

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: ADAMSCOWS DAIRY

Physical address of dairy:

16661 S FOWLER AVE

Number and Street

SELMA

City

Fresno

County

93662

Zip Code

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

Date facility was originally placed in operation: 01/01/1975

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0385-0180-0062-0000

B. OPERATORS

ADAMS, RICK

Operator name: ADAMS, RICK

Telephone no.: (559) 896-0909 (559) 259-2728

Landline Cellular

PO BOX 714

LATON

CA

93242

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

ADAMS, RICK

Legal owner name: ADAMS, RICK

Telephone no.: (559) 896-0909 (559) 259-2728

Landline Cellular

PO BOX 714

LATON

CA

93242

Mailing Address Number and Street

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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	60	10	20	20	15	15
Number under roof	0	0	0	0	0	0
Maximum number	60	10	20	20	15	15
Average number	60	10	20	20	15	15
Avg live weight (lbs)	1,200	1,300	1,000	800		

Predominant milk cow breed: Holstein

Average milk production: 71 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 2,195.28 tons per reporting period

Total nitrogen from manure: 27,368.87 lbs per reporting period

After ammonia losses (30% loss applied): 19,158.21 lbs per reporting period

Total phosphorus from manure: 4,415.30 lbs per reporting period

Total potassium from manure: 11,529.97 lbs per reporting period

Total salt from manure: 30,550.50 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 457,075 gallons

Total nitrogen generated: 990.59 lbs

<u>457,075 gallons applied</u>	
+	<u>0 gallons exported</u>
-	<u>0 gallons imported</u>
=	<u>457,075 gallons generated</u>

Total phosphorus generated: 7.02 lbs

Total potassium generated: 81.17 lbs

Total salt generated: 2,233.26 lbs

D. FRESH WATER SOURCES

Source Description	Type
AG	Ground water
Barn	Ground water

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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
CURVE	20	20	3	process wastewater	X385-X180-X062-XXXX
NORTH	35	35	2	both	X385-X180-X062-XXXX
SOUTH	35	35	2	both	X385-X180-X062-XXXX
Totals for areas that were used for application	90	90	7		
Totals for areas that were not used for application					
Land application area totals	90	90	7		

B. CROPS AND HARVESTS**CURVE**

Field name: CURVE

06/01/2017: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 20 Plant date: 06/01/2017

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/10/2023	55.50 ton	Dry-weight		3.2	28,500.00	2,300.00	16,300.00		9.89
06/01/2023	63.60 ton	Dry-weight		2.9	28,500.00	2,600.00	18,900.00		10.44
09/15/2023	57.50 ton	Dry-weight		4.2	31,500.00	2,400.00	18,900.00		10.77

	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	0.00
Total actual harvest content	8.83	502.63	41.63	308.40	1,769.32

NORTH

Field name: NORTH

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NORTH

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 35 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/01/2023	556.30 ton	Dry-weight		60.1	12,500.00	1,500.00	12,500.00		8.65

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	15.89	158.55	19.03	158.55	1,097.13

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 35 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 (%)
10/05/2023	878.50 ton	Dry-weight		65.3	13,700.00	3,200.00	18,900.00		9.33

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	25.10	238.65	55.74	329.23	1,625.23

SOUTH

Field name: SOUTH

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 35 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/01/2023	511.50 ton	Dry-weight		61.2	13,200.00	1,400.00	13,500.00		8.32

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	14.61	149.70	15.88	153.10	943.55

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SOUTH

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 35 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 (%)
10/05/2023	877.60 ton	Dry-weight		65.9	14,500.00	3,100.00	19,500.00		9.33

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	25.07	247.96	53.01	333.46	1,595.49

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NUTRIENT BUDGET**A. LAND APPLICATIONS**

CURVE - 06/01/2017: Alfalfa, hay

Field name: CURVE

Crop: Alfalfa, hay

Plant date: 06/01/2017

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following
04/10/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
AG	Ground water	12.99	0.00	0.00	495.53	4,448,000.00 gal
Application event totals		15.95	0.00	0.04	501.56	
04/25/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
Application event totals		2.96	0.00	0.04	6.03	
06/10/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
AG	Ground water	12.99	0.00	0.00	495.53	4,448,000.00 gal
Application event totals		15.95	0.00	0.04	501.56	
06/25/2023	Surface (irrigation)	No precipitation	No precipitation			No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
Application event totals		2.96	0.00	0.04	6.03	

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CURVE - 06/01/2017: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
AG	Ground water	12.99	0.00	0.00	495.53	4,448,000.00 gal
Application event totals		15.95	0.00	0.04	501.56	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
Application event totals		2.96	0.00	0.04	6.03	
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
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
AG	Ground water	12.99	0.00	0.00	495.53	4,448,000.00 gal
Application event totals		15.95	0.00	0.04	501.56	
08/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	2.96	0.00	0.04	6.03	23,750.00 gal
Application event totals		2.96	0.00	0.04	6.03	

NORTH - 11/01/2022: Wheat, silage, boot stage

Field name: NORTH

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

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

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NORTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/10/2022	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	97.14	24.57	69.71	3,452.93	100.00 ton
Application event totals		97.14	24.57	69.71	3,452.93	
12/06/2022	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	5.82	0.00	0.00	222.05	3,488,000.00 gal
Application event totals		6.15	0.01	0.05	222.86	
12/16/2022	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
12/26/2022	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
01/06/2023	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	5.82	0.00	0.00	222.05	3,488,000.00 gal
Application event totals		6.15	0.01	0.05	222.86	
01/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	

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NORTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
02/06/2023	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	
02/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
02/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
03/06/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	
03/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	

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NORTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	
04/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
04/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	

NORTH - 06/01/2023: Corn, silage

Field name: NORTH

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/25/2023	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	135.43	58.29	406.29	12,730.42	300.00 ton
Application event totals		135.43	58.29	406.29	12,730.42	

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NORTH - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/06/2023	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
WW	Process wastewater	0.42	0.00	0.01	0.86	5,935.00 gal
AG	Ground water	9.16	0.00	0.00	349.37	5,488,000.00 gal
Application event totals		9.58	0.00	0.01	350.23	
07/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.42	0.00	0.01	0.86	5,935.00 gal
Application event totals		0.42	0.00	0.01	0.86	
07/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.42	0.00	0.01	0.86	5,935.00 gal
Application event totals		0.42	0.00	0.01	0.86	
08/06/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.42	0.00	0.01	0.86	5,935.00 gal
AG	Ground water	9.99	0.00	0.00	381.20	5,988,000.00 gal
Application event totals		10.42	0.00	0.01	382.06	
08/16/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	
08/26/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	

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NORTH - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/06/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
AG	Ground water	9.99	0.00	0.00	381.20	5,988,000.00 gal
Application event totals		10.21	0.01	0.08	381.92	
09/16/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	

SOUTH - 11/01/2022: Wheat, silage, boot stage

Field name: SOUTH

Crop: Wheat, silage, boot stage Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/10/2022	Plow/disc	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure	Corral solids	97.14	24.57	69.71	3,452.93	100.00 ton
Application event totals		97.14	24.57	69.71	3,452.93	
12/20/2022	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	

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SOUTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
12/30/2022	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
01/10/2023	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
01/20/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	
01/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
02/10/2023	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
02/20/2023	Shank	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	

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SOUTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/01/2023	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
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
03/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
03/20/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	
03/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
04/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
Application event totals		0.33	0.01	0.05	0.81	
04/20/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.33	0.01	0.05	0.81	5,935.00 gal
AG	Ground water	4.15	0.00	0.00	158.39	2,488,000.00 gal
Application event totals		4.49	0.01	0.05	159.20	

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SOUTH - 11/01/2022: Wheat, silage, boot stage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
04/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
WW	Process wastewater	0.33	0.01	0.05	0.81
Application event totals		0.33	0.01	0.05	0.81

SOUTH - 06/01/2023: Corn, silage

Field name: SOUTH

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
05/25/2023	Plow/disc	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
Dry Manure	Corral solids	90.29	38.86	270.86	8,486.95
Application event totals		90.29	38.86	270.86	8,486.95
07/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
WW	Process wastewater	0.42	0.00	0.01	0.86
AG	Ground water	9.83	0.00	0.00	374.83
Application event totals		10.25	0.00	0.01	375.69
07/20/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
WW	Process wastewater	0.42	0.00	0.01	0.86
Application event totals		0.42	0.00	0.01	0.86
07/30/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
WW	Process wastewater	0.42	0.00	0.01	0.86
Application event totals		0.42	0.00	0.01	0.86

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SOUTH - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
08/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW	Process wastewater	0.42	0.00	0.01	0.86	5,935.00 gal
AG	Ground water	9.83	0.00	0.00	374.83	5,888,000.00 gal
Application event totals		10.25	0.00	0.01	375.69	
08/20/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	
08/30/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	
09/10/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
AG	Ground water	9.83	0.00	0.00	374.83	5,888,000.00 gal
Application event totals		10.05	0.01	0.08	375.56	
09/20/2023	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
WW	Process wastewater	0.22	0.01	0.08	0.72	5,935.00 gal
Application event totals		0.22	0.01	0.08	0.72	

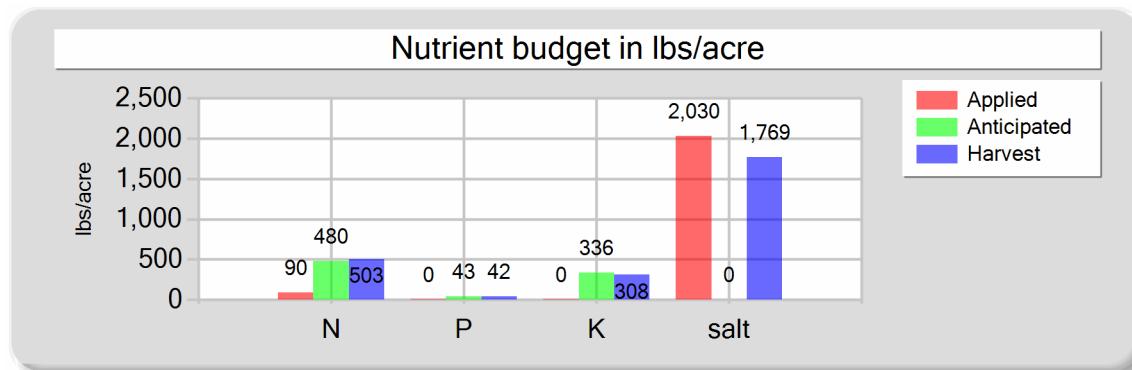
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B. NUTRIENT BUDGET

CURVE - 06/01/2017: Alfalfa, hay

Field name: CURVE Crop: Alfalfa, hay Plant date: 06/01/2017



	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	23.64	0.01	0.28	48.20
Fresh water	51.97	0.00	0.00	1,982.13
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	89.61	0.01	0.28	2,030.33
Anticipated crop nutrient removal	480.00	43.20	336.00	0.00
Actual crop nutrient removal	502.63	41.63	308.40	1,769.32
Nutrient balance	-413.02	-41.62	-308.12	261.01
Applied to removed ratio	0.18	0.00	0.00	1.15

Fresh water applied
17,792,000.00 gallons
655.22 acre-inches
32.76 inches/acre
Process wastewater applied
190,000.00 gallons
7.00 acre-inches
0.35 inches/acre
Total harvests for the crop
3 harvests

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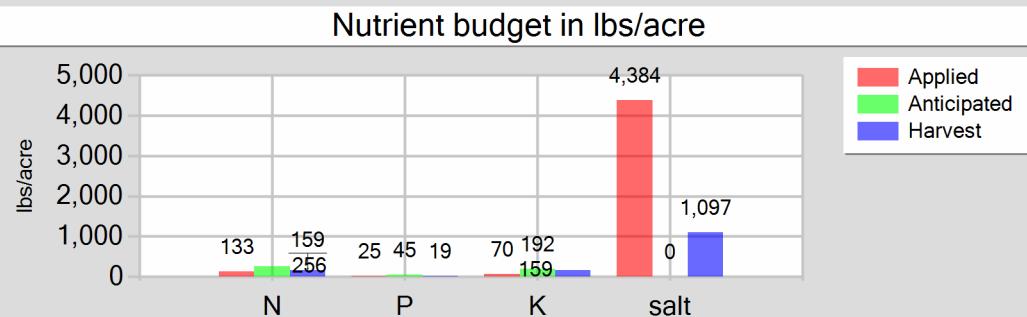
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NORTH - 11/01/2022: Wheat, silage, boot stage

Field name: NORTH

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	97.14	24.57	69.71	3,452.93
Process wastewater	5.00	0.08	0.76	12.21
Fresh water	24.10	0.00	0.00	919.26
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	133.24	24.65	70.47	4,384.39
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	158.55	19.03	158.55	1,097.13
Nutrient balance	-25.30	5.62	-88.07	3,287.25
Applied to removed ratio	0.84	1.30	0.44	4.00

Fresh water applied

14,440,000.00 gallons
531.78 acre-inches
15.19 inches/acre

Process wastewater applied

89,025.00 gallons
3.28 acre-inches
0.09 inches/acre

Total harvests for the crop

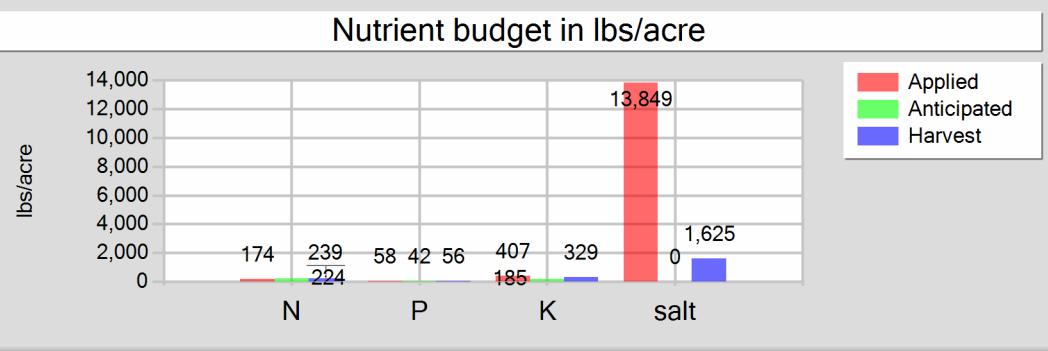
1 harvests

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NORTH - 06/01/2023: Corn, silage

Field name: NORTH Crop: Corn, silage Plant date: 06/01/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	135.43	58.29	406.29	12,730.42
Process wastewater	2.56	0.02	0.35	6.33
Fresh water	29.15	0.00	0.00	1,111.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	174.14	58.31	406.63	13,848.52
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	238.65	55.74	329.23	1,625.23
Nutrient balance	-64.51	2.57	77.41	12,223.29
Applied to removed ratio	0.73	1.05	1.24	8.52

Fresh water applied

17,464,000.00 gallons
643.14 acre-inches
18.38 inches/acre

Process wastewater applied

47,480.00 gallons
1.75 acre-inches
0.05 inches/acre

Total harvests for the crop

1 harvests

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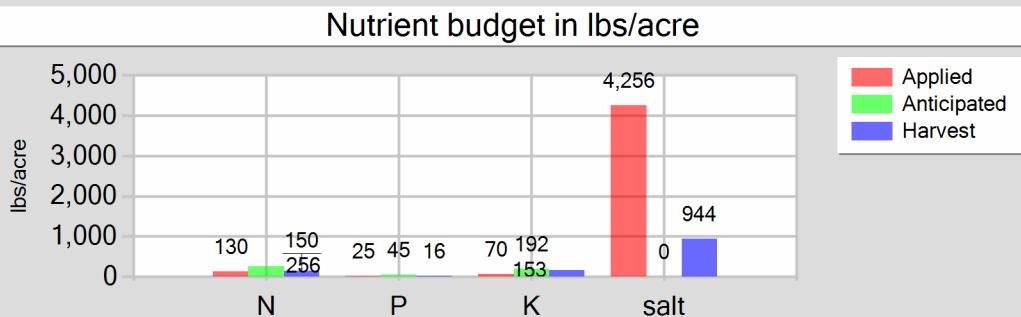
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SOUTH - 11/01/2022: Wheat, silage, boot stage

Field name: SOUTH

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	97.14	24.57	69.71	3,452.93
Process wastewater	4.67	0.07	0.71	11.39
Fresh water	20.76	0.00	0.00	791.94
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	129.57	24.64	70.42	4,256.25
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	149.70	15.88	153.10	943.55
Nutrient balance	-20.13	8.77	-82.68	3,312.71
Applied to removed ratio	0.87	1.55	0.46	4.51

Fresh water applied

12,440,000.00 gallons
458.12 acre-inches
13.09 inches/acre

Process wastewater applied

83,090.00 gallons
3.06 acre-inches
0.09 inches/acre

Total harvests for the crop

1 harvests

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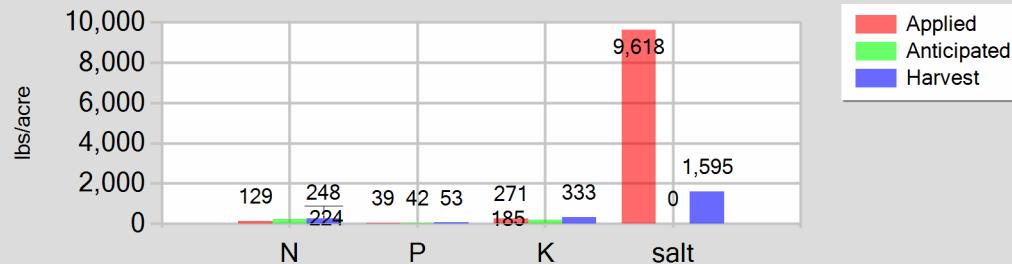
SOUTH - 06/01/2023: Corn, silage

Field name: SOUTH

Crop: Corn, silage

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	90.29	38.86	270.86	8,486.95
Process wastewater	2.56	0.02	0.35	6.33
Fresh water	29.48	0.00	0.00	1,124.50
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	129.33	38.88	271.20	9,617.78
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	247.96	53.01	333.46	1,595.49
Nutrient balance	-118.63	-14.13	-62.26	8,022.29
Applied to removed ratio	0.52	0.73	0.81	6.03

Fresh water applied

17,664,000.00 *gallons*
650.51 *acre-inches*
18.59 *inches/acre*

Process wastewater applied

47,480.00 *gallons*
1.75 *acre-inches*
0.05 *inches/acre*

Total harvests for the crop

1 *harvests*

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

Sample and source description: Dry Manure

Sample date: 06/16/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 2.8 %

	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	7,900.00	3,400.00	23,700.00	3,200.00	1,200.00	80.00	1,800.00	30.62		76.40
DL	100.00	100.00	100.00	100.00	100.00	10.00	100.00	1.00		1.00

Dry Manure

Sample and source description: Dry Manure

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

Moisture: 13.8 %

	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	17,000.00	4,300.00	12,200.00							70.10
DL	100.00	100.00	100.00							1.00

B. PROCESS WASTEWATER ANALYSES**1st Qtr WW**

Sample and source description: 1st Qtr WW

Sample date: 03/30/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.85

	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	235.50	16.40	0.00	0.00	3.64	35.70								1,105.00	575
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

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2nd Qtr WW

Sample and source description: 2nd Qtr WW

Sample date: 07/05/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.41

	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	298.24	1.90	0.00	0.00	0.15	3.56								950.00	608
DL	67.00	0.57	0.01	0.01	0.01	0.01								1.00	19

3rd Qtr WW

Sample and source description: 3rd Qtr WW

Sample date: 09/20/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.55

	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	154.70	25.50	0.00	0.00	3.77	57.65								899.00	511
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

4th Qtr WW

Sample and source description: 4th Qtr WW

Sample date: 12/25/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.44

	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	188.50	57.50	0.00	0.00	6.55	27.60								865.00	544
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

C. FRESH WATER ANALYSES

AG

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AG**AG**Sample description: AGSample date: 12/13/2023 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	7.00										445.00	
DL	0.10										1.00	

Barn**Barn**Sample description: BarnSample date: 12/13/2023 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										440.00	
DL	0.10										1.00	

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

CURVE - 06/01/2017: Alfalfa, hay

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CURVE - 06/01/2017: Alfalfa, hay

Curve 2nd cutting

Sample and source description: Curve 2nd cutting

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

Moisture: 3.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	28,500.00	2,300.00	16,300.00		9.89
DL	100.00	100.00	100.00		1.00

Cuve-4th cutting

Sample and source description: Cuve-4th cutting

Sample date: 06/01/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 2.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	28,500.00	2,600.00	18,900.00		10.44
DL	100.00	100.00	100.00		1.00

Curve 6th cutting

Sample and source description: Curve 6th cutting

Sample date: 09/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 4.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	31,500.00	2,400.00	18,900.00		10.77
DL	100.00	100.00	100.00		1.00

NORTH - 11/01/2022: Wheat, silage, boot stage

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

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

NORTH - 11/01/2022: Wheat, silage, boot stage

North

Sample and source description: North

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

Moisture: 60.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,500.00	1,500.00	12,500.00		8.65
DL	100.00	100.00	100.00		1.00

NORTH - 06/01/2023: Corn, silage

Corn

Sample and source description: Corn

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

Moisture: 65.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,700.00	3,200.00	18,900.00		9.33
DL	100.00	100.00	100.00		1.00

SOUTH - 11/01/2022: Wheat, silage, boot stage

South

Sample and source description: South

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

Moisture: 61.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,200.00	1,400.00	13,500.00		8.32
DL	100.00	100.00	100.00		1.00

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

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

SOUTH - 06/01/2023: Corn, silage

Corn

Sample and source description: Corn

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

Moisture: 65.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,500.00	3,100.00	19,500.00		9.33
DL	100.00	100.00	100.00		1.00

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

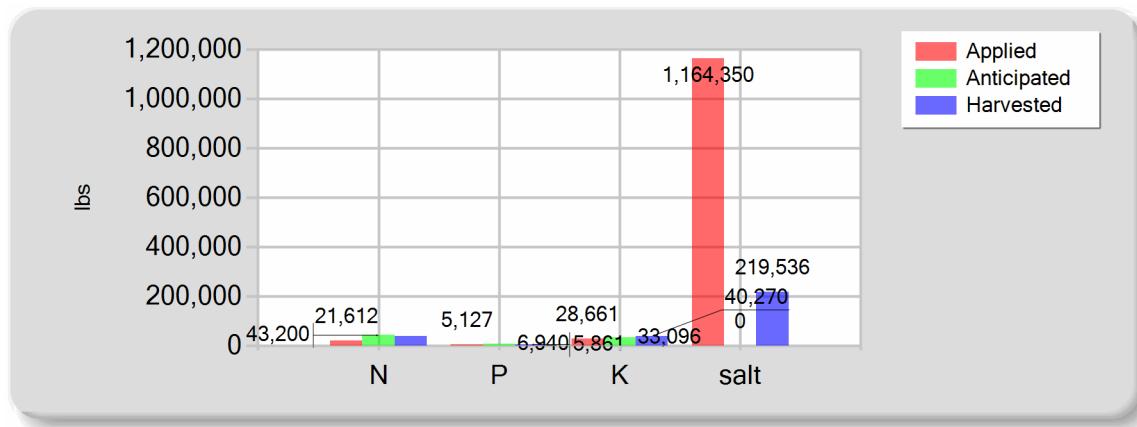
No subsurface (tile) drainage analyses entered.

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

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

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

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	14,700.00	5,120.00	28,580.00	984,312.80
Process wastewater	990.59	7.02	81.17	2,233.26
Fresh water	4,661.52	0.00	0.00	177,803.58
Atmospheric deposition	1,260.00	0.00	0.00	0.00
Total nutrients applied	21,612.10	5,127.02	28,661.17	1,164,349.63
Anticipated crop nutrient removal	43,200.00	6,940.00	33,096.00	0.00
Actual crop nutrient removal	37,872.37	5,860.65	40,269.68	219,535.55
Nutrient balance	-16,260.27	-733.63	-11,608.51	944,814.09
Applied to removed ratio	0.57	0.87	0.71	5.30

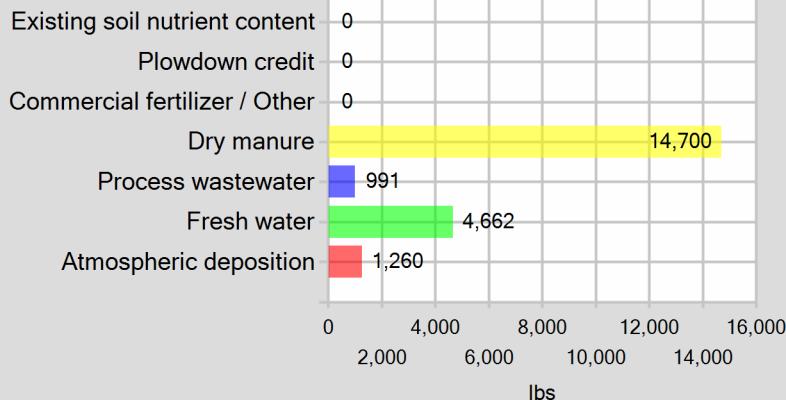
B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

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

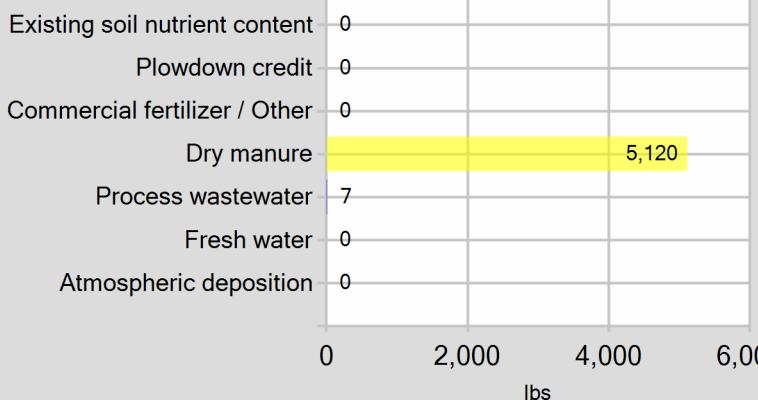
Reporting period 01/01/2023 to 12/31/2023.

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

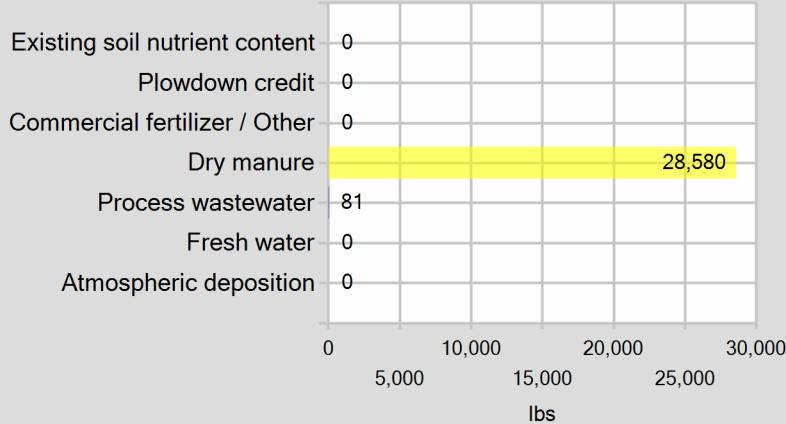
Pounds of nitrogen applied



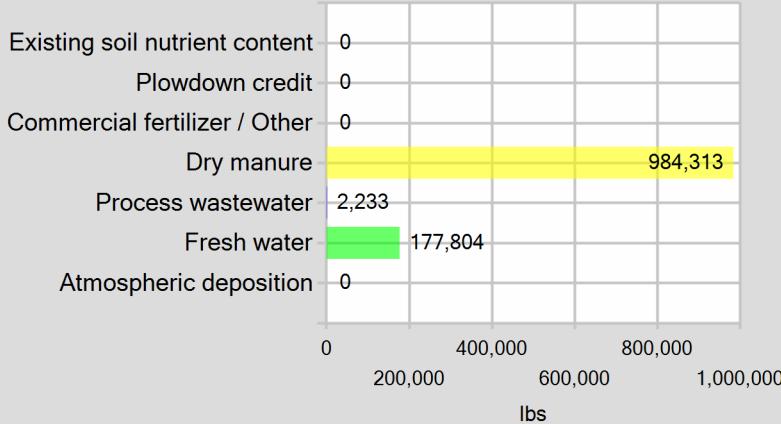
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied



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

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

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

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

Was the facility's NMP developed by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? No _____

Was the facility's NMP approved by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? No _____

B. EXPORT AGREEMENT STATEMENT

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

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

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

ADDITIONAL NOTES

A. NOTES

All of the wells that were sampled came out negative for Ammonia, which we tested onsite with a test strip.

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

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

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE OF OWNER OF FACILITY

SIGNATURE OF OPERATOR OF FACILITY

RICK ADAMS

SAME AS OWNER

PRINT OR TYPE NAME

PRINT OR TYPE NAME

DATE

DATE

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

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

ATTACHMENTS

A. REQUIRED ATTACHMENTS

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

Annual Dairy Facility Assessment

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

Manure/Process Wastewater Tracking Manifests

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

Corrective Actions Documents

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

Groundwater Monitoring

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

Storm Water Monitoring

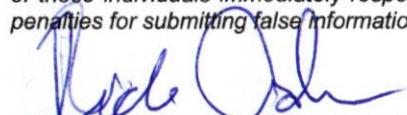
Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

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

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

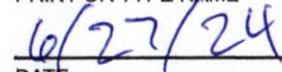
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



SIGNATURE OF OWNER OF FACILITY

RICK ADAMS

PRINT OR TYPE NAME



DATE

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE



Adamsows Dairy
Po Box 714
Laton, CA 93242

Account# 00-0025795
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 14:48
Reported: 12/21/2023 12:06

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23L0806-01	Barn	Ag Water	Medeiros		12/13/2023 8:45
Default Cooler	Temperature on Receipt °C: 14.8				
Containers Intact					
COC/Labels Agree					
Received On Ice					

Notes and Definitions

Item	Definition
H	Hold Time Exceeded
MCL	Drinking Water Maximum Contaminant Level
ND	Analyte NOT DETECTED at or above the reporting limit.
NES	Not Enough Sample
*	Not Taken
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

Laboratory Director/Technical Manager

ELAP Certification #1595

A2LA Certification #6440.02

The results in this report apply to the samples as received and were analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. Dellavalle Laboratory, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Adams cows Dairy
Po Box 714
Laton, CA 93242

Account# 00-0025795
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 14:48
Reported: 12/21/2023 12:06

Sample Results

Sample: Barn
23L0806-01 (Water)

Sampled: 12/13/2023 8:45
Sampled By: Medeiros

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.44	mmhos/cm	0.01	1		12/14/23 18:37	SM 2510 B		BEL0646
Electrical Conductivity umhos	440	umhos/cm	10.0	1		12/14/23 18:37	SM 2510 B		BEL0646
Ammonia (as N)	ND	mg/L	0.00	1		12/13/23 08:45	Field		BEL0476
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	12/19/23 00:04	EPA 300.0		BEL0510
Temperature	25.0	units	0.0	1		12/14/23 18:37	SM 4500-H+	H	BEL0646
pH	9.1	units	1.0	1		12/14/23 18:37	SM 4500-H+	H	BEL0646

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Submitted By: Christina Medeiros

Received: 12/13/2023 14:48
Reported: 12/21/2023 12:06

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0510									
Blank (BEL0510-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/18/2023				
Blank (BEL0510-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/18/2023				
Blank (BEL0510-BLK3)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 12/19/2023				
LCS (BEL0510-BS1)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	98.4	90-110			
LCS (BEL0510-BS2)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	98.7	90-110			
Duplicate (BEL0510-DUP1)									
Nitrate Nitrogen as NO3N	0.03	0.1	mg/L	0.03			6.45	10	
Duplicate (BEL0510-DUP2)									
Nitrate Nitrogen as NO3N	7.0	0.1	mg/L	6.9			0.649	10	
Matrix Spike (BEL0510-MS1)									
Nitrate Nitrogen as NO3N	5.1	0.1	mg/L	5.000	0.03	102	90-110		
Matrix Spike (BEL0510-MS2)									
Nitrate Nitrogen as NO3N	12.0	0.1	mg/L	5.000	6.9	101	90-110		
Reference (BEL0510-SRM1)									
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00		101	90-110		
Reference (BEL0510-SRM2)									
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00		101	90-110		
Reference (BEL0510-SRM3)									
Nitrate Nitrogen as NO3N	10.2		mg/L	10.00		102	90-110		

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Received: 12/13/2023 14:48
Reported: 12/21/2023 12:06

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0646									
Blank (BEL0646-BLK1)									
Temperature 25.0 0.0 units Prepared & Analyzed: 12/14/2023									
Electrical Conductivity ND 0.01 mmhos/cm									
Electrical Conductivity umhos 10.0 umhos/cm									
pH 5.6 1.0 units									
Blank (BEL0646-BLK2)									
Electrical Conductivity ND 0.01 mmhos/cm Prepared & Analyzed: 12/14/2023									
Temperature 25.0 0.0 units									
Electrical Conductivity umhos 10.0 umhos/cm									
pH 7.7 1.0 units									
Blank (BEL0646-BLK3)									
Electrical Conductivity ND 0.01 mmhos/cm Prepared & Analyzed: 12/14/2023									
Temperature 25.0 0.0 units									
Electrical Conductivity umhos 10.0 umhos/cm									
pH 7.2 1.0 units									
Duplicate (BEL0646-DUP1)									
Source: 23L0812-02 Prepared & Analyzed: 12/14/2023									
Electrical Conductivity 0.44 0.01 mmhos/cm 0.44 0.727 10									
pH 9.1 1.0 units 9.0 0.221 10									
Electrical Conductivity umhos 442 10.0 umhos/cm 439 0.727 10									
Duplicate (BEL0646-DUP2)									
Source: 23L0836-01 Prepared & Analyzed: 12/14/2023									
Electrical Conductivity 1.58 0.01 mmhos/cm 1.58 0.108 10									
Electrical Conductivity umhos 1580 10.0 umhos/cm 1580 0.108 10									
pH 6.6 1.0 units 6.6 0.151 10									
Reference (BEL0646-SRM1)									
Electrical Conductivity 430 umhos/cm 426.0 101 90-110 Prepared & Analyzed: 12/14/2023									
Reference (BEL0646-SRM2)									
pH 7.5 units 7.520 99.9 67021-101.3 Prepared & Analyzed: 12/14/2023									
Reference (BEL0646-SRM3)									
Electrical Conductivity 1020 umhos/cm 1000 102 90-110 Prepared & Analyzed: 12/14/2023									
Electrical Conductivity umhos 1020 umhos/cm 1000 102 90-110									
Reference (BEL0646-SRM4)									
Electrical Conductivity 1030 umhos/cm 1000 103 90-110 Prepared & Analyzed: 12/14/2023									
Electrical Conductivity umhos 1030 umhos/cm 1000 103 90-110									
Reference (BEL0646-SRM5)									
Electrical Conductivity 1020 umhos/cm 1000 102 90-110 Prepared & Analyzed: 12/14/2023									

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Received: 12/13/2023 14:48
Reported: 12/21/2023 12:06

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEL0646 (Continued)									
Reference (BEL0646-SRM5)									
Electrical Conductivity umhos	1020		umhos/cm	1000	102	90-110			
Reference (BEL0646-SRM6)									
pH	4.0		units	4.000	101	97.5-102.5			
Reference (BEL0646-SRM7)									
pH	4.0		units	4.000	101	97.5-102.5			
Reference (BEL0646-SRM8)									
pH	4.0		units	4.000	100	97.5-102.5			

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12/13/23 14:48

23L0806

Shipping Information: Shipped In Picked-Up Walk In DLI Sampler Other

Samples refrigerated before pick up Picked up samples placed in Ice chest

Container: Ice Chest Box None **Refrigerant:** Wet Ice Blue Ice None

Samples Preserved with HNO₃ or H₂SO₄ were: Received Preserved Preserved Upon Receipt at Laboratory

Type of Container(s) Received

Sample Number

1 2 3 4 5 6 7 8 9 10

Sample Containers for Internal (DLI) Use

(Containers that go into the Lab)

Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)									
	250 mL unpreserved (White) Plastic									
	250 mL HNO ₃ (Red) Plastic									
	* pH Value									
	250 mL H ₂ SO ₄ (Yellow) Plastic									
	* pH Value									
	500 mL unpreserved (White) Plastic									
	1 L unpreserved (White) Plastic	{								
Special	1 L unpreserved (BOD) (Purple) Plastic									
	500mL unpreserved (White) Glass									
	PO4-P Kit									
Other:										

Sample Containers for Subcontracted ("Send Out") Analyses

(Containers that go in the Subcontract ("Send Out") Refrigerator)

Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)									
	250 mL unpreserved (White) Plastic									
	250 mL HNO ₃ (Red) Plastic									
	250 mL H ₂ SO ₄ (Yellow) Plastic									
	500 mL HNO ₃ (Red)									
	1 L unpreserved (White) Plastic									
	1 L unpreserved (BOD) (Purple) Plastic									
	1 L HNO ₃ (Red)									

VOA Vials	40 mL VOA, Na ₂ S ₂ O ₃ + MCAA (EPA531)									
	40 mL VOA, Na ₂ S ₂ O ₃ (EPA547)									
	40mL AG VOA unpreserved (White) (Set of 3)									
	40 mL AG VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)									
	40mL VOA, H ₃ PO ₄ (Set of 3)									
	40 mL VOA, HCl (Blue) (Set of 3)									
	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)									

Glass	250 mL AG unpreserved (White)									
	250 mL AG H ₂ SO ₄ (Yellow)									
	250 mL AG Na ₂ S ₂ O ₃ (Green)									
	250 mL AG Na ₂ S ₂ O ₃ + MCAA									
	500 mL glass unpreserved (White)									
	500 mL AG HCl (Blue)									
	1 L AG unpreserved (White)									
	1 L AG H ₂ SO ₄ (Yellow)									
	1 L AG Na ₂ S ₂ O ₃ (Green)									
	1 L AG HCl (Blue)									

Special	Cr ^{o+} - 50mL Plastic w/Borate/HCO ₃ /CO ₃									
	Cyanide - 500 mL NaOH									
	Asbestos - 1L P wrapped in foil (Set of 2)									
	Sulfide - 1 L AG or P NaOH + ZnAc									
	Chlorite/Bromate - 250 mL AG with EDA									
	HAA5 - 250mL AG Ammonium Chlorite									
	DO KIT									
	Other:									
	Other:									