

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: B.V. Dairy

Physical address of dairy:

18904 Bear Mountain Blvd.

Number and Street

Bakersfield

City

Kern

County

93307

Zip Code

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

Date facility was originally placed in operation: 01/01/2005

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X184-X030-XX52-XXXX

B. OPERATORS

Bidart, John

Operator name: Bidart, John

Telephone no.: (661) 397-5400

Landline

Cellular

P.O. Box 11810

Bakersfield

CA

93389

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

Bidart, John

Legal owner name: Bidart, John

Telephone no.: (661) 397-5400

Landline

Cellular

P.O. Box 11810

Bakersfield

CA

93389

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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	375	350	450	0
Number under roof	3,410	560	0	0	0	0
Maximum number	3,445	605	390	365	475	0
Average number	3,410	560	375	350	450	0
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: 106,518.50 tons per reporting period

Total nitrogen from manure: 1,363,806.18 lbs per reporting period

After ammonia losses (30% loss applied): 954,664.33 lbs per reporting period

Total phosphorus from manure: 225,182.96 lbs per reporting period

Total potassium from manure: 664,248.31 lbs per reporting period

Total salt from manure: 1,734,370.50 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 67,394,107 gallons

Total nitrogen generated: 231,130.34 lbs

$$\begin{aligned}
 & 67,394,107 \text{ gallons applied} \\
 & + 0 \text{ gallons exported} \\
 & - 0 \text{ gallons imported} \\
 & = 67,394,107 \text{ gallons generated}
 \end{aligned}$$

Total phosphorus generated: 42,840.42 lbs

Total potassium generated: 300,897.06 lbs

Total salt generated: 2,274,644.69 lbs

D. FRESH WATER SOURCES

Source Description	Type
Buena Vista ID	Surface water
BV 11	Ground water
BV 3	Ground water
BV 4	Ground water
BV 9	Ground water

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Source Description	Type
Dairy Well	Ground water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No subsurface (tile) drainage sources entered.

F. NUTRIENT IMPORTS

No dry manure nutrient imports entered.

No process wastewater nutrient imports entered.

No commercial or other nutrient imports entered.

G. NUTRIENT EXPORTS

No solid nutrient exports entered.

No liquid nutrient exports entered.

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APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
BV-1	42	42	2	process wastewater	X184-X110-XX73-XXXX
BV-10	68	68	2	process wastewater	X184-X030-XX52-XXXX
BV-11	10	10	2	process wastewater	X184-X030-XX52-XXXX
BV-3	108	108	2	process wastewater	X184-X030-XX52-XXXX
BV-4	110	110	2	process wastewater	X184-X110-XX73-XXXX
BV-5	50	50	2	process wastewater	X184-X030-XX52-XXXX X184-X110-XX72-XXXX
BV-6	10	10	2	process wastewater	X184-X030-XX52-XXXX
BV-7	130	130	1	none	X184-X030-XX52-XXXX X184-X110-XX72-XXXX
BV-8	130	130	1	none	X184-X030-XX52-XXXX
BV-9	75	75	2	process wastewater	X184-X030-XX52-XXXX
Totals for areas that were used for application	473	473	16		
Totals for areas that were not used for application	260	260	2		
Land application area totals	733	733	18		

B. CROPS AND HARVESTS

BV-1

Field name: BV-1

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

Crop: Wheat, silage, soft dough Acres planted: 42 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/27/2023	765.00 ton	Dry-weight		69.7	17,900.00	2,700.00	12,800.00		7.56

	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	18.21	197.58	29.80	141.28	834.46

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BV-1

06/01/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 42 Plant date: 06/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	1,065.00 <i>ton</i>	Dry-weight		69.6	13,100.00	2,800.00	17,900.00		11.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.36	201.96	43.17	275.97	1,757.55

BV-10Field name: BV-10

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

Crop: Wheat, silage, soft dough Acres planted: 68 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/28/2023	1,240.00 <i>ton</i>	Dry-weight		67.9	17,000.00	3,400.00	17,800.00		10.70

	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	18.24	199.02	39.80	208.39	1,252.66

06/01/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 68 Plant date: 06/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/26/2023	1,724.00 <i>ton</i>	Dry-weight		67.5	11,500.00	2,800.00	26,200.00		13.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.35	189.51	46.14	431.76	2,191.76

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BV-11Field name: BV-11

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

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

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/28/2023	195.00 ton	Dry-weight		67.6	16,700.00	3,600.00	16,600.00		10.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,494.00
Total actual harvest content	19.50	211.02	45.49	209.76	1,301.51

06/02/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 10 Plant date: 06/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/26/2023	284.00 ton	Dry-weight		64.7	11,300.00	2,800.00	22,600.00		12.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	28.40	226.57	56.14	453.14	2,426.10

BV-3Field name: BV-3

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

Crop: Wheat, silage, soft dough Acres planted: 108 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 (%)
05/10/2023	1,962.00 ton	Dry-weight		75.8	23,400.00	4,600.00	26,600.00		12.20

	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	18.17	205.75	40.45	233.88	1,072.71

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BV-3

06/02/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 108 Plant date: 06/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	2,725.00 ton	Dry-weight		69.9	12,800.00	1,800.00	10,800.00		10.50

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.23	194.42	27.34	164.05	1,594.88

BV-4Field name: BV-4

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

Crop: Wheat, silage, soft dough Acres planted: 110 Plant date: 11/12/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/10/2023	1,999.00 ton	Dry-weight		66.3	17,700.00	3,400.00	20,500.00		8.12

	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	18.17	216.80	41.64	251.09	994.57

06/05/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 110 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 (%)
09/25/2023	2,779.00 ton	Dry-weight		65.7	13,000.00	3,200.00	21,600.00		12.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.26	225.30	55.46	374.35	2,097.03

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BV-5Field name: BV-5

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

Crop: Wheat, silage, soft dough Acres planted: 50 Plant date: 11/13/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/27/2023	937.00 ton	Dry-weight		68.7	17,100.00	2,800.00	10,900.00		6.65

	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	18.74	200.60	32.85	127.87	780.13

06/05/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 50 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 (%)
09/25/2023	1,277.00 ton	Dry-weight		67.4	13,300.00	3,000.00	24,700.00		12.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.54	221.47	49.96	411.31	2,148.12

BV-6Field name: BV-6

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

Crop: Wheat, silage, soft dough Acres planted: 10 Plant date: 11/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/10/2023	194.00 ton	Dry-weight		66.9	17,600.00	3,900.00	23,200.00		10.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,494.00
Total actual harvest content	19.40	226.03	50.09	297.95	1,322.81

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BV-6

06/06/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 10 Plant date: 06/06/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	271.00 ton	Dry-weight		65.4	11,800.00	3,000.00	22,200.00		11.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	27.10	221.29	56.26	416.32	2,175.37

BV-7Field name: BV-7

03/20/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 130 Plant date: 03/20/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/07/2023	1,102.00 ton	Dry-weight		11.3	35,100.00	2,900.00	25,100.00		10.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	8.48	527.84	43.61	377.46	1,624.11

BV-8Field name: BV-8

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BV-8

03/24/2019: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 130 Plant date: 03/24/2019

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/07/2023	1,110.00 ton	Dry-weight		8.3	36,700.00	3,100.00	24,900.00		11.60

	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	8.54	574.71	48.54	389.92	1,816.51

BV-9

Field name: BV-9

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

Crop: Wheat, silage, soft dough Acres planted: 75 Plant date: 11/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/27/2023	1,378.00 ton	Dry-weight		68.1	17,900.00	3,600.00	17,000.00		10.70

	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	18.37	209.83	42.20	199.28	1,254.27

06/06/2023: Sorghum-Sudangrass, forage

Crop: Sorghum-Sudangrass, forage Acres planted: 75 Plant date: 06/06/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/26/2023	1,899.00 ton	Dry-weight		62.1	11,000.00	2,900.00	27,200.00		12.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	180.00	35.00	342.50	1,500.00
Total actual harvest content	25.32	211.12	55.66	522.04	2,360.68

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NUTRIENT BUDGET**A. LAND APPLICATIONS**

BV-1 - 11/10/2022: Wheat, silage, soft dough

Field name: BV-1Crop: Wheat, silage, soft doughPlant date: 11/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/11/2022	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	115.12	15.90	125.34	1,454.84	1,512,841.00 gal
BV 3	Ground water	0.00	0.00	0.00	336.91	6,055,841.00 gal
Application event totals		115.12	15.90	125.34	1,791.75	
01/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.02	8.98	70.80	821.71	854,468.00 gal
BV 3	Ground water	0.00	0.00	0.00	269.57	4,845,521.00 gal
Application event totals		65.02	8.98	70.80	1,091.28	
02/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	53.31	7.36	58.04	673.68	700,541.00 gal
BV 3	Ground water	0.00	0.00	0.00	253.46	4,555,841.00 gal
Application event totals		53.31	7.36	58.04	927.14	

BV-1 - 06/01/2023: Sorghum-Sudangrass, forage

Field name: BV-1Crop: Sorghum-Sudangrass, foragePlant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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BV-1 - 06/01/2023: Sorghum-Sudangrass, forage

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	61.15	13.66	91.21	355.19	654,824.00 gal
BV 3	Ground water	0.00	0.00	0.00	403.98	7,261,547.00 gal
Application event totals		61.15	13.66	91.21	759.18	
07/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	56.59	12.64	84.40	328.68	605,951.00 gal
BV 9	Ground water	0.00	0.00	0.00	373.39	6,960,123.00 gal
Application event totals		56.59	12.64	84.40	702.07	
08/01/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	49.09	14.30	81.62	746.26	764,951.00 gal
BV 3	Ground water	0.00	0.00	0.00	381.23	6,852,482.00 gal
Application event totals		49.09	14.30	81.62	1,127.49	
08/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	51.64	15.04	85.85	785.00	804,654.00 gal
BV 3	Ground water	0.00	0.00	0.00	376.15	6,761,258.00 gal
Application event totals		51.64	15.04	85.85	1,161.15	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV 3	Ground water	0.00	0.00	0.00	364.32	6,548,621.00 gal
Application event totals		0.00	0.00	0.00	364.32	

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

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

Field name: BV-10

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/11/2022	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	115.71	15.98	125.99	1,462.28	2,461,884.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	64.40	10,495,624.00 gal
Application event totals		115.71	15.98	125.99	1,526.68	
01/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	82.06	11.33	89.35	1,037.04	1,745,951.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	50.87	8,289,664.00 gal
Application event totals		82.06	11.33	89.35	1,087.90	
02/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	54.11	7.47	58.91	683.79	1,151,224.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	38.63	6,295,644.00 gal
Application event totals		54.11	7.47	58.91	722.42	

BV-10 - 06/01/2023: Sorghum-Sudangrass, forage

Field name: BV-10

Crop: Sorghum-Sudangrass, forage

Plant date: 06/01/2023

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	66.92	14.95	99.81	388.71	1,160,228.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	51.29	8,358,995.00 gal
Application event totals		66.92	14.95	99.81	440.00	

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BV-10 - 06/01/2023: Sorghum-Sudangrass, forage

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	67.22	15.02	100.26	390.46	1,165,449.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	52.14	8,496,881.00 gal
Application event totals		67.22	15.02	100.26	442.59	
07/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	52.00	11.62	77.56	302.05	901,559.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	49.43	8,056,442.00 gal
Application event totals		52.00	11.62	77.56	351.48	
08/13/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	37.49	10.92	62.33	569.92	945,834.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	60.69	9,890,227.00 gal
Application event totals		37.49	10.92	62.33	630.61	
09/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	60.69	9,890,219.00 gal
Application event totals		0.00	0.00	0.00	60.69	

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

Field name: BV-11

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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BV-11 - 11/10/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/11/2022	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	99.03	13.68	107.82	1,251.43	309,837.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	50.17	1,202,448.00 gal
Application event totals		99.03	13.68	107.82	1,301.60	
01/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	90.03	12.43	98.02	1,137.66	281,669.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	41.97	1,005,881.00 gal
Application event totals		90.03	12.43	98.02	1,179.63	
02/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	65.83	9.09	71.68	831.94	205,978.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	45.85	1,098,773.00 gal
Application event totals		65.83	9.09	71.68	877.79	

BV-11 - 06/02/2023: Sorghum-Sudangrass, forage

Field name: BV-11

Crop: Sorghum-Sudangrass, forage

Plant date: 06/02/2023

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
Lagoon	Process wastewater	89.03	19.89	132.79	517.13	226,991.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	58.54	1,402,885.00 gal
Application event totals		89.03	19.89	132.79	575.66	

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BV-11 - 06/02/2023: Sorghum-Sudangrass, forage

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	62.66	14.00	93.45	363.95	159,753.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	60.35	1,446,332.00 gal
Application event totals		62.66	14.00	93.45	424.30	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	57.65	12.88	85.99	334.87	146,991.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	58.66	1,405,884.00 gal
Application event totals		57.65	12.88	85.99	393.53	
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	51.83	15.10	86.18	787.93	192,301.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	77.02	1,845,779.00 gal
Application event totals		51.83	15.10	86.18	864.95	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	66.75	1,599,667.00 gal
Application event totals		0.00	0.00	0.00	66.75	

BV-3 - 11/11/2022: Wheat, silage, soft dough

Field name: BV-3

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
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BV-3 - 11/11/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/12/2022	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	104.35	14.41	113.61	1,318.63	3,525,946.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	48.25	12,489,654.00 gal
Application event totals		104.35	14.41	113.61	1,366.88	
01/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	83.75	11.57	91.18	1,058.30	2,829,834.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	49.82	12,895,482.00 gal
Application event totals		83.75	11.57	91.18	1,108.12	
02/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	47.52	6.56	51.73	600.47	1,605,621.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	49.33	12,769,753.00 gal
Application event totals		47.52	6.56	51.73	649.80	

BV-3 - 06/02/2023: Sorghum-Sudangrass, forage

Field name: BV-3

Crop: Sorghum-Sudangrass, forage

Plant date: 06/02/2023

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
Lagoon	Process wastewater	74.70	16.69	111.42	433.91	2,056,978.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	57.52	14,888,396.00 gal
Application event totals		74.70	16.69	111.42	491.43	

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BV-3 - 06/02/2023: Sorghum-Sudangrass, forage

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	80.79	18.05	120.50	469.30	2,224,753.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	62.80	16,254,951.00 gal
Application event totals		80.79	18.05	120.50	532.10	
07/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	81.05	18.11	120.89	470.79	2,231,852.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	56.20	14,546,331.00 gal
Application event totals		81.05	18.11	120.89	526.99	
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	48.54	12,564,951.00 gal
Application event totals		0.00	0.00	0.00	48.54	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	63.77	16,505,824.00 gal
Application event totals		0.00	0.00	0.00	63.77	

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

Field name: BV-4

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022

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

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

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/13/2022	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	89.74	12.39	97.71	1,134.05	3,088,549.00 gal
BV 3	Ground water	0.00	0.00	0.00	244.76	11,522,357.00 gal
Application event totals		89.74	12.39	97.71	1,378.81	
01/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	87.20	12.04	94.95	1,102.00	3,001,258.00 gal
BV 3	Ground water	0.00	0.00	0.00	288.66	13,589,367.00 gal
Application event totals		87.20	12.04	94.95	1,390.66	
02/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	75.43	10.42	82.12	953.15	2,595,871.00 gal
BV 3	Ground water	0.00	0.00	0.00	287.19	13,519,874.00 gal
Application event totals		75.43	10.42	82.12	1,240.34	

BV-4 - 06/05/2023: Sorghum-Sudangrass, forage

Field name: BV-4

Crop: Sorghum-Sudangrass, forage

Plant date: 06/05/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/06/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	88.28	19.72	131.67	512.79	2,475,951.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	67.60	17,821,654.00 gal
Application event totals		88.28	19.72	131.67	580.39	

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BV-4 - 06/05/2023: Sorghum-Sudangrass, forage

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
Lagoon	Process wastewater	67.35	15.05	100.46	391.22	1,888,951.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	60.50	15,948,357.00 gal
Application event totals		67.35	15.05	100.46	451.71	
07/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	89.30	19.95	133.19	518.72	2,504,587.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	59.27	15,624,851.00 gal
Application event totals		89.30	19.95	133.19	577.99	
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	36.89	10.75	61.34	560.85	1,505,669.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	55.96	14,753,951.00 gal
Application event totals		36.89	10.75	61.34	616.81	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	55.63	14,666,998.00 gal
Application event totals		0.00	0.00	0.00	55.63	

BV-5 - 11/13/2022: Wheat, silage, soft dough

Field name: BV-5

Crop: Wheat, silage, soft dough

Plant date: 11/13/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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BV-5 - 11/13/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/14/2022	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	78.09	10.79	85.02	986.80	1,221,597.00 gal
BV 3	Ground water	0.00	0.00	0.00	280.89	6,010,564.00 gal
Application event totals		78.09	10.79	85.02	1,267.69	
01/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	97.54	13.47	106.20	1,232.58	1,525,852.00 gal
BV 3	Ground water	0.00	0.00	0.00	281.30	6,019,368.00 gal
Application event totals		97.54	13.47	106.20	1,513.87	
02/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	58.86	8.13	64.09	743.86	920,852.00 gal
BV 3	Ground water	0.00	0.00	0.00	285.75	6,114,753.00 gal
Application event totals		58.86	8.13	64.09	1,029.62	

BV-5 - 06/05/2023: Sorghum-Sudangrass, forage

Field name: BV-5

Crop: Sorghum-Sudangrass, forage

Plant date: 06/05/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/06/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	78.82	17.61	117.56	457.85	1,004,851.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	67.23	8,056,321.00 gal
Application event totals		78.82	17.61	117.56	525.08	

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BV-5 - 06/05/2023: Sorghum-Sudangrass, forage

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	74.68	16.68	111.38	433.76	951,978.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	56.84	6,811,842.00 gal
Application event totals		74.68	16.68	111.38	490.60	
07/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	82.90	18.52	123.65	481.54	1,056,849.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	67.19	8,051,951.00 gal
Application event totals		82.90	18.52	123.65	548.73	
08/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	32.83	9.56	54.58	499.06	608,997.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	57.71	6,914,951.00 gal
Application event totals		32.83	9.56	54.58	556.77	
09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	60.58	7,258,993.00 gal
Application event totals		0.00	0.00	0.00	60.58	

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

Field name: BV-6

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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BV-6 - 11/14/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/15/2022	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	110.58	15.27	120.39	1,397.38	345,973.00 gal
BV 4	Ground water	0.00	0.00	0.00	377.33	1,102,842.00 gal
Application event totals		110.58	15.27	120.39	1,774.71	
01/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	113.62	15.69	123.71	1,435.81	355,489.00 gal
BV 4	Ground water	0.00	0.00	0.00	380.49	1,112,058.00 gal
Application event totals		113.62	15.69	123.71	1,816.30	
02/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	41.61	5.75	45.31	525.86	130,195.00 gal
BV 4	Ground water	0.00	0.00	0.00	312.80	914,221.00 gal
Application event totals		41.61	5.75	45.31	838.65	

BV-6 - 06/06/2023: Sorghum-Sudangrass, forage

Field name: BV-6

Crop: Sorghum-Sudangrass, forage

Plant date: 06/06/2023

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	75.24	16.81	112.22	437.05	191,841.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	64.53	1,546,621.00 gal
Application event totals		75.24	16.81	112.22	501.58	

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BV-6 - 06/06/2023: Sorghum-Sudangrass, forage

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	60.75	13.57	90.61	352.89	154,901.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	62.64	1,501,245.00 gal
Application event totals		60.75	13.57	90.61	415.53	
07/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	80.16	17.91	119.56	465.61	204,377.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	71.13	1,704,842.00 gal
Application event totals		80.16	17.91	119.56	536.74	
08/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	42.85	12.48	71.24	651.38	158,973.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	69.48	1,665,147.00 gal
Application event totals		42.85	12.48	71.24	720.85	
09/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	46.14	1,105,851.00 gal
Application event totals		0.00	0.00	0.00	46.14	

BV-7 - 03/20/2019: Alfalfa, hay

Field name: BV-7

Crop: Alfalfa, hay

Plant date: 03/20/2019

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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BV-7 - 03/20/2019: Alfalfa, hay

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
Buena Vista ID	Surface water	0.00	0.00	0.00	65.56	20,426,918.00 gal
Application event totals		0.00	0.00	0.00	65.56	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	59.45	18,521,456.00 gal
Application event totals		0.00	0.00	0.00	59.45	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	65.90	20,533,541.00 gal
Application event totals		0.00	0.00	0.00	65.90	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	66.21	20,630,149.00 gal
Application event totals		0.00	0.00	0.00	66.21	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	66.54	20,730,159.00 gal
Application event totals		0.00	0.00	0.00	66.54	
08/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	67.16	20,924,597.00 gal
Application event totals		0.00	0.00	0.00	67.16	

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BV-7 - 03/20/2019: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/11/2023	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
Buena Vista ID	Surface water	0.00	0.00	0.00	60.42	18,824,597.00 gal
Application event totals		0.00	0.00	0.00	60.42	
10/12/2023	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
Buena Vista ID	Surface water	0.00	0.00	0.00	60.12	18,730,149.00 gal
Application event totals		0.00	0.00	0.00	60.12	

BV-8 - 03/24/2019: Alfalfa, hay

Field name: BV-8

Crop: Alfalfa, hay

Plant date: 03/24/2019

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/04/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	66.20	20,626,843.00 gal
Application event totals		0.00	0.00	0.00	66.20	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	66.22	20,631,258.00 gal
Application event totals		0.00	0.00	0.00	66.22	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	59.78	18,625,654.00 gal
Application event totals		0.00	0.00	0.00	59.78	

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BV-8 - 03/24/2019: Alfalfa, hay

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
Buena Vista ID	Surface water	0.00	0.00	0.00	66.23	20,633,654.00 gal
Application event totals		0.00	0.00	0.00	66.23	
07/08/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	66.20	20,624,753.00 gal
Application event totals		0.00	0.00	0.00	66.20	
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
Buena Vista ID	Surface water	0.00	0.00	0.00	66.22	20,631,594.00 gal
Application event totals		0.00	0.00	0.00	66.22	
09/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	66.20	20,626,548.00 gal
Application event totals		0.00	0.00	0.00	66.20	
10/11/2023	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
Buena Vista ID	Surface water	0.00	0.00	0.00	59.80	18,631,954.00 gal
Application event totals		0.00	0.00	0.00	59.80	

BV-9 - 11/14/2022: Wheat, silage, soft dough

Field name: BV-9

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

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

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BV-9 - 11/14/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
11/15/2022	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	86.62	11.96	94.31	1,094.65	2,032,654.00 gal
BV 4	Ground water	0.00	0.00	0.00	383.90	8,415,284.00 gal
Application event totals		86.62	11.96	94.31	1,478.55	
01/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	78.23	10.81	85.18	988.61	1,835,753.00 gal
BV 4	Ground water	0.00	0.00	0.00	334.01	7,321,598.00 gal
Application event totals		78.23	10.81	85.18	1,322.62	
02/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	79.08	10.92	86.10	999.35	1,855,694.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	58.52	10,519,369.00 gal
Application event totals		79.08	10.92	86.10	1,057.87	

BV-9 - 06/06/2023: Sorghum-Sudangrass, forage

Field name: BV-9

Crop: Sorghum-Sudangrass, forage

Plant date: 06/06/2023

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	85.38	19.07	127.34	495.93	1,632,654.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	58.73	10,556,485.00 gal
Application event totals		85.38	19.07	127.34	554.66	

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BV-9 - 06/06/2023: Sorghum-Sudangrass, forage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/07/2023	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	54.56	12.19	81.37	316.90	1,043,269.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	64.09	11,519,852.00 gal
Application event totals		54.56	12.19	81.37	380.99	
07/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	49.78	11.12	74.25	289.18	951,995.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	64.07	11,516,448.00 gal
Application event totals		49.78	11.12	74.25	353.25	
08/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	25.86	7.54	43.00	393.17	719,664.00 gal
Buena Vista ID	Surface water	0.00	0.00	0.00	69.05	12,411,257.00 gal
Application event totals		25.86	7.54	43.00	462.21	
09/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Buena Vista ID	Surface water	0.00	0.00	0.00	58.52	10,518,901.00 gal
Application event totals		0.00	0.00	0.00	58.52	

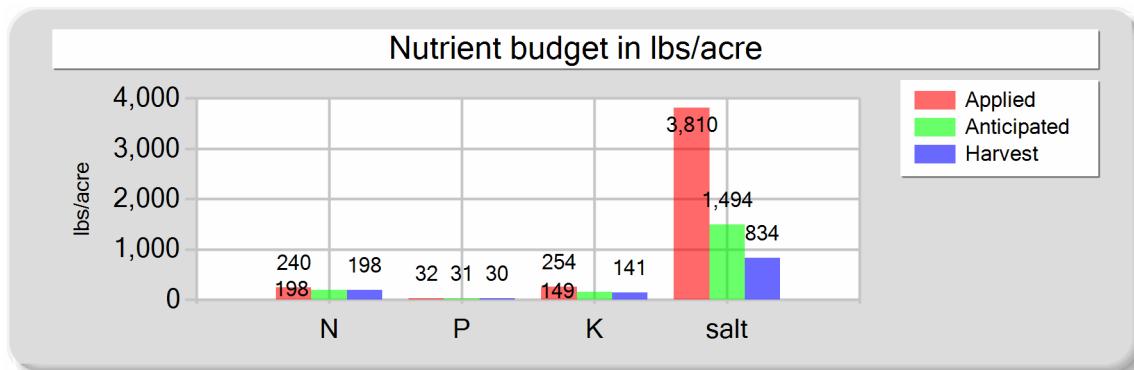
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B. NUTRIENT BUDGET

BV-1 - 11/10/2022: Wheat, silage, soft dough

Field name: BV-1 Crop: Wheat, silage, soft dough Plant date: 11/10/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	233.46	32.25	254.18	2,950.23
Fresh water	0.00	0.00	0.00	859.94
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	240.46	32.25	254.18	3,810.17
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	197.58	29.80	141.28	834.46
Nutrient balance	42.88	2.44	112.90	2,975.71
Applied to removed ratio	1.22	1.08	1.80	4.57

Fresh water applied
15,457,203.00 gallons
569.24 acre-inches
13.55 inches/acre
Process wastewater applied
3,067,850.00 gallons
112.98 acre-inches
2.69 inches/acre
Total harvests for the crop
1 harvests

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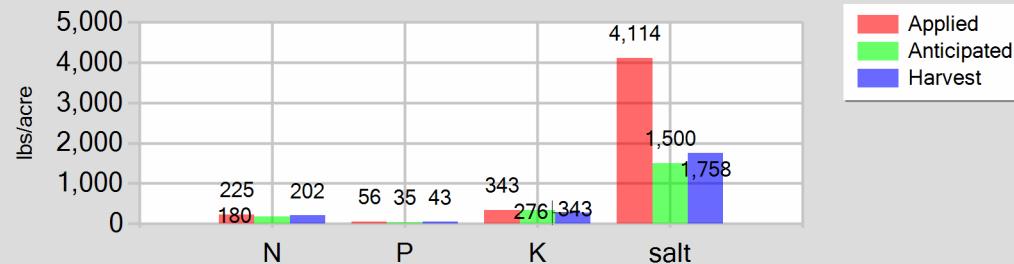
BV-1 - 06/01/2023: Sorghum-Sudangrass, forage

Field name: BV-1

Crop: Sorghum-Sudangrass, forage

Plant date: 06/01/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	218.47	55.65	343.08	2,215.14
Fresh water	0.00	0.00	0.00	1,899.07
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	225.47	55.65	343.08	4,114.20
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00
Actual crop nutrient removal	201.96	43.17	275.97	1,757.55
Nutrient balance	23.50	12.48	67.11	2,356.65
Applied to removed ratio	1.12	1.29	1.24	2.34

Fresh water applied

34,384,031.00 gallons
1,266.25 acre-inches
30.15 inches/acre

Process wastewater applied

2,830,380.00 gallons
104.23 acre-inches
2.48 inches/acre

Total harvests for the crop

1 harvests

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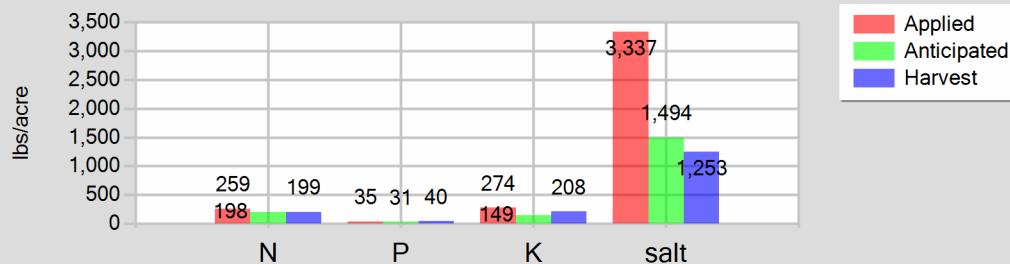
BV-10 - 11/10/2022: Wheat, silage, soft dough

Field name: BV-10

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	251.89	34.79	274.25	3,183.11
Fresh water	0.00	0.00	0.00	153.90
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	258.89	34.79	274.25	3,337.01
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	199.02	39.80	208.39	1,252.66
Nutrient balance	59.87	-5.01	65.86	2,084.35
Applied to removed ratio	1.30	0.87	1.32	2.66

Fresh water applied

25,080,932.00 gallons
923.65 acre-inches
13.58 inches/acre

Process wastewater applied

5,359,059.00 gallons
197.36 acre-inches
2.90 inches/acre

Total harvests for the crop

1 harvests

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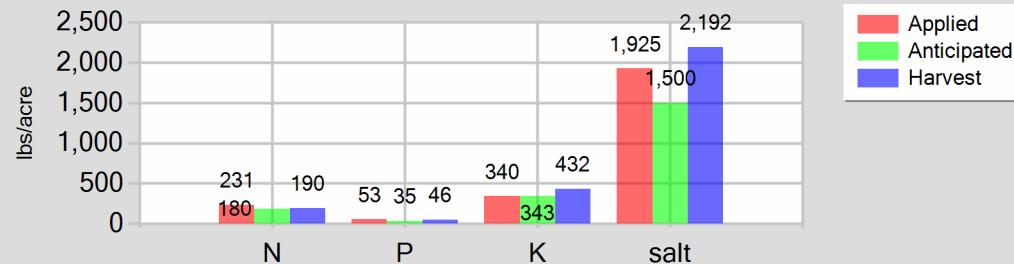
BV-10 - 06/01/2023: Sorghum-Sudangrass, forage

Field name: BV-10

Crop: Sorghum-Sudangrass, forage

Plant date: 06/01/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	44,692,764.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	1,645.88 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	24.20 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	223.63	52.51	339.96	1,651.13	Process wastewater applied
Fresh water	0.00	0.00	0.00	274.24	4,173,070.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	153.68 acre-inches
Total nutrients applied	230.63	52.51	339.96	1,925.37	2.26 inches/acre
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00	Total harvests for the crop
Actual crop nutrient removal	189.51	46.14	431.76	2,191.76	1 harvests
Nutrient balance	41.12	6.37	-91.80	-266.39	
Applied to removed ratio	1.22	1.14	0.79	0.88	

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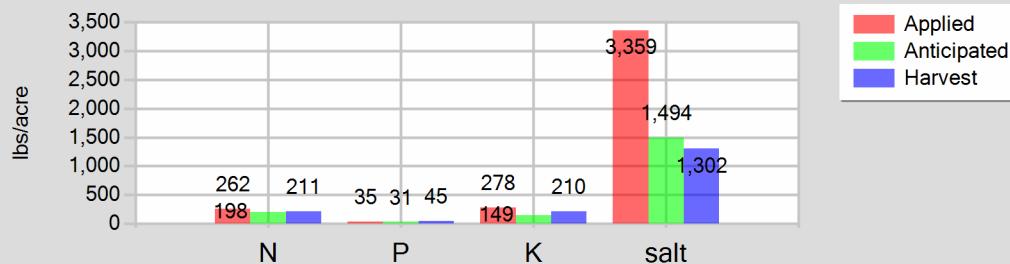
BV-11 - 11/10/2022: Wheat, silage, soft dough

Field name: BV-11

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	254.89	35.20	277.51	3,221.02
Fresh water	0.00	0.00	0.00	137.99
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	261.89	35.20	277.51	3,359.01
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	211.02	45.49	209.76	1,301.51
Nutrient balance	50.87	-10.28	67.76	2,057.50
Applied to removed ratio	1.24	0.77	1.32	2.58

Fresh water applied

3,307,102.00 gallons
121.79 acre-inches
12.18 inches/acre

Process wastewater applied

797,484.00 gallons
29.37 acre-inches
2.94 inches/acre

Total harvests for the crop

1 harvests

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

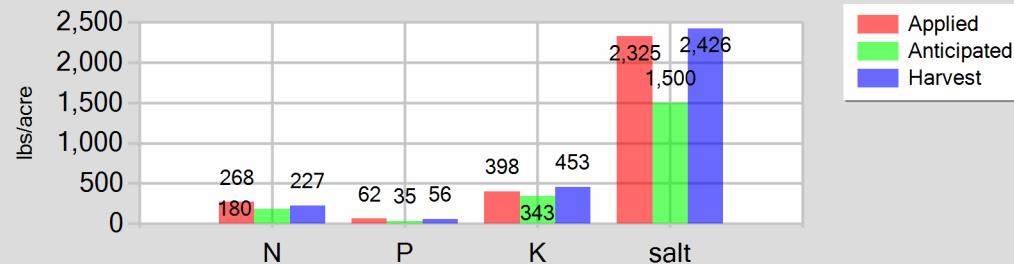
BV-11 - 06/02/2023: Sorghum-Sudangrass, forage

Field name: BV-11

Crop: Sorghum-Sudangrass, forage

Plant date: 06/02/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	7,700,547.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	283.58 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	28.36 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	261.17	61.87	398.40	2,003.88	Process wastewater applied
Fresh water	0.00	0.00	0.00	321.31	726,036.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	26.74 acre-inches
Total nutrients applied	268.17	61.87	398.40	2,325.19	2.67 inches/acre
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00	Total harvests for the crop
Actual crop nutrient removal	226.57	56.14	453.14	2,426.10	1 harvests
Nutrient balance	41.60	5.73	-54.74	-100.91	
Applied to removed ratio	1.18	1.10	0.88	0.96	

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

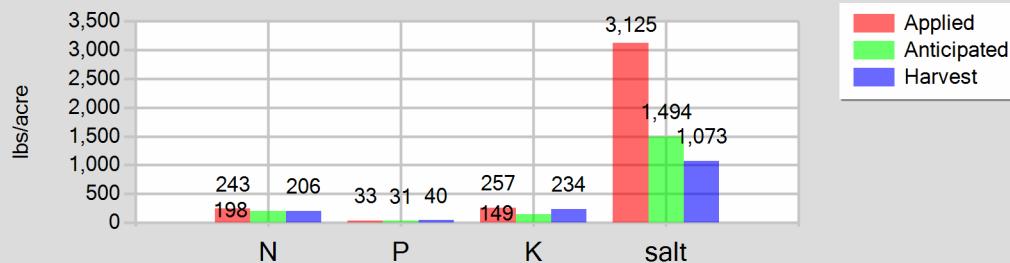
BV-3 - 11/11/2022: Wheat, silage, soft dough

Field name: BV-3

Crop: Wheat, silage, soft dough

Plant date: 11/11/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	235.61	32.54	256.52	2,977.40
Fresh water	0.00	0.00	0.00	147.41
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	242.61	32.54	256.52	3,124.81
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	205.75	40.45	233.88	1,072.71
Nutrient balance	36.86	-7.90	22.64	2,052.11
Applied to removed ratio	1.18	0.80	1.10	2.91

Fresh water applied

38,154,889.00 gallons
1,405.11 acre-inches
13.01 inches/acre

Process wastewater applied

7,961,401.00 gallons
293.19 acre-inches
2.71 inches/acre

Total harvests for the crop

1 harvests

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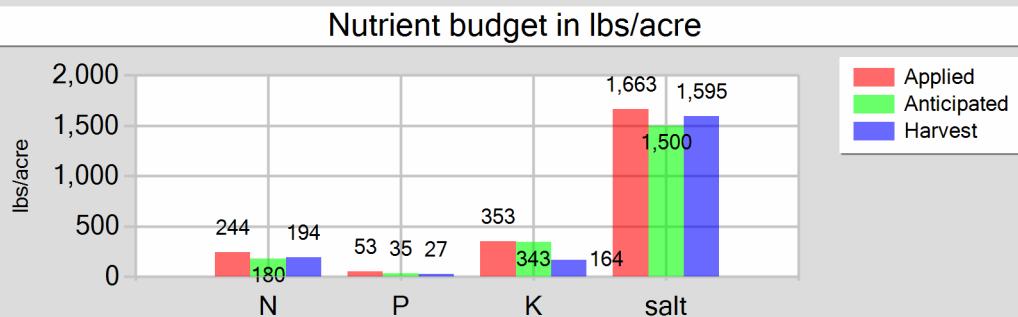
Reporting period 01/01/2023 to 12/31/2023.

BV-3 - 06/02/2023: Sorghum-Sudangrass, forage

Field name: BV-3

Crop: Sorghum-Sudangrass, forage

Plant date: 06/02/2023



	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	236.55	52.85	352.81	1,374.00
Fresh water	0.00	0.00	0.00	288.83
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	243.55	52.85	352.81	1,662.83
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00
Actual crop nutrient removal	194.42	27.34	164.05	1,594.88
Nutrient balance	49.12	25.51	188.76	67.94
Applied to removed ratio	1.25	1.93	2.15	1.04

Fresh water applied

74,760,453.00 gallons
2,753.17 acre-inches
25.49 inches/acre

Process wastewater applied

6,513,583.00 gallons
239.87 acre-inches
2.22 inches/acre

Total harvests for the crop

1 harvests

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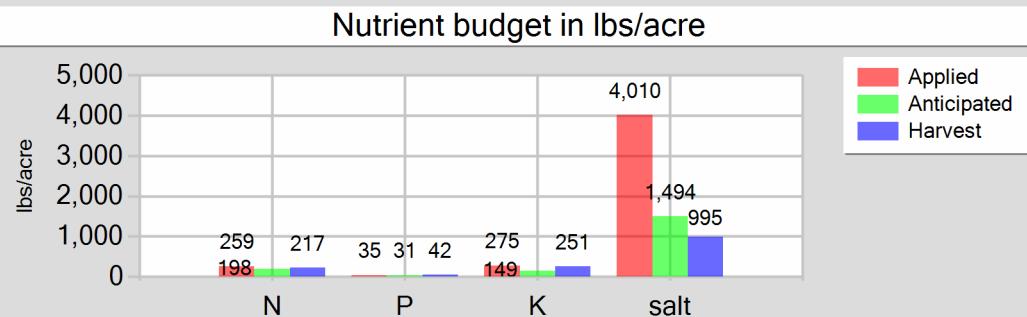
Reporting period 01/01/2023 to 12/31/2023.

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

Field name: BV-4

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	252.37	34.86	274.77	3,189.21
Fresh water	0.00	0.00	0.00	820.61
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	259.37	34.86	274.77	4,009.81
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	216.80	41.64	251.09	994.57
Nutrient balance	42.57	-6.79	23.68	3,015.24
Applied to removed ratio	1.20	0.84	1.09	4.03

Fresh water applied

38,631,598.00 gallons
1,422.67 acre-inches
12.93 inches/acre

Process wastewater applied

8,685,678.00 gallons
319.86 acre-inches
2.91 inches/acre

Total harvests for the crop

1 harvests

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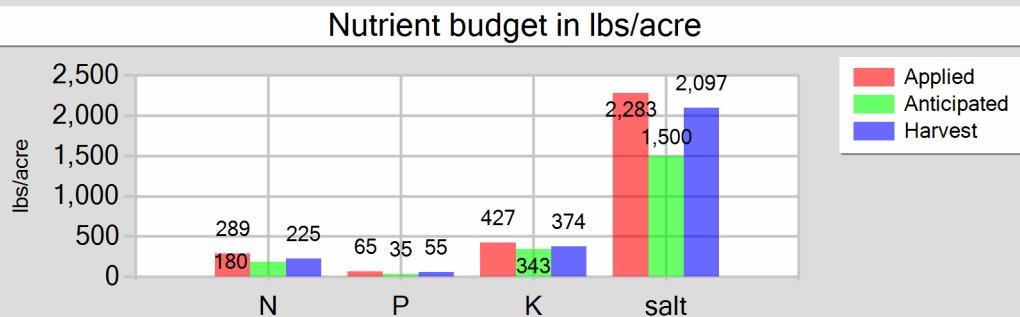
Reporting period 01/01/2023 to 12/31/2023.

BV-4 - 06/05/2023: Sorghum-Sudangrass, forage

Field name: BV-4

Crop: Sorghum-Sudangrass, forage

Plant date: 06/05/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	78,815,811.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	2,902.52 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	26.39 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	281.83	65.47	426.66	1,983.57	8,375,158.00 gallons
Fresh water	0.00	0.00	0.00	298.96	308.43 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	2.80 inches/acre
Total nutrients applied	288.83	65.47	426.66	2,282.53	
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00	
Actual crop nutrient removal	225.30	55.46	374.35	2,097.03	
Nutrient balance	63.53	10.01	52.31	185.50	
Applied to removed ratio	1.28	1.18	1.14	1.09	
Total harvests for the crop					1 harvests

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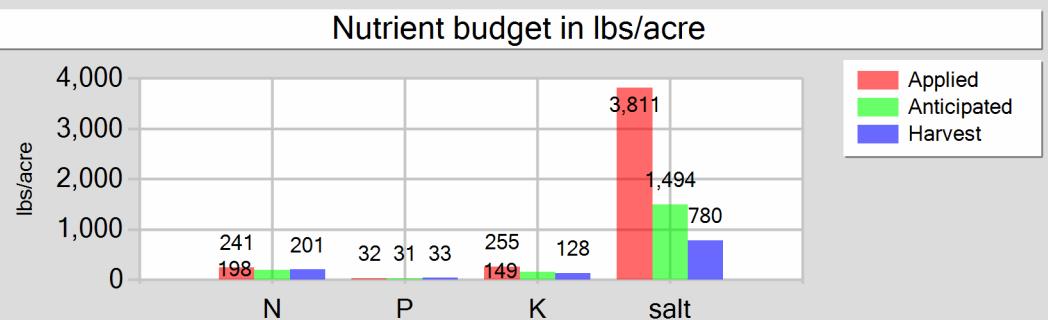
Reporting period 01/01/2023 to 12/31/2023.

BV-5 - 11/13/2022: Wheat, silage, soft dough

Field name: BV-5

Crop: Wheat, silage, soft dough

Plant date: 11/13/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	18,144,685.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	668.21 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	13.36 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	234.49	32.39	255.30	2,963.24	Process wastewater applied
Fresh water	0.00	0.00	0.00	847.94	3,668,301.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	135.09 acre-inches
Total nutrients applied	241.49	32.39	255.30	3,811.18	2.70 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00	
Actual crop nutrient removal	200.60	32.85	127.87	780.13	Total harvests for the crop
Nutrient balance	40.88	-0.46	127.43	3,031.05	1 harvests
Applied to removed ratio	1.20	0.99	2.00	4.89	

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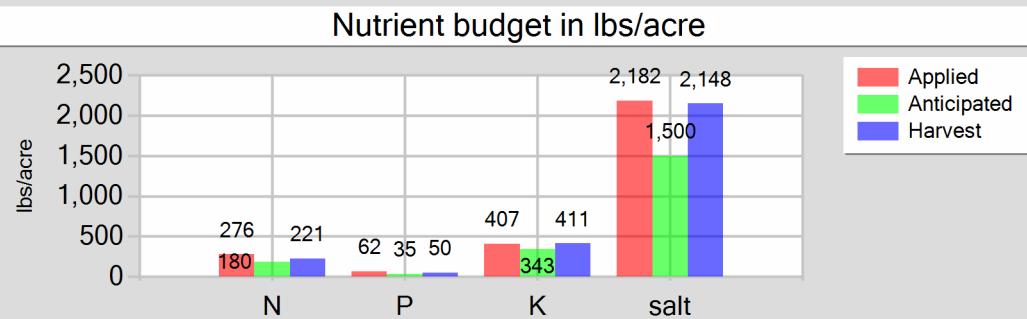
Reporting period 01/01/2023 to 12/31/2023.

BV-5 - 06/05/2023: Sorghum-Sudangrass, forage

Field name: BV-5

Crop: Sorghum-Sudangrass, forage

Plant date: 06/05/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	37,094,058.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	1,366.05 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	27.32 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	269.23	62.38	407.17	1,872.20	Process wastewater applied
Fresh water	0.00	0.00	0.00	309.55	3,622,675.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	133.41 acre-inches
Total nutrients applied	276.23	62.38	407.17	2,181.75	2.67 inches/acre
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00	Total harvests for the crop
Actual crop nutrient removal	221.47	49.96	411.31	2,148.12	1 harvests
Nutrient balance	54.76	12.42	-4.13	33.64	
Applied to removed ratio	1.25	1.25	0.99	1.02	

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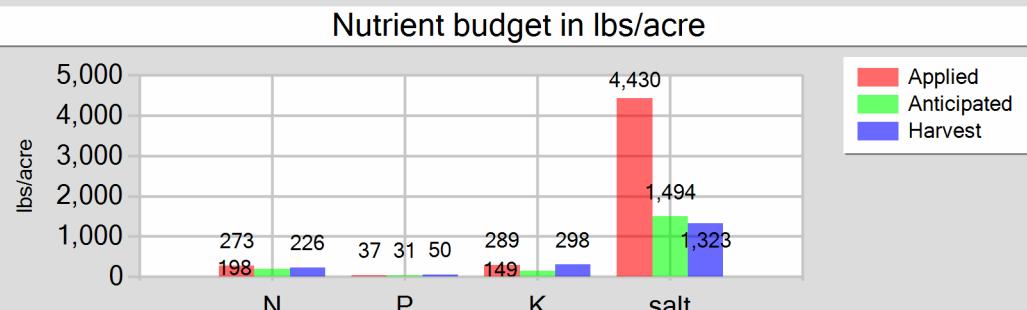
Reporting period 01/01/2023 to 12/31/2023.

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

Field name: BV-6

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	3,129,121.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	115.23 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	11.52 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	265.81	36.71	289.41	3,359.05	Process wastewater applied
Fresh water	0.00	0.00	0.00	1,070.61	831,657.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	30.63 acre-inches
Total nutrients applied	272.81	36.71	289.41	4,429.66	3.06 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00	Total harvests for the crop
Actual crop nutrient removal	226.03	50.09	297.95	1,322.81	1 harvests
Nutrient balance	46.78	-13.37	-8.55	3,106.85	
Applied to removed ratio	1.21	0.73	0.97	3.35	

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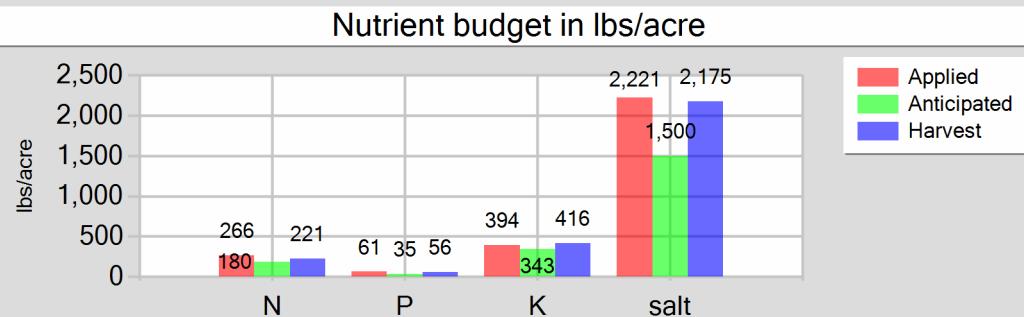
Reporting period 01/01/2023 to 12/31/2023.

BV-6 - 06/06/2023: Sorghum-Sudangrass, forage

Field name: BV-6

Crop: Sorghum-Sudangrass, forage

Plant date: 06/06/2023



	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	259.01	60.77	393.64	1,906.93
Fresh water	0.00	0.00	0.00	313.93
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	266.01	60.77	393.64	2,220.85
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00
Actual crop nutrient removal	221.29	56.26	416.32	2,175.37
Nutrient balance	44.72	4.51	-22.68	45.48
Applied to removed ratio	1.20	1.08	0.95	1.02

Fresh water applied

7,523,706.00 gallons
277.07 acre-inches
27.71 inches/acre

Process wastewater applied

710,092.00 gallons
26.15 acre-inches
2.62 inches/acre

Total harvests for the crop

1 harvests

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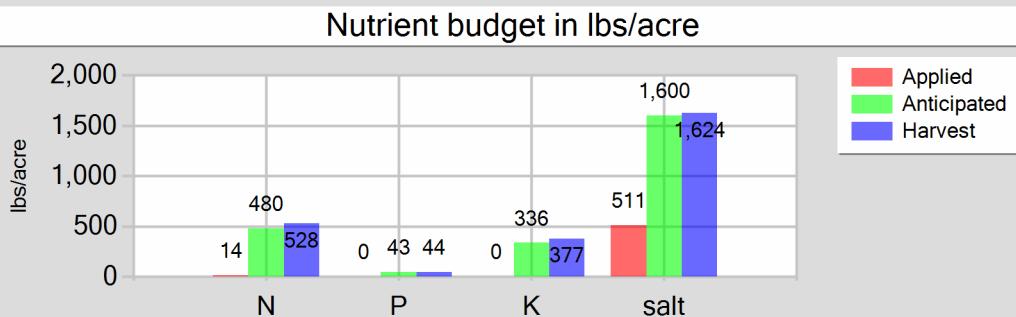
Reporting period 01/01/2023 to 12/31/2023.

BV-7 - 03/20/2019: Alfalfa, hay

Field name: BV-7

Crop: Alfalfa, hay

Plant date: 03/20/2019



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	511.36
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	14.00	0.00	0.00	511.36
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	527.84	43.61	377.46	1,624.11
Nutrient balance	-513.84	-43.61	-377.46	-1,112.75
Applied to removed ratio	0.03	0.00	0.00	0.31

Fresh water applied
159,321,566.00 gallons
5,867.27 acre-inches
45.13 inches/acre

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

Total harvests for the crop
1 harvests

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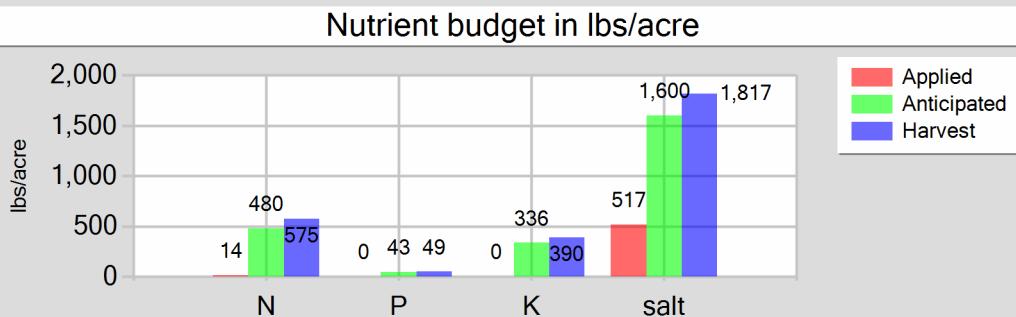
Reporting period 01/01/2023 to 12/31/2023.

BV-8 - 03/24/2019: Alfalfa, hay

Field name: BV-8

Crop: Alfalfa, hay

Plant date: 03/24/2019



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	516.85
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	14.00	0.00	0.00	516.85
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	574.71	48.54	389.92	1,816.51
Nutrient balance	-560.71	-48.54	-389.92	-1,299.65
Applied to removed ratio	0.02	0.00	0.00	0.28

Fresh water applied

161,032,258.00 *gallons*
5,930.27 *acre-inches*
45.62 *inches/acre*

Process wastewater applied

0.00 *gallons*
0.00 *acre-inches*
0.00 *inches/acre*

Total harvests for the crop

1 *harvests*

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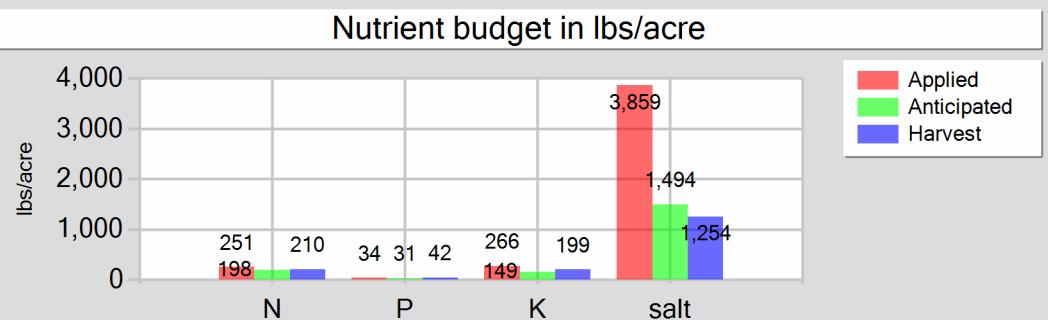
Reporting period 01/01/2023 to 12/31/2023.

BV-9 - 11/14/2022: Wheat, silage, soft dough

Field name: BV-9

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	26,256,251.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	966.93 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	12.89 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	243.93	33.69	265.59	3,082.60	Process wastewater applied
Fresh water	0.00	0.00	0.00	776.43	5,724,101.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	210.80 acre-inches
Total nutrients applied	250.93	33.69	265.59	3,859.03	2.81 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00	Total harvests for the crop
Actual crop nutrient removal	209.83	42.20	199.28	1,254.27	1 harvests
Nutrient balance	41.11	-8.51	66.31	2,604.76	
Applied to removed ratio	1.20	0.80	1.33	3.08	

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

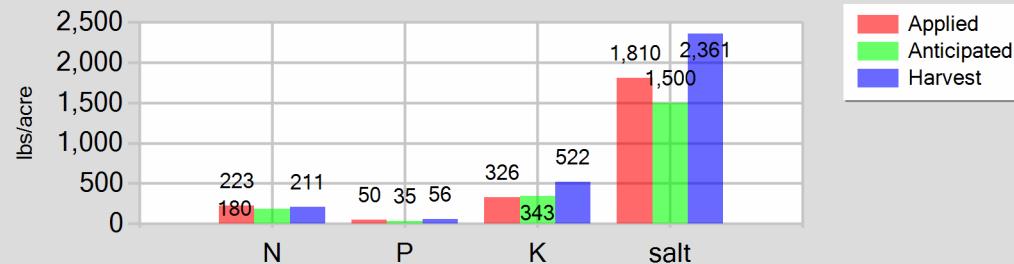
BV-9 - 06/06/2023: Sorghum-Sudangrass, forage

Field name: BV-9

Crop: Sorghum-Sudangrass, forage

Plant date: 06/06/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	56,522,943.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	2,081.55 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	27.75 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	215.59	49.92	325.97	1,495.18	Process wastewater applied
Fresh water	0.00	0.00	0.00	314.46	4,347,582.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	160.11 acre-inches
Total nutrients applied	222.59	49.92	325.97	1,809.63	2.13 inches/acre
Anticipated crop nutrient removal	180.00	35.00	342.50	1,500.00	Total harvests for the crop
Actual crop nutrient removal	211.12	55.66	522.04	2,360.68	1 harvests
Nutrient balance	11.47	-5.74	-196.07	-551.05	
Applied to removed ratio	1.05	0.90	0.62	0.77	

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

NUTRIENT ANALYSES**A. MANURE ANALYSES****Manure**

Sample and source description: Manure

Sample date: 10/05/2022 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: Dry-weight

Moisture: 12.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	5,000.00	15,200.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 05/01/2023 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: Dry-weight

Moisture: 8.4 %

	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	30,500.00	9,600.00	39,500.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 10/03/2023 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: Dry-weight

Moisture: 35.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,400.00	8,600.00	28,200.00							
DL	100.00	200.00	200.00							

B. PROCESS WASTEWATER ANALYSES

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

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

Lagoon

Sample and source description: Lagoon

Sample date: 11/10/2022 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	383.00	304.00	0.00	0.00	52.90	417.00								7,290.00	4,840
DL	10.00	2.00	0.10	0.10	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 03/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.40

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	362.00	268.00	0.00	0.00	36.80	521.00								5,710.00	3,790
DL	10.00	2.00	0.10	0.10	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

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

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	470.00	429.00	0.00	0.00	105.00	701.00								4,110.00	2,730
DL	10.00	2.00	1.00	1.00	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

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

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	323.00	312.00	0.00	0.00	94.10	537.00								7,400.00	4,910
DL	10.00	2.00	1.00	1.00	0.20	0.50								100.00	10

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LagoonSample and source description: LagoonSample date: 11/07/2023 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	523.00	519.00	0.00	0.00	28.40	607.00								7,830.00	5,200
DL	10.00	2.00	0.10	0.10	0.20	0.50								100.00	10

C. FRESH WATER ANALYSES**Buena Vista ID****Buena Vista ID**Sample description: Buena Vista IDSample date: 06/28/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00	0.00	0.00								70.00	50
DL	0.50	0.50	0.50								1.00	20

BV 3**Irrigation Well**Sample description: Irrigation WellSample date: 06/28/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00	0.00	0.00								458.00	280
DL	0.10	0.50	0.50								100.00	20

BV 4

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

BV 4**Irrigation Well**Sample description: Irrigation WellSample date: 06/28/2023 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 (μ mhos/cm)	TDS (mg/L)
Value	0.00	0.00	0.00								610.00	410
DL	0.50	0.10	0.40								1.00	20

Dairy Well**Domestic Well**Sample description: Domestic WellSample date: 08/25/2022 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 (μ mhos/cm)	TDS (mg/L)
Value	0.00	0.00	0.00								381.00	
DL	0.20	0.10	0.20								1.00	

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

BV-1 - 11/10/2022: Wheat, silage, soft dough

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

BV-1 - 11/10/2022: Wheat, silage, soft dough

Wheat

Sample and source description: Wheat

Sample date: 05/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	2,700.00	12,800.00		7.56
DL	500.00	200.00	200.00		0.05

BV-1 - 06/01/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

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

Moisture: 69.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,100.00	2,800.00	17,900.00		11.40
DL	500.00	200.00	200.00		0.05

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

Wheat

Sample and source description: Wheat

Sample date: 05/28/2023 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	17,000.00	3,400.00	17,800.00		10.70
DL	500.00	200.00	200.00		0.05

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BV-10 - 06/01/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

Sample date: 09/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 67.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,500.00	2,800.00	26,200.00		13.30
DL	500.00	200.00	200.00		0.05

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

Wheat

Sample and source description: Wheat

Sample date: 05/28/2023 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	16,700.00	3,600.00	16,600.00		10.30
DL	500.00	200.00	200.00		0.05

BV-11 - 06/02/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

Sample date: 09/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,300.00	2,800.00	22,600.00		12.10
DL	500.00	200.00	200.00		0.05

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BV-3 - 11/11/2022: Wheat, silage, soft dough

Wheat

Sample and source description: Wheat

Sample date: 05/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 75.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	23,400.00	4,600.00	26,600.00		12.20
DL	500.00	200.00	200.00		0.05

BV-3 - 06/02/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

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

Moisture: 69.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,800.00	1,800.00	10,800.00		10.50
DL	500.00	200.00	200.00		0.05

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

Wheat

Sample and source description: Wheat

Sample date: 05/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,700.00	3,400.00	20,500.00		8.12
DL	500.00	200.00	200.00		0.05

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

BV-4 - 06/05/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

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

Moisture: 65.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,000.00	3,200.00	21,600.00		12.10
DL	500.00	200.00	200.00		0.05

BV-5 - 11/13/2022: Wheat, silage, soft dough

Wheat

Sample and source description: Wheat

Sample date: 05/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,100.00	2,800.00	10,900.00		6.65
DL	500.00	200.00	200.00		0.05

BV-5 - 06/05/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

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

Moisture: 67.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,300.00	3,000.00	24,700.00		12.90
DL	500.00	200.00	200.00		0.05

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

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

Wheat

Sample and source description: Wheat

Sample date: 05/10/2023 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	17,600.00	3,900.00	23,200.00		10.30
DL	500.00	200.00	200.00		0.05

BV-6 - 06/06/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

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

Moisture: 65.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,800.00	3,000.00	22,200.00		11.60
DL	500.00	200.00	200.00		0.05

BV-7 - 03/20/2019: Alfalfa, hay

Alfalfa

Sample and source description: Alfalfa

Sample date: 11/07/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 11.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	35,100.00	2,900.00	25,100.00		10.80
DL	500.00	200.00	200.00		0.05

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

BV-8 - 03/24/2019: Alfalfa, hay

Alfalfa

Sample and source description: Alfalfa

Sample date: 11/07/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 8.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	36,700.00	3,100.00	24,900.00		11.60
DL	500.00	200.00	200.00		0.05

BV-9 - 11/14/2022: Wheat, silage, soft dough

Wheat

Sample and source description: Wheat

Sample date: 05/27/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,900.00	3,600.00	17,000.00		10.70
DL	500.00	200.00	200.00		0.05

BV-9 - 06/06/2023: Sorghum-Sudangrass, forage

Sorghum

Sample and source description: Sorghum

Sample date: 09/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 62.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,000.00	2,900.00	27,200.00		12.30
DL	500.00	200.00	200.00		0.05

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

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

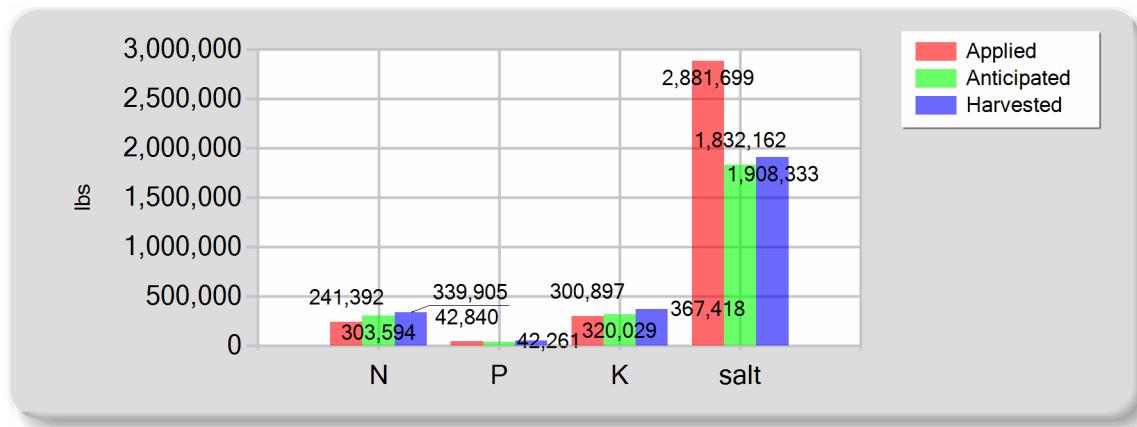
No subsurface (tile) drainage analyses entered.

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

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

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	231,130.34	42,840.42	300,897.06	2,274,644.69
Fresh water	0.00	0.00	0.00	607,054.39
Atmospheric deposition	10,262.00	0.00	0.00	0.00
Total nutrients applied	241,392.34	42,840.42	300,897.06	2,881,699.08
Anticipated crop nutrient removal	303,594.00	42,260.80	320,028.70	1,832,162.00
Actual crop nutrient removal	339,904.60	52,450.95	367,417.51	1,908,333.30
Nutrient balance	-98,512.26	-9,610.54	-66,520.45	973,365.78
Applied to removed ratio	0.71	0.82	0.82	1.51

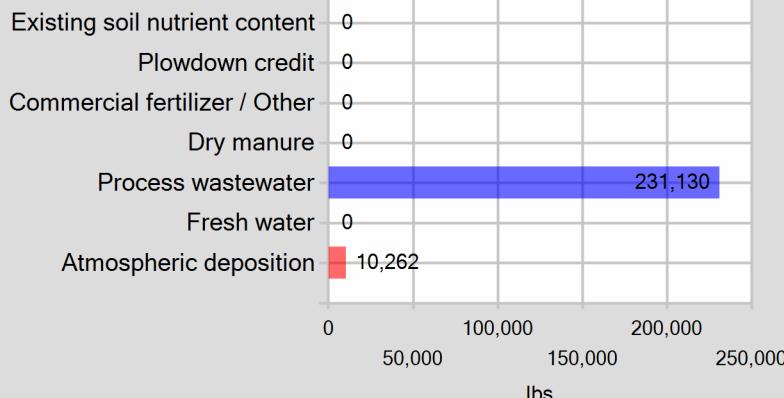
B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

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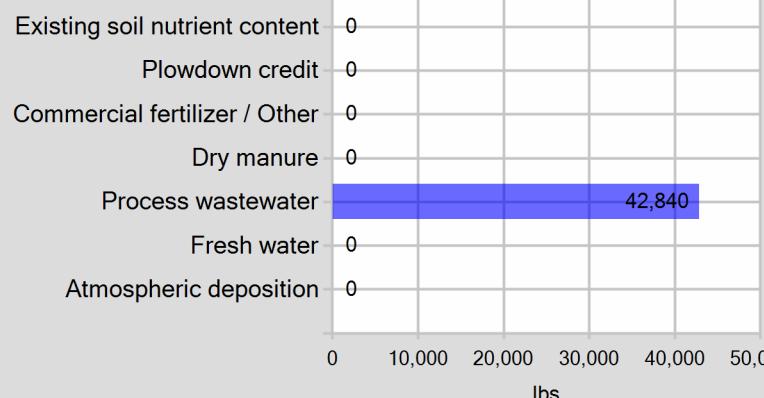
Reporting period 01/01/2023 to 12/31/2023.

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

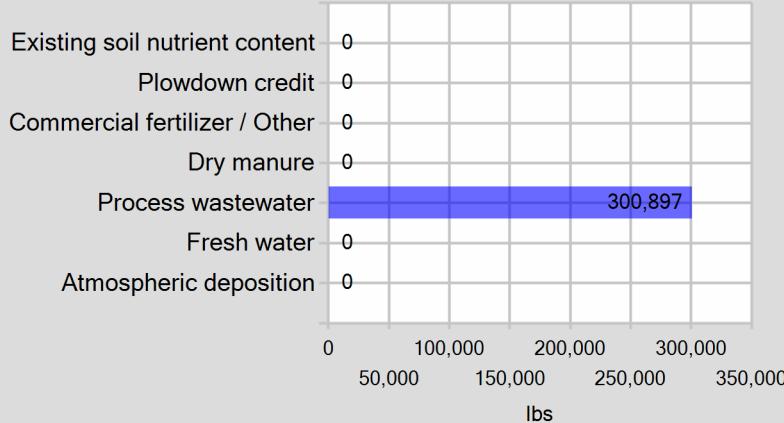
Pounds of nitrogen applied



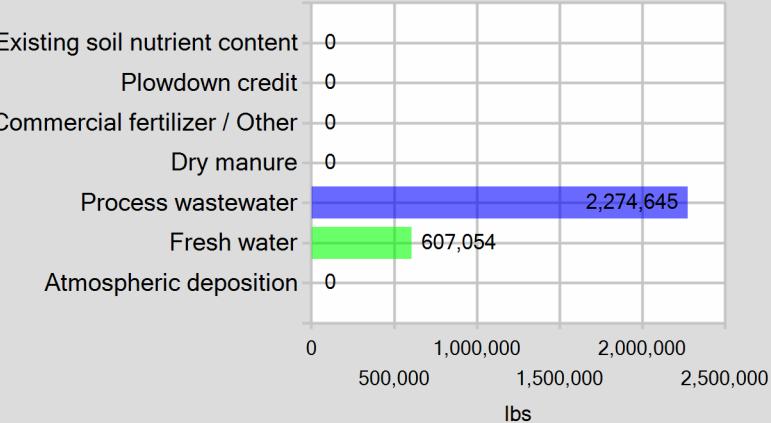
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied



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

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

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

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

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

B. EXPORT AGREEMENT STATEMENT

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

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

ADDITIONAL NOTES

A. NOTES

~Wells~ BV9, BV11 were Out of Service in 2023.

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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

John Bidart

PRINT OR TYPE NAME

6/14/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

6/14/2024

DATE

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

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

ATTACHMENTS

A. REQUIRED ATTACHMENTS

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

Annual Dairy Facility Assessment

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

Manure/Process Wastewater Tracking Manifests

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

Corrective Actions Documents

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

Groundwater Monitoring

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

Storm Water Monitoring

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

July 17, 2023

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

Lab No. : VI 2344350
Customer No. : 4019696
Reference : 3051

Laboratory Report

Introduction: This report package contains a total of 4 pages divided into 3 sections:

- | | | |
|-----------------|-----------|---|
| Case Narrative | (1 page) | : An overview of the work performed at FGL. |
| Sample Results | (2 pages) | : Results for each sample submitted. |
| Quality Control | (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
BV3	06/28/2023	06/28/2023	VI 2344350-001	AGW
BV4	06/28/2023	06/28/2023	VI 2344350-002	AGW

Sampling and Receipt Information:

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

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

Test Summary

EPA 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: KEH

Approved By **Kelly A. Dunnahoo, B.S.**  Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-07-17

Section: Case Narrative

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

July 17, 2023

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

Description : BV3
 Project : BV

Lab No. : VI 2344350-001
 Customer No. : 4019696
 Reference : 3051
 Sampled On : June 28, 2023 at 08:30
 Sampled By : Klay
 Received On : June 28, 2023 at 10:44
 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	07/11/2023	15:00	sta	EPA 351.2	07/14/2023	16:48	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:56	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	Calc.	07/14/2023	16:48	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:56	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	EPA 351.2	07/14/2023	16:48	lcr
Conductivity	458	1	umhos/cm		1		07/05/2023	14:10	amm	SM 4500-H+B	07/06/2023	00:42	sta
Solids, Total Dissolved (TDS)	280	20	mg/L		1		06/29/2023	17:00	ctl	SM 2540 C	06/30/2023	11:50	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

July 17, 2023

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

Description : BV4
 Project : BV

Lab No. : VI 2344350-002
 Customer No. : 4019696
 Reference : 3051
 Sampled On : June 28, 2023 at 08:35
 Sampled By : Klay
 Received On : June 28, 2023 at 10:44
 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	07/11/2023	15:00	sta	EPA 351.2	07/14/2023	16:51	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:58	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	Calc.	07/14/2023	16:51	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:58	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	EPA 351.2	07/14/2023	16:51	lcr
Conductivity	610	1	umhos/cm		1		07/05/2023	14:10	amm	SM 4500-H+B	07/06/2023	00:47	sta
Solids, Total Dissolved (TDS)	410	20	mg/L		1		06/29/2023	16:30	ctl	SM 2540 C	06/30/2023	11:50	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

July 17, 2023

Sentry Ag Service
Lab No. : VI 2344350
Customer No. : 4019696
Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(STK2338534-002)	Dup	umhos/cm		0.3%	5	
Solids, Total Dissolved	2540CE	06/29/2023:207182CTL (SP 2311097-001) (SP 2311097-001)	Blank LCS Dup Dup Blank LCS (VI 2344376-001) (VI 2344376-001)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	993.7	ND 102% 4.35% 0.9% ND 99.2% 1.12% 1.19%	<20 90-110 5 5 <20 90-110 5 5	
Nitrogen, Total Kjeldahl	351.2	07/11/2023:207567STA (VI 2344346-001) (VI 2344346-002)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 95.6% 93.6% 92.2% 1.4% 93.7% 96.7% 3.1%	<0.5 73-124 54-136 54-136 ≤27 54-136 54-136 ≤27	
Nitrate + Nitrite as N	4500NO3F	06/29/2023:207183LFS (VI 2344345-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 0.5%	ND 98.0% 94.6% 95.5% ≤30.4	<0.4 80-120 66-125 66-125 ≤30.4	
Nitrate Nitrogen	4500NO3F	06/29/2023:207183LFS (VI 2344345-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 0.5%	ND 98.0% 94.6% 95.5% ≤30.4	<0.4 80-120 66-125 66-125 ≤30.4	

Definition

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



2344350

Laboratory Analysis Work Order

3051

SITE NAME: BV

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

LABORATORY: VT FGL 4-19696

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

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

R01
5.4°

Process Waste Water (lagoon)

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

Manure

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

Soil

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

Plant Tissue

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

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH ₃ N *	pH	Temp
1 BV3	Irr. well	W2	6/28/23 8:30	Klay	—		
2 BV4	↓	W	↓ 8:35	↓	—		
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 or the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1 st	Klay	SAS	6/28/23 10:44	
2 nd	SRO	FGL	6/28/23 1044	
3 rd	SRO	FGL		6.28.23 1730
4 th		GLS	6.28.23 1730	

LABORATORY USE ONLY

Logged In By: GLS 6/29/23 Total Samples: _____ Laboratory No.: _____

CDA 1628

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

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

2. Were samples received in a chilled condition? Temps: 201 / 5.4 / / /

Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

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

Sample Receipt Review completed by (initials): SRO

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 112 / 4 / / 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:

SS9678703 / 7 / 691 / 696

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

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

Sample Verification, Labeling and Distribution:

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

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:

(4019696)
Sentry Ag Service
VI 2344350

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

iv 06/28/2023 11:43:30

U1 2344350

July 20, 2023

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

Lab No. : VI 2344349
Customer No. : 4019696
Reference : 3048

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
Buena Vista ID	06/28/2023	06/28/2023	VI 2344349-001	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: KEH

Approved By **Kelly A. Dunnahoo, B.S.**  Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-07-21

Section: Case Narrative

Page 1 of 3

Page 1 of 3

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573	Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	Office & Laboratory 3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810
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July 20, 2023

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

Description : Buena Vista ID
 Project : Buena Vista ID

Lab No. : VI 2344349-001
 Customer No. : 4019696
 Reference : 3048
 Sampled On : June 28, 2023 at 07:50
 Sampled By : Klay
 Received On : June 28, 2023 at 10:44
 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	07/11/2023	15:00	sta	EPA 351.2	07/17/2023	19:07	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:51	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	Calc.	07/17/2023	19:07	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	06/29/2023	12:00	lfs	SM 4500-NO3 F	06/29/2023	14:51	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/11/2023	15:00	sta	EPA 351.2	07/17/2023	19:07	lcr
Conductivity	70	1	umhos/cm		1		07/05/2023	14:10	amm	SM 4500-H+B	07/06/2023	01:46	sta
Solids, Total Dissolved (TDS)	50	20	mg/L		1		06/29/2023	17:00	ctl	SM 2540 C	06/30/2023	11:50	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

July 20, 2023

Sentry Ag Service

Lab No. : VI 2344349

Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2343910-002)	Dup	umhos/cm		0%	5	
Solids, Total Dissolved	2540CE	06/29/2023:207182CTL (VI 2344376-001) (VI 2344376-001)	Blank LCS Dup Dup	mg/L mg/L mg/L mg/L	993.7	ND 99.2% 1.12% 1.19%	<20 90-110 5 5	
Nitrogen, Total Kjeldahl	351.2	07/11/2023:207567STA (STK2338587-001) (STK2338587-003)	Blank LCS MS MSDP MS MSDP MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 96.2% 93.1% 92.6% 0.6% 93.1% 91.7% 1.5%	<0.5 73-124 54-136 54-136 ≤27 54-136 54-136 ≤27	
Nitrate + Nitrite as N	4500NO3F	06/29/2023:207183LFS (VI 2344345-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609	ND 98.0% 94.6% 95.5% 0.5%	<0.4 80-120 66-125 66-125 ≤30.4	
Nitrate Nitrogen	4500NO3F	06/29/2023:207183LFS (VI 2344345-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609	ND 98.0% 94.6% 95.5% 0.5%	<0.4 80-120 66-125 66-125 ≤30.4	

Definition

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



2344349
Laboratory Analysis Work Order

3048

SITE NAME: Buena Vista ID.

Billing: Sentry Ag Services, LLC

P.O. Box 7750, Visalia, CA 93290

LABORATORY: VT

FGL 4-19696

Authorized Copy Release to:

labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

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

ROI
5.4

Plant Tissue

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

Process Waste Water (lagoon)

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

Manure

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

Soil

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

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH ₃ N *	pH	Temp
1 Buena Vista ID	Canal	W2	6/28/23 7:50	Kay	—		
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 or the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES:

CHAIN OF CUSTODY RECORDING

Signature	Company	Received Date & Time	Relinquished Date & Time
Kay Mittel	SAC		6/28/23 10:44
SRD	FGL	6/28/23 1044	
SRD	FGL		6/28/23 1730
GLS	GLS	6/28/23 1730	

LABORATORY USE ONLY

Logged In By:

CDA

6/29/23
1028

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 # OTC

2. Were samples received in a chilled condition? Temps: 201 / 5.4 / / /

Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

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

Sample Receipt Review completed by (initials): SRO

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 21 / 1 / 4 / 4 /

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:

559678703 / 7 / 691 / 696

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

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

Sample Verification, Labeling and Distribution:

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

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

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

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: _____

(4019696)

Initiated By: _____

Sentry Ag Service

Problem:

VI 2344349

Resolution:

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

iv 06/28/2023 11:43:26



01 2344349

December 18, 2023

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

Lab No. : VI 2348238
Customer No. : 4019696
Reference : 3458

Laboratory Report

Introduction: This report package contains a total of 4 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 | (2 pages) | : Supporting Quality Control (QC) results. |

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
Dairy Well	12/06/2023	12/06/2023	VI 2348238-001	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

EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.**  Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-12-18

Section: Case Narrative

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Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573	Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	Office & Laboratory 3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810
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December 18, 2023

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

Description : Dairy Well
 Project : BV

Lab No. : VI 2348238-001
 Customer No. : 4019696
 Reference : 3458
 Sampled On : December 6, 2023 at 09:40
 Sampled By : Klay Mittel
 Received On : December 6, 2023 at 12:47
 Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Alkalinity (as CaCO ₃)	90	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:11	amm
Bicarbonate	100	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:11	amm
Carbonate	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:11	amm
Hydroxide	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:11	amm
Chloride	12	1	mg/L	500 ²	1		12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	08:53	ldm
Nitrate Nitrogen	ND	0.1	mg/L	10	1	J	12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	08:53	ldm
Conductivity	410	1	umhos/cm	1600 ²	1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	19:11	amm
Sulfate Sulfur	27.7	0.17	mg/L		1		12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	08:53	ldm
Solids, Total Dissolved (TDS)	290	20	mg/L	1000 ²	1		12/08/2023	09:50	ctl	SM 2540 C	12/11/2023	11:30	ctl
Calcium	9	1	mg/L		1		12/11/2023	02:32	ejc	EPA 200.7	12/12/2023	19:45	ac
Magnesium	ND	1	mg/L		1	U	12/11/2023	02:32	ejc	EPA 200.7	12/12/2023	19:45	ac
Potassium	ND	1	mg/L		1	U	12/11/2023	02:32	ejc	EPA 200.7	12/12/2023	19:45	ac
Sodium	79	1	mg/L		1		12/11/2023	02:32	ejc	EPA 200.7	12/12/2023	19:45	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 , Dil.=Dilution

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

December 18, 2023
Sentry Ag Service

Lab No. : VI 2348238
Customer No. : 4019696

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Calcium	200.7	12/11/2023:213908EJC (CC 2384348-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 106% -2300% -2490% 1.7% 251% 127% 5.8%	<1 85-115 <1/4 <1/4 ≤20.0 <1/4 <1/4 ≤20.0	406
Magnesium	200.7	12/11/2023:213908EJC (CC 2384348-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 97.7% -695% -716% 0.6% 114% 108% 0.8%	<1 85-115 <1/4 <1/4 ≤20 75-125 75-125 ≤20	406
Potassium	200.7	12/11/2023:213908EJC (CC 2384348-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 102% 100% 108% 2.4% 110% 105% 2.4%	<1 85-115 75-125 75-125 ≤20.0 75-125 75-125 ≤20.0	
Potassium	200.7	12/11/2023:213908EJC (SP 2320220-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 105% -2230% -2560% 0.9% 129% 157% 1.8%	<1 85-115 <1/4 <1/4 ≤20.0 <1/4 <1/4 ≤20.0	406
Sodium	200.7	12/11/2023:213908EJC (SP 2320220-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 105% -2230% -2560% 0.9% 129% 157% 1.8%	<1 85-115 <1/4 <1/4 ≤20.0 <1/4 <1/4 ≤20.0	406

Definition

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

Explanation

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

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Alkalinity (as CaCO3)	2320B	12/09/2023:213884AMM	ND	mg/L		0.2%	10	406
Bicarbonate	2320B	(STK2356553-007)	Dup	mg/L		0.2%	10	
E. C.	2320B	(STK2356553-007)	Dup	umhos/cm		0.06%	5	
Solids, Total Dissolved	2540CE	12/08/2023:213823CTL	Blank	mg/L	991.5	ND	<20	
		(SP 2320140-001)	LCS	mg/L		99.5%	90-110	
		(SP 2320140-001)	Dup	mg/L		0.6%	5	
		(SP 2320140-001)	Dup	mg/L		0.2%	5	
Chloride	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<1	
		(CH 2373985-001)	LCS	mg/L	25.00	98.5%	90-110	
		(CH 2373985-001)	MS	mg/L	50.00	102%	67-117	
		(VI 2348252-001)	MSD	mg/L	50.00	102%	67-117	
		(VI 2348252-001)	MSRPD	mg/L		0.0%	≤7	
		(VI 2348252-001)	MS	mg/L	50.00	100%	67-117	
		(VI 2348252-001)	MSD	mg/L	50.00	101%	67-117	
		(VI 2348252-001)	MSRPD	mg/L		0.8%	≤7	
Nitrate Nitrogen	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<0.4	
		(CH 2373985-001)	LCS	mg/L	20.00	96.6%	90-110	
		(CH 2373985-001)	MS	mg/L	40.00	101%	86-112	
		(CH 2373985-001)	MSD	mg/L	40.00	101%	86-112	
		(VI 2348252-001)	MSRPD	mg/L		0.1%	≤7	
		(VI 2348252-001)	MS	mg/L	40.00	101%	86-112	
		(VI 2348252-001)	MSD	mg/L	40.00	102%	86-112	
		(VI 2348252-001)	MSRPD	mg/L		0.9%	≤7	
Sulfate Sulfur	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<0.5	
		(CH 2373985-001)	LCS	mg/L	50.00	99.8%	90-110	
		(CH 2373985-001)	MS	mg/L	100.0	103%	18-165	
		(CH 2373985-001)	MSD	mg/L	100.0	103%	18-165	
		(CH 2373985-001)	MSRPD	mg/L		0.1%	≤7	
		(VI 2348252-001)	MS	mg/L	100.0	102%	18-165	
		(VI 2348252-001)	MSD	mg/L	100.0	103%	18-165	
		(VI 2348252-001)	MSRPD	mg/L		1.0%	≤7	

Definition

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

Explanation

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



Laboratory Analysis Work Order

SITE NAME: BV

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

2348238

3458

LABORATORY: VT

FGL 4-19696

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

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

1.80 C R=1

TH 407

Plant Tissue

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

Process Waste Water (lagoon)

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

Manure

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

Soil

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

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH ₃ N *	pH	Temp
1	Dairy Well	Dom. Well	WAT	12/6/23 9:40	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 samples, please note below.

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1 st	Klay Mith	SAS		12/6/23 12:47
2 nd	AJB	FLD	12/6/23 12:47	
3 rd	AJB	FLD		12/6/23 17:30
4 th	GLD	FLD	12/6/23 17:30	

LABORATORY USE ONLY

Logged In By: _____

Total Samples: _____

Laboratory No.: 1030

1030

