gerny	0		
2	1A DWN	DW	W1	12/6/23 9:40		0		
3	4D	DW	W1	12/6/23 9:50		0		
4	13D	DW	W1	12/6/23 10:07		0		
5	14D	DW	W1	12/6/23 10:23		0		
6	28 Dairy S	DW	W1	12/6/23 10:35		0		
7	29 calves	DW	W1	12/6/23 10:42		0		
8	30 Ee. YD	DW	W1	12/6/23 10:58		0		
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 <sup>st</sup>	<i>[Signature]</i>	SAS		12/6/23 12:47
2 <sup>nd</sup>	AJB	FGL	12/6/23 12:41	
3 <sup>rd</sup>	AJB	FGL		12/6/23 12:30
4 <sup>th</sup>	LS	GCS	12/6/23 12:30	

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_ Total Samples: \_\_\_\_\_ Laboratory No.: *[Signature]* 12/6/23 10:40

### 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): 072

2. Temp IR Gun ID #: TA-407

3. Were samples received on ice? ☒ Yes No Temps: 7.8°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): AB

#### Sample Receipt at SP:

1. Number of ice chests/packages received: 6 Shipping tracking #(s): 51054002, 5105401401, 510540183, 510540003, 5105401805

2. Temp IR Gun ID #: 2006

3. Were samples received on ice? ☒ Yes No Temps: 1 / 1 / 1 / 1 / 1 / 1  
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): ll

#### 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: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Initiated By: \_\_\_\_\_

Date: \_\_\_\_\_

Problem: \_\_\_\_\_

Resolution: \_\_\_\_\_

(4019696)  
Sentry Ag Service  
VI 2348243

cda 12/06/2023 17:08:43



VI 2348243