

**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

Kings

93230

City

County

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

Hanford

CA

93230

Mailing Address Number and Street

City

State

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

Hanford

CA

93230

Mailing Address Number and Street

City

State

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**C. OWNERS**

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TeVelde, Adam

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

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

TeVelde, Jacob

Legal owner name: TeVelde, Jacob	Telephone no.:	(559) 786-6757
	Landline	Cellular
2911 Hanford-Armona RD	Hanford	CA
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

<u>173,365,882 gallons applied</u>	
+	<u>0 gallons exported</u>
-	<u>0 gallons imported</u>
=	<u>173,365,882 gallons generated</u>

**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: 10

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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 <i>ton</i>	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 <i>ton</i>	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 <i>ton</i>	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 <i>ton</i>	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 <i>ton</i>	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 <i>ton</i>	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 <i>ton</i>	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 gal
Application event totals		9.34	0.00	0.00	228.40	
05/10/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		10.46	0.00	0.00	255.90	
06/09/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		11.70	0.00	0.00	286.28	
07/05/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		13.19	0.00	0.00	322.75	
08/04/2023	Surface (irrigation)	No precipitation	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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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)
9	Ground water	8.17	0.00	0.00	199.85
Application event totals		8.17	0.00	0.00	199.85
					760,284.00 gal

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)
9	Ground water	7.00	0.00	0.00	171.30
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)
9	Ground water	7.00	0.00	0.00	171.30
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)
9	Ground water	7.00	0.00	0.00	171.30
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)
9	Ground water	8.17	0.00	0.00	199.85
Application event totals		8.17	0.00	0.00	199.85
					760,284.00 gal

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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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
12	Ground water	0.46	0.00	0.00	222.97	4,341,765.00 gal
Application event totals		65.50	9.90	602.73	1,152.45	
03/14/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.58	0.00	0.00	277.35	5,400,732.00 gal
Application event totals		105.42	13.94	83.80	277.35	
04/10/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.47	0.00	0.00	223.58	4,353,802.00 gal
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 gal
12	Ground water	0.56	0.00	0.00	270.11	5,259,699.00 gal
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 gal
12	Ground water	0.65	0.00	0.00	310.37	6,043,802.00 gal
Application event totals		55.03	15.08	110.21	705.55	
07/18/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.66	0.00	0.00	314.57	6,125,595.00 gal
Application event totals		57.79	15.85	115.80	729.78	
08/01/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.67	0.00	0.00	321.16	6,253,802.00 gal
Application event totals		48.25	13.20	96.44	666.94	
08/16/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.65	0.00	0.00	313.66	6,107,905.00 gal
Application event totals		61.85	10.75	64.77	979.15	
09/04/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.61	0.00	0.00	290.56	5,657,915.00 gal
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)
12	Ground water	0.63	0.00	0.00	304.54
Application event totals		0.63	0.00	0.00	304.54
					5,930,215.00 gal

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)
Lagoon	Process wastewater	90.70	13.80	840.61	1,296.32
12	Ground water	0.45	0.00	0.00	217.53
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)
Lagoon	Process wastewater	101.48	13.49	81.11	0.00
12	Ground water	0.48	0.00	0.00	229.01
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)
Lagoon	Process wastewater	77.37	10.29	61.84	0.00
12	Ground water	0.49	0.00	0.00	234.17
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 gal
12	Ground water	0.64	0.00	0.00	306.27	5,352,201.00 gal
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 gal
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 gal
12	Ground water	0.63	0.00	0.00	300.83	5,257,236.00 gal
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 gal
12	Ground water	0.64	0.00	0.00	305.69	5,342,130.00 gal
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 gal
12	Ground water	0.61	0.00	0.00	293.10	5,122,130.00 gal
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 gal
12	Ground water	0.65	0.00	0.00	309.69	5,412,059.00 gal
Application event totals		70.66	12.30	74.10	1,071.04	
09/27/2023	Surface (irrigation)	No precipitation	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 gal
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 gal
12	Ground water	7.41	0.00	0.00	284.15	6,190,884.00 gal
Application event totals		110.38	13.69	82.31	284.15	
04/19/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.45	0.00	0.00	217.53	6,516,720.00 gal
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)
Lagoon	Process wastewater	65.03	9.90	602.73	929.48
12	Ground water	0.41	0.00	0.00	195.78
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)
Lagoon	Process wastewater	56.11	15.56	113.72	407.75
12	Ground water	0.62	0.00	0.00	299.59
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)
12	Ground water	0.66	0.00	0.00	315.71
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)
Lagoon	Process wastewater	64.75	17.96	131.23	470.53
12	Ground water	0.67	0.00	0.00	323.29
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 gal
12	Ground water	0.68	0.00	0.00	326.29	9,775,080.00 gal
Application event totals		81.21	14.15	85.23	1,202.00	
08/23/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.69	0.00	0.00	330.20	9,892,162.00 gal
Application event totals		70.70	12.30	74.10	1,091.55	
09/15/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		0.68	0.00	0.00	325.76	

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

Field name:	15	Plant date:	11/10/2022	
Crop:	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)
Lagoon	Process wastewater	81.27	12.37	753.28
12	Ground water	0.40	0.00	0.00
Application event totals		81.67	12.37	753.28
				1,161.63    3,183,101.00 gal
				190.34    6,367,378.00 gal
				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 gal
12	Ground water	0.44	0.00	0.00	212.09	7,095,079.00 gal
Application event totals		95.27	12.61	75.79	212.09	
04/12/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.45	0.00	0.00	217.53	7,277,004.00 gal
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 gal
12	Ground water	0.64	0.00	0.00	309.55	10,355,506.00 gal
Application event totals		55.93	15.33	112.03	711.26	
07/05/2023	Surface (irrigation)	No precipitation	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 gal
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 gal
12	Ground water	0.69	0.00	0.00	329.04	11,007,431.00 gal
Application event totals		49.12	13.43	98.17	681.03	
08/09/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		0.68	0.00	0.00	326.23	
08/28/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.67	0.00	0.00	321.51	10,755,506.00 gal
Application event totals		73.72	12.84	77.30	1,115.80	
09/14/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		0.65	0.00	0.00	311.17	
10/02/2023	Surface (irrigation)	No precipitation	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 gal
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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Reporting period 01/01/2023 to 12/31/2023.

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 gal
12	Ground water	0.41	0.00	0.00	195.78	6,842,556.00 gal
Application event totals		85.97	13.02	793.02	1,418.69	
03/16/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.44	0.00	0.00	212.09	7,412,769.00 gal
Application event totals		101.60	13.45	80.85	212.09	
04/17/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.46	0.00	0.00	218.96	7,652,840.00 gal
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 gal
12	Ground water	0.67	0.00	0.00	319.72	11,174,473.00 gal
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 gal
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 gal
12	Ground water	0.69	0.00	0.00	333.45	11,654,260.00 gal
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 gal
12	Ground water	0.66	0.00	0.00	316.42	11,059,280.00 gal
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 gal
12	Ground water	0.63	0.00	0.00	300.83	10,514,189.00 gal
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 gal
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 gal
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 gal
12	Ground water	0.64	0.00	0.00	307.52	13,972,630.00 gal
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 gal
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 gal
12	Ground water	0.65	0.00	0.00	310.89	14,125,538.00 gal
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	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	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	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 gal
1AE	Ground water	0.72	0.00	0.00	120.48	5,775,080.00 gal
Application event totals		85.02	12.83	781.33	1,325.37	
03/20/2023	Surface (irrigation)	No precipitation	No precipitation	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 gal
1AE	Ground water	0.77	0.00	0.00	129.16	6,190,884.00 gal
Application event totals		92.89	12.25	73.62	129.16	
04/15/2023	Surface (irrigation)	No precipitation	No precipitation	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 gal
1AE	Ground water	0.84	0.00	0.00	140.13	6,716,720.00 gal
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 gal
1AE	Ground water	1.16	0.00	0.00	193.02	9,252,162.00 gal
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 gal
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 gal
1AE	Ground water	1.22	0.00	0.00	203.60	9,759,244.00 gal
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 gal
1AE	Ground water	1.21	0.00	0.00	202.26	9,695,080.00 gal
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 gal
1AE	Ground water	1.25	0.00	0.00	208.70	10,003,834.00 gal
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 gal
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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Reporting period 01/01/2023 to 12/31/2023.

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 gal
1AE	Ground water	0.69	0.00	0.00	115.56	7,016,335.00 gal
Application event totals		84.02	12.68	772.29	1,306.51	
03/17/2023	Surface (irrigation)	No precipitation	No precipitation	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 gal
1AE	Ground water	0.77	0.00	0.00	129.16	7,841,786.00 gal
Application event totals		89.87	11.85	71.21	129.16	
04/18/2023	Surface (irrigation)	No precipitation	No precipitation	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 gal
1AE	Ground water	0.83	0.00	0.00	137.60	8,354,512.00 gal
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 gal
1AE	Ground water	1.16	0.00	0.00	194.16	11,788,131.00 gal
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 gal
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 gal
1AE	Ground water	1.20	0.00	0.00	199.37	12,104,494.00 gal
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 gal
1AE	Ground water	1.20	0.00	0.00	200.14	12,151,768.00 gal
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 gal
1AE	Ground water	1.18	0.00	0.00	197.03	11,962,680.00 gal
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 gal
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)
1AE	Ground water	1.18	0.00	0.00	197.03
Application event totals		1.18	0.00	0.00	197.03
					11,962,680.00 gal

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)
9	Ground water	2.33	0.00	0.00	57.10
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)
9	Ground water	3.03	0.00	0.00	74.23
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)
9	Ground water	3.50	0.00	0.00	85.65
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)
9	Ground water	4.67	0.00	0.00	114.20
Application event totals		4.67	0.00	0.00	114.20
					5,321,988.00 gal

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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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
25	Ground water	7.45	0.00	0.00	261.71	7,602,840.00 gal
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 gal
25	Ground water	8.09	0.00	0.00	284.15	8,254,512.00 gal
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 gal
25	Ground water	8.62	0.00	0.00	302.54	8,788,960.00 gal
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 gal
25	Ground water	12.34	0.00	0.00	433.22	12,585,112.00 gal
Application event totals		52.37	11.10	81.13	724.11	
07/03/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		12.32	0.00	0.00	432.63	
07/19/2023	Surface (irrigation)	No precipitation	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 gal
25	Ground water	12.85	0.00	0.00	451.06	13,103,440.00 gal
Application event totals		57.03	12.25	89.55	772.14	
08/03/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		11.92	0.00	0.00	418.45	
08/22/2023	Surface (irrigation)	No precipitation	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 gal
25	Ground water	11.98	0.00	0.00	420.52	12,216,216.00 gal
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 gal
Application event totals		12.27	0.00	0.00	430.89	
09/20/2023	Surface (irrigation)	No precipitation	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 gal
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 gal
12	Ground water	0.42	0.00	0.00	201.21	6,831,695.00 gal
Application event totals		84.42	12.78	778.53	1,401.78	
03/16/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.44	0.00	0.00	212.09	7,200,976.00 gal
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)
Lagoon	Process wastewater	85.77	11.40	68.55	0.00
12	Ground water	0.46	0.00	0.00	222.97
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)
Lagoon	Process wastewater	54.38	15.08	110.21	395.18
12	Ground water	0.65	0.00	0.00	309.98
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)
12	Ground water	0.66	0.00	0.00	315.42
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)
Lagoon	Process wastewater	50.98	14.14	103.33	370.48
12	Ground water	0.68	0.00	0.00	326.29
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 gal
12	Ground water	0.67	0.00	0.00	320.85	10,893,784.00 gal
Application event totals		67.90	11.82	71.15	1,051.96	
08/25/2023	Surface (irrigation)	No precipitation	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 gal
12	Ground water	0.67	0.00	0.00	322.62	10,953,784.00 gal
Application event totals		70.30	12.24	73.68	1,079.75	
09/08/2023	Subsurface (irrigation)	No precipitation	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 gal
12	Ground water	0.63	0.00	0.00	304.54	10,339,862.00 gal
Application event totals		51.98	9.02	54.34	862.86	
09/21/2023	Surface (irrigation)	No precipitation	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 gal
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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Reporting period 01/01/2023 to 12/31/2023.

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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
Application event totals		8.17	0.00	0.00	199.85	

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

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 gal
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 gal
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 gal
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 gal
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 gal
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

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

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

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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
Application event totals		13.36	0.00	0.00	326.98	

6 - 11/21/2019: Alfalfa, hay

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

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 gal
Application event totals		13.17	0.00	0.00	322.26	
05/04/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		13.39	0.00	0.00	327.56	
06/03/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		13.77	0.00	0.00	336.79	
07/02/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		13.31	0.00	0.00	325.68	
08/04/2023	Surface (irrigation)	No precipitation	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 gal
Application event totals		12.44	0.00	0.00	304.42	
09/05/2023	Surface (irrigation)	No precipitation	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 gal
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)
9	Ground water	12.84	0.00	0.00	314.06
Application event totals		12.84	0.00	0.00	314.06
					11,200,612.00 gal

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)
9	Ground water	12.82	0.00	0.00	313.60
Application event totals		12.82	0.00	0.00	313.60
05/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
9	Ground water	13.31	0.00	0.00	325.52
Application event totals		13.31	0.00	0.00	325.52
06/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
9	Ground water	13.65	0.00	0.00	333.97
Application event totals		13.65	0.00	0.00	333.97
07/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
9	Ground water	13.87	0.00	0.00	339.32
Application event totals		13.87	0.00	0.00	339.32
					8,390,540.00 gal

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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 gal
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 gal
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 gal
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 gal
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 gal
Application event totals		12.86	0.00	0.00	314.65	

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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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
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 gal
Application event totals		12.48	0.00	0.00	305.34	

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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
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)
9	Ground water	12.60	0.00	0.00	308.35
Application event totals		12.60	0.00	0.00	308.35
					5,865,048.00 gal

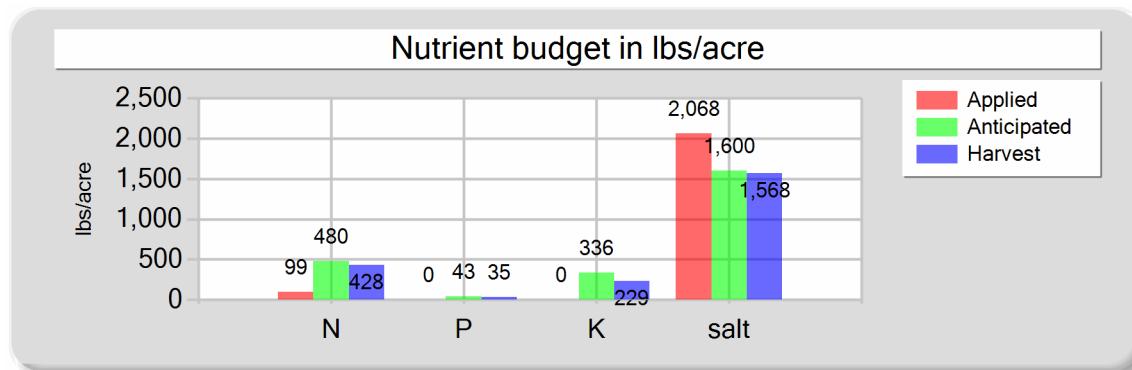
**Annual Report - General Order No. R5-2007-0035**

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)
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	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

Fresh water applied
17,698,268.00 gallons
651.77 acre-inches
36.21 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.

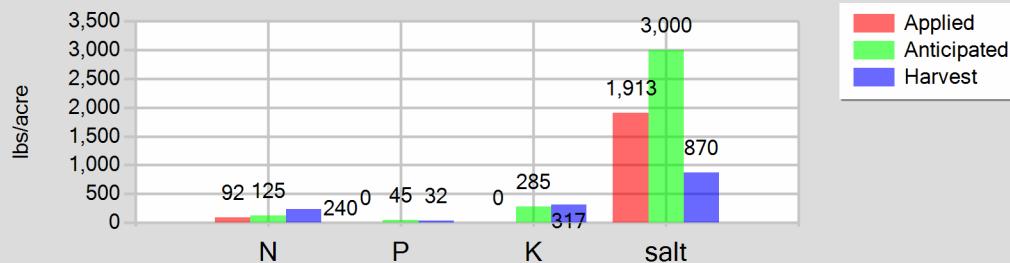
11A - 04/05/2023: Tomato

Field name: 11A

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	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

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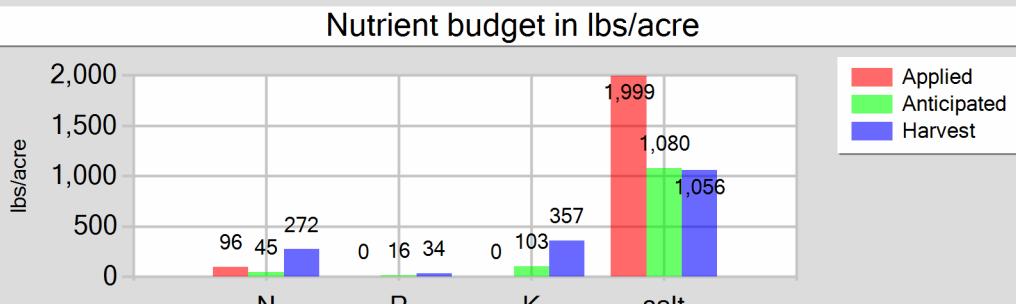
Reporting period 01/01/2023 to 12/31/2023.

11B - 04/05/2023: Tomato

Field name: 11B

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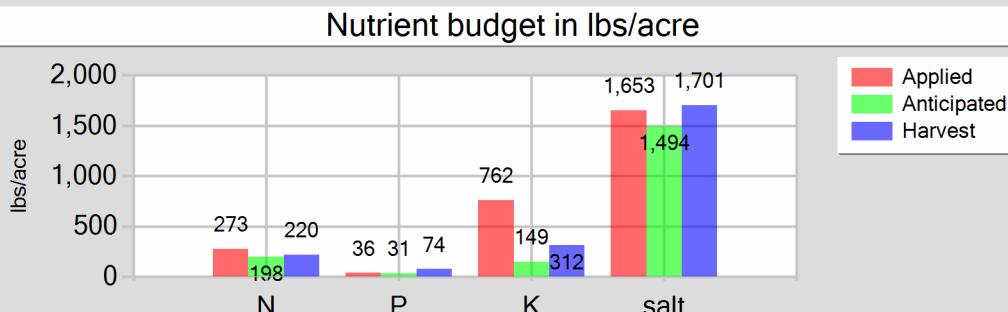
Reporting period 01/01/2023 to 12/31/2023.

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
Total nutrients applied	272.72	36.38	761.93	1,653.38
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
Nutrient balance	52.98	-37.36	450.39	-47.30
Applied to removed ratio	1.24	0.49	2.45	0.97

**Fresh water applied**

14,096,299.00 gallons  
519.12 acre-inches  
13.31 inches/acre

**Process wastewater applied**

4,818,939.00 gallons  
177.47 acre-inches  
4.55 inches/acre

**Total harvests for the crop**

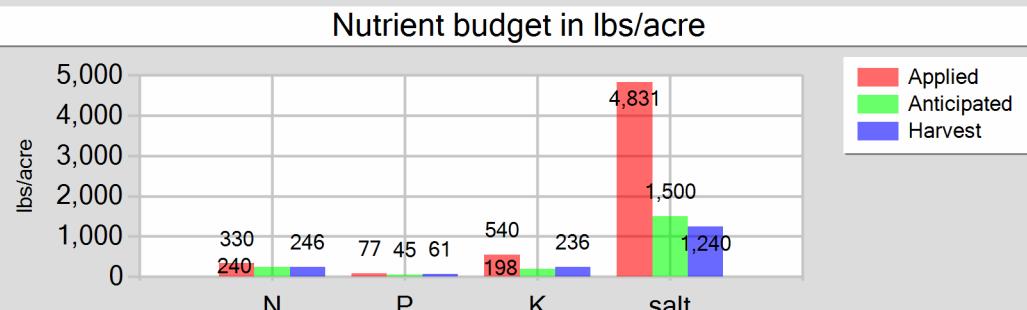
1 harvests

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

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

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
Total nutrients applied	329.91	77.29	540.23	4,831.23
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
Nutrient balance	84.21	16.35	304.36	3,590.93
Applied to removed ratio	1.34	1.27	2.29	3.90

**Fresh water applied**  
41,378,933.00 gallons  
1,523.85 acre-inches  
39.07 inches/acre

**Process wastewater applied**  
9,002,496.00 gallons  
331.53 acre-inches  
8.50 inches/acre

**Total harvests for the crop**  
1 harvests

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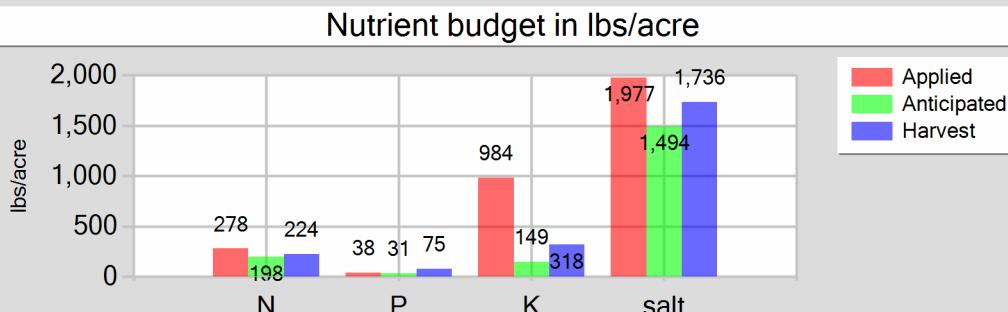
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
438.08 acre-inches  
12.52 inches/acre

**Process wastewater applied**

4,544,256.00 gallons  
167.35 acre-inches  
4.78 inches/acre

**Total harvests for the crop**

1 harvests

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

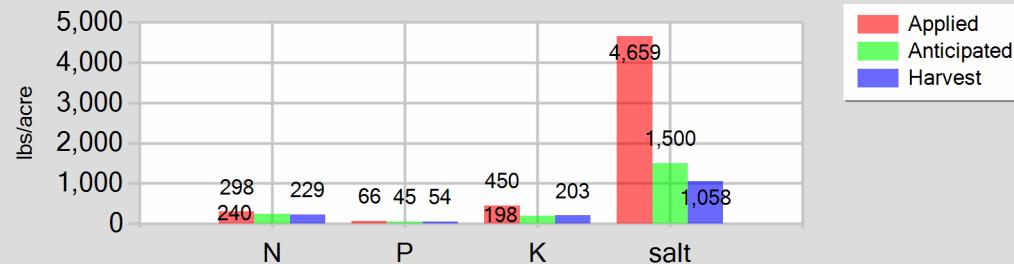
13 - 06/18/2023: Corn, silage

Field name: 13

Crop: Corn, silage

Plant date: 06/18/2023

**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	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
Total nutrients applied	298.23	65.81	450.33	4,659.01
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
Nutrient balance	69.23	11.62	247.55	3,601.40
Applied to removed ratio	1.30	1.21	2.22	4.41

**Fresh water applied**

36,454,555.00 gallons  
1,342.50 acre-inches  
38.36 inches/acre

**Process wastewater applied**

6,992,626.00 gallons  
257.51 acre-inches  
7.36 inches/acre

**Total harvests for the crop**

1 harvests

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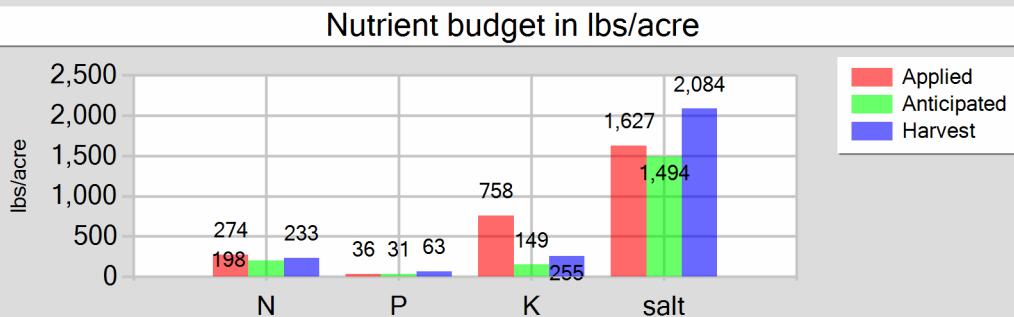
Reporting period 01/01/2023 to 12/31/2023.

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)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	18,572,652.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	683.97 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	11.40 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	259.23	35.72	757.96	929.48	Process wastewater applied
Fresh water	8.27	0.00	0.00	697.45	7,285,474.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	268.30 acre-inches
Total nutrients applied	274.50	35.72	757.96	1,626.93	4.47 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00	Total harvests for the crop
Actual crop nutrient removal	233.26	62.86	254.76	2,084.42	1 harvests
Nutrient balance	41.24	-27.14	503.19	-457.49	
Applied to removed ratio	1.18	0.57	2.98	0.78	

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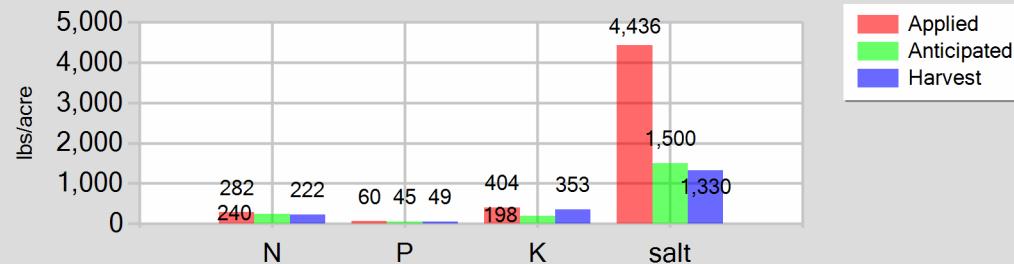
14 - 06/17/2023: Corn, silage

Field name: 14

Crop: Corn, silage

Plant date: 06/17/2023

**Nutrient budget in lbs/acre**



	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	57,544,644.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	2,119.17 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	35.32 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	271.42	59.98	404.27	2,515.34	Process wastewater applied
Fresh water	4.00	0.00	0.00	1,920.84	11,047,998.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	406.86 acre-inches
Total nutrients applied	282.42	59.98	404.27	4,436.18	6.78 inches/acre
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00	Total harvests for the crop
Actual crop nutrient removal	221.72	49.27	353.11	1,330.32	1 harvests
Nutrient balance	60.70	10.70	51.16	3,105.86	
Applied to removed ratio	1.27	1.22	1.14	3.33	

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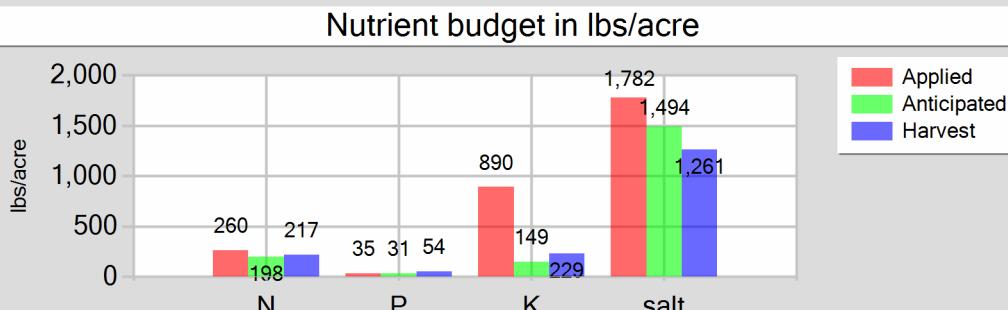
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
763.76 acre-inches  
11.40 inches/acre

**Process wastewater applied**

8,095,078.00 gallons  
298.11 acre-inches  
4.45 inches/acre

**Total harvests for the crop**

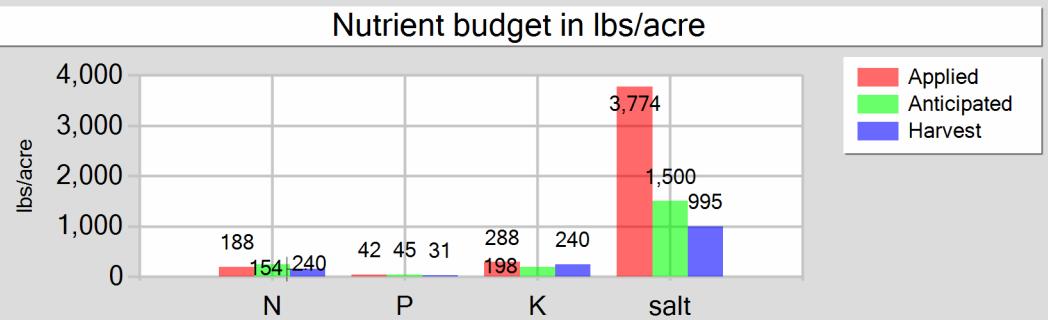
1 harvests

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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
Total nutrients applied	188.40	41.60	287.51	3,773.94
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
Nutrient balance	34.06	11.04	47.59	2,779.13
Applied to removed ratio	1.22	1.36	1.20	3.79

**Fresh water applied**

74,465,070.00 gallons
2,742.30 acre-inches
40.93 inches/acre

**Process wastewater applied**

8,398,555.00 gallons
309.29 acre-inches
4.62 inches/acre

**Total harvests for the crop**

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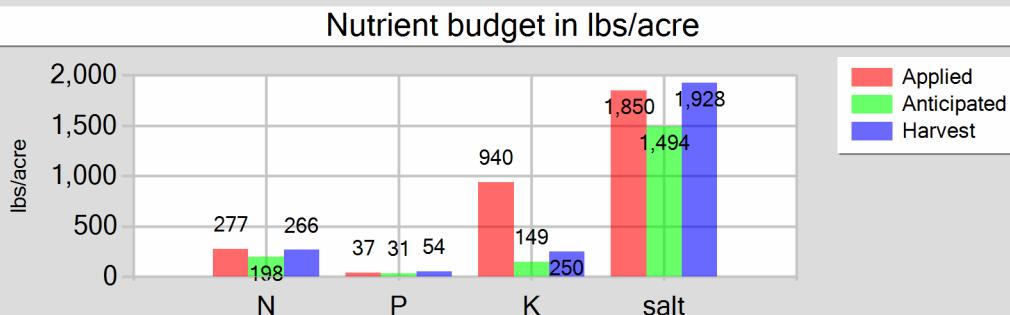
Reporting period 01/01/2023 to 12/31/2023.

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

Field name: 18

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022



	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**

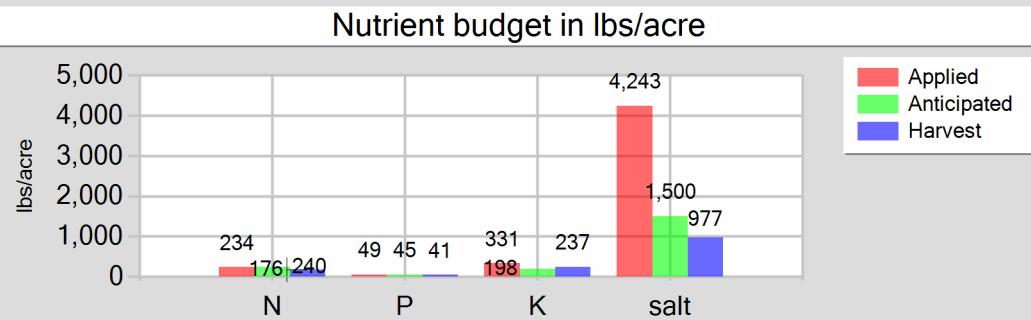
1 harvests

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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
Total nutrients applied	234.07	49.08	330.60	4,242.96
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
Nutrient balance	58.30	7.63	93.49	3,266.30
Applied to removed ratio	1.33	1.18	1.39	4.34

**Fresh water applied**  
76,104,911.00 gallons  
2,802.69 acre-inches  
40.04 inches/acre

**Process wastewater applied**  
10,554,402.00 gallons  
388.68 acre-inches  
5.55 inches/acre

**Total harvests for the crop**  
1 harvests

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

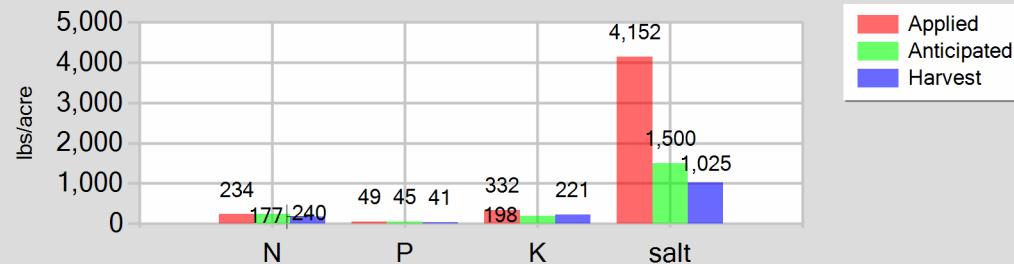
19 - 06/19/2023: Corn, silage

Field name: 19

Crop: Corn, silage

Plant date: 06/19/2023

**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	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**

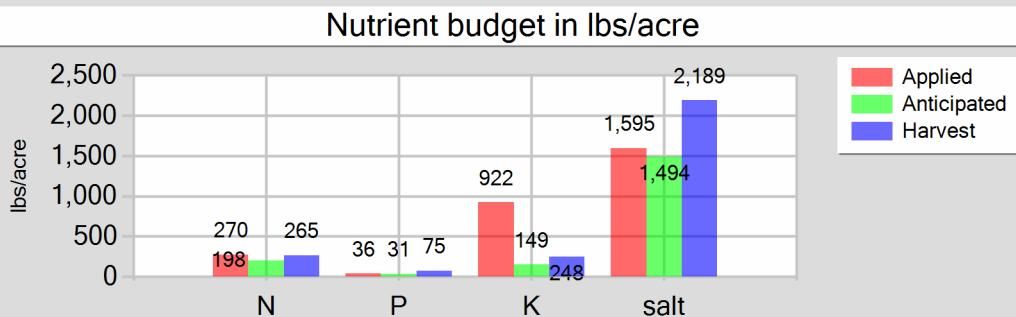
Reporting period 01/01/2023 to 12/31/2023.

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

Field name: 1A

Crop: Wheat, silage, soft dough

Plant date: 11/19/2022



	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	18,682,684.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	688.02 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	11.47 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	260.60	36.27	922.24	1,204.89	7,500,064.00 gallons
Fresh water	2.34	0.00	0.00	389.77	276.20 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	4.60 inches/acre
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	
Total harvests for the crop					1 harvests

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

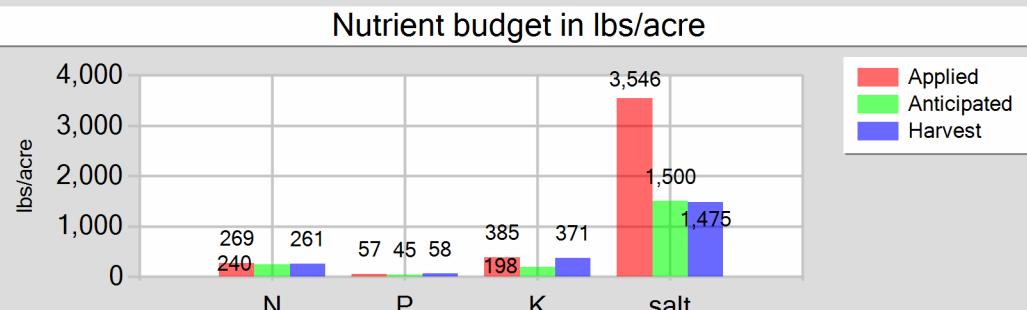
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
2,138.05 acre-inches  
35.63 inches/acre

**Process wastewater applied**

10,440,490.00 gallons  
384.49 acre-inches  
6.41 inches/acre

**Total harvests for the crop**

1 harvests

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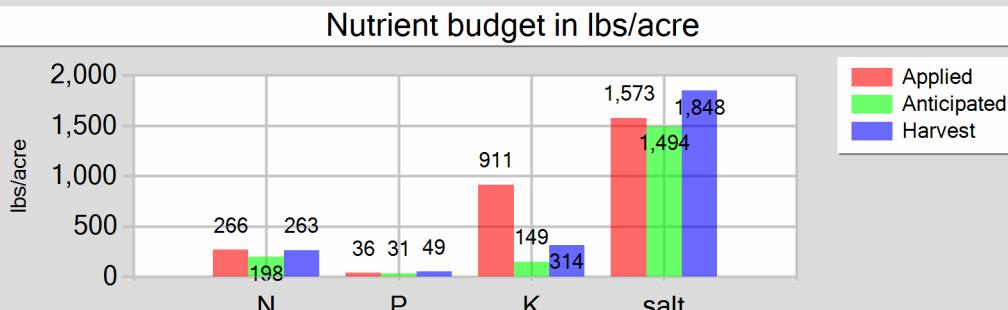
Reporting period 01/01/2023 to 12/31/2023.

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

Field name: 1B

Crop: Wheat, silage, soft dough

Plant date: 11/20/2022



	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**

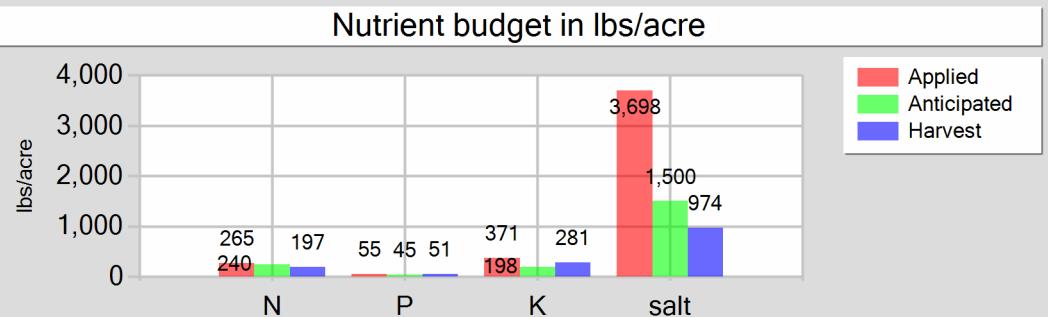
1 harvests

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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



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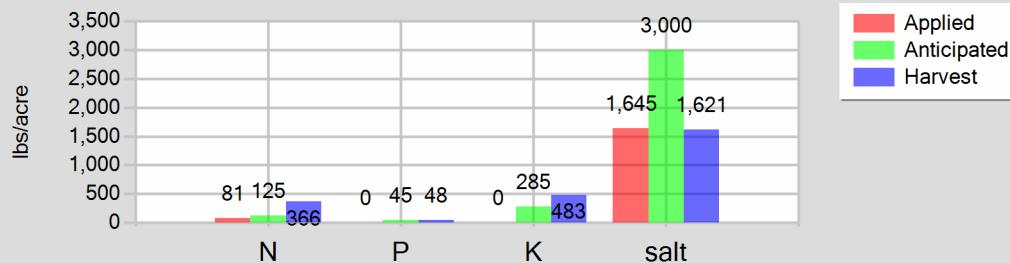
**Annual Report - General Order No. R5-2007-0035**

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

2 - 03/15/2023: Tomato

Field name: 2      Crop: Tomato      Plant date: 03/15/2023

**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	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 gallons  
2,822.27 acre-inches  
28.80 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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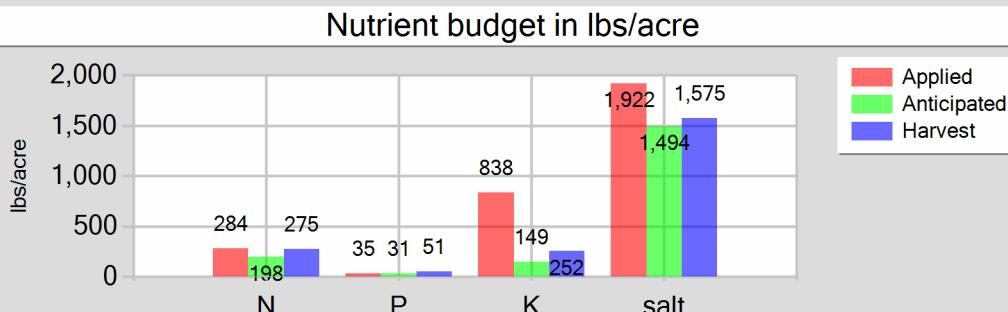
Reporting period 01/01/2023 to 12/31/2023.

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
Total nutrients applied	283.76	35.03	837.77	1,921.53
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
Nutrient balance	8.70	-15.78	585.48	346.48
Applied to removed ratio	1.03	0.69	3.32	1.22

**Fresh water applied**

24,646,312.00 gallons  
907.64 acre-inches  
11.35 inches/acre

**Process wastewater applied**

9,610,632.00 gallons  
353.93 acre-inches  
4.42 inches/acre

**Total harvests for the crop**

1 harvests

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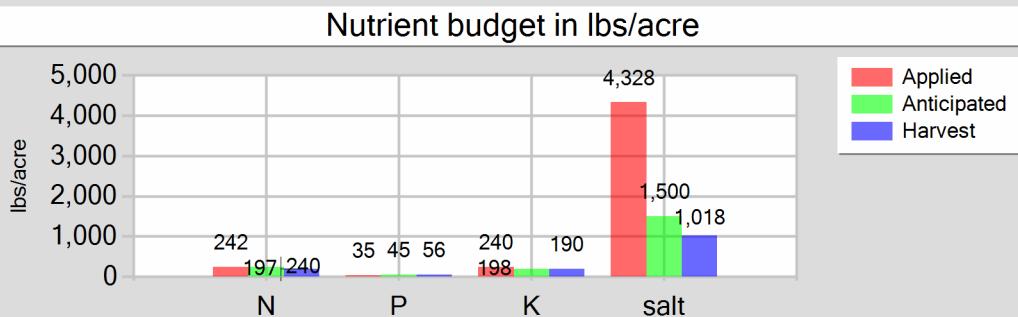
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
3,215.36 acre-inches  
40.19 inches/acre

**Process wastewater applied**

8,423,408.00 gallons  
310.21 acre-inches  
3.88 inches/acre

**Total harvests for the crop**

1 harvests

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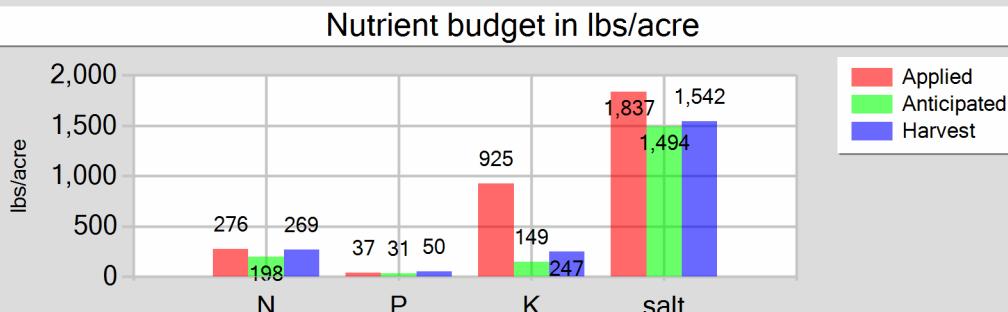
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
795.56 acre-inches  
11.70 inches/acre

**Process wastewater applied**

8,703,459.00 gallons  
320.52 acre-inches  
4.71 inches/acre

**Total harvests for the crop**

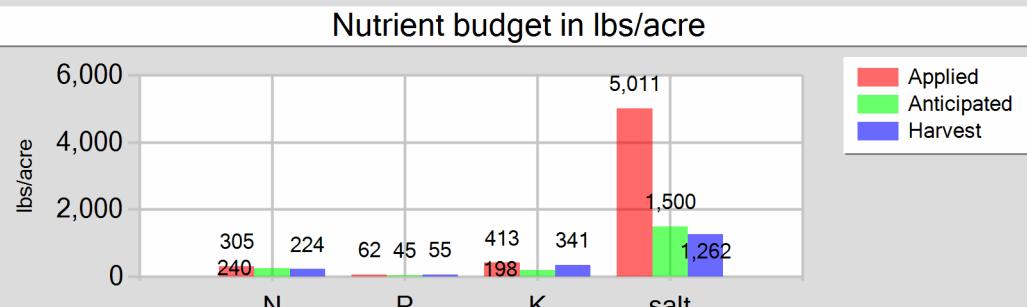
1 harvests

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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

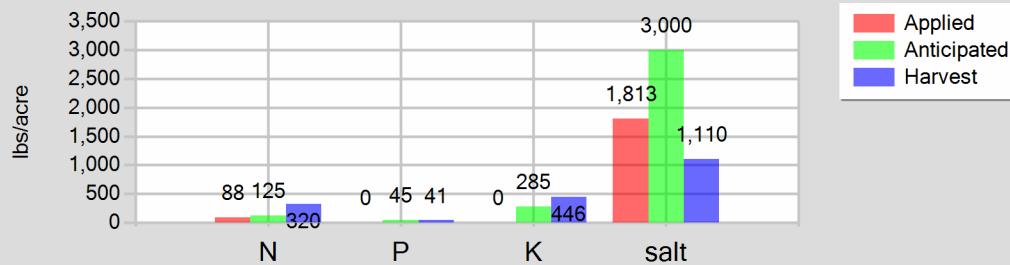
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Reporting period 01/01/2023 to 12/31/2023.

3 - 03/15/2023: Tomato

Field name: 3      Crop: Tomato      Plant date: 03/15/2023

**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	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.

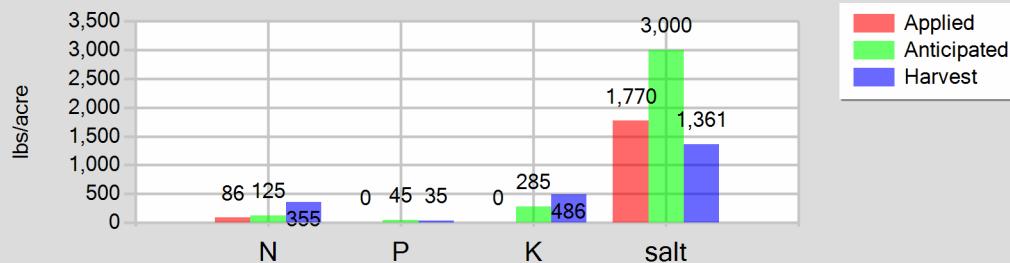
4 - 03/25/2023: Tomato

Field name: 4

Crop: Tomato

Plant date: 03/25/2023

**Nutrient budget in lbs/acre**



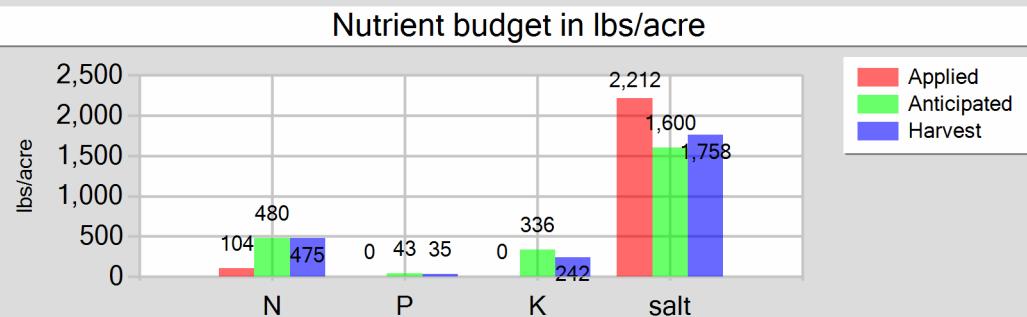
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	82,490,814.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	3,037.86 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	31.00 inches/acre
Dry 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	Process wastewater applied
Atmospheric deposition	14.00	0.00	0.00	0.00	0.00 gallons
Total nutrients applied	86.35	0.00	0.00	1,770.14	0.00 acre-inches
Anticipated crop nutrient removal	125.00	45.00	285.00	3,000.00	0.00 inches/acre
Actual crop nutrient removal	355.32	35.28	486.36	1,360.80	
Nutrient balance	-268.97	-35.28	-486.36	409.34	Total harvests for the crop
Applied to removed ratio	0.24	0.00	0.00	1.30	1 harvests

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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



	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**

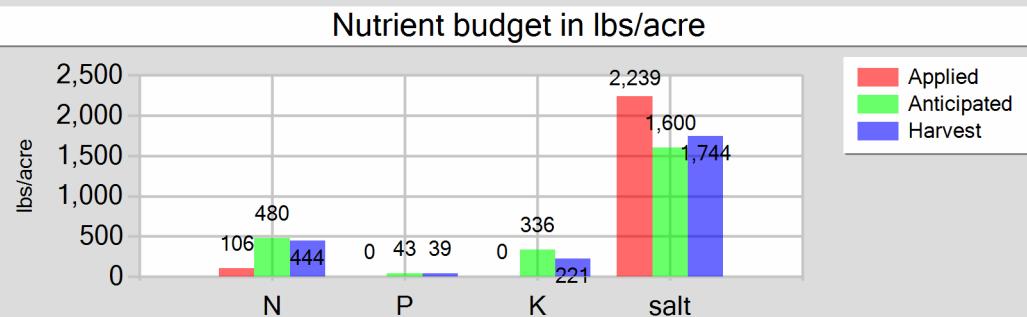
1 harvests
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Reporting period 01/01/2023 to 12/31/2023.

6 - 11/21/2019: Alfalfa, hay

Field name: 6      Crop: Alfalfa, hay      Plant date: 11/21/2019



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

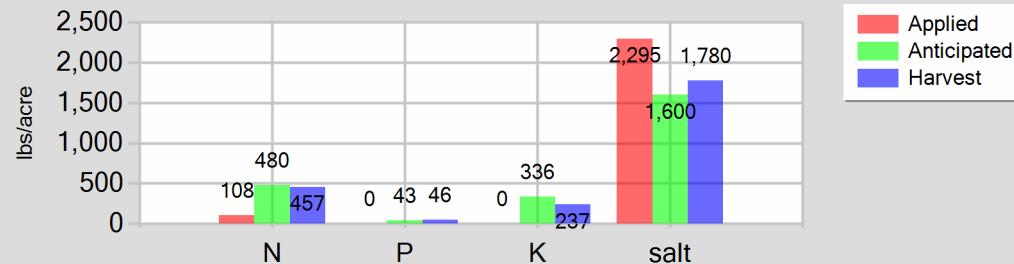
7 - 11/20/2019: Alfalfa, hay

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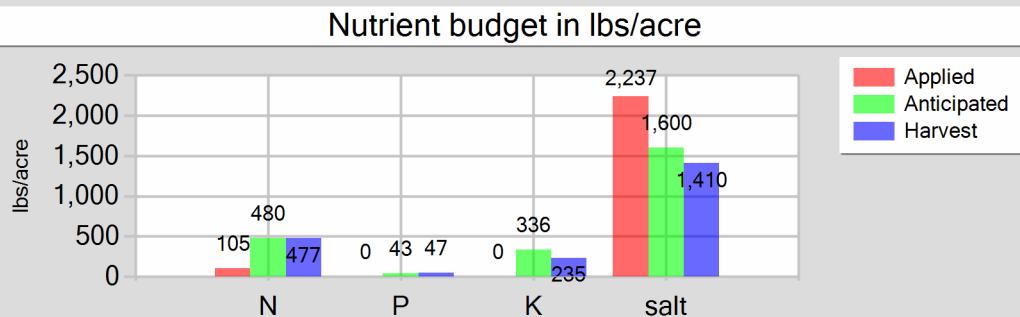
Reporting period 01/01/2023 to 12/31/2023.

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 gallons  
3,016.86 acre-inches  
39.18 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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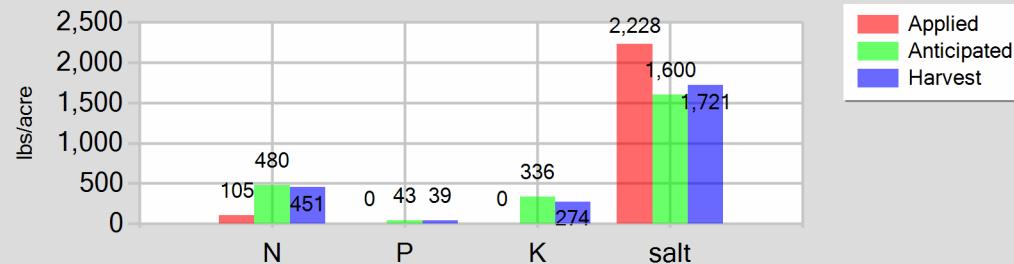
9 - 11/23/2019: Alfalfa, hay

Field name: 9

Crop: Alfalfa, hay

Plant date: 11/23/2019

**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	91.08	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

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**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 DWNSample 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			22.70								555.00	
DL			0.20								1.00	

**1AE****1AE**Sample description: 1AESample 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	0.90		0.90	4.00	0.00	41.00	90.00	0.00	4.60	11.00	223.00	150
DL	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: 25Sample 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	9.40		9.40								487.00	330
DL	0.50		0.40								1.00	20

**26 Office**

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**26 Office****26 Office**Sample description: 26 OfficeSample 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			27.10	66.00	3.00	91.00	170.00	0.00	28.90	52.00	807.00	520
DL			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)
Value			25.70								758.00	
DL			0.40								1.00	

**29 Calves****29 Calves**Sample description: 29 CalvesSample 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			25.40								716.00	
DL			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

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**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)
Value	0.00		0.00								31.00	40
DL	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 (%)
Value	26,700.00	2,200.00	14,300.00		9.78
DL	500.00	200.00	200.00		0.05

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

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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

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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

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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

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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

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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 (%)
<b>Value</b>	10,900.00	2,500.00	13,600.00		6.31
<b>DL</b>	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 (%)
<b>Value</b>	17,900.00	5,100.00	16,800.00		14.80
<b>DL</b>	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 (%)
<b>Value</b>	14,300.00	3,200.00	20,300.00		8.07
<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.*

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 (%)
<b>Value</b>	17,900.00	5,100.00	16,800.00		14.80
<b>DL</b>	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 (%)
<b>Value</b>	13,200.00	3,400.00	18,800.00		6.52
<b>DL</b>	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 (%)
<b>Value</b>	30,500.00	4,000.00	40,200.00		13.50
<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.*

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

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

*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 (%)
<b>Value</b>	29,400.00	2,900.00	14,500.00		8.70
<b>DL</b>	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 (%)
<b>Value</b>	27,500.00	2,400.00	16,700.00		10.50
<b>DL</b>	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**

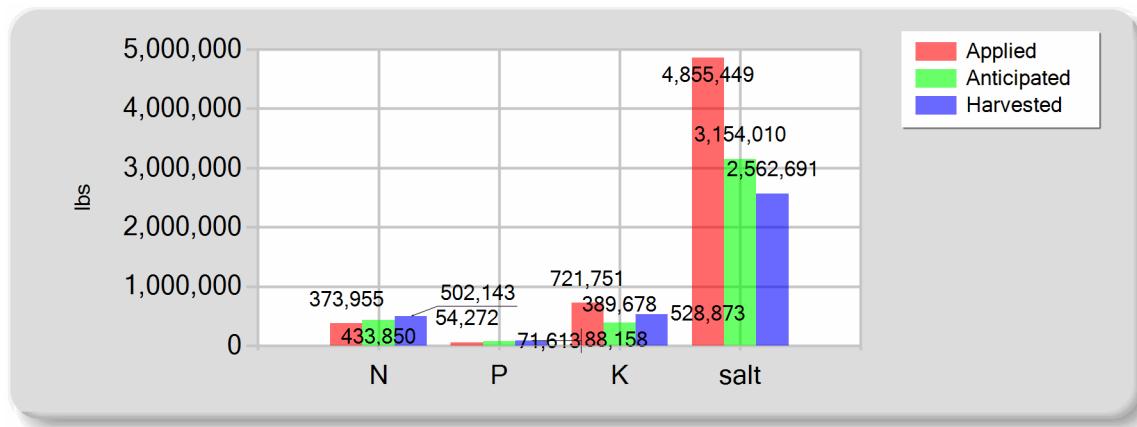
Reporting period 01/01/2023 to 12/31/2023.

**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
<b>Total nutrients applied</b>	<b>373,954.90</b>	<b>54,272.48</b>	<b>721,750.94</b>	<b>4,855,449.31</b>
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
<b>Nutrient balance</b>	<b>-128,187.98</b>	<b>-33,885.55</b>	<b>192,877.62</b>	<b>2,292,758.39</b>
Applied to removed ratio	0.74	0.62	1.36	1.89

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

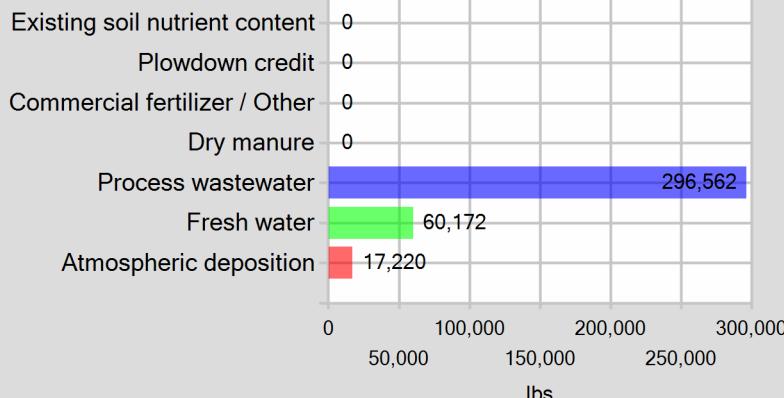


Annual Report - General Order No. R5-2007-0035

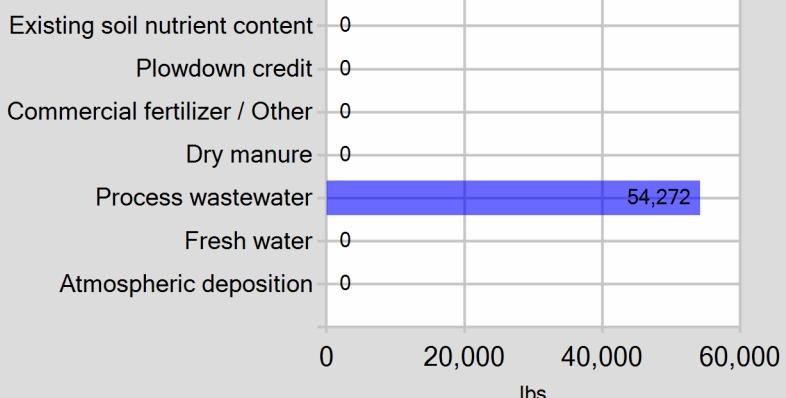
Reporting period 01/01/2023 to 12/31/2023.

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

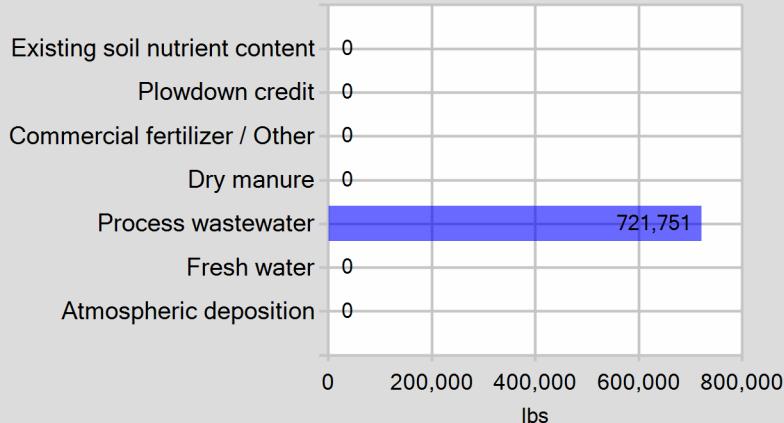
Pounds of nitrogen applied



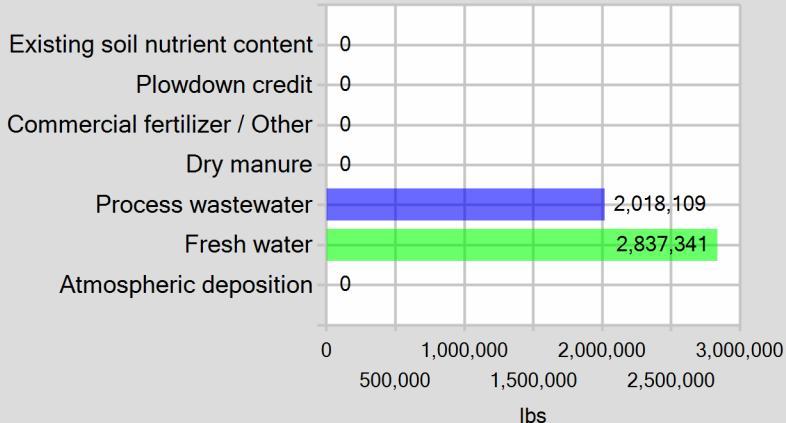
Pounds of phosphorus applied



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



SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE

DATE

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

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

**ATTACHMENTS**

**A. REQUIRED ATTACHMENTS**

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

**Annual Dairy Facility Assessment**

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

**Manure/Process Wastewater Tracking Manifests**

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

**Corrective Actions Documents**

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

**Groundwater Monitoring**

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

**Storm Water Monitoring**

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

August 16, 2023

**Sentry Ag Services**  
Attn: Monique Baldivez  
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

Section: Case Narrative

Page 1 of 9

Page 1 of 9

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573	Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	Office & Laboratory 3442 Empresia Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810
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August 16, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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	I	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-NO3 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-NO3 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.

I 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

August 16, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 adjusted for dilution, Dil.=Dilution

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

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
		(STK2339623-007)	MSD MSRPD	mg/L mg/L	12.00	28.8% 2.1%	<1/4 ≤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.

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO3)	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	991.5	ND	<20	
			LCS	mg/L		98.4 %	90-110	
			Dup	mg/L		2.1%	5	
			Dup	mg/L		1.5%	5	
	2540CE	07/25/2023:208161CTL	Blank	mg/L	991.5	ND	<20	
			LCS	mg/L		97.0%	90-110	
			Dup	mg/L		1.67%	5	
			Dup	mg/L		0.8%	5	
Chloride	300.0	07/27/2023:208333LDM	Blank	mg/L	25.00	ND	<1	
			LCS	mg/L		103 %	90-110	
			MS	mg/L		101 %	85-121	
			(VI 2344590-003)	MSD		98.7 %	85-121	
			MSRPD	mg/L		1.5%	≤19	
			MS	mg/L		104 %	85-121	
			(STK2339674-004)	MSD		104 %	85-121	
			MSRPD	mg/L		0.4%	≤19	
			MS	mg/L		ND	<1	
			LCS	mg/L		96.0 %	90-110	
Sulfate Sulfur	300.0	07/28/2023:208413LDM	MS	mg/L	50.00	105 %	85-121	
			(SP 2312807-001)	MSD		99.5 %	85-121	
			MSRPD	mg/L		4.6%	≤19	
			MS	mg/L		67.8 %	85-121	435
			(VI 2344744-001)	MSD		70.6 %	85-121	435
			MSRPD	mg/L		1.3%	≤19	
			MS	mg/L		ND	<0.5	
			LCS	mg/L		105 %	90-110	
			MS	mg/L		104 %	82-124	
			(VI 2344590-003)	MSD		102 %	82-124	
	300.0	07/28/2023:208413LDM	MSRPD	mg/L	10.00	1.6%	≤23	
			MS	mg/L		105 %	82-124	
			(STK2339674-004)	MSD		105 %	82-124	
			MSRPD	mg/L		0.2%	≤23	
			MS	mg/L		ND	<0.5	
			LCS	mg/L		96.8 %	90-110	
			MS	mg/L		106 %	82-124	
			(SP 2312807-001)	MSD		101 %	82-124	
			MSRPD	mg/L		5.3%	≤23	
			MS	mg/L		105 %	82-124	
Nitrogen, Total Kjeldahl	351.2	08/10/2023:208886STA	(VI 2344744-001)	MSD	100.0	101 %	82-124	
			MSRPD	mg/L		2.7%	≤23	
			MS	mg/L		ND	<0.5	
			Blank	mg/L		88.3%	73-124	
			LCS	mg/L		93.5%	54-136	
			MS	mg/L		92.2%	54-136	
	(CH 2375698-002)		MSD	mg/L	12.00	0.9%	≤27	
			MSRPD	mg/L		91.3%	54-136	
			MS	mg/L				

August 16, 2023

**Sentry Ag Service**

Lab No. : VI 2344744  
 Customer No. : 4019696

**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	
			LCS	mg/L	12.00	88.3%	73-124	
			MS	mg/L	12.00	91.6%	54-136	
		(VI 2344744-001)	MSD	mg/L	12.00	92.6%	54-136	
			MSRPD	mg/L		1.1%	≤27	
			MS	mg/L	12.00	88.1%	54-136	
		(VI 2344744-003)	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	
			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	
			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 analyted. 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 BlancaBilling: Sentry Ag Services, LLC  
P.O. Box 7750, Visalia, CA 93290LABORATORY: FGL | FGL 4-19696Authorized 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>Br Dept</i>	SAS		7/20/23 1:31:17
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.: \_\_\_\_\_

R01  
2.6°CGLS  
JMC  
1120

7/21/23

**Inter-Laboratory Condition Upon Receipt (Attach to COC)**

Sample Receipt at: STK CC

CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # OTC
2. Were samples received in a chilled condition? Temps: 20 / 24°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? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No N/A
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 N/A
9. Verify sample date, time and sampler name Yes No N/A

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): SRC

**Sample Receipt at SP:**

1. Were samples received in a chilled condition? Temps: 14 / / / / /  
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: 599803345 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 N/A
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: \_\_\_\_\_ (4019696)  
Problem:  
Resolution:

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

Sentry Ag Service  
VI 2344744  
iv 07/21/2023 10:43:52  
  
U1 2344744

August 11, 2023

**Sentry Ag Services**  
Attn: Monique Baldivez  
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

Section: Case Narrative

Page 1 of 3

Page 1 of 3

Corporate Offices & Laboratory	Office & Laboratory	Office & Laboratory	Office & Laboratory	Office & Laboratory
853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573	2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

August 11, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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				
							Date	Time	Who	Method	Date	Time	Who	
<b>Dairy Analysis</b>														
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

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 LCS Dup Dup	mg/L mg/L mg/L mg/L	993.7	ND 102% 0.4% 1.98%	<20 90-110 5 5	
Nitrogen, Total Kjeldahl	351.2	08/08/2023:208707STA (VI 2344654-002) (VI 2344644-003)	Blank LCS MS MSDP MS MSDP MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 91.3% 85.5% 85.3% 0.3% 82.8% 82.5% 0.3%	<0.5 73-124 54-136 54-136 ≤27 54-136 54-136 ≤27	
Nitrate + Nitrite as N	4500NO3F	07/19/2023:207926LFS (SP 2312214-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 5.609	ND 97.7% 90.8% 92.7% 1.0%	<0.4 80-120 66-125 66-125 ≤30.4	
Nitrate Nitrogen	4500NO3F	07/19/2023:207926LFS (SP 2312214-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 5.609	ND 97.7% 90.8% 92.7% 1.0%	<0.4 80-120 66-125 66-125 ≤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.



2344656

# Laboratory Analysis Work Order

3058

SITE NAME: People's Ditch - HartfordBilling: Sentry Ag Services, LLC  
P.O. Box 7750, Visalia, CA 93290LABORATORY: FT | FGL 4-19696Authorized 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 &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>	MR D. K	SAS		7/18/23 3:17 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°CGLS  
MC  
1100

7/19/23

### Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

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

2. Were samples received in a chilled condition? Temps: 20° / 5.3°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?              | 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 |     |
| 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): SPC

### Sample Receipt at SP:

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

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:

59787246  
6815

- |   |     |    |     |
|---|-----|----|-----|
| 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?<br><small>[Exception: Oil &amp; Grease, VOA and CrVI verified in lab]</small> | Yes | No | N/A FGL |
| 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): MDC

### 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: _____        | (4019696)           |
| Problem: _____             | Sentry Ag Service   |
| Resolution: _____          | VI 2344656          |

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

iv 07/19/2023 08:11:30



UI 2344656

October 12, 2023

**Sentry Ag Services**  
Attn: Monique Baldivez  
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

**Corporate Offices & Laboratory**  
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Santa Paula, CA 93060  
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9415 W. Goshen Avenue  
Visalia, CA 93291  
TEL: (559)734-9473  
FAX: (559)734-8435  
CA ELAP Certification No. 2810

October 12, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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				
							Date	Time	Who	Method	Date	Time	Who	
<b>Dairy Analysis</b>														
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

October 12, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U1	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	U1	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

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
<b>Metals</b>								
Calcium	200.7	09/14/2023:210310EJC (STK2352400-005)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 97.3% 105% 71.3% 17.6% 107% 94.4% 6.4%	<1 85-115 75-125 75-125 ≤20.0 75-125 75-125 ≤20.0	435
Magnesium	200.7	09/14/2023:210310EJC (STK2352400-005)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 102% 106% 1.63% 17.5% 113% 72.6% 5.0%	<1 85-115 75-125 <1/4 ≤20 75-125 <1/4 ≤20	
Potassium	200.7	09/14/2023:210310EJC (STK2352400-005)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 97.1% 104% 75.0% 17.6% 108% 95.7% 6.0%	<1 85-115 75-125 75-125 ≤20.0 75-125 75-125 ≤20.0	
Sodium	200.7	09/14/2023:210310EJC (STK2352400-005)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 97.8% 186% -167% 18.5% 200% 86.0% 3.4%	<1 85-115 <1/4 <1/4 ≤20.0 <1/4 75-125 ≤20.0	406 406
		(STK2352400-002)						

#### 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 CaCO3)	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	
		(STK2352408-001)	MS	mg/L	50.00	103 %	67-117	
			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	
		(STK2352408-001)	MS	mg/L	40.00	105 %	86-112	
			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	
		(STK2352408-001)	MS	mg/L	100.0	104 %	18-165	
			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	
		(STK2352400-001)	MS	mg/L	12.00	89.3%	90-110	435
			MSD	mg/L	12.00	88.1%	90-110	435
			MSRPD	mg/L		1.2%	≤20	
		(STK2352400-004)	MS	mg/L	12.00	89.7%	90-110	435
			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	

October 12, 2023

**Sentry Ag Service**

Lab No. : VI 2346140  
 Customer No. : 4019696

**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: FGL | 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) *801 11 C*  
 W3 NH<sub>4</sub>-N (Ammonium) *11/11/23*  
 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-AE	Iw	W4	9/11/23 9:20	Jeremy	O		
2	Iw	W2	9/11/23 9:30		O		
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 &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>	RJL	SAS	9/11/23 1520	9/11/23 1520
2 <sup>nd</sup>	AH	FGL	9/11/23 1520	9/11/23 1730
3 <sup>rd</sup>	AH			9/11/23 1730
4 <sup>th</sup>	EK		9/11/23 1730	

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_

Total Samples: \_\_\_\_\_

Laboratory No.: \_\_\_\_\_

GLS 9/11/23  
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 # GTC

2. Were samples received in a chilled condition? Temps: 61 14.1c / / /

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?              | 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): AD

ST-1011  
TMLG7

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 7c / / / /

Acceptable is above freezing to 6c. 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?<br><small>[Exception: Oil &amp; Grease, VOA and CrVI verified in lab]</small> | Yes | No | N/A FGL |
| 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): MZ

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:

(4019696)

Sentry Ag Service

VI 2346140

cda 09/12/2023 07:49:51



U1 2346140

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

December 22, 2023

**Sentry Ag Services**  
Attn: Monique Baldivez  
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

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December 22, 2023

**Sentry Ag Services**

Attn: Monique Baldivez  
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				
							Date	Time	Who	Method	Date	Time	Who	
<b>Dairy Analysis</b>														
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.

December 22, 2023

**Sentry Ag Services**  
 Attn: Monique Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 Baldivez  
 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			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
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 (VI 2348243-001)	Blank LCS MS MSD MSRPD (VI 2348281-001) MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 4.0% 12.00 12.00 12.00	ND 102% 135% 108% 4.0% 153% 88.7% 15.2%	<1 85-115 <¼ 75-125 ≤20.0 75-125 75-125 ≤20.0	406 435
Magnesium	200.7	12/20/2023:214322AC (VI 2348243-001)	Blank LCS MS MSD MSRPD (VI 2348281-001) MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 5.1% 12.00 12.00 12.00	ND 98.7% 102% 95.7% 5.1% 114% 104% 6.0%	<1 85-115 75-125 75-125 ≤20 75-125 75-125 ≤20	
Potassium	200.7	12/20/2023:214322AC (VI 2348243-001)	Blank LCS MS MSD MSRPD (VI 2348281-001) MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 4.9% 12.00 12.00 12.00	ND 101% 105% 100% 4.9% 111% 104% 5.0%	<1 85-115 75-125 75-125 ≤20.0 75-125 75-125 ≤20.0	
Sodium	200.7	12/20/2023:214322AC (VI 2348243-001)	Blank LCS MS MSD MSRPD (VI 2348281-001) MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 4.4% 12.00 12.00 12.00	ND 95.8% 130% 91.8% 4.4% 154% 69.1% 18.5%	<1 85-115 <¼ 75-125 ≤20.0 75-125 75-125 ≤20.0	406 435 435

#### 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 CaCO3)	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  (SP 2320140-001) (SP 2320140-001)	Blank	mg/L	991.5	ND	<20	
			LCS	mg/L		99.5%	90-110	
			Dup	mg/L		0.6%	5	
			Dup	mg/L		0.2%	5	
Chloride	300.0	12/07/2023:213855LDM  (VI 2348127-004)  (VI 2348127-005)	Blank	mg/L	25.00	ND	<1	
			LCS	mg/L		103%	90-110	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
Nitrate Nitrogen	300.0	12/07/2023:213855LDM  (VI 2348127-004)  (VI 2348127-005)	Blank	mg/L	20.00	ND	<0.4	
			LCS	mg/L		105%	90-110	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
Sulfate Sulfur	300.0	12/07/2023:213855LDM  (VI 2348127-004)  (VI 2348127-005)	Blank	mg/L	50.00	ND	<0.5	
			LCS	mg/L		103%	90-110	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L		0.0%	<1/4	
			MSD	mg/L		0.0%	<1/4	
Nitrate Nitrogen	4500NO3F	12/07/2023:213812LFS  (STK2356730-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		98.5%	80-120	
			MS	mg/L		99.4%	66-125	
			MSD	mg/L		102%	66-125	
			MSRPD	mg/L		1.5%	≤30.4	

**Definition**

- <1/4 : 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 BlancaLABORATORY: AT

FGL 4-19696

Billing: 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) 7.8°C ROT  
 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: \_\_\_\_\_

### 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	NH <sub>3</sub> N *	pH	Temp
1 26 office	DW	W4	12/6/23 9:30	Gerry	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 10:47		0		
8 30 Eq. 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>	<u>SPR</u>	SAS		12/6/23 12:47
2 <sup>nd</sup>	<u>AJB</u>	FGL	12/6/23 12:47	
3 <sup>rd</sup>	<u>AJB</u>	FGL		12/6/23 17:30
4 <sup>th</sup>	<u>GJS</u>	GJS	12/6/23 17:30	

LABORATORY USE ONLY

Logged In By: \_\_\_\_\_

Total Samples: \_\_\_\_\_

Laboratory No.: \_\_\_\_\_

1
1
1
1
1
1

### 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): OTC

2. Temp IR Gun ID #: TA-401

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: 4 Shipping tracking #(s): SL0541002, SL05107401  
SL0510783, SL0510013, SL0510003, SL05107805

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:

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

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

(4019696)

~Strv Ag Service

Stl, ~242  
bel with ...

VI 2348240

(Please use the back of this sheet for additional comments or

