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: Lone Oak Farms #1

Physical address of dairy:

Number and Street	City	County	Zip Code
13866 4th AVE	Hanford	Kings	93230

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 02/05/1993

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X016-X250-X010-XXXX

B. OPERATORS

te Velde, Bernard Jr.

Operator name: te Velde, Bernard Jr.

Telephone no.: (559) 936-2253 (Landline) (Cellular)

Mailing Address Number and Street	City	State	Zip Code
4th Avenue	Hanford	CA	93230

This operator is responsible for paying permit fees.

C. OWNERS

te Velde, Bernard Jr.

Legal owner name: te Velde, Bernard Jr.

Telephone no.: (559) 936-2253 (Landline) (Cellular)

Mailing Address Number and Street	City	State	Zip Code
4th Avenue	Hanford	CA	93230

This owner is responsible for paying permit fees.

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	0	2,515	1,250	960	1,115
Number under roof	4,855	280	0	0	0	0
Maximum number	4,870	295	2,525	1,275	970	1,130
Average number	4,855	280	2,515	1,250	960	1,115
Avg live weight (lbs)	1,400	1,450	1,000	750		

Predominant milk cow breed: Holstein

Average milk production: 75 *pounds per cow per day*

B. MANURE GENERATED

Total manure excreted by the herd: 177,021.45 *tons per reporting period*

Total nitrogen from manure: 2,179,950.40 *lbs per reporting period*

After ammonia losses (30% loss applied): 1,525,965.28 *lbs per reporting period*

Total phosphorus from manure: 357,214.57 *lbs per reporting period*

Total potassium from manure: 945,725.97 *lbs per reporting period*

Total salt from manure: 2,350,362.75 *lbs per reporting period*

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 245,236,315 *gallons*

Total nitrogen generated: 902,169.45 *lbs*

Total phosphorus generated: 88,893.41 *lbs*

Total potassium generated: 1,010,423.32 *lbs*

Total salt generated: 8,358,139.33 *lbs*

	245,236,315	*gallons applied*
+	0	*gallons exported*
-	0	*gallons imported*
=	245,236,315	*gallons generated*

D. FRESH WATER SOURCES

Source Description	Type
20	Ground water
21	Ground water
23	Ground water
24N	Ground water
24S	Ground water

Source Description	Type
A1	Ground water
A3	Ground water
A4	Ground water
A5	Ground water
A7	Ground water
A8-Hospital	Ground water
B1	Ground water
B1S	Ground water
B2	Ground water
B2D	Ground water
B3	Ground water
B3N	Ground water
B5	Ground water
B5D	Ground water
B5S	Ground water
B6	Ground water
B7	Ground water
B8	Ground water
B9	Ground water
North	Ground water
People's Ditch Tulare	Surface water
Scale	Ground water
South	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.

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
20	77	77	1	process wastewater	X028-X060-X008-XXXX
21	77	77	2	process wastewater	X028-X070-X009-XXXX
22	81	81	1	none	X147-X020-X002-XXXX
23	70	70	1	none	X147-X020-X002-XXXX
24	169	169	2	process wastewater	X147-X020-X010-XXXX
A1	75	75	1	process wastewater	X016-X240-X006-XXXX
A2	120	120	2	process wastewater	X016-X240-X015-XXXX
A3	80	50	1	none	X016-X240-X015-XXXX
A4	70	70	2	process wastewater	X016-X240-X015-XXXX
A5	55	55	2	process wastewater	X016-X240-X015-XXXX
A6	80	80	2	process wastewater	X016-X250-X010-XXXX
A7	58	58	1	process wastewater	X016-X250-X010-XXXX
B1	157	157	1	process wastewater	X147-X020-X004-XXXX
B2	77	77	2	process wastewater	X147-X020-X017-XXXX
B3	160	160	2	process wastewater	X147-X020-X001-XXXX
B4	78	78	2	process wastewater	X147-X020-X017-XXXX
B5	55	55	2	process wastewater	X147-X010-X001-XXXX
B6	96	96	2	process wastewater	X147-X010-X001-XXXX
B7	167	167	2	process wastewater	X147-X010-X001-XXXX
B8	78	78	1	process wastewater	X028-X070-X016-XXXX
B9	155	155	1	process wastewater	X028-X070-X017-XXXX
Totals for areas that were used for application	1,804	1,804	30		
Totals for areas that were not used for application	231	201	3		
Land application area totals	2,035	2,005	33		

B. CROPS AND HARVESTS

20

Field name: 20

20

04/19/2023: Corn, silage

Crop: Corn, silage Acres planted: 77 Plant date: 04/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/08/2023	2,410.00 *ton*	Dry-weight		67.6	15,900.00	2,900.00	17,800.00		8.12

	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	31.30	322.48	58.82	361.01	1,646.86

21

Field name: 21

11/05/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 77 Plant date: 11/05/2022

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	1,563.00 *ton*	Dry-weight		63.9	18,400.00	3,300.00	19,500.00		11.78

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,494.00
Total actual harvest content	20.30	269.66	48.36	285.79	1,726.44

06/18/2023: Corn, silage

Crop: Corn, silage Acres planted: 77 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 (%)
10/07/2023	2,110.00 *ton*	Dry-weight		68.3	17,300.00	3,900.00	18,100.00		7.25

	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	300.56	67.76	314.46	1,259.56

22

Field name: 22

11/07/2022: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 81 Plant date: 11/07/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/28/2023	737.00 *ton*	Dry-weight		9.2	23,400.00	2,600.00	20,300.00		8.14

	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	9.10	386.65	42.96	335.42	1,345.00

23

Field name: 23

11/07/2022: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 70 Plant date: 11/07/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/28/2023	630.00 *ton*	Dry-weight		7.2	22,100.00	2,800.00	19,500.00		7.25

	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	369.16	46.77	325.73	1,211.04

24

Field name: 24

24

11/07/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 169 Plant date: 11/07/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/22/2023	3,735.00 *ton*	Dry-weight		62.4	18,200.00	3,300.00	18,600.00		12.36

	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	22.10	302.48	54.84	309.13	2,054.19

06/18/2023: Corn, silage

Crop: Corn, silage Acres planted: 169 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 (%)
10/04/2023	4,766.00 *ton*	Dry-weight		68.6	16,800.00	3,300.00	18,400.00		8.35

	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	297.53	58.44	325.87	1,478.81

A1

Field name: A1

04/13/2023: Corn, silage

Crop: Corn, silage Acres planted: 75 Plant date: 04/13/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/04/2023	2,355.00 *ton*	Dry-weight		72.1	15,600.00	3,400.00	18,200.00		7.32

	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	31.40	273.33	59.57	318.89	1,282.55

A2

Field name: A2

10/18/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 120 Plant date: 10/18/2022

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	2,376.00 *ton*	Dry-weight		67.0	20,200.00	6,600.00	21,800.00		14.40

	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	19.80	263.97	86.25	284.88	1,881.79

07/03/2023: Corn, silage

Crop: Corn, silage Acres planted: 120 Plant date: 07/03/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/18/2023	3,024.00 *ton*	Dry-weight		76.6	13,200.00	4,500.00	19,600.00		8.22

	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	25.20	155.68	53.07	231.15	969.43

A3

Field name: A3

11/05/2022: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 50 Plant date: 11/05/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/28/2023	420.00 *ton*	Dry-weight		8.5	25,100.00	2,900.00	19,100.00		8.35

	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	8.40	385.84	44.58	293.61	1,283.56

A4

Field name: A4

11/23/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 70 Plant date: 11/23/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/24/2023	1,190.00 *ton*	Dry-weight		61.6	17,100.00	2,900.00	15,400.00		10.80

	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	17.00	223.26	37.86	201.06	1,410.05

06/05/2023: Corn, silage

Crop: Corn, silage Acres planted: 70 Plant date: 06/05/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	1,750.00 *ton*	Dry-weight		75.0	14,300.00	5,000.00	18,400.00		7.04

	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	25.00	178.75	62.50	230.00	880.00

A5

Field name: A5

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

Crop: Wheat, silage, soft dough Acres planted: 55 Plant date: 11/25/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/24/2023	1,001.00 *ton*	Dry-weight		64.6	18,500.00	4,400.00	24,600.00		12.50

	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	18.20	238.38	56.70	316.99	1,610.70

A5

06/07/2023: Corn, silage

Crop: Corn, silage Acres planted: 55 Plant date: 06/07/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	1,375.00 *ton*	Dry-weight		75.0	14,300.00	5,000.00	18,400.00		7.04

	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	25.00	178.75	62.50	230.00	880.00

A6

Field name: A6

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

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

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/22/2023	1,696.00 *ton*	Dry-weight		53.8	17,600.00	4,200.00	26,000.00		14.20

	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	21.20	344.76	82.27	509.31	2,781.61

06/21/2023: Corn, silage

Crop: Corn, silage Acres planted: 80 Plant date: 06/21/2023

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	2,160.00 *ton*	Dry-weight		66.2	12,200.00	2,300.00	6,500.00		6.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	1,500.00
Total actual harvest content	27.00	222.67	41.98	118.64	1,095.12

A7

Field name: A7

04/14/2023: Corn, silage

Crop: Corn, silage Acres planted: 58 Plant date: 04/14/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/08/2023	1,914.00 *ton*	Dry-weight		67.9	16,200.00	3,400.00	16,200.00		8.22

	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	33.00	343.21	72.03	343.21	1,741.49

B1

Field name: B1

04/16/2023: Corn, silage

Crop: Corn, silage Acres planted: 157 Plant date: 04/16/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/09/2023	5,291.00 *ton*	Dry-weight		69.1	14,000.00	4,500.00	7,800.00		5.22

	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	33.70	291.58	93.72	162.45	1,087.17

B2

Field name: B2

B2

10/31/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 77 Plant date: 10/31/2022

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	1,540.00 *ton*	Dry-weight		63.1	16,900.00	3,600.00	18,200.00		10.20

	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	20.00	249.44	53.14	268.63	1,505.52

06/18/2023: Corn, silage

Crop: Corn, silage Acres planted: 77 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 (%)
10/06/2023	2,002.00 *ton*	Dry-weight		75.5	15,400.00	3,100.00	16,400.00		7.63

	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	26.00	196.20	39.49	208.94	972.06

B3

Field name: B3

11/01/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 160 Plant date: 11/01/2022

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	3,136.00 *ton*	Dry-weight		65.0	16,500.00	3,800.00	19,100.00		13.10

	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	19.60	226.38	52.14	262.05	1,797.32

B3

06/22/2023: Corn, silage

Crop: Corn, silage Acres planted: 160 Plant date: 06/22/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/11/2023	4,880.00 *ton*	Dry-weight		70.2	14,800.00	4,400.00	12,900.00		6.60

	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	30.50	269.03	79.98	234.50	1,199.75

B4

Field name: B4

11/04/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 78 Plant date: 11/04/2022

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	1,755.00 *ton*	Dry-weight		61.4	16,300.00	3,100.00	16,400.00		11.80

	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	22.50	283.13	53.85	284.87	2,049.66

06/20/2023: Corn, silage

Crop: Corn, silage Acres planted: 78 Plant date: 06/20/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/10/2023	2,200.00 *ton*	Dry-weight		73.5	12,900.00	2,300.00	18,200.00		6.88

	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	28.21	192.84	34.38	272.07	1,028.47

B5

Field name: B5

11/02/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 55 Plant date: 11/02/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/24/2023	1,320.00 *ton*	Dry-weight		66.5	17,900.00	4,300.00	14,700.00		11.50

	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	287.83	69.14	236.38	1,849.20

06/23/2023: Corn, silage

Crop: Corn, silage Acres planted: 55 Plant date: 06/23/2023

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	1,397.00 *ton*	Dry-weight		69.3	11,800.00	2,400.00	7,100.00		6.81

	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	25.40	184.03	37.43	110.73	1,062.06

B6

Field name: B6

11/03/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 96 Plant date: 11/03/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/22/2023	2,112.00 *ton*	Dry-weight		63.3	16,300.00	2,900.00	16,000.00		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	22.00	263.21	46.83	258.37	1,840.87

B6

07/03/2023: Corn, silage

Crop: Corn, silage Acres planted: 96 Plant date: 07/03/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/17/2023	2,534.00 *ton*	Dry-weight		66.9	12,000.00	2,300.00	10,100.00		5.68

	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	26.40	209.69	40.19	176.49	992.53

B7

Field name: B7

11/30/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 167 Plant date: 11/30/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/25/2023	4,175.00 *ton*	Dry-weight		59.9	11,800.00	2,200.00	8,200.00		5.91

	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	25.00	236.59	44.11	164.41	1,184.96

07/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 167 Plant date: 07/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/11/2023	4,509.00 *ton*	Dry-weight		69.4	12,400.00	2,500.00	9,700.00		6.61

	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	27.00	204.90	41.31	160.28	1,092.24

B8

Field name: B8

04/18/2023: Corn, silage

Crop: Corn, silage Acres planted: 78 Plant date: 04/18/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/10/2023	2,652.00 *ton*	Dry-weight		70.4	11,900.00	2,600.00	12,400.00		6.38

	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	34.00	239.52	52.33	249.59	1,284.17

B9

Field name: B9

04/19/2023: Corn, silage

Crop: Corn, silage Acres planted: 155 Plant date: 04/19/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/08/2023	4,681.00 *ton*	Dry-weight		68.4	14,500.00	2,900.00	14,400.00		8.28

	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	30.20	276.75	55.35	274.84	1,580.35

NUTRIENT BUDGET

A. LAND APPLICATIONS

20 - 04/19/2023: Corn, silage

Field name: 20

Crop: Corn, silage

Plant date: 04/19/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	99.70	32.63	0.00	632.64	1,672,625.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	48.94	11,290,217.00 *gal*
Application event totals		99.70	32.63	0.00	681.59	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	12,126,530.00 *gal*
Application event totals		0.00	0.00	0.00	52.57	

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	93.31	0.00	130.86	712.31	2,099,859.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.82	12,644,686.00 *gal*
Application event totals		93.31	0.00	130.86	767.13	

06/25/2023	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	84.02	0.00	117.83	641.39	1,890,781.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.19	12,962,842.00 *gal*
Application event totals		84.02	0.00	117.83	697.58	

20 - 04/19/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/10/2023	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	69.88	0.00	98.00	533.46	1,572,625.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.46	12,562,842.00 *gal*
Application event totals		69.88	0.00	98.00	587.92	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.43	12,785,652.00 *gal*
Application event totals		0.00	0.00	0.00	55.43	

21 - 11/05/2022: Wheat, silage, soft dough

Field name: 21

Crop: Wheat, silage, soft dough

Plant date: 11/05/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/15/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	99.96	11.01	117.73	1,504.17	1,763,547.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	38.97	8,990,358.00 *gal*
Application event totals		99.96	11.01	117.73	1,543.15	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/07/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	124.63	40.79	0.00	790.81	2,090,781.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	8,572,202.00 *gal*
Application event totals		124.63	40.79	0.00	827.97	

21 - 11/05/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	64.63	0.00	90.64	493.38	1,454,469.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	8,363,124.00 *gal*
Application event totals		64.63	0.00	90.64	529.64	

21 - 06/18/2023: Corn, silage

Field name: 21

Crop: Corn, silage

Plant date: 06/18/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	74.32	0.00	104.23	567.39	1,672,625.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	48.94	11,290,217.00 *gal*
Application event totals		74.32	0.00	104.23	616.33	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	12,126,530.00 *gal*
Application event totals		0.00	0.00	0.00	52.57	

07/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.56	0.00	138.22	752.39	2,218,015.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	12,335,608.00 *gal*
Application event totals		98.56	0.00	138.22	805.87	

21 - 06/18/2023: 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	98.15	0.00	137.65	749.31	2,208,937.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.91	12,435,608.00 *gal*
Application event totals		98.15	0.00	137.65	803.22	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	93.31	0.00	130.86	712.31	2,099,859.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.39	12,545,723.00 *gal*
Application event totals		93.31	0.00	130.86	766.70	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/19/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	12,544,686.00 *gal*
Application event totals		0.00	0.00	0.00	54.38	

22 - 11/07/2022: Alfalfa, hay

Field name: 22

Crop: Alfalfa, hay

Plant date: 11/07/2022

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	33.54	8,137,754.00 *gal*
Application event totals		0.00	0.00	0.00	33.54	

22 - 11/07/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	8,797,572.00 *gal*
Application event totals		0.00	0.00	0.00	36.25	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/07/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	40.79	9,897,268.00 *gal*
Application event totals		0.00	0.00	0.00	40.79	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	12,756,479.00 *gal*
Application event totals		0.00	0.00	0.00	52.57	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	13,416,297.00 *gal*
Application event totals		0.00	0.00	0.00	55.29	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	12,756,479.00 *gal*
Application event totals		0.00	0.00	0.00	52.57	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.66	12,536,540.00 *gal*
Application event totals		0.00	0.00	0.00	51.66	

23 - 11/07/2022: Alfalfa, hay

23 - 11/07/2022: Alfalfa, hay

Field name: 23

Crop: Alfalfa, hay

Plant date: 11/07/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/06/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	40.79	8,553,195.00 *gal*
Application event totals		0.00	0.00	0.00	40.79	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/07/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	44.41	9,313,479.00 *gal*
Application event totals		0.00	0.00	0.00	44.41	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	48.04	10,073,763.00 *gal*
Application event totals		0.00	0.00	0.00	48.04	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	11,214,189.00 *gal*
Application event totals		0.00	0.00	0.00	53.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	11,594,331.00 *gal*
Application event totals		0.00	0.00	0.00	55.29	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/03/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	11,024,118.00 *gal*
Application event totals		0.00	0.00	0.00	52.57	

23 - 11/07/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	49.85	10,453,905.00 *gal*
Application event totals		0.00	0.00	0.00	49.85	

24 - 11/07/2022: Wheat, silage, boot stage

Field name: 24

Crop: Wheat, silage, boot stage

Plant date: 11/07/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/18/2022	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	99.97	11.01	117.75	1,504.34	3,871,086.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	18,814,314.00 *gal*
Application event totals		99.97	11.01	117.75	1,541.51	

03/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	137.09	44.87	0.00	869.89	5,047,743.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	40.79	20,649,856.00 *gal*
Application event totals		137.09	44.87	0.00	910.67	

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
Lagoon	Process wastewater	65.03	0.00	91.20	496.46	3,212,199.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	18,814,314.00 *gal*
Application event totals		65.03	0.00	91.20	533.62	

24 - 06/18/2023: Corn, silage

24 - 06/18/2023: Corn, silage

Field name: 24

Crop: Corn, silage

Plant date: 06/18/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	92.90	0.00	130.29	709.23	4,588,857.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	48.04	24,320,942.00 *gal*
Application event totals		92.90	0.00	130.29	757.27	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.66	26,156,485.00 *gal*
Application event totals		0.00	0.00	0.00	51.66	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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	106.60	0.00	149.50	813.81	5,265,514.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	27,992,028.00 *gal*
Application event totals		106.60	0.00	149.50	869.10	

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	102.19	0.00	143.32	780.16	5,047,743.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	27,533,142.00 *gal*
Application event totals		102.19	0.00	143.32	834.54	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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	74.32	0.00	104.23	567.39	3,671,086.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	26,615,371.00 *gal*
Application event totals		74.32	0.00	104.23	619.96	

24 - 06/18/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	27,074,256.00 *gal*
Application event totals		0.00	0.00	0.00	53.48	

A1 - 04/13/2023: Corn, silage

Field name: A1

Crop: Corn, silage

Plant date: 04/13/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	79.89	10.75	91.96	897.32	1,427,356.00 *gal*
A3	Ground water	25.19	0.00	0.00	383.16	11,793,317.00 *gal*
Application event totals		105.08	10.75	91.96	1,280.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/03/2023	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
A3	Ground water	25.67	0.00	0.00	390.37	12,015,202.00 *gal*
Application event totals		25.67	0.00	0.00	390.37	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	85.58	11.52	98.51	961.33	1,529,180.00 *gal*
A8-Hospital	Ground water	0.14	0.00	0.00	263.52	12,207,907.00 *gal*
Application event totals		85.72	11.52	98.51	1,224.85	

A1 - 04/13/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/11/2023	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	73.98	9.96	85.16	831.01	1,321,885.00 *gal*
A8-Hospital	Ground water	0.14	0.00	0.00	280.63	13,000,612.00 *gal*
Application event totals		74.13	9.96	85.16	1,111.64	

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	56.99	7.67	65.60	640.12	1,018,237.00 *gal*
A8-Hospital	Ground water	0.13	0.00	0.00	256.96	11,904,260.00 *gal*
Application event totals		57.12	7.67	65.60	897.08	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
A8-Hospital	Ground water	0.14	0.00	0.00	270.54	12,533,440.00 *gal*
Application event totals		0.14	0.00	0.00	270.54	

A2 - 10/18/2022: Wheat, silage, soft dough

Field name: A2

Crop: Wheat, silage, soft dough

Plant date: 10/18/2022

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	101.99	11.23	120.13	1,534.72	2,804,196.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	35.35	12,707,604.00 *gal*
Application event totals		101.99	11.23	120.13	1,570.06	

A2 - 10/18/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	134.25	43.94	0.00	851.89	3,510,032.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	13,359,276.00 *gal*
Application event totals		134.25	43.94	0.00	889.05	

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
Lagoon	Process wastewater	73.59	0.00	103.20	561.76	2,580,852.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	38.07	13,685,112.00 *gal*
Application event totals		73.59	0.00	103.20	599.83	

A2 - 07/03/2023: Corn, silage

Field name: A2

Crop: Corn, silage

Plant date: 07/03/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/10/2023	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	85.82	14.17	120.36	655.18	3,010,032.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	50.98	18,327,668.00 *gal*
Application event totals		85.82	14.17	120.36	706.16	

07/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.56	18,895,144.00 *gal*
Application event totals		0.00	0.00	0.00	52.56	

A2 - 07/03/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	68.69	11.84	141.09	1,273.55	3,135,868.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.44	19,572,652.00 *gal*
Application event totals		68.69	11.84	141.09	1,327.99	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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	48.41	8.35	99.44	897.55	2,210,032.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.08	19,801,832.00 *gal*
Application event totals		48.41	8.35	99.44	952.63	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.04	19,427,668.00 *gal*
Application event totals		0.00	0.00	0.00	54.04	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.27	19,150,160.00 *gal*
Application event totals		0.00	0.00	0.00	53.27	

A3 - 11/05/2022: Alfalfa, hay

Field name: A3

Crop: Alfalfa, hay

Plant date: 11/05/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

A3 - 11/05/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/05/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	31.72	4,751,775.00 *gal*
Application event totals		0.00	0.00	0.00	31.72	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	5,566,365.00 *gal*
Application event totals		0.00	0.00	0.00	37.16	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	43.51	6,516,720.00 *gal*
Application event totals		0.00	0.00	0.00	43.51	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	8,010,135.00 *gal*
Application event totals		0.00	0.00	0.00	53.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	57.10	8,553,195.00 *gal*
Application event totals		0.00	0.00	0.00	57.10	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	8,281,665.00 *gal*
Application event totals		0.00	0.00	0.00	55.29	

A3 - 11/05/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	8,010,135.00 *gal*
Application event totals		0.00	0.00	0.00	53.48	

A4 - 11/23/2022: Wheat, silage, soft dough

Field name: A4

Crop: Wheat, silage, soft dough

Plant date: 11/23/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/26/2022	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	118.51	13.05	139.58	1,783.28	1,900,710.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	7,602,840.00 *gal*
Application event totals		118.51	13.05	139.58	1,819.53	

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	127.91	41.86	0.00	811.66	1,950,825.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	38.97	8,173,053.00 *gal*
Application event totals		127.91	41.86	0.00	850.63	

04/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	46.45	0.00	65.15	354.62	950,355.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	7,792,911.00 *gal*
Application event totals		46.45	0.00	65.15	391.78	

A4 - 06/05/2023: Corn, silage

A4 - 06/05/2023: Corn, silage

Field name: A4

Crop: Corn, silage

Plant date: 06/05/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/10/2023	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	95.35	0.00	133.72	727.92	1,950,781.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.72	11,684,402.00 *gal*
Application event totals		95.35	0.00	133.72	783.63	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon	Process wastewater	83.13	0.00	116.58	634.60	1,700,710.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.82	11,075,905.00 *gal*
Application event totals		83.13	0.00	116.58	687.42	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.19	11,783,976.00 *gal*
Application event totals		0.00	0.00	0.00	56.19	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	57.10	9.84	117.28	1,058.64	1,520,568.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.43	11,833,763.00 *gal*
Application event totals		57.10	9.84	117.28	1,115.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.95	11,524,331.00 *gal*
Application event totals		0.00	0.00	0.00	54.95	

A5 - 11/25/2022: Wheat, silage, soft dough

A5 - 11/25/2022: Wheat, silage, soft dough

Field name: A5

Crop: Wheat, silage, soft dough

Plant date: 11/25/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/02/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	106.55	11.74	125.50	1,603.38	1,342,756.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	35.35	5,824,319.00 *gal*
Application event totals		106.55	11.74	125.50	1,638.72	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	124.63	40.79	0.00	790.81	1,493,415.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	6,123,001.00 *gal*
Application event totals		124.63	40.79	0.00	827.97	

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
Lagoon	Process wastewater	55.74	0.00	78.17	425.54	896,049.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	38.97	6,421,685.00 *gal*
Application event totals		55.74	0.00	78.17	464.51	

A5 - 06/07/2023: Corn, silage

Field name: A5

Crop: Corn, silage

Plant date: 06/07/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/12/2023	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	81.08	0.00	113.71	619.00	1,303,415.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	8,811,148.00 *gal*
Application event totals		81.08	0.00	113.71	672.48	

A5 - 06/07/2023: 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	74.32	0.00	104.23	567.39	1,194,732.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	9,109,832.00 *gal*
Application event totals		74.32	0.00	104.23	622.67	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/16/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.19	9,259,173.00 *gal*
Application event totals		0.00	0.00	0.00	56.19	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
Lagoon	Process wastewater	71.84	0.00	100.74	548.40	1,154,755.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	57.10	9,408,514.00 *gal*
Application event totals		71.84	0.00	100.74	605.50	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.41	8,964,441.00 *gal*
Application event totals		0.00	0.00	0.00	54.41	

A6 - 11/11/2022: Wheat, silage, soft dough

Field name: A6

Crop: Wheat, silage, soft dough

Plant date: 11/11/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

A6 - 11/11/2022: 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	130.36	14.36	153.54	1,961.61	2,389,464.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	33.54	8,037,288.00 *gal*
Application event totals		130.36	14.36	153.54	1,995.14	

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	124.63	40.79	0.00	790.81	2,172,240.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	35.35	8,471,736.00 *gal*
Application event totals		124.63	40.79	0.00	826.15	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	97.18	0.00	136.29	741.88	2,272,240.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	8,906,184.00 *gal*
Application event totals		97.18	0.00	136.29	779.04	

A6 - 06/21/2023: Corn, silage

Field name: A6

Crop: Corn, silage

Plant date: 06/21/2023

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	92.91	0.00	130.30	709.31	2,172,464.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.68	12,385,112.00 *gal*
Application event totals		92.91	0.00	130.30	760.98	

A6 - 06/21/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/10/2023	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	93.64	0.00	131.32	714.86	2,189,464.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.45	12,810,664.00 *gal*
Application event totals		93.64	0.00	131.32	768.31	

07/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	74.25	0.00	104.13	566.84	1,736,120.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.64	12,856,216.00 *gal*
Application event totals		74.25	0.00	104.13	620.48	

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	35.60	6.14	73.12	659.96	1,083,344.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	13,033,440.00 *gal*
Application event totals		35.60	6.14	73.12	714.34	

08/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.23	12,757,888.00 *gal*
Application event totals		0.00	0.00	0.00	53.23	

09/16/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.26	12,285,112.00 *gal*
Application event totals		0.00	0.00	0.00	51.26	

A7 - 04/14/2023: Corn, silage

Field name: A7

Crop: Corn, silage

Plant date: 04/14/2023

A7 - 04/14/2023: Corn, silage

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	103.76	33.96	0.00	658.38	1,311,155.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.66	8,976,782.00 *gal*
Application event totals		103.76	33.96	0.00	710.04	

05/02/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	9,449,244.00 *gal*
Application event totals		0.00	0.00	0.00	54.38	

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	93.49	0.00	131.12	713.74	1,584,874.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	9,606,731.00 *gal*
Application event totals		93.49	0.00	131.12	769.02	

06/20/2023	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	95.70	0.00	134.22	730.62	1,622,361.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.43	9,456,731.00 *gal*
Application event totals		95.70	0.00	134.22	785.04	

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
Lagoon	Process wastewater	84.50	0.00	118.50	645.05	1,432,361.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.43	9,456,782.00 *gal*
Application event totals		84.50	0.00	118.50	699.48	

A7 - 04/14/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.38	9,796,731.00 *gal*
Application event totals		0.00	0.00	0.00	56.38	

B1 - 04/16/2023: Corn, silage

Field name: B1

Crop: Corn, silage

Plant date: 04/16/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/21/2023	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	124.63	40.79	0.00	790.81	4,263,021.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.57	24,724,428.00 *gal*
Application event totals		124.63	40.79	0.00	843.37	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.33	25,081,139.00 *gal*
Application event totals		0.00	0.00	0.00	53.33	

05/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	102.19	0.00	143.32	780.16	4,689,323.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.91	25,826,530.00 *gal*
Application event totals		102.19	0.00	143.32	835.07	

B1 - 04/16/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/11/2023	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	94.86	0.00	133.04	724.21	4,353,050.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.35	26,035,610.00 *gal*
Application event totals		94.86	0.00	133.04	779.56	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.16	25,944,686.00 *gal*
Application event totals		0.00	0.00	0.00	55.16	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B1	Ground water	24.74	0.00	0.00	494.83	26,004,428.00 *gal*
Application event totals		24.74	0.00	0.00	494.83	

B2 - 10/31/2022: Wheat, silage, soft dough

Field name: B2

Crop: Wheat, silage, soft dough

Plant date: 10/31/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/05/2022	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	119.07	13.11	140.25	1,791.81	2,100,781.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	33.54	7,735,890.00 *gal*
Application event totals		119.07	13.11	140.25	1,825.34	

B2 - 10/31/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	137.09	44.87	0.00	869.89	2,299,859.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	8,363,124.00 *gal*
Application event totals		137.09	44.87	0.00	906.14	

04/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.03	0.00	91.20	496.46	1,463,547.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	8,572,202.00 *gal*
Application event totals		65.03	0.00	91.20	533.62	

B2 - 06/18/2023: Corn, silage

Field name: B2

Crop: Corn, silage

Plant date: 06/18/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.44	0.00	91.77	499.54	1,472,625.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.43	12,555,608.00 *gal*
Application event totals		65.44	0.00	91.77	553.97	

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
Lagoon	Process wastewater	80.46	0.00	112.84	614.25	1,810,781.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.21	12,044,686.00 *gal*
Application event totals		80.46	0.00	112.84	666.47	

B2 - 06/18/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	55.34	0.00	77.61	422.46	1,245,391.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.31	12,758,374.00 *gal*
Application event totals		55.34	0.00	77.61	477.77	

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	53.56	0.00	75.12	408.89	1,205,391.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.39	12,777,452.00 *gal*
Application event totals		53.56	0.00	75.12	464.28	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.16	12,493,764.00 *gal*
Application event totals		0.00	0.00	0.00	54.16	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/19/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.39	12,776,529.00 *gal*
Application event totals		0.00	0.00	0.00	55.39	

B3 - 11/01/2022: Wheat, silage, soft dough

Field name: B3

Crop: Wheat, silage, soft dough

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

B3 - 11/01/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/12/2022	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	110.63	12.18	130.30	1,664.69	4,055,584.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	33.54	16,074,576.00 *gal*
Application event totals		110.63	12.18	130.30	1,698.23	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/11/2023	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	113.44	37.13	0.00	719.82	3,954,480.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	17,377,920.00 *gal*
Application event totals		113.44	37.13	0.00	756.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	68.55	0.00	96.13	523.31	3,205,584.00 *gal*
A5	Ground water	6.22	0.00	0.00	172.80	17,812,368.00 *gal*
Application event totals		74.77	0.00	96.13	696.11	

B3 - 06/22/2023: Corn, silage

Field name: B3

Crop: Corn, silage

Plant date: 06/22/2023

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	74.32	0.00	104.23	567.39	3,475,585.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.56	25,192,432.00 *gal*
Application event totals		74.32	0.00	104.23	619.94	

B3 - 06/22/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/11/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.02	25,892,432.00 *gal*
Application event totals		0.00	0.00	0.00	54.02	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	102.19	0.00	143.32	780.16	4,778,928.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.54	26,141,328.00 *gal*
Application event totals		102.19	0.00	143.32	834.69	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	111.48	0.00	156.35	851.08	5,213,376.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	51.92	24,889,088.00 *gal*
Application event totals		111.48	0.00	156.35	903.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.36	26,057,984.00 *gal*
Application event totals		0.00	0.00	0.00	54.36	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/23/2023	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
B3	Ground water	39.97	0.00	0.00	814.37	26,066,900.00 *gal*
Application event totals		39.97	0.00	0.00	814.37	

B4 - 11/04/2022: Wheat, silage, soft dough

Field name: B4

Crop: Wheat, silage, soft dough

Plant date: 11/04/2022

B4 - 11/04/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/17/2022	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	126.44	13.93	148.93	1,902.67	2,259,727.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	33.54	7,836,356.00 *gal*
Application event totals		126.44	13.93	148.93	1,936.20	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/12/2023	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	115.00	37.64	0.00	729.72	1,954,347.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	8,471,736.00 *gal*
Application event totals		115.00	37.64	0.00	765.98	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/11/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	85.91	0.00	120.48	655.83	1,958,450.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	38.44	8,983,529.00 *gal*
Application event totals		85.91	0.00	120.48	694.27	

B4 - 06/20/2023: Corn, silage

Field name: B4

Crop: Corn, silage

Plant date: 06/20/2023

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	91.61	0.00	128.48	699.36	2,088,450.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.49	12,499,397.00 *gal*
Application event totals		91.61	0.00	128.48	752.85	

B4 - 06/20/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.28	12,916,844.00 *gal*
Application event totals		0.00	0.00	0.00	55.28	

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	88.52	0.00	124.14	675.75	2,017,934.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.37	13,172,224.00 *gal*
Application event totals		88.52	0.00	124.14	732.12	

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	69.79	12.03	143.34	1,293.82	2,070,760.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.04	13,095,811.00 *gal*
Application event totals		69.79	12.03	143.34	1,349.86	

08/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.48	12,731,191.00 *gal*
Application event totals		0.00	0.00	0.00	54.48	

09/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B5	Ground water	4.74	0.00	0.00	280.20	12,295,811.00 *gal*
Application event totals		4.74	0.00	0.00	280.20	

B5 - 11/02/2022: Wheat, silage, soft dough

Field name: B5

Crop: Wheat, silage, soft dough

Plant date: 11/02/2022

B5 - 11/02/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/11/2022	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	118.40	13.04	139.46	1,781.70	1,492,098.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	34.36	5,661,807.00 *gal*
Application event totals		118.40	13.04	139.46	1,816.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/12/2023	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	137.09	44.87	0.00	869.89	1,642,756.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	35.35	5,824,318.00 *gal*
Application event totals		137.09	44.87	0.00	905.23	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.03	0.00	91.20	496.46	1,045,390.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	5,973,660.00 *gal*
Application event totals		65.03	0.00	91.20	532.72	

B5 - 06/23/2023: Corn, silage

Field name: B5

Crop: Corn, silage

Plant date: 06/23/2023

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	81.17	0.00	113.83	619.63	1,304,732.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	52.61	8,668,514.00 *gal*
Application event totals		81.17	0.00	113.83	672.24	

B5 - 06/23/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.07	8,909,831.00 *gal*
Application event totals		0.00	0.00	0.00	54.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	80.54	0.00	112.96	614.88	1,294,732.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.34	8,953,124.00 *gal*
Application event totals		80.54	0.00	112.96	669.21	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	71.38	12.30	146.60	1,323.30	1,493,415.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.78	9,190,490.00 *gal*
Application event totals		71.38	12.30	146.60	1,379.07	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/01/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B5	Ground water	4.87	0.00	0.00	287.90	8,908,515.00 *gal*
Application event totals		4.87	0.00	0.00	287.90	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B5	Ground water	4.81	0.00	0.00	284.33	8,797,856.00 *gal*
Application event totals		4.81	0.00	0.00	284.33	

B6 - 11/03/2022: Wheat, silage, soft dough

Field name: B6

Crop: Wheat, silage, soft dough

Plant date: 11/03/2022

B6 - 11/03/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/11/2022	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	130.36	14.36	153.54	1,961.61	2,867,357.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	31.72	9,123,408.00 *gal*
Application event totals		130.36	14.36	153.54	1,993.33	

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	124.63	40.79	0.00	790.81	2,606,688.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	34.44	9,905,414.00 *gal*
Application event totals		124.63	40.79	0.00	825.25	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	55.42	0.00	77.72	423.09	1,555,016.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	36.25	10,426,752.00 *gal*
Application event totals		55.42	0.00	77.72	459.35	

B6 - 07/03/2023: Corn, silage

Field name: B6

Crop: Corn, silage

Plant date: 07/03/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	97.18	0.00	136.29	741.88	2,726,688.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.38	15,352,803.00 *gal*
Application event totals		97.18	0.00	136.29	795.27	

B6 - 07/03/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.25	15,890,797.00 *gal*
Application event totals		0.00	0.00	0.00	55.25	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	83.90	14.46	172.33	1,555.46	3,064,013.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.32	15,909,459.00 *gal*
Application event totals		83.90	14.46	172.33	1,610.78	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	71.39	12.31	146.64	1,323.64	2,607,357.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.31	15,908,122.00 *gal*
Application event totals		71.39	12.31	146.64	1,378.95	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/08/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.64	16,002,134.00 *gal*
Application event totals		0.00	0.00	0.00	55.64	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/25/2023	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
B5	Ground water	4.83	0.00	0.00	286.07	15,450,128.00 *gal*
Application event totals		4.83	0.00	0.00	286.07	

B7 - 11/30/2022: Wheat, silage, soft dough

Field name: B7

Crop: Wheat, silage, soft dough

Plant date: 11/30/2022

B7 - 11/30/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/05/2022	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	118.51	13.05	139.58	1,783.28	4,534,560.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	32.63	16,324,384.00 *gal*
Application event totals		118.51	13.05	139.58	1,815.91	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/12/2023	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	99.70	32.63	0.00	632.64	3,627,641.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	35.35	17,684,749.00 *gal*
Application event totals		99.70	32.63	0.00	667.99	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	62.98	0.00	88.33	480.82	3,074,186.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	37.16	18,591,659.00 *gal*
Application event totals		62.98	0.00	88.33	517.98	

B7 - 07/01/2023: Corn, silage

Field name: B7

Crop: Corn, silage

Plant date: 07/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/07/2023	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	98.10	0.00	137.57	748.87	4,788,006.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	27,207,306.00 *gal*
Application event totals		98.10	0.00	137.57	803.26	

B7 - 07/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.29	27,660,761.00 *gal*
Application event totals		0.00	0.00	0.00	55.29	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.37	0.00	137.96	750.98	4,801,461.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	27,207,306.00 *gal*
Application event totals		98.37	0.00	137.96	805.36	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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	64.24	11.07	131.94	1,190.97	4,081,096.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	56.19	28,114,216.00 *gal*
Application event totals		64.24	11.07	131.94	1,247.16	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/07/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	26,753,851.00 *gal*
Application event totals		0.00	0.00	0.00	53.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B7	Ground water	8.29	0.00	0.00	284.74	27,660,761.00 *gal*
Application event totals		8.29	0.00	0.00	284.74	

B8 - 04/18/2023: Corn, silage

Field name: B8

Crop: Corn, silage

Plant date: 04/18/2023

B8 - 04/18/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/25/2023	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	92.90	0.00	130.29	709.23	2,117,934.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.53	12,507,604.00 *gal*
Application event totals		92.90	0.00	130.29	762.76	

05/02/2023	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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.54	12,978,637.00 *gal*
Application event totals		0.00	0.00	0.00	55.54	

05/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	104.77	0.00	146.93	799.82	2,388,450.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.25	12,444,017.00 *gal*
Application event totals		104.77	0.00	146.93	853.07	

06/16/2023	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	102.19	0.00	143.32	780.16	2,329,727.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.06	12,632,224.00 *gal*
Application event totals		102.19	0.00	143.32	834.21	

07/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.53	12,509,397.00 *gal*
Application event totals		0.00	0.00	0.00	53.53	

B8 - 04/18/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B9	Ground water	0.00	0.00	0.00	348.93	12,495,811.00 *gal*
Application event totals		0.00	0.00	0.00	348.93	

B9 - 04/19/2023: Corn, silage

Field name: B9

Crop: Corn, silage

Plant date: 04/19/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.60	0.00	138.29	752.75	4,466,972.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.48	24,831,418.00 *gal*
Application event totals		98.60	0.00	138.29	806.23	

05/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	86.74	0.00	121.65	662.19	3,929,586.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	55.23	25,647,932.00 *gal*
Application event totals		86.74	0.00	121.65	717.43	

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	90.70	0.00	127.19	692.38	4,108,715.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.42	25,268,804.00 *gal*
Application event totals		90.70	0.00	127.19	746.80	

B9 - 04/19/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	88.95	0.00	124.74	679.05	4,029,586.00 *gal*
People's Ditch Tulare	Surface water	0.00	0.00	0.00	53.81	24,988,804.00 *gal*
Application event totals		88.95	0.00	124.74	732.86	

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
People's Ditch Tulare	Surface water	0.00	0.00	0.00	54.38	25,252,290.00 *gal*
Application event totals		0.00	0.00	0.00	54.38	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
B9	Ground water	0.00	0.00	0.00	348.93	24,831,418.00 *gal*
Application event totals		0.00	0.00	0.00	348.93	

B. NUTRIENT BUDGET

20 - 04/19/2023: Corn, silage

Field name: 20 Crop: Corn, silage Plant date: 04/19/2023

	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	346.90	32.63	346.68	2,519.81
Fresh water	0.00	0.00	0.00	322.41
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	360.90	32.63	346.68	2,842.22
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	322.48	58.82	361.01	1,646.86
Nutrient balance	38.42	-26.19	-14.33	1,195.36
Applied to removed ratio	1.12	0.55	0.96	1.73

Fresh water applied	
74,372,769.00	*gallons*
2,738.90	*acre-inches*
35.57	*inches/acre*

Process wastewater applied	
7,235,890.00	*gallons*
266.47	*acre-inches*
3.46	*inches/acre*

Total harvests for the crop	
1	*harvests*

21 - 11/05/2022: Wheat, silage, soft dough

Field name: 21 Crop: Wheat, silage, soft dough Plant date: 11/05/2022

	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	289.21	51.80	208.37	2,788.36
Fresh water	0.00	0.00	0.00	112.39
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	296.21	51.80	208.37	2,900.75
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	269.66	48.36	285.79	1,726.44
Nutrient balance	26.55	3.43	-77.41	1,174.31
Applied to removed ratio	1.10	1.07	0.73	1.68

Fresh water applied	
25,925,684.00	*gallons*
954.75	*acre-inches*
12.40	*inches/acre*

Process wastewater applied	
5,308,797.00	*gallons*
195.50	*acre-inches*
2.54	*inches/acre*

Total harvests for the crop	
1	*harvests*

21 - 06/18/2023: Corn, silage

Field name: 21 Crop: Corn, silage Plant date: 06/18/2023

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	364.34	0.00	510.96	2,781.40
Fresh water	0.00	0.00	0.00	317.67
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	371.34	0.00	510.96	3,099.07
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	300.56	67.76	314.46	1,259.56
Nutrient balance	70.78	-67.76	196.50	1,839.51
Applied to removed ratio	1.24	0.00	1.62	2.46

Fresh water applied	
73,278,372.00	*gallons*
2,698.59	*acre-inches*
35.05	*inches/acre*

Process wastewater applied	
8,199,436.00	*gallons*
301.96	*acre-inches*
3.92	*inches/acre*

Total harvests for the crop	
1	*harvests*

22 - 11/07/2022: Alfalfa, hay

Field name: 22 Crop: Alfalfa, hay Plant date: 11/07/2022

	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	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	322.67
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	14.00	0.00	0.00	322.67
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	386.65	42.96	335.42	1,345.00
Nutrient balance	-372.65	-42.96	-335.42	-1,022.33
Applied to removed ratio	0.04	0.00	0.00	0.24

Fresh water applied	
78,298,389.00	*gallons*
2,883.46	*acre-inches*
35.60	*inches/acre*

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

Total harvests for the crop	
1	*harvests*

23 - 11/07/2022: Alfalfa, hay

Field name: 23 Crop: Alfalfa, hay Plant date: 11/07/2022

	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	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	344.42
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	14.00	0.00	0.00	344.42
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	369.16	46.77	325.73	1,211.04
Nutrient balance	-355.16	-46.77	-325.73	-866.62
Applied to removed ratio	0.04	0.00	0.00	0.28

Fresh water applied	
72,226,980.00	*gallons*
2,659.87	*acre-inches*
38.00	*inches/acre*

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

Total harvests for the crop	
1	*harvests*

24 - 11/07/2022: Wheat, silage, boot stage

Field name: 24 Crop: Wheat, silage, boot stage Plant date: 11/07/2022

	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	302.09	55.88	208.95	2,870.69
Fresh water	0.00	0.00	0.00	115.11
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	309.09	55.88	208.95	2,985.80
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	302.48	54.84	309.13	2,054.19
Nutrient balance	6.61	1.03	-100.17	931.61
Applied to removed ratio	1.02	1.02	0.68	1.45

Fresh water applied	
58,278,484.00	*gallons*
2,146.20	*acre-inches*
12.70	*inches/acre*

Process wastewater applied	
12,131,028.00	*gallons*
446.74	*acre-inches*
2.64	*inches/acre*

Total harvests for the crop	
1	*harvests*

24 - 06/18/2023: Corn, silage

Field name: 24 Crop: Corn, silage Plant date: 06/18/2023

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	376.02	0.00	527.34	2,870.59
Fresh water	0.00	0.00	0.00	315.42
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	383.02	0.00	527.34	3,186.00
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	297.53	58.44	325.87	1,478.81
Nutrient balance	85.49	-58.44	201.47	1,707.19
Applied to removed ratio	1.29	0.00	1.62	2.15

Fresh water applied	
159,692,224.00	*gallons*
5,880.92	*acre-inches*
34.80	*inches/acre*

Process wastewater applied	
18,573,200.00	*gallons*
683.99	*acre-inches*
4.05	*inches/acre*

Total harvests for the crop	
1	*harvests*

A1 - 04/13/2023: Corn, silage

Field name: A1 Crop: Corn, silage Plant date: 04/13/2023

	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	296.44	39.90	341.23	3,329.78
Fresh water	51.42	0.00	0.00	1,845.19
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	361.85	39.90	341.23	5,174.97
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	273.33	59.57	318.89	1,282.55
Nutrient balance	88.52	-19.67	22.34	3,892.41
Applied to removed ratio	1.32	0.67	1.07	4.03

Fresh water applied	
73,454,738.00	*gallons*
2,705.09	*acre-inches*
36.07	*inches/acre*

Process wastewater applied	
5,296,658.00	*gallons*
195.06	*acre-inches*
2.60	*inches/acre*

Total harvests for the crop	
1	*harvests*

A2 - 10/18/2022: Wheat, silage, soft dough

Field name: A2 Crop: Wheat, silage, soft dough Plant date: 10/18/2022

	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	309.83	55.17	223.32	2,948.37
Fresh water	0.00	0.00	0.00	110.58
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	316.83	55.17	223.32	3,058.94
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	263.97	86.25	284.88	1,881.79
Nutrient balance	52.85	-31.08	-61.56	1,177.15
Applied to removed ratio	1.20	0.64	0.78	1.63

Fresh water applied	
39,751,992.00	*gallons*
1,463.93	*acre-inches*
12.20	*inches/acre*

Process wastewater applied	
8,895,080.00	*gallons*
327.58	*acre-inches*
2.73	*inches/acre*

Total harvests for the crop	
1	*harvests*

A2 - 07/03/2023: Corn, silage

Field name: A2 Crop: Corn, silage Plant date: 07/03/2023

	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	202.93	34.36	360.89	2,826.27
Fresh water	0.00	0.00	0.00	320.38
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	209.93	34.36	360.89	3,146.65
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	155.68	53.07	231.15	969.43
Nutrient balance	54.25	-18.71	129.74	2,177.22
Applied to removed ratio	1.35	0.65	1.56	3.25

Fresh water applied	
115,175,124.00	*gallons*
4,241.51	*acre-inches*
35.35	*inches/acre*

Process wastewater applied	
8,355,932.00	*gallons*
307.72	*acre-inches*
2.56	*inches/acre*

Total harvests for the crop	
1	*harvests*

A3 - 11/05/2022: Alfalfa, hay

Field name: A3 Crop: Alfalfa, hay Plant date: 11/05/2022

	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	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	331.73
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	14.00	0.00	0.00	331.73
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	385.84	44.58	293.61	1,283.56
Nutrient balance	-371.84	-44.58	-293.61	-951.83
Applied to removed ratio	0.04	0.00	0.00	0.26

Fresh water applied	
49,689,990.00	*gallons*
1,829.91	*acre-inches*
36.60	*inches/acre*

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

Total harvests for the crop	
1	*harvests*

A4 - 11/23/2022: Wheat, silage, soft dough

Field name: A4 Crop: Wheat, silage, soft dough Plant date: 11/23/2022

	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	292.87	54.91	204.73	2,949.55
Fresh water	0.00	0.00	0.00	112.39
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	299.87	54.91	204.73	3,061.94
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	223.26	37.86	201.06	1,410.05
Nutrient balance	76.61	17.05	3.66	1,651.89
Applied to removed ratio	1.34	1.45	1.02	2.17

Fresh water applied	
23,568,804.00	*gallons*
867.96	*acre-inches*
12.40	*inches/acre*

Process wastewater applied	
4,801,890.00	*gallons*
176.84	*acre-inches*
2.53	*inches/acre*

Total harvests for the crop	
1	*harvests*

A4 - 06/05/2023: Corn, silage

Field name: A4 Crop: Corn, silage Plant date: 06/05/2023

	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	235.58	9.84	367.59	2,421.16
Fresh water	0.00	0.00	0.00	276.11
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	242.58	9.84	367.59	2,697.27
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	178.75	62.50	230.00	880.00
Nutrient balance	63.83	-52.66	137.59	1,817.27
Applied to removed ratio	1.36	0.16	1.60	3.07

Fresh water applied	
57,902,377.00	*gallons*
2,132.35	*acre-inches*
30.46	*inches/acre*

Process wastewater applied	
5,172,059.00	*gallons*
190.47	*acre-inches*
2.72	*inches/acre*

Total harvests for the crop	
1	*harvests*

A5 - 11/25/2022: Wheat, silage, soft dough

Field name: A5 Crop: Wheat, silage, soft dough Plant date: 11/25/2022

	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	286.92	52.52	203.67	2,819.72
Fresh water	0.00	0.00	0.00	111.48
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	293.92	52.52	203.67	2,931.20
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	238.38	56.70	316.99	1,610.70
Nutrient balance	55.54	-4.18	-113.31	1,320.50
Applied to removed ratio	1.23	0.93	0.64	1.82

Fresh water applied	
18,369,005.00	*gallons*
676.47	*acre-inches*
12.30	*inches/acre*

Process wastewater applied	
3,732,220.00	*gallons*
137.44	*acre-inches*
2.50	*inches/acre*

Total harvests for the crop	
1	*harvests*

A5 - 06/07/2023: Corn, silage

Field name: A5 Crop: Corn, silage Plant date: 06/07/2023

	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	227.24	0.00	318.69	1,734.79
Fresh water	0.00	0.00	0.00	276.47
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	234.24	0.00	318.69	2,011.25
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	178.75	62.50	230.00	880.00
Nutrient balance	55.49	-62.50	88.69	1,131.25
Applied to removed ratio	1.31	0.00	1.39	2.29

Fresh water applied	
45,553,108.00	*gallons*
1,677.57	*acre-inches*
30.50	*inches/acre*

Process wastewater applied	
3,652,902.00	*gallons*
134.52	*acre-inches*
2.45	*inches/acre*

Total harvests for the crop	
1	*harvests*

A6 - 11/11/2022: Wheat, silage, soft dough

Field name: A6 Crop: Wheat, silage, soft dough Plant date: 11/11/2022

	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	352.16	55.14	289.83	3,494.29
Fresh water	0.00	0.00	0.00	106.04
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	359.16	55.14	289.83	3,600.34
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	344.76	82.27	509.31	2,781.61
Nutrient balance	14.40	-27.13	-219.48	818.73
Applied to removed ratio	1.04	0.67	0.57	1.29

Fresh water applied	
25,415,208.00	*gallons*
935.96	*acre-inches*
11.70	*inches/acre*

Process wastewater applied	
6,833,944.00	*gallons*
251.67	*acre-inches*
3.15	*inches/acre*

Total harvests for the crop	
1	*harvests*

A6 - 06/21/2023: Corn, silage

Field name: A6 Crop: Corn, silage Plant date: 06/21/2023

	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	296.40	6.14	438.87	2,650.96
Fresh water	0.00	0.00	0.00	317.65
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	303.40	6.14	438.87	2,968.60
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	222.67	41.98	118.64	1,095.12
Nutrient balance	80.72	-35.84	320.24	1,873.48
Applied to removed ratio	1.36	0.15	3.70	2.71

Fresh water applied	
76,128,432.00	*gallons*
2,803.55	*acre-inches*
35.04	*inches/acre*

Process wastewater applied	
7,181,392.00	*gallons*
264.47	*acre-inches*
3.31	*inches/acre*

Total harvests for the crop	
1	*harvests*

A7 - 04/14/2023: Corn, silage

Field name: A7 Crop: Corn, silage Plant date: 04/14/2023

	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	377.45	33.96	383.84	2,747.79
Fresh water	0.00	0.00	0.00	326.57
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	391.45	33.96	383.84	3,074.35
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	343.21	72.03	343.21	1,741.49
Nutrient balance	48.24	-38.08	40.62	1,332.86
Applied to removed ratio	1.14	0.47	1.12	1.77

Fresh water applied	
56,743,001.00	*gallons*
2,089.65	*acre-inches*
36.03	*inches/acre*

Process wastewater applied	
5,950,751.00	*gallons*
219.15	*acre-inches*
3.78	*inches/acre*

Total harvests for the crop	
1	*harvests*

B1 - 04/16/2023: Corn, silage

Field name: B1 Crop: Corn, silage Plant date: 04/16/2023

	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	321.68	40.79	276.36	2,295.17
Fresh water	24.74	0.00	0.00	766.15
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	360.42	40.79	276.36	3,061.32
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	291.58	93.72	162.45	1,087.17
Nutrient balance	68.85	-52.93	113.91	1,974.15
Applied to removed ratio	1.24	0.44	1.70	2.82

Fresh water applied	
153,616,821.00	*gallons*
5,657.19	*acre-inches*
36.03	*inches/acre*

Process wastewater applied	
13,305,394.00	*gallons*
489.99	*acre-inches*
3.12	*inches/acre*

Total harvests for the crop	
1	*harvests*

B2 - 10/31/2022: Wheat, silage, soft dough

Field name: B2 Crop: Wheat, silage, soft dough Plant date: 10/31/2022

	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	321.19	57.98	231.45	3,158.16
Fresh water	0.00	0.00	0.00	106.95
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	328.19	57.98	231.45	3,265.11
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	249.44	53.14	268.63	1,505.52
Nutrient balance	78.75	4.84	-37.18	1,759.59
Applied to removed ratio	1.32	1.09	0.86	2.17

Fresh water applied	
24,671,216.00	*gallons*
908.56	*acre-inches*
11.80	*inches/acre*

Process wastewater applied	
5,864,187.00	*gallons*
215.96	*acre-inches*
2.80	*inches/acre*

Total harvests for the crop	
1	*harvests*

B2 - 06/18/2023: Corn, silage

Field name: B2 Crop: Corn, silage Plant date: 06/18/2023

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	254.80	0.00	357.33	1,945.14
Fresh water	0.00	0.00	0.00	326.89
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	261.80	0.00	357.33	2,272.04
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	196.20	39.49	208.94	972.06
Nutrient balance	65.60	-39.49	148.40	1,299.97
Applied to removed ratio	1.33	0.00	1.71	2.34

Fresh water applied	
75,406,413.00	*gallons*
2,776.96	*acre-inches*
36.06	*inches/acre*

Process wastewater applied	
5,734,188.00	*gallons*
211.17	*acre-inches*
2.74	*inches/acre*

Total harvests for the crop	
1	*harvests*

B3 - 11/01/2022: Wheat, silage, soft dough

Field name: B3 Crop: Wheat, silage, soft dough Plant date: 11/01/2022

	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	292.61	49.31	226.43	2,907.82
Fresh water	6.22	0.00	0.00	242.59
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	305.84	49.31	226.43	3,150.41
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	226.38	52.14	262.05	1,797.32
Nutrient balance	79.46	-2.83	-35.62	1,353.09
Applied to removed ratio	1.35	0.95	0.86	1.75

Fresh water applied	
51,264,864.00	*gallons*
1,887.91	*acre-inches*
11.80	*inches/acre*

Process wastewater applied	
11,215,648.00	*gallons*
413.03	*acre-inches*
2.58	*inches/acre*

Total harvests for the crop	
1	*harvests*

B3 - 06/22/2023: Corn, silage

Field name: B3 Crop: Corn, silage Plant date: 06/22/2023

	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	288.00	0.00	403.90	2,198.62
Fresh water	39.97	0.00	0.00	1,081.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	334.97	0.00	403.90	3,280.39
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	269.03	79.98	234.50	1,199.75
Nutrient balance	65.93	-79.98	169.40	2,080.65
Applied to removed ratio	1.25	0.00	1.72	2.73

Fresh water applied	
154,240,164.00	*gallons*
5,680.14	*acre-inches*
35.50	*inches/acre*

Process wastewater applied	
13,467,889.00	*gallons*
495.98	*acre-inches*
3.10	*inches/acre*

Total harvests for the crop	
1	*harvests*

B4 - 11/04/2022: Wheat, silage, soft dough

Field name: B4 Crop: Wheat, silage, soft dough Plant date: 11/04/2022

	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	327.35	51.56	269.40	3,288.22
Fresh water	0.00	0.00	0.00	108.24
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	334.35	51.56	269.40	3,396.45
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	283.13	53.85	284.87	2,049.66
Nutrient balance	51.22	-2.29	-15.46	1,346.79
Applied to removed ratio	1.18	0.96	0.95	1.66

Fresh water applied	
25,291,621.00	*gallons*
931.40	*acre-inches*
11.94	*inches/acre*

Process wastewater applied	
6,172,524.00	*gallons*
227.31	*acre-inches*
2.91	*inches/acre*

Total harvests for the crop	
1	*harvests*

B4 - 06/20/2023: Corn, silage

Field name: B4 Crop: Corn, silage Plant date: 06/20/2023

	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	249.91	12.03	395.95	2,668.93
Fresh water	4.74	0.00	0.00	555.87
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	261.65	12.03	395.95	3,224.79
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	192.84	34.38	272.07	1,028.47
Nutrient balance	68.81	-22.35	123.89	2,196.32
Applied to removed ratio	1.36	0.35	1.46	3.14

Fresh water applied	
76,711,278.00	*gallons*
2,825.02	*acre-inches*
36.22	*inches/acre*

Process wastewater applied	
6,177,144.00	*gallons*
227.48	*acre-inches*
2.92	*inches/acre*

Total harvests for the crop	
1	*harvests*

B5 - 11/02/2022: Wheat, silage, soft dough

Field name: B5 Crop: Wheat, silage, soft dough Plant date: 11/02/2022

	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	320.52	57.91	230.66	3,148.05
Fresh water	0.00	0.00	0.00	105.97
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	327.52	57.91	230.66	3,254.02
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	287.83	69.14	236.38	1,849.20
Nutrient balance	39.69	-11.24	-5.72	1,404.82
Applied to removed ratio	1.14	0.84	0.98	1.76

Fresh water applied	
17,459,785.00	*gallons*
642.98	*acre-inches*
11.69	*inches/acre*

Process wastewater applied	
4,180,244.00	*gallons*
153.94	*acre-inches*
2.80	*inches/acre*

Total harvests for the crop	
1	*harvests*

B5 - 06/23/2023: Corn, silage

Field name: B5 Crop: Corn, silage Plant date: 06/23/2023

	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	233.08	12.30	373.39	2,557.80
Fresh water	9.67	0.00	0.00	789.03
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	249.76	12.30	373.39	3,346.83
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	184.03	37.43	110.73	1,062.06
Nutrient balance	65.73	-25.13	262.66	2,284.77
Applied to removed ratio	1.36	0.33	3.37	3.15

Fresh water applied	
53,428,330.00	*gallons*
1,967.58	*acre-inches*
35.77	*inches/acre*

Process wastewater applied	
4,092,879.00	*gallons*
150.73	*acre-inches*
2.74	*inches/acre*

Total harvests for the crop	
1	*harvests*

B6 - 11/03/2022: Wheat, silage, soft dough

Field name: B6 Crop: Wheat, silage, soft dough Plant date: 11/03/2022

	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	310.40	55.14	231.26	3,175.50
Fresh water	0.00	0.00	0.00	102.42
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	317.40	55.14	231.26	3,277.92
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	263.21	46.83	258.37	1,840.87
Nutrient balance	54.19	8.31	-27.10	1,437.05
Applied to removed ratio	1.21	1.18	0.90	1.78

Fresh water applied	
29,455,574.00	*gallons*
1,084.75	*acre-inches*
11.30	*inches/acre*

Process wastewater applied	
7,029,061.00	*gallons*
258.86	*acre-inches*
2.70	*inches/acre*

Total harvests for the crop	
1	*harvests*

B6 - 07/03/2023: Corn, silage

Field name: B6 Crop: Corn, silage Plant date: 07/03/2023

	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	252.47	26.77	455.26	3,620.98
Fresh water	4.83	0.00	0.00	560.98
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	264.31	26.77	455.26	4,181.95
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	209.69	40.19	176.49	992.53
Nutrient balance	54.62	-13.42	278.77	3,189.43
Applied to removed ratio	1.26	0.67	2.58	4.21

Fresh water applied	
94,513,443.00	*gallons*
3,480.61	*acre-inches*
36.26	*inches/acre*

Process wastewater applied	
8,398,058.00	*gallons*
309.27	*acre-inches*
3.22	*inches/acre*

Total harvests for the crop	
1	*harvests*

B7 - 11/30/2022: Wheat, silage, soft dough

Field name: B7 Crop: Wheat, silage, soft dough Plant date: 11/30/2022

	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	281.19	45.68	227.91	2,896.75
Fresh water	0.00	0.00	0.00	105.14
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	288.19	45.68	227.91	3,001.89
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	236.59	44.11	164.41	1,184.96
Nutrient balance	51.60	1.57	63.50	1,816.93
Applied to removed ratio	1.22	1.04	1.39	2.53

Fresh water applied	
52,600,792.00	*gallons*
1,937.11	*acre-inches*
11.60	*inches/acre*

Process wastewater applied	
11,236,387.00	*gallons*
413.80	*acre-inches*
2.48	*inches/acre*

Total harvests for the crop	
1	*harvests*

B7 - 07/01/2023: Corn, silage

Field name: B7 Crop: Corn, silage Plant date: 07/01/2023

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	260.71	11.07	407.48	2,690.82
Fresh water	8.29	0.00	0.00	558.46
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	276.00	11.07	407.48	3,249.28
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	204.90	41.31	160.28	1,092.24
Nutrient balance	71.10	-30.24	247.19	2,157.04
Applied to removed ratio	1.35	0.27	2.54	2.97

Fresh water applied	
164,604,201.00	*gallons*
6,061.81	*acre-inches*
36.30	*inches/acre*

Process wastewater applied	
13,670,563.00	*gallons*
503.44	*acre-inches*
3.01	*inches/acre*

Total harvests for the crop	
1	*harvests*

B8 - 04/18/2023: Corn, silage

Field name: B8 Crop: Corn, silage Plant date: 04/18/2023

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	299.86	0.00	420.54	2,289.21
Fresh water	0.00	0.00	0.00	618.84
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	313.86	0.00	420.54	2,908.05
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	239.52	52.33	249.59	1,284.17
Nutrient balance	74.34	-52.33	170.95	1,623.89
Applied to removed ratio	1.31	0.00	1.68	2.26

Fresh water applied	
75,567,690.00	*gallons*
2,782.90	*acre-inches*
35.68	*inches/acre*

Process wastewater applied	
6,836,111.00	*gallons*
251.75	*acre-inches*
3.23	*inches/acre*

Total harvests for the crop	
1	*harvests*

B9 - 04/19/2023: Corn, silage

Field name: B9 Crop: Corn, silage Plant date: 04/19/2023

	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	364.99	0.00	511.87	2,786.37
Fresh water	0.00	0.00	0.00	620.25
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	378.99	0.00	511.87	3,406.63
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	276.75	55.35	274.84	1,580.35
Nutrient balance	102.24	-55.35	237.03	1,826.27
Applied to removed ratio	1.37	0.00	1.86	2.16

Fresh water applied	
150,820,666.00	*gallons*
5,554.21	*acre-inches*
35.83	*inches/acre*

Process wastewater applied	
16,534,859.00	*gallons*
608.92	*acre-inches*
3.93	*inches/acre*

Total harvests for the crop	
1	*harvests*

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: 8.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,700.00	4,900.00	7,500.00							
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: 25.0 %

	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	14,500.00	5,000.00	14,300.00							
DL	100.00	200.00	200.00							

B. PROCESS WASTEWATER ANALYSES

Lagoon

Sample and source description: Lagoon

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

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	523.00	467.00			57.60	616.00								11,800.00	7,870
DL	10.00	2.00			0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 01/18/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 8.30

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	550.00	480.00			180.00		121.00	86.00	330.00	4,100.00	0.00	76.00	373.00	7,050.00	3,490
DL	10.00	2.00			0.20		5.00	5.00	5.00	10.00	10.00	1.00	8.00	1.00	20

Lagoon

Sample and source description: Lagoon

Sample date: 03/30/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.91

	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	410.00	410.00	0.00	0.00		575.00	154.00	84.80	306.00	2,700.00	0.00	20.00	340.00	6,260.00	3,130
DL	10.00	20.00	20.00	0.20		0.50	2.00	2.00	2.00	10.00	10.00	1.00	5.00	1.00	20

Lagoon

Sample and source description: Lagoon

Sample date: 08/02/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.80

	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	315.00	311.00			54.30	647.00	102.00	110.00	232.00	3,420.00	5.00	90.00	297.00	8,800.00	5,840
DL	10.00	2.00			0.20	0.50	2.00	2.00	2.00	5.00	5.00	2.00	2.00	100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 11/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	262.00	257.00			41.40	246.00								3,360.00	2,230
DL	10.00	2.00			0.20	0.50								100.00	10

C. FRESH WATER ANALYSES

24N

24N

Sample description: 24N

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	10.90		10.90	61.00	2.00	74.00	140.00	0.00	25.20	60.00	649.00	420
DL	0.50		0.40	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

24S

24S

Sample description: 24S

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	0.00		0.00	6.00	0.00	134.00	90.00	0.00	0.60	182.00	798.00	410
DL	0.50		0.40	1.00	1.00	1.00	10.00	10.00	0.17	4.00	1.00	20

A5

A5

Sample description: A5

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	6.70		6.70	8.00	1.10	49.90	62.20		17.00	22.00	270.00	186
DL	0.50		0.40	1.00	0.80	1.00	10.00		0.17	1.00	1.00	20

A8-Hospital

A8-Hospital

Sample description: A8-Hospital

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	0.00		0.00	1.60	1.00	57.70	80.50		3.10	41.80	280.00	193
DL	0.10		0.10	1.00	1.00	1.00	10.00		0.17	1.00	1.00	20

B1

B1

Sample description: B1

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	17.90		17.90	16.40	0.70	95.70	80.50		44.80	31.10	520.00	358
DL	0.50		0.20	1.00	0.50	1.00	10.00		0.17	1.00	1.00	20

B3

B3

Sample description: B3

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	29.40		29.40	101.00	3.20	80.30	196.00		76.50	39.30	870.00	599
DL	0.50		0.40	5.00	0.27	3.49	3.21		2.00	1.00	100.00	20

B3N

B3N

B3N

Sample description: B3N

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	3.30		3.30	1.00	0.90	51.30	73.20		8.20	23.10	240.00	165
DL	0.50		0.20	1.00	0.80	1.00	10.00		0.17	1.00	1.00	20

B5

B5

Sample description: B5

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	3.60		3.60	5.60	1.10	56.80	61.60		28.00	23.10	310.00	213
DL	0.50		0.20	1.00	0.90	1.00	10.00		0.17	1.00	1.00	20

B7

B7

Sample description: B7

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	6.00		6.00	7.90	1.10	53.40	60.00		30.90	12.70	300.00	206
DL	0.50		0.20	1.00	0.80	1.00	10.00		0.17	1.00	1.00	20

B9

B9

B9

Sample description: B9

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	0.00		0.00	1.20	0.70	77.30	101.00		1.60	61.70	380.00	261
DL	0.10		0.10	0.50	0.60	1.00	10.00		0.17	1.00	1.00	20

People's Ditch Tulare

People's Ditch Tulare

Sample description: People's Ditch Tulare

Sample date: 06/23/2023 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								43.00	40
DL	0.50		0.40								1.00	20

Scale

Scale

Sample description: Scale

Sample date: 08/30/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value			34.90								905.00	
DL			0.40								1.00	

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

20 - 04/19/2023: Corn, silage

20

Sample and source description: 20

Sample date: 08/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,900.00	2,900.00	17,800.00		8.12
DL	500.00	200.00	200.00		0.05

21 - 11/05/2022: Wheat, silage, soft dough

21

Sample and source description: 21

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

Moisture: 63.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,400.00	3,300.00	19,500.00		11.78
DL	500.00	200.00	200.00		0.05

21 - 06/18/2023: Corn, silage

21 - 06/18/2023: Corn, silage

21

Sample and source description: 21

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

Moisture: 68.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,300.00	3,900.00	18,100.00		7.25
DL	500.00	200.00	200.00		0.05

22 - 11/07/2022: Alfalfa, hay

22

Sample and source description: 22

Sample date: 10/28/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 9.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	23,400.00	2,600.00	20,300.00		8.14
DL	500.00	200.00	200.00		0.05

23 - 11/07/2022: Alfalfa, hay

23

Sample and source description: 23

Sample date: 10/28/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 7.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	22,100.00	2,800.00	19,500.00		7.25
DL	500.00	200.00	200.00		0.05

24 - 11/07/2022: Wheat, silage, boot stage

24

Sample and source description: 24

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

Moisture: 62.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,200.00	3,300.00	18,600.00		12.36
DL	500.00	200.00	200.00		0.05

24 - 06/18/2023: Corn, silage

24

Sample and source description: 24

Sample date: 10/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,800.00	3,300.00	18,400.00		8.35
DL	500.00	200.00	200.00		0.05

A1 - 04/13/2023: Corn, silage

A1

Sample and source description: A1

Sample date: 08/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,600.00	3,400.00	18,200.00		7.32
DL	500.00	200.00	200.00		0.05

A2 - 10/18/2022: Wheat, silage, soft dough

A2

Sample and source description: A2

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

Moisture: 67.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	20,200.00	6,600.00	21,800.00		14.40
DL	500.00	200.00	200.00		0.05

A2 - 07/03/2023: Corn, silage

A2

Sample and source description: A2

Sample date: 10/18/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 76.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,200.00	4,500.00	19,600.00		8.22
DL	500.00	200.00	200.00		0.05

A3 - 11/05/2022: Alfalfa, hay

A3

Sample and source description: A3

Sample date: 10/28/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 8.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	25,100.00	2,900.00	19,100.00		8.35
DL	500.00	200.00	200.00		0.05

A4 - 11/23/2022: Wheat, silage, soft dough

A4

Sample and source description: A4

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,100.00	2,900.00	15,400.00		10.80
DL	500.00	200.00	200.00		0.05

A4 - 06/05/2023: Corn, silage

A4

Sample and source description: A4

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

Moisture: 75.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,300.00	5,000.00	18,400.00		7.04
DL	500.00	200.00	200.00		0.05

A5 - 11/25/2022: Wheat, silage, soft dough

A5

Sample and source description: A5

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	18,500.00	4,400.00	24,600.00		12.50
DL	500.00	200.00	200.00		0.05

A5 - 06/07/2023: Corn, silage

A5

Sample and source description: A5

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

Moisture: 75.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,300.00	5,000.00	18,400.00		7.04
DL	500.00	200.00	200.00		0.05

A6 - 11/11/2022: Wheat, silage, soft dough

A6

Sample and source description: A6

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

Moisture: 53.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,600.00	4,200.00	26,000.00		14.20
DL	500.00	200.00	200.00		0.05

A6 - 06/21/2023: Corn, silage

A6

Sample and source description: A6

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

Moisture: 66.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,200.00	2,300.00	6,500.00		6.00
DL	500.00	200.00	200.00		0.05

A7 - 04/14/2023: Corn, silage

A7

Sample and source description: A7

Sample date: 08/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,200.00	3,400.00	16,200.00		8.22
DL	500.00	200.00	200.00		0.05

B1 - 04/16/2023: Corn, silage

B1

Sample and source description: B1

Sample date: 08/09/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,000.00	4,500.00	7,800.00		5.22
DL	500.00	200.00	200.00		0.05

B2 - 10/31/2022: Wheat, silage, soft dough

B2

Sample and source description: B2

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

Moisture: 63.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,900.00	3,600.00	18,200.00		10.20
DL	500.00	200.00	200.00		0.05

B2 - 06/18/2023: Corn, silage

B2

Sample and source description: B2

Sample date: 10/06/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 75.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,400.00	3,100.00	16,400.00		7.63
DL	500.00	200.00	200.00		0.05

B3 - 11/01/2022: Wheat, silage, soft dough

B3

Sample and source description: B3

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

Moisture: 65.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,500.00	3,800.00	19,100.00		13.10
DL	500.00	200.00	200.00		0.05

B3 - 06/22/2023: Corn, silage

B3

Sample and source description: B3

Sample date: 10/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,800.00	4,400.00	12,900.00		6.60
DL	500.00	200.00	200.00		0.05

B4 - 11/04/2022: Wheat, silage, soft dough

B4

Sample and source description: B4

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

Moisture: 61.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,300.00	3,100.00	16,400.00		11.80
DL	500.00	200.00	200.00		0.05

B4 - 06/20/2023: Corn, silage

B4

Sample and source description: B4

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

Moisture: 73.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,900.00	2,300.00	18,200.00		6.88
DL	500.00	200.00	200.00		0.05

B5 - 11/02/2022: Wheat, silage, soft dough

B5

Sample and source description: B5

Sample date: 05/24/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	4,300.00	14,700.00		11.50
DL	500.00	200.00	200.00		0.05

B5 - 06/23/2023: Corn, silage

B5

Sample and source description: B5

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

Moisture: 69.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,800.00	2,400.00	7,100.00		6.81
DL	500.00	200.00	200.00		0.05

B6 - 11/03/2022: Wheat, silage, soft dough

B6

Sample and source description: B6

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

Moisture: 63.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,300.00	2,900.00	16,000.00		11.40
DL	500.00	200.00	200.00		0.05

B6 - 07/03/2023: Corn, silage

B6

Sample and source description: B6

Sample date: 10/17/2023 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 (%)
Value	12,000.00	2,300.00	10,100.00		5.68
DL	500.00	200.00	200.00		0.05

B7 - 11/30/2022: Wheat, silage, soft dough

B7

Sample and source description: B7

Sample date: 05/25/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 59.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,800.00	2,200.00	8,200.00		5.91
DL	500.00	200.00	200.00		0.05

B7 - 07/01/2023: Corn, silage

B7

Sample and source description: B7

Sample date: 10/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,400.00	2,500.00	9,700.00		6.61
DL	500.00	200.00	200.00		0.05

B8 - 04/18/2023: Corn, silage

B8

Sample and source description: B8

Sample date: 08/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 70.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,900.00	2,600.00	12,400.00		6.38
DL	500.00	200.00	200.00		0.05

B9 - 04/19/2023: Corn, silage

B9

Sample and source description: B9

Sample date: 08/08/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,500.00	2,900.00	14,400.00		8.28
DL	500.00	200.00	200.00		0.05

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

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	902,169.45	88,893.41	1,010,423.32	8,358,139.33
Fresh water	17,882.25	0.00	0.00	1,274,532.11
Atmospheric deposition	28,070.00	0.00	0.00	0.00
Total nutrients applied	948,121.70	88,893.41	1,010,423.32	9,632,671.44
Anticipated crop nutrient removal	767,832.00	126,705.60	604,605.60	4,826,376.00
Actual crop nutrient removal	836,975.56	181,493.78	824,518.25	4,597,099.43
Nutrient balance	111,146.14	-92,600.37	185,905.07	5,035,572.01
Applied to removed ratio	1.13	0.49	1.23	2.10

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

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

ADDITIONAL NOTES

A. NOTES

A1, A4, B2, B6, B8, B5S, B1S, B2D, B5D, A7, A3, North, 20, 21, 23, and South wells 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	SIGNATURE OF OPERATOR OF FACILITY
Bernard te Velde, Jr.	SAME AS OWNER
PRINT OR TYPE NAME	PRINT OR TYPE NAME
6-13-2024	
DATE	DATE

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 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : A-5
Project : Sentry Ag Services

Lab No. : VI 2344743-001
Customer No. : 4016916

Sampled On : July 20, 2023 at 11:00
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:25	lcr
Nitrogen, Total as Nitrogen	6.7	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:25	lcr
Nitrate + Nitrite as N	6.7	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:17	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:25	lcr

DQF Flags Definition:
U Constituent results were non-detect.

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

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CA ELAP Certification No. 2810

August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : A-8
Project : Sentry Ag Services

Lab No. : VI 2344743-002
Customer No. : 4016916

Sampled On : July 20, 2023 at 11:15
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:36	lcr
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	Calc.	08/16/2023	22:36	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:20	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:36	lcr

DQF Flags Definition:
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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-3
Project : Sentry Ag Services

Lab No. : VI 2344743-003
Customer No. : 4016916

Sampled On : July 20, 2023 at 11:30
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:32	lcr
Nitrogen, Total as Nitrogen	29.4	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:32	lcr
Nitrate + Nitrite as N	29.4	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:22	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:32	lcr

DQF Flags Definition:
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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-3N
Project : Sentry Ag Services

Lab No. : VI 2344743-004
Customer No. : 4016916

Sampled On : July 20, 2023 at 11:45
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:22	lcr
Nitrogen, Total as Nitrogen	3.3	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:22	lcr
Nitrate + Nitrite as N	3.3	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:25	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:22	lcr

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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-5
Project : Sentry Ag Services

Lab No. : VI 2344743-005
Customer No. : 4016916

Sampled On : July 20, 2023 at 12:00
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:29	lcr
Nitrogen, Total as Nitrogen	3.6	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:29	lcr
Nitrate + Nitrite as N	3.6	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:27	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:29	lcr

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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-7
Project : Sentry Ag Services

Lab No. : VI 2344743-006
Customer No. : 4016916

Sampled On : July 20, 2023 at 12:15
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:39	lcr
Nitrogen, Total as Nitrogen	6.0	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:39	lcr
Nitrate + Nitrite as N	6.0	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:30	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:39	lcr

DQF Flags Definition:
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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-9
Project : Sentry Ag Services

Lab No. : VI 2344743-007
Customer No. : 4016916

Sampled On : July 20, 2023 at 12:30
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:27	lcr
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	Calc.	08/16/2023	22:27	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:32	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:27	lcr

DQF Flags Definition:
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August 18, 2023

Valley Tech Agricultural Lab Services
Attn: Joe O' Brien
2120 S. "K" St.
Tulare, CA 93274

Description : B-1E
Project : Sentry Ag Services

Lab No. : VI 2344743-008
Customer No. : 4016916

Sampled On : July 20, 2023 at 12:45
Sampled By : Nico Slabber
Received On : July 20, 2023 at 15:04
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:34	lcr
Nitrogen, Total as Nitrogen	17.9	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/16/2023	22:34	lcr
Nitrate + Nitrite as N	17.9	0.4	mg/L		1		07/25/2023	13:00	lfs	SM 4500-NO3 F	07/25/2023	15:35	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/16/2023	22:34	lcr

DQF Flags Definition:
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Valley Tech
AGRICULTURAL LABORATORY SERVICES

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Tulare, California 93274
Office: (559) 688-5684
Fax: (559) 688-5768
www.ValleyTechAgLab.com

Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-01
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: A-5
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		8.7	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.27	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.03	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	8.0	0.40	21.7	30 to 400	<30
Magnesium (Mg)	1.1	0.09	2.9	1 to 60	[Mg]>[Ca]
Sodium (Na)	49.9	2.17	135	<70	>70
Potassium (K)	0.4	0.01	1.2		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	62.2	1.02	168	<150	>300
Chloride (Cl)	22.0	0.62	59.4	<150	>200
Nitrate - Nitrogen (NO_3-N)	6.7	0.48	18.2	<10	>10
Sulfate - Sulfur (SO_4-S)	17.0	0.53	45.8		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		186	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		4.4		<6.0	>6.0
SAR/EC Ratio (SEC)		16.2		<5.0	>10.0
pHc (pHc)		8.9		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	341
Residual Sodium Carbonate (RSC)	124

RED = Value of Concern

contact@vtaglab.com

Valley Tech
AGRICULTURAL LABORATORY SERVICES

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-02
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: A-8
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes					Normal Values	Problem Values
pH (pH)		9.7	pH units		6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.28	dS/m		0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.35	mg/L		<0.5	>0.5
Cations	mg/L	meq/L	lbs/ac-ft		Normal Values mg/L	Problem Values mg/L
Calcium (Ca)	1.6	0.08	4.3		30 to 400	<30
Magnesium (Mg)	0.7	0.06	1.9		1 to 60	[Mg]>[Ca]
Sodium (Na)	57.7	2.51	156		<70	>70
Potassium (K)	0.5	0.01	1.3			
Anions	mg/L	meq/L	lbs/ac-ft		Normal Values mg/L	Problem Values mg/L
Bicarbonate (HCO_3)	80.5	1.32	217		<150	>300
Chloride (Cl)	41.8	1.18	113		<150	>200
Nitrate - Nitrogen (NO_3-N)	**<0.1**	**<0.01**	**<0.3**		<10	>10
Sulfate - Sulfur (SO_4-S)	3.1	0.10	8.4			
Calculated Values					Normal Values	Problem Values
Total Dissolved Solids (TDS)		193	mg/L		1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		9.6			<6.0	>6.0
SAR/EC Ratio (SEC)		34.4			<5.0	>10.0
pHc (pHc)		9.3			<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	507
Residual Sodium Carbonate (RSC)	277

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-03
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-3
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		7.7	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.87	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.01	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	101	5.04	272	30 to 400	<30
Magnesium (Mg)	3.2	0.27	8.7	1 to 60	[Mg]>[Ca]
Sodium (Na)	80.3	3.49	217	<70	>70
Potassium (K)	0.7	0.02	1.9		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	196	3.21	529	<150	>300
Chloride (Cl)	39.3	1.11	106	<150	>200
Nitrate - Nitrogen (NO_3-N)	30.2	2.16	81.6	<10	>10
Sulfate - Sulfur (SO_4-S)	76.5	2.39	206		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		599	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		2.1		<6.0	>6.0
SAR/EC Ratio (SEC)		2.5		<5.0	>10.0
pHc (pHc)		7.5		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	0
Residual Sodium Carbonate (RSC)	0

RED = Value of Concern

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-04
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-3 N
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		9.6	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.24	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.14	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	0.8	0.04	2.3	30 to 400	<30
Magnesium (Mg)	0.9	0.08	2.5	1 to 60	[Mg]>[Ca]
Sodium (Na)	51.3	2.23	138	<70	>70
Potassium (K)	0.5	0.01	1.2		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	73.2	1.20	198	<150	>300
Chloride (Cl)	23.1	0.65	62.3	<150	>200
Nitrate - Nitrogen (NO_3-N)	3.6	0.26	9.8	<10	>10
Sulfate - Sulfur (SO_4-S)	8.2	0.26	22.1		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		165	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		9.1		<6.0	>6.0
SAR/EC Ratio (SEC)		37.9		<5.0	>10.0
pHc (pHc)		9.5		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	463
Residual Sodium Carbonate (RSC)	253

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
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VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-05
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-5
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		9.0	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.31	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.27	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	5.6	0.28	15.0	30 to 400	<30
Magnesium (Mg)	1.1	0.09	3.1	1 to 60	[Mg]>[Ca]
Sodium (Na)	56.8	2.47	153	<70	>70
Potassium (K)	0.5	0.01	1.4		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	61.6	1.01	166	<150	>300
Chloride (Cl)	23.1	0.65	62.4	<150	>200
Nitrate - Nitrogen (NO_3-N)	4.1	0.29	11.0	<10	>10
Sulfate - Sulfur (SO_4-S)	28.0	0.88	75.6		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		213	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		5.7		<6.0	>6.0
SAR/EC Ratio (SEC)		18.5		<5.0	>10.0
pHc (pHc)		9.0		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	397
Residual Sodium Carbonate (RSC)	149

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
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Order Number: 58268
Lab Number: W58268-06
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-7
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		8.6	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.30	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.03	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	7.9	0.39	21.3	30 to 400	<30
Magnesium (Mg)	1.1	0.09	3.0	1 to 60	[Mg]>[Ca]
Sodium (Na)	53.4	2.32	144	<70	>70
Potassium (K)	0.4	0.01	1.2		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	60.0	0.98	162	<150	>300
Chloride (Cl)	12.7	0.36	34.2	<150	>200
Nitrate - Nitrogen (NO_3-N)	6.1	0.44	16.6	<10	>10
Sulfate - Sulfur (SO_4-S)	30.9	0.97	83.5		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		206	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		4.7		<6.0	>6.0
SAR/EC Ratio (SEC)		15.7		<5.0	>10.0
pHc (pHc)		9.0		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	351
Residual Sodium Carbonate (RSC)	116

RED = Value of Concern

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-07
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-9
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		9.3	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.38	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		0.89	mg/L	<0.5	>0.5
Cations	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Calcium (Ca)	1.2	0.06	3.4	30 to 400	<30
Magnesium (Mg)	0.7	0.06	2.0	1 to 60	[Mg]>[Ca]
Sodium (Na)	77.3	3.36	209	<70	>70
Potassium (K)	0.6	0.01	1.5		
Anions	**mg/L**	**meq/L**	**lbs/ac-ft**	**Normal Values mg/L**	**Problem Values mg/L**
Bicarbonate (HCO_3)	101	1.65	272	<150	>300
Chloride (Cl)	61.7	1.74	167	<150	>200
Nitrate - Nitrogen (NO_3-N)	**<0.1**	**<0.01**	**<0.3**	<10	>10
Sulfate - Sulfur (SO_4-S)	1.6	0.05	4.4		
Calculated Values				**Normal Values**	**Problem Values**
Total Dissolved Solids (TDS)		261	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		13.5		<6.0	>6.0
SAR/EC Ratio (SEC)		35.5		<5.0	>10.0
pHc (pHc)		9.3		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	650
Residual Sodium Carbonate (RSC)	357

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Ag Suitability Water Analysis

SENTRY AG SERVICES, LLC
P.O. BOX 7750
VISALIA, CA 93290

Order Number: 58268
Lab Number: W58268-08
Submitted Date: 7/20/2023
Report Date: 7/24/2023
Submitted By: SA
COC Number: 3063

Grower: B & R teVelde
Location: B-1 E
Description: Well Water

mg/L = milligrams/liter = part per million = ppm
meq/L = milliequivalents/liter
dS/m = deciSiemen/meter = mmhos/cm
lbs/ac-ft = pounds/acre-foot

Analytes				Normal Values	Problem Values
pH (pH)		8.1	pH units	6.5 to 8.0	<6.5 or >8.0
Electrical Conductivity (EC)		0.52	dS/m	0.5 to 3.0	<0.5 or >3.0
Boron (B)		<0.01	mg/L	<0.5	>0.5
Cations	mg/L	meq/L	lbs/ac-ft	Normal Values mg/L	Problem Values mg/L
Calcium (Ca)	16.4	0.82	44.2	30 to 400	<30
Magnesium (Mg)	0.7	0.06	1.9	1 to 60	[Mg]>[Ca]
Sodium (Na)	95.7	4.16	258	<70	>70
Potassium (K)	0.6	0.02	1.6		
Anions	mg/L	meq/L	lbs/ac-ft	Normal Values mg/L	Problem Values mg/L
Bicarbonate (HCO_3)	80.5	1.32	217	<150	>300
Chloride (Cl)	31.1	0.88	84.0	<150	>200
Nitrate - Nitrogen (NO_3-N)	19.7	1.41	53.3	<10	>10
Sulfate - Sulfur (SO_4-S)	44.8	1.40	121		
Calculated Values				Normal Values	Problem Values
Total Dissolved Solids (TDS)		358	mg/L	1 to 1,500	>1,900
Sodium Absorption Ratio (SAR)		6.3		<6.0	>6.0
SAR/EC Ratio (SEC)		12.1		<5.0	>10.0
pHc (pHc)		8.5		<8.4 may add Ca	>8.4 may remove Ca

Gypsum Requirements	100% gypsum equivalent (lbs/ac-ft)
Eatons Gypsum Requirement (EGR)	500
Residual Sodium Carbonate (RSC)	104

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August 16, 2023

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

Description : 24 N
Project : Sierra Blanca

Lab No. : VI 2344744-002
Customer No. : 4019696
Reference : 3066
Sampled On : July 20, 2023 at 08:35
Sampled By : Geremy
Received On : July 20, 2023 at 13:17
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Alkalinity (as CaCO3)	120	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	22:42	amm
Bicarbonate	140	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	22:42	amm
Carbonate	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	22:42	amm
Hydroxide	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	22:42	amm
Chloride	60	1	mg/L		1		07/27/2023	12:10	ldm	EPA 300.0	07/27/2023	17:41	ldm
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	17:11	lcr
Nitrate Nitrogen	10.9	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:37	lfs
Nitrogen, Total as Nitrogen	10.9	0.5	mg/L		1		08/10/2023	14:22	sta	Calc.	08/12/2023	17:11	lcr
Nitrate + Nitrite as N	10.9	0.4	mg/L		1		07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:37	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	17:11	lcr
Conductivity	649	1	umhos/cm		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	22:42	amm
Sulfate Sulfur	25.2	0.17	mg/L		1		07/27/2023	12:10	ldm	EPA 300.0	07/27/2023	17:41	ldm
Solids, Total Dissolved (TDS)	420	20	mg/L		1		07/24/2023	12:50	ctl	SM 2540 C	07/25/2023	10:50	ctl
Calcium	61	1	mg/L		1		07/25/2023	05:58	ejc	EPA 200.7	07/25/2023	19:26	ac
Magnesium	2	1	mg/L		1		07/25/2023	05:58	ejc	EPA 200.7	07/25/2023	19:26	ac
Sodium	74	1	mg/L		1		07/25/2023	05:58	ejc	EPA 200.7	07/25/2023	19:26	ac

DQF Flags Definition:
U Constituent results were non-detect.

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

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

August 16, 2023

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

Description : 24 S
Project : Sierra Blanca

Lab No. : VI 2344744-003
Customer No. : 4019696
Reference : 3066
Sampled On : July 20, 2023 at 08:50
Sampled By : Geremy
Received On : July 20, 2023 at 13:17
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Alkalinity (as CaCO3)	90	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	21:41	amm
Bicarbonate	90	10	mg/L		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	21:41	amm
Carbonate	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	21:41	amm
Hydroxide	ND	10	mg/L		1	U	07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	21:41	amm
Chloride	182	4*	mg/L		4		07/27/2023	12:10	ldm	EPA 300.0	07/28/2023	01:58	ldm
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	15:00	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:40	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	Calc.	08/12/2023	15:00	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/21/2023	13:00	lfs	SM 4500-NO3 F	07/21/2023	15:40	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/10/2023	14:22	sta	EPA 351.2	08/12/2023	15:00	lcr
Conductivity	798	1	umhos/cm		1		07/29/2023	18:17	amm	SM 4500-H+B	07/29/2023	21:41	amm
Sulfate Sulfur	0.60	0.17	mg/L		1		07/27/2023	12:10	ldm	EPA 300.0	07/27/2023	21:21	ldm
Solids, Total Dissolved (TDS)	410	20	mg/L		1		07/25/2023	12:30	ctl	SM 2540 C	07/26/2023	11:30	ctl
Calcium	6	1	mg/L		1		07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:34	ac
Magnesium	ND	1	mg/L		1	J	07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:34	ac
Sodium	134	1	mg/L		1		07/26/2023	04:45	ejc	EPA 200.7	07/26/2023	19:34	ac

DQF Flags Definition:
U Constituent results were non-detect.
J Reported value is estimated; detected at a concentration below the RL and above the laboratory MDL.

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

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ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

July 11, 2023

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

Lab No. : **VI 2344188**
Customer No. : **4019696**
Reference : **3041**

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
Tulare I.D.	06/23/2023	06/23/2023	VI 2344188-001	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: 2023-07-11

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July 11, 2023

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

Description : Tulare I.D.
Project : Tulare I.D.

Lab No. : VI 2344188-001
Customer No. : 4019696
Reference : 3041
Sampled On : June 23, 2023 at 09:10
Sampled By : Klay
Received On : June 23, 2023 at 10:28
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	07/03/2023	12:54	sta	EPA 351.2	07/07/2023	19:44	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	06/28/2023	11:00	lfs	SM 4500-NO3 F	06/28/2023	12:41	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	07/03/2023	12:54	sta	Calc.	07/07/2023	19:44	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	06/28/2023	11:00	lfs	SM 4500-NO3 F	06/28/2023	12:41	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/03/2023	12:54	sta	EPA 351.2	07/07/2023	19:44	lcr
Conductivity	44	1	umhos/cm		1		07/05/2023	14:10	amm	SM 4500-H+B	07/05/2023	21:39	sta
Solids, Total Dissolved (TDS)	30	20	mg/L		1		06/27/2023	12:45	ctl	SM 2540 C	06/28/2023	11:35	ctl

DQF Flags Definition:
U Constituent results were non-detect.

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

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July 11, 2023
Sentry Ag Service

Lab No. : VI 2344188
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2344352-001)	Dup	umhos/cm		0.6%	5	
Solids, Total Dissolved	2540CE	06/27/2023:207083CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	993.7	101%	90-110	
		(STK2338352-001)	Dup	mg/L		3.55%	5	
		(STK2338352-001)	Dup	mg/L		4.96%	5	
Nitrogen, Total Kjeldahl	351.2	07/03/2023:207257STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	102%	73-124	
			MS	mg/L	12.00	89.5%	54-136	
		(VI 2343914-005)	MSD	mg/L	12.00	96.2%	54-136	
			MSRPD	mg/L		6.8%	≤27	
			MS	mg/L	12.00	97.0%	54-136	
		(VI 2343914-006)	MSD	mg/L	12.00	98.6%	54-136	
			MSRPD	mg/L		1.6%	≤27	
Nitrate + Nitrite as N	4500NO3F	06/28/2023:207139LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.6%	80-120	
			MS	mg/L	5.609	98.8%	66-125	
		(SP 2310989-001)	MSD	mg/L	5.609	98.1%	66-125	
			MSRPD	mg/L		0.6%	≤30.4	
Nitrate Nitrogen	4500NO3F	06/28/2023:207139LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.6%	80-120	
			MS	mg/L	5.609	98.8%	66-125	
		(SP 2310989-001)	MSD	mg/L	5.609	98.1%	66-125	
			MSRPD	mg/L		0.6%	≤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 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.

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Laboratory Analysis Work Order 2344188

3041

SITE NAME: Tulare I.D.

LABORATORY: VT FGL 4-19696

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

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO_3N (Dom)
- W2 EC, NO_3N, TDS, TN (Irr)
- W3 NH_4-N (Ammonium)
- W4 EC, NO_3N, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl, TDS (Dom, GM)
- W5 EC, NO_3N, TDS, TN, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl (Irr, GM)
- W6 NO_3N, NO_2 (Dom ILRP, Annually)
- W7 Ca, Mg, Na, K, HCO_3, CO_3, SO_4, Cl + Lab Filtering (GWM)
- W8 Other: _____

Plant Tissue

- P1 TN, NO_3N, PO_4P, 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_4N, TKN, TP, TK, TDS (Quarterly)
- L2 EC, NO_3N, NH_4N, TKN, TP, TK, TDS, pH (Annually)
- L3 Ca, Mg, Na, HCO_3,CO_3, SO_4S, 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_3N, PO_4P, K-AA, Zn, Mn, Fe, Cu, SO_4S
- S2 S1 + CEC, CaCO3, OM, C:N, TN
- S3 NO_3N, NH_4N
- S4 Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS NH_3N *	pH	Temp
1	Tulare I.D.	Canal	W2	6/23/23 9:10 a.	Klay	—		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

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

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

NOTES: GLS 6/24/23 1634

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1st	Klay [illegible]	SAS		6/23/23 10:28
2nd	GLS	FGL	6.23.2023 1028	
3rd	GLS	FGL		6-23-2023 1730
4th	GLS		6.23.2023 1028	

LABORATORY USE ONLY
Logged In By: _____ Total Samples: _____ Laboratory No.: _____

6.6°
ROI

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: 6.6° ROL / ____ / ____ / ____
   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): CDS

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 1 / ____ / ____ / ____ / ____
   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:
   559648785 / 7 / 56 / 64 / 75

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? [Exception: Oil & Grease, VOA and CrVI verified in lab]	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): CDA

Discrepancy Documentation:

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

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

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

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

(4019696)
Sentry Ag Service
VI 2344188
iv 06/24/2023 09:55:11
VI 2344188

ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

September 14, 2023

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

Lab No. : **VI 2345799**
Customer No. : **4019696**
Reference : **3140**

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
Scale	08/30/2023	08/30/2023	VI 2345799-001	DW

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	
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: 2023-09-15

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September 14, 2023

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

Description : Scale
Project : Lone Oak #1

Lab No. : VI 2345799-001
Customer No. : 4019696
Reference : 3140
Sampled On : August 30, 2023 at 11:15
Sampled By : Geremy
Received On : August 30, 2023 at 15:14
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrate Nitrogen	34.9	0.4	mg/L	10	1	h	08/31/2023	12:00	lfs	SM 4500-NO3 F	08/31/2023	14:14	lfs
Conductivity	905	1	umhos/cm	1600[2]	1		09/08/2023	11:31	krh	SM 4500-H+B	09/08/2023	15:30	krh

DQF Flags Definition:
h The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution
MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

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September 14, 2023
Sentry Ag Service

Lab No. : VI 2345799
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2345799-001)	Dup	umhos/cm		0.3%	5	
Nitrate Nitrogen	4500NO3F	08/31/2023:209806LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	100%	80-120	
			MS	mg/L	5.609	521%	66-125	435
		(CH 2377338-001)	MSD	mg/L	5.609	519%	66-125	435
			MSRPD	mg/L		0.3%	≤30.4	

Definition

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

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

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Office & Laboratory
9415 W. Goshen Avenue
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CA ELAP Certification No. 2810

Laboratory Analysis Work Order

3140

2345799

SITE NAME: Lone Oak #1

LABORATORY: ~~VT~~ | FGL 4-19696

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

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO_3N (Dom)
- W2 EC, NO_3N, TDS, TN (Irr)
- W3 NH_4-N (Ammonium)
- W4 EC, NO_3N, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl, TDS (Dom, GM)
- W5 EC, NO_3N, TDS, TN, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl (Irr, GM)
- W6 NO_3N, NO_2 (Dom ILRP, Annually)
- W7 Ca, Mg, Na, K, HCO_3, CO_3, SO_4, Cl + Lab Filtering (GWM)
- W8 Other: _____

pH 5.76 EC# 17407

Plant Tissue

- P1 TN, NO_3N, PO_4P, 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_4N, TKN, TP, TK, TDS (Quarterly)
- L2 EC, NO_3N, NH_4N, TKN, TP, TK, TDS, pH (Annually)
- L3 Ca, Mg, Na, HCO_3,CO_3, SO_4S, 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_3N, PO_4P, K-AA, Zn, Mn, Fe, Cu, SO_4S
- S2 S1 + CEC, CaCO3, OM, C:N, TN
- S3 NO_3N, NH_4N
- S4 Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS NH_3N *	pH	Temp
1	Scale	DW	W1	8/30/23 11:15	Geremy	0		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

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

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

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1st	[illegible]	SAS		8/30/23 15:14
2nd	[illegible]	FGL	8/30/23 1514	
3rd	[illegible]			8/30/23 1730
4th	[illegible]		8/30/23 1730	

LABORATORY USE ONLY
Logged In By: [illegible] 8/31/23 11:02 **Total Samples:** _____ **Laboratory No.:** _____

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 # DTC
2. Were samples received in a chilled condition? Temps: 1.01 / 5.7 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	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): AJH 12/4/07

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 3C / 6.4°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: 56004 2332 / 2401 7611

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? [Exception: Oil & Grease, VOA and CrVI verified in lab]	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): JA

Discrepancy Documentation:

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

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

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

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

(4019696)
Sentry Ag Service
VI 2345799
cda 08/31/2023 07:19:07
VI 2345799 with lab number here
-045799