

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:** Flatland Farms

Physical address of dairy:

8431 15th AVE

Number and Street

Hanford

Kings

93230

City

County

Zip Code

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

Date facility was originally placed in operation: 02/01/1970Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X005-X030-X038-XXXX

B. OPERATORS

Flatland Farms LLC

Operator name: Flatland Farms LLCTelephone no.: (559) 686-7806

Landline

Cellular

3275 8th Ave

Hanford

CA

93230

Mailing Address Number and Street

City

State

Zip Code

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

Soares Revocable Family Trust

Legal owner name: Soares Revocable Family TrustTelephone no.: (559) 469-2728

Landline

Cellular

5835 13th AVE

Hanford

CA

93230

Mailing Address Number and Street

City

State

Zip Code

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	225	75	250	275	100	0
Number under roof	650	0	0	0	0	0
Maximum number	875	75	250	275	100	0
Average number	875	75	250	275	100	0
Avg live weight (lbs)	1,400	1,250	1,000	560		

Predominant milk cow breed: Jersey

Average milk production: 60 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 27,884.83 tons per reporting period

Total nitrogen from manure: 348,651.06 lbs per reporting period

After ammonia losses (30% loss applied): 244,055.74 lbs per reporting period

Total phosphorus from manure: 57,811.44 lbs per reporting period

Total potassium from manure: 161,821.82 lbs per reporting period

Total salt from manure: 429,240.00 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 4,644,980 gallons

Total nitrogen generated: 32,346.11 lbs

$$\begin{aligned}
 & 3,629,980 \text{ gallons applied} \\
 & + 1,015,000 \text{ gallons exported} \\
 & - 0 \text{ gallons imported} \\
 & = 4,644,980 \text{ gallons generated}
 \end{aligned}$$

Total phosphorus generated: 8,459.88 lbs

Total potassium generated: 31,214.01 lbs

Total salt generated: 157,581.30 lbs

D. FRESH WATER SOURCES

Source Description	Type
Ag Well 1	Ground water
Ag Well 2	Ground water
Canal	Surface 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**

Date	Material type	Quantity	Reporting basis	Moisture (%)	Density (lbs/cu ft)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/31/2023	Corral solids	4,500.00 ton	As-is	2.5		15,100.00	5,200.00	22,800.00		0.00

Date	Material type	Quantity	Kjeldahl-N (mg/L)	Ammonium-N (mg/L)	Ammonia-N (mg/L)	Nitrate-N (mg/L)	P (mg/L)	K (mg/L)	EC (µmhos/cm)	TDS (mg/L)
12/31/2023	Process wastewater	500,000.00 gal	1,660.00	432.00	0.00	0.00	620.00	929.00		4,650
12/31/2023	Process wastewater	515,000.00 gal	1,660.00	432.00	0.00	0.00	620.00	929.00		4,650

Material type	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Dry manure	135,900.00	46,800.00	205,200.00	0.00
Process wastewater	14,060.49	5,251.51	7,868.79	39,386.31
Total exports for all materials	149,960.49	52,051.51	213,068.79	39,386.31

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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
1	22	22	2	process wastewater	X005-X030-X038-XXXX
2	22	22	2	process wastewater	X005-X030-X038-XXXX
Totals for areas that were used for application	44	44	4		
Totals for areas that were not used for application					
Land application area totals	44	44	4		

B. CROPS AND HARVESTS

1

Field name: 1

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

Crop: Wheat, silage, soft dough Acres planted: 22 Plant date: 11/02/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/12/2023	418.00 ton	As-is		60.6	6,400.00	900.00	6,600.00		9.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	19.00	243.20	34.20	250.80	1,452.28

06/26/2023: Corn, silage

Crop: Corn, silage Acres planted: 22 Plant date: 06/26/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/14/2023	660.00 ton	As-is		73.7	3,700.00	400.00	1,700.00		4.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	30.00	222.00	24.00	102.00	646.98

2

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2

Field name: 2

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

Crop: Wheat, silage, soft dough Acres planted: 22 Plant date: 11/02/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/12/2023	396.00 ton	As-is		57.3	6,700.00	900.00	7,300.00		9.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	18.00	241.20	32.40	262.80	1,521.83

06/27/2023: Corn, silage

Crop: Corn, silage Acres planted: 22 Plant date: 06/27/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/14/2023	682.00 ton	As-is		75.9	3,200.00	400.00	1,500.00		4.50

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	31.00	198.40	24.80	93.00	672.39

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NUTRIENT BUDGET

A. LAND APPLICATIONS

1 - 11/02/2022: Wheat, silage, soft dough

Field name: 1

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

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/01/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Commercial Fertilizer	Solid commercial fertilizer	125.00	0.00	0.00	0.00	
Application event totals		125.00	0.00	0.00	0.00	
11/03/2022	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
Process Wastewater	Process wastewater	74.69	21.88	107.12	568.57	599,565.84 gal
Ag Well 2	Ground water	0.00	0.00	0.00	315.33	5,519,915.94 gal
Application event totals		74.69	21.88	107.12	883.89	
01/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal	Surface water	0.32	0.00	0.00	119.22	8,494,935.57 gal
Application event totals		0.32	0.00	0.00	119.22	
03/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Process Wastewater	Process wastewater	91.11	15.37	103.36	429.89	241,129.74 gal
Application event totals		91.11	15.37	103.36	429.89	

1 - 06/26/2023: Corn, silage

Field name: 1

Crop: Corn, silage Plant date: 06/26/2023

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

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1 - 06/26/2023: Corn, silage

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
Process Wastewater	Process wastewater	145.55	18.35	194.41	973.88	479,000.97 gal
Canal	Surface water	0.36	0.00	0.00	133.40	9,505,073.67 gal
Application event totals		145.92	18.35	194.41	1,107.28	
07/24/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Process Wastewater	Process wastewater	104.23	17.32	125.69	713.92	495,293.52 gal
Ag Well 1	Ground water	0.00	0.00	0.00	157.04	16,559,747.82 gal
Application event totals		104.23	17.32	125.69	870.96	

2 - 11/02/2022: Wheat, silage, soft dough

Field name: 2

Crop: Wheat, silage, soft dough

Plant date: 11/02/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/01/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Commercial Fertilizer	Solid commercial fertilizer	125.00	0.00	0.00	0.00	
Application event totals		125.00	0.00	0.00	0.00	
11/06/2022	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
Process Wastewater	Process wastewater	74.69	21.88	107.12	568.57	599,565.84 gal
Ag Well 2	Ground water	0.00	0.00	0.00	315.33	5,519,915.94 gal
Application event totals		74.69	21.88	107.12	883.89	

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2 - 11/02/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
Canal	Surface water	0.33	0.00	0.00	121.24	8,638,310.01 gal
Application event totals		0.33	0.00	0.00	121.24	
03/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Process Wastewater	Process wastewater	91.11	15.37	103.36	429.89	241,129.74 gal
Application event totals		91.11	15.37	103.36	429.89	

2 - 06/27/2023: Corn, silage

Field name: 2

Crop: Corn, silage

Plant date: 06/27/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/10/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Process Wastewater	Process wastewater	145.55	18.35	194.41	973.88	479,000.97 gal
Canal	Surface water	0.35	0.00	0.00	130.34	9,286,753.50 gal
Application event totals		145.91	18.35	194.41	1,104.22	
07/26/2023	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
Process Wastewater	Process wastewater	104.23	17.32	125.69	713.92	495,293.52 gal
Ag Well 1	Ground water	0.00	0.00	0.00	148.48	15,657,140.55 gal
Application event totals		104.23	17.32	125.69	862.40	

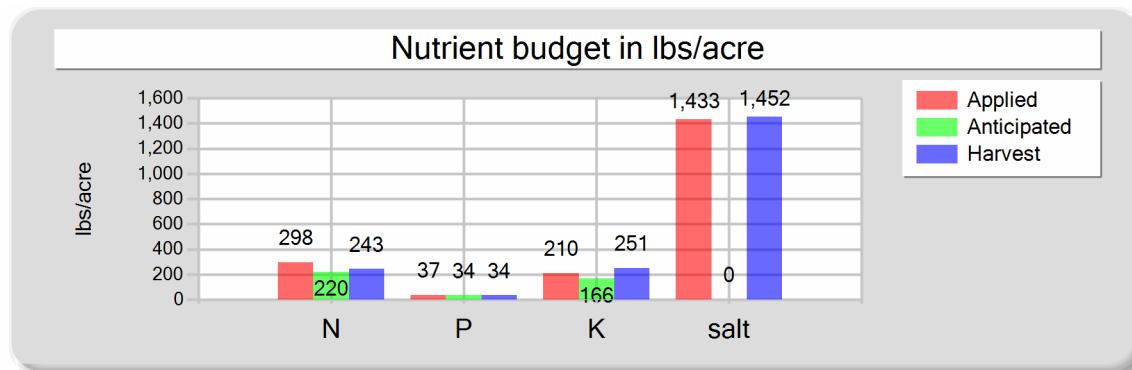
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B. NUTRIENT BUDGET

1 - 11/02/2022: Wheat, silage, soft dough

Field name: 1 Crop: Wheat, silage, soft dough Plant date: 11/02/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	125.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	165.79	37.24	210.47	998.45
Fresh water	0.32	0.00	0.00	434.55
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	298.12	37.24	210.47	1,433.00
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	243.20	34.20	250.80	1,452.28
Nutrient balance	54.92	3.04	-40.33	-19.28
Applied to removed ratio	1.23	1.09	0.84	0.99

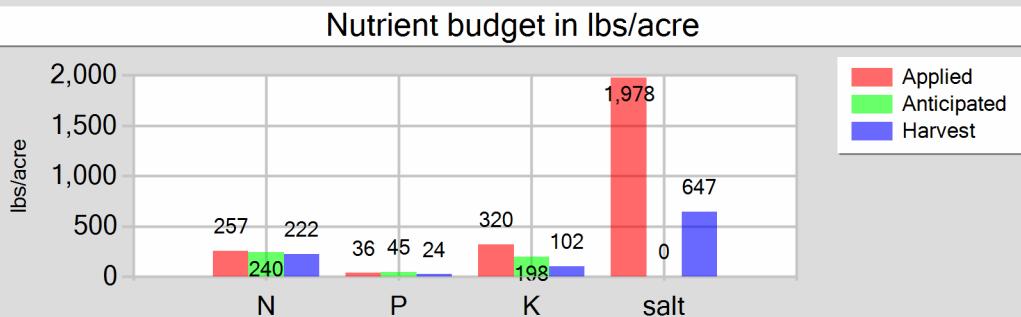
Fresh water applied
14,014,851.51 gallons
516.12 acre-inches
23.46 inches/acre
Process wastewater applied
840,695.58 gallons
30.96 acre-inches
1.41 inches/acre
Total harvests for the crop
1 harvests

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1 - 06/26/2023: Corn, silage

Field name: 1 Crop: Corn, silage Plant date: 06/26/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	249.79	35.67	320.10	1,687.80
Fresh water	0.36	0.00	0.00	290.44
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	257.15	35.67	320.10	1,978.24
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	222.00	24.00	102.00	646.98
Nutrient balance	35.15	11.67	218.10	1,331.26
Applied to removed ratio	1.16	1.49	3.14	3.06

Fresh water applied
26,064,821.49 gallons
959.88 acre-inches
43.63 inches/acre

Process wastewater applied
974,294.49 gallons
35.88 acre-inches
1.63 inches/acre

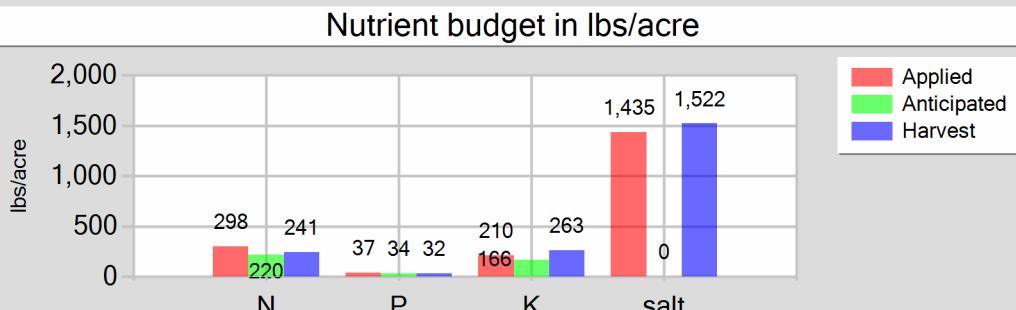
Total harvests for the crop
1 harvests

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2 - 11/02/2022: Wheat, silage, soft dough

Field name: 2 Crop: Wheat, silage, soft dough Plant date: 11/02/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	125.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	165.79	37.24	210.47	998.45
Fresh water	0.33	0.00	0.00	436.56
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	298.12	37.24	210.47	1,435.01
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	241.20	32.40	262.80	1,521.83
Nutrient balance	56.92	4.84	-52.33	-86.81
Applied to removed ratio	1.24	1.15	0.80	0.94

Fresh water applied
14,158,225.95 gallons
521.40 acre-inches
23.70 inches/acre

Process wastewater applied
840,695.58 gallons
30.96 acre-inches
1.41 inches/acre

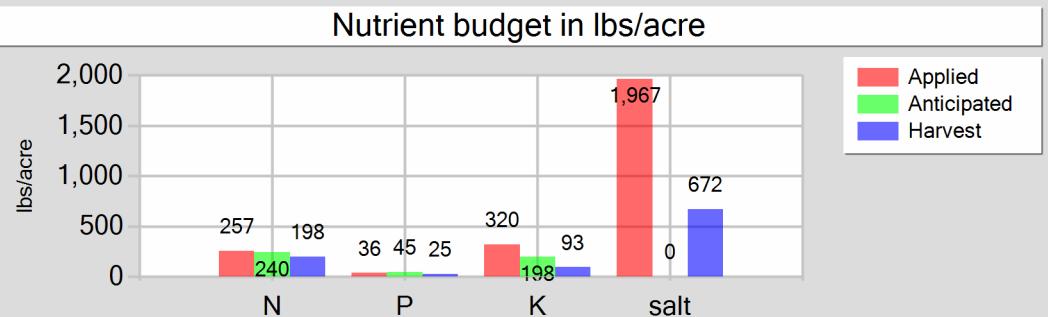
Total harvests for the crop
1 harvests

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2 - 06/27/2023: Corn, silage

Field name: 2 Crop: Corn, silage Plant date: 06/27/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	249.79	35.67	320.10	1,687.80
Fresh water	0.35	0.00	0.00	278.81
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	257.14	35.67	320.10	1,966.61
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	198.40	24.80	93.00	672.39
Nutrient balance	58.74	10.87	227.10	1,294.22
Applied to removed ratio	1.30	1.44	3.44	2.92

Fresh water applied
24,943,894.05 gallons
918.60 acre-inches
41.75 inches/acre

Process wastewater applied
974,294.49 gallons
35.88 acre-inches
1.63 inches/acre

Total harvests for the crop
1 harvests

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NUTRIENT ANALYSES**A. MANURE ANALYSES**

22H1384

Sample and source description: 22H1384

Sample date: 08/15/2022 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 11.4 %

	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	21,600.00	6,800.00	24,600.00							0.00
DL	100.00	100.00	30.00							0.01

23D1046

Sample and source description: 23D1046

Sample date: 04/19/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 42.6 %

	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	6,800.00	3,500.00	10,800.00							0.00
DL	100.00	100.00	30.00							0.01

23I0755

Sample and source description: 23I0755

Sample date: 09/11/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 2.5 %

	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	5,200.00	22,800.00							0.00
DL	100.00	100.00	30.00							0.01

B. PROCESS WASTEWATER ANALYSES

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22J1663

Sample and source description: 22J1663

Sample date: 10/26/2022 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	327.00	223.00	0.00	1.40	96.20	471.00								5,440.00	2,500
DL	0.70	0.20	0.01	0.01	0.02	0.20								1.00	10

23B0584

Sample and source description: 23B0584

Sample date: 02/14/2023 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	994.00	580.00	0.00	2.10	168.00	1,130.00								11,200.00	4,700
DL	0.70	0.20	0.01	0.01	0.02	0.20								1.00	10

23D1025

Sample and source description: 23D1025

Sample date: 04/19/2023 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	785.00	539.00	0.00	16.10	101.00	1,070.00								11,300.00	5,360
DL	0.70	0.20	0.01	0.01	0.02	0.20								1.00	10

23H0231

Sample and source description: 23H0231

Sample date: 07/31/2023 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	554.00	444.00	0.00	0.80	92.20	669.00								7,970.00	3,800
DL	0.70	0.20	0.01	0.01	0.02	0.20								1.00	10

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

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23K0271

Sample and source description: 23K0271

Sample date: 11/06/2023 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	1,660.00	432.00	0.00	0.00	620.00	929.00								9,360.00	4,650
DL	0.70	0.20	0.01	0.01	0.02	0.20								1.00	10

C. FRESH WATER ANALYSES

Ag Well 1

23H0789

Sample description: 23H0789

Sample date: 08/07/2023 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	2.30	0.50	2.00	10.60	0.00	0.90	0.40	25.80	25
DL		0.20	0.01	0.10	0.10	0.03	3.00	0.90	0.03	0.03	1.00	10

Ag Well 2

22H1382

Sample description: 22H1382

Sample date: 08/15/2022 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 (µmhos/cm)	TDS (mg/L)
Value		0.00	0.00								251.00	
DL		0.20	0.01								1.00	

Canal

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

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

Canal**22G1333**Sample description: 22G1333Sample date: 07/18/2022 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 (µmhos/cm)	TDS (mg/L)
Value		0.00	0.00								38.00	29
DL		0.20	0.01								1.00	10

23E1600Sample description: 23E1600Sample date: 05/17/2023 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	0.10								51.50	37
DL		0.20	0.01								1.00	10

D. SOIL ANALYSES**1****23J1474**Sample and source description: 23J1474Sample date: 10/19/2023 Source of analysis: Lab analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (µmhos/cm)	Organic matter (%)	Total salt (mg/kg)
Value				135.00			
DL				1.10			

2

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

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

2

23J1474

Sample and source description: 23J1474

Sample date: 10/19/2023 Source of analysis: Lab analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (µmhos/cm)	Organic matter (%)	Total salt (mg/kg)
Value			147.00				
DL			1.10				

E. PLANT TISSUE ANALYSES

1 - 11/02/2022: Wheat, silage, soft dough

23H2267

Sample and source description: 23H2267

Sample date: 08/25/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 60.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	6,400.00	900.00	6,600.00		9.70
DL	0.10	0.10	0.10		0.01

1 - 06/26/2023: Corn, silage

23K1068

Sample and source description: 23K1068

Sample date: 11/20/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 73.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	3,700.00	400.00	1,700.00		4.10
DL	0.10	0.10	0.10		0.01

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

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

2 - 11/02/2022: Wheat, silage, soft dough

23H2267

Sample and source description: 23H2267

Sample date: 08/25/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 57.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	6,700.00	900.00	7,300.00		9.90
DL	0.10	0.10	0.10		0.01

2 - 06/27/2023: Corn, silage

23K1068

Sample and source description: 23K1068

Sample date: 11/20/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 75.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	3,200.00	400.00	1,500.00		4.50
DL	0.10	0.10	0.10		0.01

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

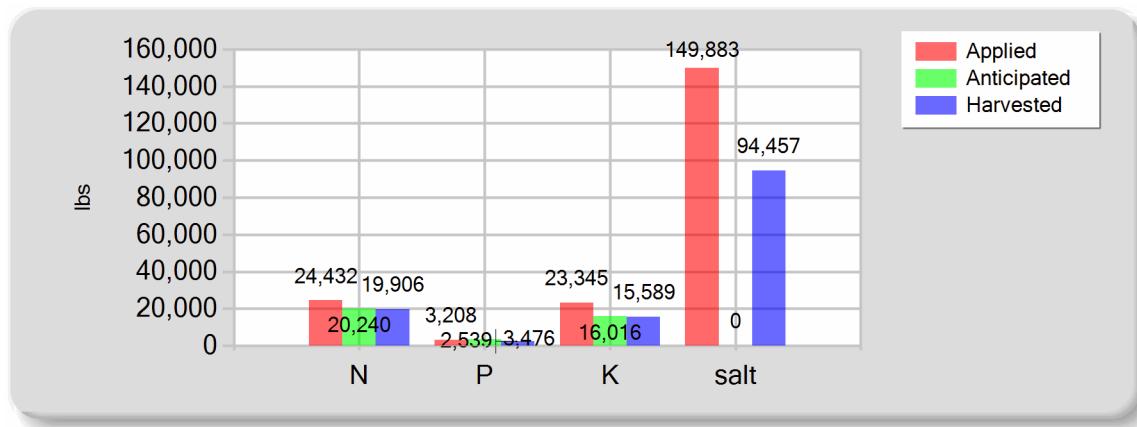
No subsurface (tile) drainage analyses entered.

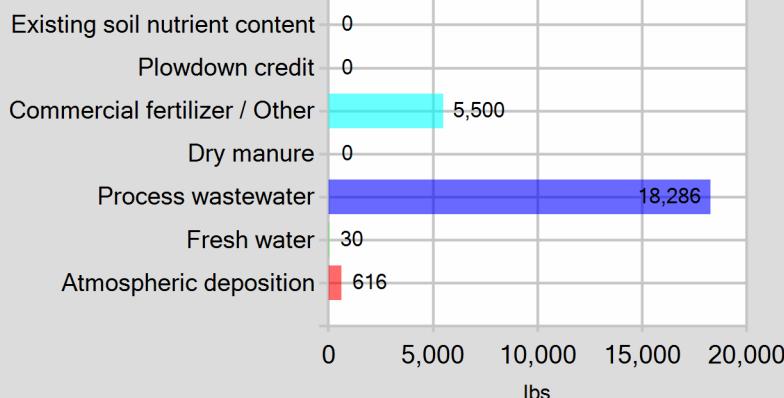
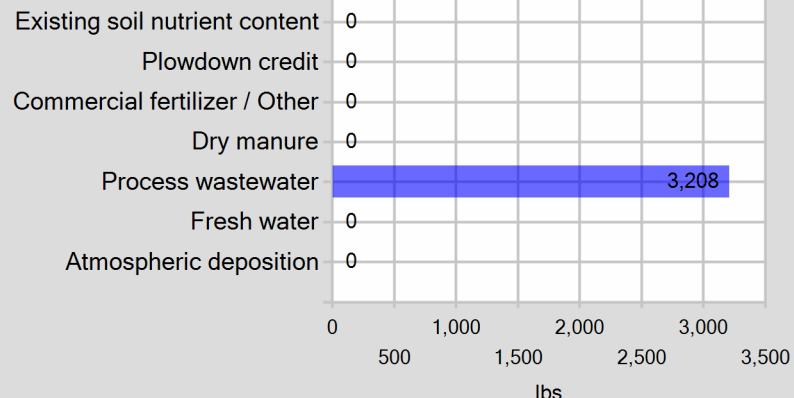
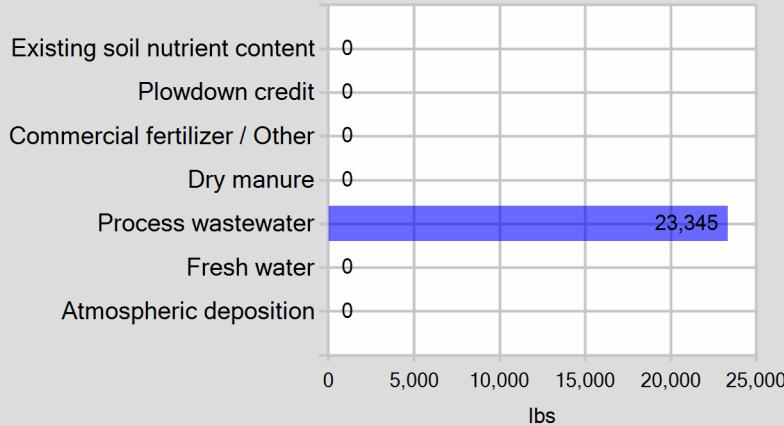
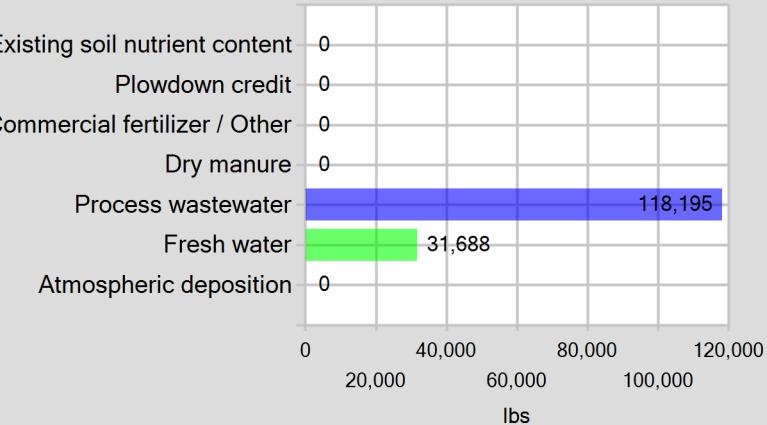
Annual Report - General Order No. R5-2007-0035

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	5,500.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	18,285.62	3,208.37	23,345.21	118,194.99
Fresh water	29.98	0.00	0.00	31,688.04
Atmospheric deposition	616.00	0.00	0.00	0.00
Total nutrients applied	24,431.60	3,208.37	23,345.21	149,883.03
Anticipated crop nutrient removal	20,240.00	3,476.00	16,016.00	0.00
Actual crop nutrient removal	19,905.60	2,538.80	15,589.20	94,456.60
Nutrient balance	4,526.00	669.57	7,756.01	55,426.43
Applied to removed ratio	1.23	1.26	1.50	1.59

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE**Pounds of nitrogen applied****Pounds of phosphorus applied****Pounds of potassium applied****Pounds of salt applied**

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

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

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

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

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

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

B. EXPORT AGREEMENT STATEMENT

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

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

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

ADDITIONAL NOTES

A. NOTES

1. As stated in the Annual Report, and required by the General Order, the dairies onsite Nutrient Management Plan has been updated and completed by a certified agronomist. The dairy conducts its nutrient budgeting based on this certified plan, and only uses the Annual Report as a complimentary guide. Submission of the nutrient budget in this annual report is done solely to satisfy the requirements of the General Orders monitoring and reporting section.
2. All graphs in the annual report display an amount of applied and removed salt. There are many ways inputs and exports of salt can accounted for. The Merced County website does not account for all of them. The graphs convey a partial / incomplete portrayal of salts (depending on how salts are defined, measured, and evaluated).
3. The General Order requires the submission of all land applications in the "calendar year" of the reporting period. This has been submitted. However, land applications that occur post harvest of the Fall forage of the previous calendar year are intended for the use of the Spring forage of the following calendar year (reporting period) as crop cycles do not work on calendar year dates. When such land applications occur in the previous calendar year, previous years analytical data representing the applications have been inputted to represent nutrients intended for the reporting periods Spring crop. As such, any land application that occurs post harvest of the Fall forage in the reporting period that is intended for the Spring forage of the following calendar year will not be inputted until the following years Annual Report so that the Merced County reporting program software does not mistakenly apply these applications to the incorrect crops as there is no way to accurately differentiate and display this situation in the Annual Report software .
4. All wastewater land applications were summarized by quarter using the corresponding wastewater quarterly sample to represent nutrient amounts applied. One application date per quarter per crop has been selected to represent all applications of wastewater for that crop during that quarter. The Annual Reports' nutrient budget is accurate to the Merced County website standards as the proper quarterly sample has been selected to represent nutrients applied during that specific quarter. Day specific records are kept on site and available upon request.

All fresh water land applications during the report period have been summarized into one application per source per crop. One application date has been selected to represent the reporting period for that crop. The Annual Reports' nutrient budget is accurate to the Merced County website standards as the proper source sample has been selected to represent nutrients applied during the reporting period. Day specific records are kept on site and available upon request.

5. Due to high volumes of available canal water, most, if not all wells remained idle during the growing season. Therefore little to no well samples exist. They will be sampled again when operable.

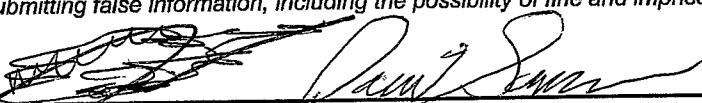
Annual Report - General Order No. R5-2007-0035
Reporting period 01/01/2023 to 12/31/2023.

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



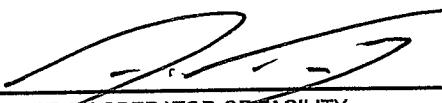
Daniel Soares

PRINT OR TYPE NAME

12-14-23

DATE

SIGNATURE OF OPERATOR OF FACILITY



Aaron Van Dyke

PRINT OR TYPE NAME

12-16-23

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.



Flatland Farms LLC
3275 8th Ave
Hanford, CA 93230

Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 05/18/2023 7:18
Reported: 06/06/2023 08:21

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23E1600-01	Last Chance Ditch (WC Ditch)	Supply Water	Danny Singh		05/17/2023 10:00

Default Cooler Temperature on Receipt °C: 2.1
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

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Received: 05/18/2023 7:18
Reported: 06/06/2023 08:21

Sample Results

**Sample: Last Chance Ditch (WC Ditch)
23E1600-01 (Water)**

Sampled: 5/17/2023 10:00

Sampled By: Danny Singh

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.05	mmhos/cm	0.01	1		05/19/23 13:52	SM 2510 B		BEE0748
Electrical Conductivity umhos	51.5	umhos/cm	10.0	1		05/19/23 13:52	SM 2510 B		BEE0748
Nitrate Nitrogen as NO3N	0.1	mg/L	0.1	1	10	05/19/23 13:57	EPA 300.0		BEE0751
pH	7.4	units	1.0	1		05/19/23 13:52	SM 4500-H+	H	BEE0748
Total Filterable Solids (TDS)	37.1	mg/L	10.0	1		06/02/23 16:23	SM 2540 C		BEE0753
Temperature	25.0	°C	0.0	1		05/19/23 13:52	SM 2510 B		BEE0748

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Reported: 06/06/2023 08:21

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0748									
Blank (BEE0748-BLK1)									
Prepared & Analyzed: 5/19/2023									
pH	5.2	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEE0748-BLK2)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	0.02	0.01	mmhos/cm						
pH	5.0	1.0	units						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	17.7	10.0	umhos/cm						
Blank (BEE0748-BLK3)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	7.2	1.0	units						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Duplicate (BEE0748-DUP1)									
Source: 23E1688-03 Prepared & Analyzed: 5/19/2023									
pH	4.8	1.0	units		4.8		0.208	10	
Electrical Conductivity	2.44	0.01	mmhos/cm		2.43		0.473	10	
Electrical Conductivity umhos	2440	10.0	umhos/cm		2430		0.473	10	
Duplicate (BEE0748-DUP2)									
Source: 23E1726-01 Prepared & Analyzed: 5/19/2023									
pH	7.4	1.0	units		7.4		0.135	10	
Electrical Conductivity	6.01	0.01	mmhos/cm		6.06		0.828	10	
Electrical Conductivity umhos	6010	10.0	umhos/cm		6060		0.828	10	
Reference (BEE0748-SRM1)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	553		umhos/cm		538.0	103	90-110		
Reference (BEE0748-SRM2)									
Prepared & Analyzed: 5/19/2023									
pH	7.8		units		7.790	101	.7163-101.28		
Reference (BEE0748-SRM3)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	1030		umhos/cm		1000	103	90-110		
Electrical Conductivity umhos	1030		umhos/cm		1000	103	90-110		
Reference (BEE0748-SRM4)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	1050		umhos/cm		1000	105	90-110		
Electrical Conductivity umhos	1050		umhos/cm		1000	105	90-110		
Reference (BEE0748-SRM5)									
Prepared & Analyzed: 5/19/2023									
Electrical Conductivity	1050		umhos/cm		1000	105	90-110		

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Received: 05/18/2023 7:18
Reported: 06/06/2023 08:21

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0748 (Continued)									
Reference (BEE0748-SRM5)									
Electrical Conductivity umhos	1050		umhos/cm	1000	105	90-110			
Reference (BEE0748-SRM6)									
pH	4.0		units	4.000	101	97.5-102.5			
Reference (BEE0748-SRM7)									
pH	4.0		units	4.000	101	97.5-102.5			
Reference (BEE0748-SRM8)									
pH	4.0		units	4.000	101	97.5-102.5			

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Account Manager: Ben Nydam
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Ranch: 8433 15th Ave, Hanford

Received: 05/18/2023 7:18
Reported: 06/06/2023 08:21

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0751									
Blank (BEE0751-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 5/19/2023				
Blank (BEE0751-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 5/19/2023				
Blank (BEE0751-BLK3)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 5/19/2023				
LCS (BEE0751-BS1)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	100	90-110			
LCS (BEE0751-BS2)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	100	90-110			
Duplicate (BEE0751-DUP1)									
Nitrate Nitrogen as NO3N	1.7	0.1	mg/L	1.7			3.08	10	
Duplicate (BEE0751-DUP2)									
Nitrate Nitrogen as NO3N	0.08	0.1	mg/L	0.08			0.00	10	
Matrix Spike (BEE0751-MS1)									
Nitrate Nitrogen as NO3N	6.7	0.1	mg/L	5.000	1.7	101	90-110		
Matrix Spike (BEE0751-MS2)									
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	0.08	95.5	90-110		
Reference (BEE0751-SRM1)									
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00	101	90-110			
Reference (BEE0751-SRM2)									
Nitrate Nitrogen as NO3N	9.8		mg/L	10.00	98.5	90-110			
Reference (BEE0751-SRM3)									
Nitrate Nitrogen as NO3N	9.9		mg/L	10.00	99.3	90-110			

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Flatland Farms LLC
3275 8th Ave
Hanford, CA 93230

Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 05/18/2023 7:18
Reported: 06/06/2023 08:21

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0753									
Blank (BEE0753-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 5/19/2023 Analyzed: 6/2/2023				
LCS (BEE0753-BS1)									
Total Filterable Solids (TDS)	23.8	10.0	mg/L	2000	Prepared: 5/19/2023 Analyzed: 6/2/2023	1.19	0-200		
Duplicate (BEE0753-DUP1)									
Total Filterable Solids (TDS)	327	10.0	mg/L	333	Prepared: 5/19/2023 Analyzed: 6/2/2023			2.02	5
Duplicate (BEE0753-DUP2)									
Total Filterable Solids (TDS)	947	10.0	mg/L	923	Prepared: 5/19/2023 Analyzed: 6/2/2023			2.50	5
Reference (BEE0753-SRM1)									
Total Filterable Solids (TDS)	310		mg/L	325.0	Prepared: 5/19/2023 Analyzed: 6/2/2023	95.4	90-110		

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05/18/23 07:18

23E1600

0001385

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input type="checkbox"/> DLI Sampler <input checked="" type="checkbox"/> Other <input type="checkbox"/>										
<input type="checkbox"/> Samples refrigerated before pick up					<input type="checkbox"/> Picked up samples placed in Ice chest					
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None					Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None					
Samples Preserved with HNO₃ or H₂SO₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> 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										
1 L unpreserved (BOD) (Purple) Plastic										
Special	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									
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)									
Special	1 L AG H ₂ SO ₄ (Yellow)									
	1 L AG Na ₂ S ₂ O ₃ (Green)									
	1 L AG HCl (Blue)									
	Cr ⁶⁺ - 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:										



Flatland Farms LLC
3275 8th Ave
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Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 05/18/2023 7:18
Reported: 06/06/2023 08:16

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23E1601-01	Dom Well (Well Faucet)	Ag Water	Danny Singh		05/17/2023 9:50
23E1601-02	Dom S Barn (Barn Faucet)	Ag Water	Danny Singh		05/17/2023 10:15
23E1601-03	Dom House (Well Faucet)	Ag Water	Danny Singh		05/17/2023 10:30

Default Cooler Temperature on Receipt °C: 2.0
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

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Sample Results

**Sample: Dom Well (Well Faucet)
23E1601-01 (Water)**

Sampled: 5/17/2023 9:50
Sampled By: Danny Singh

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	108	mg/L	10.0	1		05/19/23 10:32	SM 2320 B		BEE0666
Calcium	1.9	mg/L	0.1	1		05/19/23 10:48	EPA 200.7		BEE0685
Chloride	8.5	mg/L	0.2	1	250	05/18/23 18:40	EPA 300.0		BEE0657
Carbonate as CaCO ₃	13	mg/L	1	1		05/19/23 10:32	SM 2320 B		BEE0666
Electrical Conductivity	0.31	mmhos/cm	0.01	1		05/19/23 10:32	SM 2510 B		BEE0666
Electrical Conductivity umhos	313	umhos/cm	10.0	1		05/19/23 10:32	SM 2510 B		BEE0666
Bicarbonate as CaCO ₃	94.3	mg/L	5.00	1		05/19/23 10:32	SM 2320 B		BEE0666
Potassium	ND	mg/L	0.500	1		05/19/23 10:48	EPA 200.7		BEE0685
Magnesium	ND	mg/L	0.1	1		05/19/23 10:48	EPA 200.7		BEE0685
Sodium	68	mg/L	1	1		05/19/23 10:48	EPA 200.7		BEE0685
Ammonia (as N)	ND	mg/L	0.500	1		05/19/23 10:46	SM 4500-NH ₃ H		BEE0705
Ammonia (as N)	0.250	mg/L	0.00	1		05/17/23 09:50	Field		BEE0688
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	05/18/23 18:40	EPA 300.0		BEE0657
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		05/19/23 10:32	SM 2320 B		BEE0666
pH	8.9	units	1.0	1		05/19/23 10:32	SM 4500-H+	H	BEE0666
Sulfate (SO ₄)	35.2	mg/L	0.5	1	250	05/18/23 18:40	EPA 300.0		BEE0657
Total Filterable Solids (TDS)	183	mg/L	10.0	1		06/02/23 16:23	SM 2540 C		BEE0753

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Sample Results
(Continued)

**Sample: Dom S Barn (Barn Faucet)
23E1601-02 (Water)**

Sampled: 5/17/2023 10:15

Sampled By: Danny Singh

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	103	mg/L	10.0	1		05/19/23 10:36	SM 2320 B		BEE0666
Calcium	2.1	mg/L	0.1	1		05/19/23 10:49	EPA 200.7		BEE0685
Chloride	8.5	mg/L	0.2	1	250	05/18/23 19:00	EPA 300.0		BEE0657
Carbonate as CaCO ₃	8	mg/L	1	1		05/19/23 10:36	SM 2320 B		BEE0666
Electrical Conductivity	0.32	mmhos/cm	0.01	1		05/19/23 10:36	SM 2510 B		BEE0666
Electrical Conductivity umhos	317	umhos/cm	10.0	1		05/19/23 10:36	SM 2510 B		BEE0666
Bicarbonate as CaCO ₃	94.8	mg/L	5.00	1		05/19/23 10:36	SM 2320 B		BEE0666
Potassium	ND	mg/L	0.500	1		05/19/23 10:49	EPA 200.7		BEE0685
Magnesium	ND	mg/L	0.1	1		05/19/23 10:49	EPA 200.7		BEE0685
Sodium	68	mg/L	1	1		05/19/23 10:49	EPA 200.7		BEE0685
Ammonia (as N)	ND	mg/L	0.500	1		05/19/23 10:48	SM 4500-NH ₃ H		BEE0705
Ammonia (as N)	0.250	mg/L	0.00	1		05/17/23 10:15	Field		BEE0688
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	05/18/23 19:00	EPA 300.0		BEE0657
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		05/19/23 10:36	SM 2320 B		BEE0666
pH	8.7	units	1.0	1		05/19/23 10:36	SM 4500-H+	H	BEE0666
Sulfate (SO ₄)	39.1	mg/L	0.5	1	250	05/18/23 19:00	EPA 300.0		BEE0657
Total Filterable Solids (TDS)	190	mg/L	10.0	1		06/02/23 16:23	SM 2540 C		BEE0753

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Sample Results
(Continued)

**Sample: Dom House (Well Faucet)
23E1601-03 (Water)**

Sampled: 5/17/2023 10:30

Sampled By: Danny Singh

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	110	mg/L	10.0	1		05/19/23 10:40	SM 2320 B		BEE0666
Calcium	1.4	mg/L	0.1	1		05/19/23 10:51	EPA 200.7		BEE0685
Chloride	8.3	mg/L	0.2	1	250	05/18/23 19:20	EPA 300.0		BEE0657
Carbonate as CaCO ₃	15	mg/L	1	1		05/19/23 10:40	SM 2320 B		BEE0666
Electrical Conductivity	0.29	mmhos/cm	0.01	1		05/19/23 10:40	SM 2510 B		BEE0666
Electrical Conductivity umhos	286	umhos/cm	10.0	1		05/19/23 10:40	SM 2510 B		BEE0666
Bicarbonate as CaCO ₃	94.9	mg/L	5.00	1		05/19/23 10:40	SM 2320 B		BEE0666
Potassium	ND	mg/L	0.500	1		05/19/23 10:51	EPA 200.7		BEE0685
Magnesium	ND	mg/L	0.1	1		05/19/23 10:51	EPA 200.7		BEE0685
Sodium	63	mg/L	1	1		05/19/23 10:51	EPA 200.7		BEE0685
Ammonia (as N)	ND	mg/L	0.500	1		05/19/23 10:49	SM 4500-NH ₃ H		BEE0705
Ammonia (as N)	0.250	mg/L	0.00	1		05/17/23 10:30	Field		BEE0688
Nitrate Nitrogen as NO ₃ N	ND	mg/L	0.1	1	10	05/18/23 19:20	EPA 300.0		BEE0657
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		05/19/23 10:40	SM 2320 B		BEE0666
pH	9.0	units	1.0	1		05/19/23 10:40	SM 4500-H+	H	BEE0666
Sulfate (SO ₄)	17.4	mg/L	0.5	1	250	05/18/23 19:20	EPA 300.0		BEE0657
Total Filterable Solids (TDS)	170	mg/L	10.0	1		06/02/23 16:23	SM 2540 C		BEE0753

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Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0657									
Blank (BEE0657-BLK1)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N ND 0.1 mg/L									
Sulfate (SO ₄) ND 0.5 mg/L									
Blank (BEE0657-BLK2)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N ND 0.1 mg/L									
Sulfate (SO ₄) ND 0.5 mg/L									
LCS (BEE0657-BS1)									
Chloride 5.4 0.2 mg/L Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N 5.5 0.1 mg/L									
Sulfate (SO ₄) 5.1 0.5 mg/L									
Duplicate (BEE0657-DUP1)									
Chloride 13.5 0.2 mg/L Source: 23E1557-01 Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N 0.02 0.1 mg/L									
Sulfate (SO ₄) 33.8 0.5 mg/L									
Matrix Spike (BEE0657-MS1)									
Chloride 18.3 0.2 mg/L Source: 23E1557-01 Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N 5.5 0.1 mg/L									
Sulfate (SO ₄) 38.5 0.5 mg/L									
Reference (BEE0657-SRM1)									
Chloride 13.4 mg/L Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N 10.7 mg/L									
Sulfate (SO ₄) 10.7 mg/L									
Reference (BEE0657-SRM2)									
Chloride 13.5 mg/L Prepared & Analyzed: 5/18/2023									
Nitrate Nitrogen as NO ₃ N 10.7 mg/L									
Sulfate (SO ₄) 10.7 mg/L									

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0666									
Blank (BEE0666-BLK1)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Carbonate as CaCO ₃	ND	1	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.2	1.0	units						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Blank (BEE0666-BLK2)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
pH	5.3	1.0	units						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Carbonate as CaCO ₃	ND	1	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Blank (BEE0666-BLK3)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Carbonate as CaCO ₃	ND	1	mg/L						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
pH	5.3	1.0	units						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Duplicate (BEE0666-DUP1)									
Source: 23E1540-01									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Alkalinity as CaCO ₃	143	10.0	mg/L		145		1.18	10	
Carbonate as CaCO ₃	ND	1	mg/L		ND			10	
Electrical Conductivity	0.58	0.01	mmhos/cm		0.58		0.652	10	
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
pH	6.9	1.0	units		6.9		0.579	10	
Electrical Conductivity umhos	581	10.0	umhos/cm		585		0.652	10	
Duplicate (BEE0666-DUP2)									
Source: 23E1644-01									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Alkalinity as CaCO ₃	73.5	10.0	mg/L		74.0		0.678	10	
Carbonate as CaCO ₃	18	1	mg/L		18		0.558	10	
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
pH	9.2	1.0	units		9.1		0.219	10	
Electrical Conductivity	0.33	0.01	mmhos/cm		0.33		1.25	10	
Electrical Conductivity umhos	326	10.0	umhos/cm		330		1.25	10	
Reference (BEE0666-SRM1)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0666 (Continued)									
Reference (BEE0666-SRM1)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Alkalinity as CaCO ₃ 39.0 mg/L 40.60 96.0 90-110									
Electrical Conductivity 561 umhos/cm 538.0 104 90-110									
Reference (BEE0666-SRM2)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Alkalinity as CaCO ₃ 40.8 mg/L 40.60 101 90-110									
Electrical Conductivity 565 umhos/cm 538.0 105 90-110									
Reference (BEE0666-SRM3)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
Alkalinity as CaCO ₃ 39.5 mg/L 40.60 97.2 90-110									
Electrical Conductivity 563 umhos/cm 538.0 105 90-110									
Reference (BEE0666-SRM4)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEE0666-SRM5)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEE0666-SRM6)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEE0666-SRM7)									
Prepared: 5/17/2023 Analyzed: 5/19/2023									
pH	7.8		units	7.790		101	.7163-101.28		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0685									
Blank (BEE0685-BLK1)									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Calcium	ND	0.1	mg/L						
Potassium	ND	0.500	mg/L						
Sodium	ND	1	mg/L						
Magnesium	ND	0.1	mg/L						
Blank (BEE0685-BLK2)									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Potassium	ND	0.500	mg/L						
Calcium	ND	0.1	mg/L						
Sodium	ND	1	mg/L						
Magnesium	ND	0.1	mg/L						
LCS (BEE0685-BS1)									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Sodium	39	1	mg/L	35.71	109	90-110			
Calcium	39.1	0.1	mg/L	35.71	110	90-110			
Potassium	38.2	0.500	mg/L	35.71	107	90-110			
Magnesium	39.5	0.1	mg/L	35.71	111	90-110			
LCS (BEE0685-BS2)									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Sodium	39	1	mg/L	35.71	108	90-110			
Potassium	37.4	0.500	mg/L	35.71	105	90-110			
Calcium	38.4	0.1	mg/L	35.71	107	90-110			
Magnesium	39.0	0.1	mg/L	35.71	109	90-110			
Duplicate (BEE0685-DUP1)									
Source: 23E1540-01									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Sodium	30	1	mg/L	34			13.6	15	
Potassium	ND	0.500	mg/L	ND					15
Calcium	36.7	0.1	mg/L	42.3			14.2	15	
Magnesium	28.8	0.1	mg/L	33.0			13.7	15	
Matrix Spike (BEE0685-MS1)									
Source: 23E1540-01									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Potassium	38.3	0.500	mg/L	35.71	ND	107	90-110		
Calcium	76.8	0.1	mg/L	35.71	42.3	96.5	90-110		
Sodium	69	1	mg/L	35.71	34	97.3	90-110		
Magnesium	68.4	0.1	mg/L	35.71	33.0	99.1	90-110		
Matrix Spike (BEE0685-MS2)									
Source: 23E1601-01									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Potassium	38.9	0.500	mg/L	35.71	ND	109	90-110		
Sodium	108	1	mg/L	35.71	68	112	90-110		
Calcium	41.4	0.1	mg/L	35.71	1.9	111	90-110		
Magnesium	39.4	0.1	mg/L	35.71	ND	110	90-110		
Reference (BEE0685-SRM2)									
Prepared: 5/18/2023 Analyzed: 5/19/2023									
Potassium	20.7		mg/L	21.90		94.6	90-110		

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Flatland Farms LLC
3275 8th Ave
Hanford, CA 93230

Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 05/18/2023 7:18
Reported: 06/06/2023 08:16

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0685 (Continued)									
Reference (BEE0685-SRM2)									
Sodium	90		mg/L	91.50	98.7	98.7	90-110		
Reference (BEE0685-SRM3)									
Calcium	84.4		mg/L	79.00	107	107	90-110		
Magnesium	32.1		mg/L	30.60	105	105	90-110		

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Received: 05/18/2023 7:18
Reported: 06/06/2023 08:16

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0705									
Blank (BEE0705-BLK1)									
Ammonia (as N)	ND	0.500	mg/L		Prepared: 5/18/2023 Analyzed: 5/19/2023				
Blank (BEE0705-BLK2)									
Ammonia (as N)	ND	0.500	mg/L		Prepared: 5/18/2023 Analyzed: 5/19/2023				
LCS (BEE0705-BS1)									
Ammonia (as N)	8.96	0.500	mg/L	9.990		89.7	90-110		
LCS (BEE0705-BS2)									
Ammonia (as N)	9.35	0.500	mg/L	9.990		93.6	90-110		
Duplicate (BEE0705-DUP1)									
Ammonia (as N)	1.70	0.500	mg/L	1.85				8.13	10
Duplicate (BEE0705-DUP2)									
Ammonia (as N)	ND	0.500	mg/L	ND					10
Matrix Spike (BEE0705-MS1)									
Ammonia (as N)	11.8	0.500	mg/L	9.990	1.85	99.9	90-110		
Matrix Spike (BEE0705-MS2)									
Ammonia (as N)	9.64	0.500	mg/L	9.990	ND	96.5	90-110		
Reference (BEE0705-SRM1)									
Ammonia (as N)	5.33		mg/L	5.470		97.5	90-110		

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Received: 05/18/2023 7:18
Reported: 06/06/2023 08:16

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEE0753									
Blank (BEE0753-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 5/19/2023 Analyzed: 6/2/2023				
LCS (BEE0753-BS1)									
Total Filterable Solids (TDS)	23.8	10.0	mg/L	2000	Prepared: 5/19/2023 Analyzed: 6/2/2023	1.19	0-200		
Duplicate (BEE0753-DUP1)									
Total Filterable Solids (TDS)	327	10.0	mg/L	333	Prepared: 5/19/2023 Analyzed: 6/2/2023			2.02	5
Duplicate (BEE0753-DUP2)									
Total Filterable Solids (TDS)	947	10.0	mg/L	923	Prepared: 5/19/2023 Analyzed: 6/2/2023			2.50	5
Reference (BEE0753-SRM1)									
Total Filterable Solids (TDS)	310		mg/L	325.0	Prepared: 5/19/2023 Analyzed: 6/2/2023	95.4	90-110		

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05/18/23 07:18

23E1601

Box 385

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input type="checkbox"/> DLI Sampler <input checked="" type="checkbox"/> Other <input type="checkbox"/> _____										
<input type="checkbox"/> Samples refrigerated before pick up					<input type="checkbox"/> Picked up samples placed in Ice chest					
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>					
Samples Preserved with HNO ₃ or H ₂ SO ₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> 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	1	1	1						
	* pH Value	L2	L2	L2						
	250 mL H ₂ SO ₄ (Yellow) Plastic									
	* pH Value									
	500 mL unpreserved (White) Plastic									
1 L unpreserved (White) Plastic	1	1	1							
1 L unpreserved (BOD) (Purple) Plastic										
Special	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									
VOA Vials	100 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)									
Special	1 L AG H ₂ SO ₄ (Yellow)									
	1 L AG Na ₂ S ₂ O ₃ (Green)									
	1 L AG HCl (Blue)									
	Cr ⁶⁺ - 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:										

05/18/23 07:18

23E1601

WATER WORK REQUEST

Acct No. **21359** Cont. **08**
 Bill To:

Purchase Order No. _____ Results Needed By _____

Client **Flatland Farms LLC**
 Address **3275 8th Avenue**
 City, State, Zip **Hanford, CA 93230**
 Email: _____

Copy to: **solaconsultinginc@gmail.com**Requested by/Cell: **Brian Schaap**Facility: **8433 15th Ave, Hanford**Date sampled **5-17-23**Sampled by **Damian Singh**

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1.	Dom Well	Sampled From Well Faucet
2.	Dom S. Barn	Sampled From Barn Faucet
3.	Dom House	Sampled From Well Faucet
4.	-Ag Well-	Sampled From not running
5.		Sampled From _____
6.		Sampled From _____
7.		Sampled From _____
8.		Sampled From _____
9.		Sampled From _____
10.		Sampled From _____

DELLALVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728

www.dellavallelab.com 559 233-6129 • 800 228-9896 • Fax 559 268-8174

No. of Samples **3** No. Bottles **3**
Water Type:
 Ag Water Drinking
 Supply Water Ground Water
 Other Mon. Well

Analysis and Bottles Required: (Please Indicate Analysis)

- DWW1: (EC, pH, NO₃-N, NH₄-N Field Test)
(1) 1 L plastic, unpreserved (white)
- DWW2: (DWW1 Plus SO₄, CO₃, HCO₃, Cl, Ca, Mg, Na, TDS)
(1) 1 L plastic, unpreserved (white)
- DCW1: (EC, NO₃-N, TDS)
(1) 1 L plastic, unpreserved (white)
- DPW1: (EC, pH, NO₃-N, NH₄-N, TKN, TDS, TP, TK)
(1) 1 L plastic, unpreserved (white)
- DPW2: (DPW1 Plus Ca, Mg, Na, HCO₃, CO₃, SO₄, Cl)
(1) 1 L plastic, unpreserved (white)

 Other

Date Sampled	Time Sampled	Field NH ₄ -N (mg/L)	Received Temp °C
5-17-23	0950	0.75	2.0
5-17-23	1015	0.25	2.1
5-17-23	1030	0.25	2.4
5-17-23	20.05		

IR Thermometer SN: 200560723

Correction Factor: 0°C

Calibration Due: 6/30/2023

Location: Laboratory

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	Damian Singh	D.L.T.		5/17/23-1205
Second				
Third				
Fourth	Bright	DLT	5/18/23 7:18	

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above requested services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if there should be action against me for this breach, responsible attorney fees.

It is understood that payment is expected to be cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a daily damage fee of 2% per month (annually, 24%) or \$5.00 per month whichever is greater.

If payment is not made when due and a legitimate dispute exists concerning the product or services of Dellavalle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternative to Litigation, Inc. ("CAL"). If the dispute is not resolved in mediation, the dispute will be submitted to binding arbitration through the CAL under its Rules and Procedures. The parties will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, then Della will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorney's fees of Dellavalle Laboratory.

Invoicing Information:**Sola Qrtly 2023**

Sampling Hrs	Miles	Consulting	\$	In
				Out

Amt Paid Rec By Check No. Date

Signature _____

Sample received in cooler with ice?

[] Yes [] No

cir update 2020



Flatland Farms LLC
3275 8th Ave
Hanford, CA 93230

Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 08/08/2023 7:29
Reported: 08/17/2023 10:05

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23H0789-01	AG Well 1 (Standpipe)	Ag Water	Danny Singh		08/07/2023 10:01

Default Cooler Temperature on Receipt °C: 1.6
Containers Intact
COC/Labels Agree
Preservation Confirmed
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

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Reported: 08/17/2023 10:05

Sample Results

Sample: AG Well 1 (Standpipe)
23H0789-01 (Water)

Sampled: 8/7/2023 10:01
Sampled By: Danny Singh

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO3	10.6	mg/L	10.0	1		08/14/23 16:24	SM 2320 B		BEH0589
Calcium	2.3	mg/L	0.1	1		08/14/23 12:13	EPA 200.7		BEH0571
Chloride	0.4	mg/L	0.2	1	250	08/08/23 18:54	EPA 300.0		BEH0289
Carbonate as CaCO3	ND	mg/L	1	1		08/14/23 16:24	SM 2320 B		BEH0589
Electrical Conductivity	0.02	mmhos/cm	0.01	1		08/14/23 16:24	SM 2510 B		BEH0589
Electrical Conductivity	0.03	mmhos/cm	0.01	1		08/08/23 14:54	SM 2510 B		BEH0353
Electrical Conductivity umhos	23.3	umhos/cm	10.0	1		08/14/23 16:24	SM 2510 B		BEH0589
Electrical Conductivity umhos	25.8	umhos/cm	10.0	1		08/08/23 14:54	SM 2510 B		BEH0353
Bicarbonate as CaCO3	10.6	mg/L	5.00	1		08/14/23 16:24	SM 2320 B		BEH0589
Potassium	0.749	mg/L	0.500	1		08/14/23 12:13	EPA 200.7		BEH0571
Magnesium	0.5	mg/L	0.1	1		08/14/23 12:13	EPA 200.7		BEH0571
Sodium	2	mg/L	1	1		08/14/23 12:13	EPA 200.7		BEH0571
Ammonia (as N)	0.546	mg/L	0.500	1		08/11/23 15:59	SM 4500-NH3 H		BEH0523
Ammonia (as N)	0.250	mg/L	0.00	1		08/07/23 10:01	Field		BEH0352
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	08/08/23 18:54	EPA 300.0		BEH0289
Hydroxide as CaCO3	ND	mg/L	1.00	1		08/14/23 16:24	SM 2320 B		BEH0589
pH	6.6	units	1.0	1		08/14/23 16:24	SM 4500-H+	H	BEH0589
pH	6.4	units	1.0	1		08/08/23 14:54	SM 4500-H+	H	BEH0353
Sulfate (SO4)	0.9	mg/L	0.5	1	250	08/08/23 18:54	EPA 300.0		BEH0289
Total Filterable Solids (TDS)	25.0	mg/L	10.0	1		08/16/23 11:03	SM 2540 C		BEH0609
Temperature	25.0	°C	0.0	1		08/08/23 14:54	SM 2510 B		BEH0353

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Received: 08/08/2023 7:29
Reported: 08/17/2023 10:05

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0289									
Blank (BEH0289-BLK1)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 8/8/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
Blank (BEH0289-BLK2)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 8/8/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
Blank (BEH0289-BLK3)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 8/9/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
LCS (BEH0289-BS1)									
Chloride 5.2 0.2 mg/L Prepared & Analyzed: 8/8/2023									
Nitrate Nitrogen as NO3N 5.4 0.1 mg/L									
Sulfate (SO4) 5.0 0.5 mg/L									
LCS (BEH0289-BS2)									
Chloride 4.9 0.2 mg/L Prepared & Analyzed: 8/9/2023									
Nitrate Nitrogen as NO3N 5.1 0.1 mg/L									
Sulfate (SO4) 4.7 0.5 mg/L									
Duplicate (BEH0289-DUP1)									
Chloride 41.1 0.2 mg/L Prepared & Analyzed: 8/8/2023									
Nitrate Nitrogen as NO3N 2.6 0.1 mg/L									
Sulfate (SO4) 15.7 0.5 mg/L									
Duplicate (BEH0289-DUP2)									
Chloride 4.4 0.2 mg/L Prepared & Analyzed: 8/9/2023									
Nitrate Nitrogen as NO3N 0.08 0.1 mg/L									
Sulfate (SO4) 13.8 0.5 mg/L									
Matrix Spike (BEH0289-MS1)									
Chloride 45.4 0.2 mg/L Prepared & Analyzed: 8/8/2023									
Nitrate Nitrogen as NO3N 7.7 0.1 mg/L									
Sulfate (SO4) 20.6 0.5 mg/L									
Matrix Spike (BEH0289-MS2)									
Chloride 9.5 0.2 mg/L Prepared & Analyzed: 8/9/2023									
Nitrate Nitrogen as NO3N 5.1 0.1 mg/L									
Sulfate (SO4) 18.7 0.5 mg/L									

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Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 08/08/2023 7:29
Reported: 08/17/2023 10:05

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0289 (Continued)									
Reference (BEH0289-SRM1)									
Prepared & Analyzed: 8/8/2023									
Chloride 12.6 mg/L 12.50 101 90-110									
Nitrate Nitrogen as NO ₃ N 10.1 mg/L 10.00 101 90-110									
Sulfate (SO ₄) 9.9 mg/L 10.00 98.6 90-110									
Reference (BEH0289-SRM2)									
Prepared & Analyzed: 8/8/2023									
Chloride 12.6 mg/L 12.50 101 90-110									
Nitrate Nitrogen as NO ₃ N 10.1 mg/L 10.00 101 90-110									
Sulfate (SO ₄) 9.8 mg/L 10.00 98.1 90-110									
Reference (BEH0289-SRM3)									
Prepared & Analyzed: 8/9/2023									
Chloride 12.6 mg/L 12.50 101 90-110									
Nitrate Nitrogen as NO ₃ N 10.1 mg/L 10.00 101 90-110									
Sulfate (SO ₄) 9.8 mg/L 10.00 98.4 90-110									

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Reported: 08/17/2023 10:05

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0353									
Blank (BEH0353-BLK1)									
Prepared & Analyzed: 8/8/2023									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.6	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEH0353-BLK2)									
Prepared & Analyzed: 8/8/2023									
pH	7.7	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Blank (BEH0353-BLK3)									
Prepared & Analyzed: 8/8/2023									
pH	6.5	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Duplicate (BEH0353-DUP1)									
Source: 23H0064-02									
Prepared & Analyzed: 8/8/2023									
pH	7.9	1.0	units		7.9		0.379	10	
Electrical Conductivity	1.31	0.01	mmhos/cm		1.33		1.19	10	
Electrical Conductivity umhos	1310	10.0	umhos/cm		1330		1.19	10	
Duplicate (BEH0353-DUP2)									
Source: 23H0789-01									
Prepared & Analyzed: 8/8/2023									
pH	6.4	1.0	units		6.4		0.626	10	
Electrical Conductivity	0.03	0.01	mmhos/cm		0.03		0.778	10	
Electrical Conductivity umhos	25.6	10.0	umhos/cm		25.8		0.778	10	
Reference (BEH0353-SRM1)									
Prepared & Analyzed: 8/8/2023									
Electrical Conductivity	525		umhos/cm		538.0	97.6	90-110		
Reference (BEH0353-SRM2)									
Prepared & Analyzed: 8/8/2023									
pH	7.8		units		7.790	99.9	.7163-101.28		
Reference (BEH0353-SRM3)									
Prepared & Analyzed: 8/8/2023									
Electrical Conductivity	976		umhos/cm		1000	97.6	90-110		
Electrical Conductivity umhos	976		umhos/cm		1000	97.6	90-110		
Reference (BEH0353-SRM4)									
Prepared & Analyzed: 8/8/2023									
Electrical Conductivity	980		umhos/cm		1000	98.0	90-110		
Electrical Conductivity umhos	980		umhos/cm		1000	98.0	90-110		
Reference (BEH0353-SRM5)									
Prepared & Analyzed: 8/8/2023									
Electrical Conductivity	988		umhos/cm		1000	98.8	90-110		

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Flatland Farms LLC
3275 8th Ave
Hanford, CA 93230

Account# 00-0021359
Account Manager: Ben Nydam
Submitted By: Brian Schaap
Ranch: 8433 15th Ave, Hanford

Received: 08/08/2023 7:29
Reported: 08/17/2023 10:05

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0353 (Continued)									
Reference (BEH0353-SRM5)									
Electrical Conductivity umhos	988		umhos/cm	1000	98.8	98.8	90-110		
Reference (BEH0353-SRM6)									
pH	4.0		units	4.000	100	100	97.5-102.5		
Reference (BEH0353-SRM7)									
pH	4.0		units	4.000	100	100	97.5-102.5		
Reference (BEH0353-SRM8)									
pH	4.0		units	4.000	99.8	99.8	97.5-102.5		

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1910 W. McKinley Ave Suite 110 Fresno, CA 93728 559-233-6129 www.dellavallelab.com



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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0523									
Blank (BEH0523-BLK1)									
Ammonia (as N)	ND	0.500	mg/L		Prepared: 8/10/2023 Analyzed: 8/11/2023				
Blank (BEH0523-BLK2)									
Ammonia (as N)	ND	0.500	mg/L		Prepared: 8/10/2023 Analyzed: 8/11/2023				
LCS (BEH0523-BS1)									
Ammonia (as N)	9.18	0.500	mg/L	9.990		91.9	90-110		
LCS (BEH0523-BS2)									
Ammonia (as N)	9.33	0.500	mg/L	9.990		93.4	90-110		
Duplicate (BEH0523-DUP1)									
Ammonia (as N)	0.556	0.500	mg/L	0.546				1.80	10
Duplicate (BEH0523-DUP2)									
Ammonia (as N)	7.73	0.500	mg/L	7.42				4.04	10
Matrix Spike (BEH0523-MS1)									
Ammonia (as N)	10.8	0.500	mg/L	9.990	0.546	103	90-110		
Matrix Spike (BEH0523-MS2)									
Ammonia (as N)	102	0.500	mg/L	7.42				90-110	
Reference (BEH0523-SRM1)									
Ammonia (as N)	4.01		mg/L	5.470		73.2	90-110		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0571									
Blank (BEH0571-BLK1)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Sodium	ND	1	mg/L						
Potassium	ND	0.500	mg/L						
Calcium	ND	0.1	mg/L						
Magnesium	ND	0.1	mg/L						
Blank (BEH0571-BLK2)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Calcium	ND	0.1	mg/L						
Potassium	ND	0.500	mg/L						
Sodium	ND	1	mg/L						
Magnesium	ND	0.1	mg/L						
LCS (BEH0571-BS1)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Calcium	38.7	0.1	mg/L	35.71		108	90-110		
Sodium	38	1	mg/L	35.71		106	90-110		
Potassium	37.4	0.500	mg/L	35.71		105	90-110		
Magnesium	39.1	0.1	mg/L	35.71		110	90-110		
LCS (BEH0571-BS2)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Calcium	38.2	0.1	mg/L	35.71		107	90-110		
Potassium	38.1	0.500	mg/L	35.71		107	90-110		
Sodium	39	1	mg/L	35.71		109	90-110		
Magnesium	38.6	0.1	mg/L	35.71		108	90-110		
Duplicate (BEH0571-DUP1)									
Source: 23H0789-01									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Calcium	2.4	0.1	mg/L	2.3			4.85	15	
Sodium	2	1	mg/L	2			1.58	15	
Potassium	0.661	0.500	mg/L	0.749			12.5	15	
Magnesium	0.5	0.1	mg/L	0.5			6.69	15	
Matrix Spike (BEH0571-MS1)									
Source: 23H0789-01									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Calcium	39.8	0.1	mg/L	35.71	2.3	105	90-110		
Potassium	38.6	0.500	mg/L	35.71	0.749	106	90-110		
Sodium	41	1	mg/L	35.71	2	109	90-110		
Magnesium	38.3	0.1	mg/L	35.71	0.5	106	90-110		
Matrix Spike (BEH0571-MS2)									
Source: 23H1079-02									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Sodium	60	1	mg/L	35.71	21	110	90-110		
Potassium	42.8	0.500	mg/L	35.71	4.39	108	90-110		
Calcium	58.5	0.1	mg/L	35.71	20.2	107	90-110		
Magnesium	46.8	0.1	mg/L	35.71	8.2	108	90-110		
Reference (BEH0571-SRM2)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Sodium	95		mg/L	91.50		104	90-110		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0571 (Continued)									
Reference (BEH0571-SRM2)									
Potassium	23.7		mg/L	21.90		108	90-110		
Reference (BEH0571-SRM3)									
Calcium	50.2		mg/L	45.90		109	90-110		
Magnesium	38.6		mg/L	35.60		108	90-110		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
---------	-------------	-----------------	-------	-------------	---------------	------	--------	-----	-----------

Batch: BEH0589

Blank (BEH0589-BLK1)

		Prepared: 8/10/2023 Analyzed: 8/14/2023		
Electrical Conductivity	ND	0.01	mmhos/cm	
Carbonate as CaCO ₃	ND	1	mg/L	
pH	5.2	1.0	units	
Hydroxide as CaCO ₃	ND	1.00	mg/L	
Alkalinity as CaCO ₃	ND	10.0	mg/L	
Bicarbonate as CaCO ₃	ND	5.00	mg/L	
Electrical Conductivity umhos	ND	10.0	umhos/cm	

Blank (BEH0589-BLK2)

		Prepared: 8/10/2023 Analyzed: 8/14/2023		
Electrical Conductivity	ND	0.01	mmhos/cm	
Hydroxide as CaCO ₃	ND	1.00	mg/L	
pH	5.2	1.0	units	
Alkalinity as CaCO ₃	ND	10.0	mg/L	
Carbonate as CaCO ₃	ND	1	mg/L	
Bicarbonate as CaCO ₃	ND	5.00	mg/L	
Electrical Conductivity umhos	ND	10.0	umhos/cm	

Blank (BEH0589-BLK3)

		Prepared: 8/10/2023 Analyzed: 8/14/2023		
Alkalinity as CaCO ₃	ND	10.0	mg/L	
pH	5.0	1.0	units	
Electrical Conductivity	ND	0.01	mmhos/cm	
Carbonate as CaCO ₃	ND	1	mg/L	
Hydroxide as CaCO ₃	ND	1.00	mg/L	
Electrical Conductivity umhos	ND	10.0	umhos/cm	
Bicarbonate as CaCO ₃	ND	5.00	mg/L	

Duplicate (BEH0589-DUP1)

	Source: 23H1129-01	Prepared: 8/10/2023 Analyzed: 8/14/2023		
Electrical Conductivity	1.00	0.01	mmhos/cm	0.96
Carbonate as CaCO ₃	9	1	mg/L	9
Alkalinity as CaCO ₃	139	10.0	mg/L	135
pH	8.6	1.0	units	8.6
Hydroxide as CaCO ₃	ND	1.00	mg/L	ND
Electrical Conductivity umhos	1000	10.0	umhos/cm	963

Duplicate (BEH0589-DUP2)

	Source: 23H1140-05	Prepared: 8/10/2023 Analyzed: 8/14/2023		
pH	7.8	1.0	units	7.8
Hydroxide as CaCO ₃	ND	1.00	mg/L	ND
Alkalinity as CaCO ₃	506	10.0	mg/L	508
Electrical Conductivity	1.28	0.01	mmhos/cm	1.27
Carbonate as CaCO ₃	ND	1	mg/L	ND
Electrical Conductivity umhos	1280	10.0	umhos/cm	1270

Reference (BEH0589-SRM1)

Prepared: 8/10/2023 Analyzed: 8/14/2023

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0589 (Continued)									
Reference (BEH0589-SRM1)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Alkalinity as CaCO ₃ 40.7 mg/L 40.60 100 90-110									
Electrical Conductivity 506 umhos/cm 538.0 94.0 90-110									
Reference (BEH0589-SRM2)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Electrical Conductivity 496 umhos/cm 538.0 92.2 90-110									
Alkalinity as CaCO ₃ 41.2 mg/L 40.60 102 90-110									
Reference (BEH0589-SRM3)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
Electrical Conductivity 498 umhos/cm 538.0 92.5 90-110									
Alkalinity as CaCO ₃ 41.6 mg/L 40.60 102 90-110									
Reference (BEH0589-SRM4)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEH0589-SRM5)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEH0589-SRM6)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEH0589-SRM7)									
Prepared: 8/10/2023 Analyzed: 8/14/2023									
pH	5.8		units	5.820		99.3	28178-101.7:		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEH0609									
Blank (BEH0609-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 8/11/2023 Analyzed: 8/16/2023				
LCS (BEH0609-BS1)					Prepared: 8/11/2023 Analyzed: 8/16/2023				
Total Filterable Solids (TDS)	17.5	10.0	mg/L	2000	0.875	0-200			
Duplicate (BEH0609-DUP1)		Source: 23H1161-01			Prepared: 8/11/2023 Analyzed: 8/16/2023				
Total Filterable Solids (TDS)	4730	10.0	mg/L	5050			6.47	10	
Duplicate (BEH0609-DUP2)		Source: 23H1164-03			Prepared: 8/11/2023 Analyzed: 8/16/2023				
Total Filterable Solids (TDS)	4340	10.0	mg/L	4150			4.48	10	
Reference (BEH0609-SRM1)					Prepared: 8/11/2023 Analyzed: 8/16/2023				
Total Filterable Solids (TDS)	313		mg/L	325.0	96.4	90-110			
Reference (BEH0609-SRM2)					Prepared: 8/11/2023 Analyzed: 8/16/2023				
Total Filterable Solids (TDS)	490		mg/L	495.0	99.0	90-110			

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08/08/23 07:29

23H0789

205

WATER WORK REQUEST

Bill To: 21359 Acct No. 08

Purchase Order No. _____ Results Needed By _____

Client **Flatland Farms LLC**
 Address **3275 8th Avenue**
 City, State, Zip **Hanford, CA 93230**
 Email: **0**

Copy to: **solaconsultinginc@gmail.com**Requested by/Cell: **Brian Schaap**Facility: **8433 15th Ave, Hanford**Date sampled **8-7-23**Sampled by **Darren M. Singh D.L.T.** QA/QC Document Copy of Chain RWQCB**DESCRIPTION OF SAMPLES**

1.	Ag Well 1	Sampled From: standpipe
2.		Sampled From: _____
3.		Sampled From: _____
4.		Sampled From: _____
5.		Sampled From: _____
6.		Sampled From: _____
7.		Sampled From: _____
8.		Sampled From: _____
9.		Sampled From: _____
10.		Sampled From: _____

DELLAVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728
 www.dellavallelab.com 559 233-6129 • 800 228-9896 • Fax 559 268-8174

2

No. of Samples _____	No. of Bottles _____
Water Type:	<input type="checkbox"/> Drinking <input checked="" type="checkbox"/> Wastewater
<input checked="" type="checkbox"/> Ag Water <input type="checkbox"/> Ground Water	<input type="checkbox"/> Mon. Well
<input type="checkbox"/> Supply Water <input type="checkbox"/> Other	

Analysis and Bottles Required: (Please Indicate Analysis)

- DWW1: (EC, pH, NO₃-N, NH₄-N Field Test)
 (1) 1 L plastic, unpreserved (white)
- DWW2: (DWW1 Plus SO₄, CO₃, HCO₃, Cl, Ca, Mg, Na, TDS)
 (1) 1 L plastic, unpreserved (white)
- DCW1: (EC, NO₃-N, TDS)
 (1) 1 L plastic, unpreserved (white)
- DPW1: (EC, pH, NO₃-N, NH₄-N, TKN, TDS, TP, TK)
 (1) 1 L plastic, unpreserved (white)
- DPW2: (DPW1 Plus Ca, Mg, Na, HCO₃, CO₃, SO₄, Cl)
 (1) 1 L plastic, unpreserved (white)

<input type="checkbox"/> Other	Date Sampled	Time Sampled	Field NH4-N (mg/L)	Received Temp °C
	8-7-23	1001	0.25	1.6
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	Darren M. Singh	D.L.T.		8-7-23 / 1129
Second	MM	DLI	8/8/23	7:29
Third				
Fourth				

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above requested services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if there should be action against me for this breach, reasonable attorneys' fees. It is understood that payment is expected to be cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a dated damage fee of 2% per month (annually 24%) or \$5.00 per month whichever is greater.

If payment is not made when due and a legitimate dispute exists concerning the product or services of Dellavalle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternative to Litigation, Inc. (call). If the dispute is not resolved in mediation, then the dispute will be submitted to binding arbitration through call under its Rules and Procedures. The parties will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, then debtor will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorneys' fees of Dellavalle Laboratory.

Invoicing Information:**Sola Qrtly 2023**

Sampling Hrs	Miles	Consulting	\$ <input type="text"/> In
			\$ <input type="text"/> Out
Amt Paid	Rec By	Check No.	Date <input type="text"/>

Signature _____

Sample received in cooler with ice?

| Yes | No |

ctt:update 2020

IR Thermometer SN: 200560723

Correction Factor: 0°C

Calibration Due: 9/26/2023

Location: Laboratory



08/08/23 07:29

23H0789

PATCHES

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input type="checkbox"/> DLI Sampler <input checked="" type="checkbox"/> Other <input type="checkbox"/> _____										
<input type="checkbox"/> Samples refrigerated before pick up <input type="checkbox"/> Picked up samples placed in Ice chest										
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/> Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>										
Samples Preserved with HNO₃ or H₂SO₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> 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	t								
	* pH Value	L2								
	500 mL unpreserved (White) Plastic									
1 L unpreserved (White) Plastic	1									
1 L unpreserved (BOD) (Purple) Plastic										
Special	500mL unpreserved (White) Glass									
	PO4-P Kit									
	Other:				pH Strips Lot 10BDH4501 Exp. Jan. 2025					
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									
VOA Vials	1 L HNO ₃ (Red)									
	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)									
Glass	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)									
	250 mL AG unpreserved (White)									
	250 mL AG H ₂ SO ₄ (Yellow)									
Special	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)										
Cr ⁶⁺ - 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:										

ATTACHMENT D

Manure/Process Wastewater Tracking Manifest For Existing Milk Cow Dairies

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
- 2) If there are multiple destinations, **complete a separate form for each destination.**
- 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
- 4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

Operator Information:

Name of Operator: Aaron Van Dyk

Name of Dairy Facility: Flatland Farms LLC

Facility Address: 8431 15th Ave Hanford 93230
Number and Street City Zip Code

Contact Person Name and Phone Number: Aaron Van Dyk 559-679-6844
Name City Phone Number

Manure/Process Wastewater Hauler Information:

Name of Hauling Company/Person: Pat J. Duarte Farm

Address of Hauling Company /Person: 1728 Mckinley Ave Hanford 93230
Number and Street City Zip Code

Contact Person: Joe Duarte 559-707-4694
Name Phone Number

Destination Information:

Composting Facility / Broker Farmer Other (identify) _____ (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Joe Duarte 1728 Mckinley Ave Hanford 93230 559-707-4694
Name Number and Street City Zip Code Phone Number

Manure/Process Wastewater Destination Address or Assessor's Parcel Number:

005-080-007
Number and Street City Zip Code Assessor's Parcel Number

Dates Hauled: 1-1-23 – 12-31-23

Amount Hauled:

Enter the amount of manure hauled in tons or cubic yards (indicate the units used), the manure solids content (if amount reported in tons) or manure density (if amount reported in cubic yards), and the method used to calculate the amount:

Manure: _____ Tons or Cubic Yards (indicate which units used)

Manure Solids Content (if amount reported in tons): _____

Manure Density (if amount reported in cubic yards): _____

Waste Discharge Requirements General Order No. R5-2007-0035
Existing Milk Cow Dairies

Method used to determine amount of manure: _____

Enter the amount of process wastewater hauled in gallons and the method used to determine the amount.

Process Wastewater: 500,000 Gallons

Method used to determine volume of process wastewater: Pump Rate _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No. R5-2007-0035) with any party that receives process wastewater from the Operator for its own use? (please check one)

Yes No

If the answer is no, the Operator agrees to have such a written agreement with any such party for any process wastewater transferred after **31 December 2007** to such party.

_____ (Operator shall provide initials here to acknowledge this requirement).

Certification:

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations.

Operator's Signature: Aaron Van Dyk Date: 3/5/24

Hauler's Signature: Joseph B. Duarte Date: 3/5/24

ATTACHMENT D

Manure/Process Wastewater Tracking Manifest For Existing Milk Cow Dairies

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
- 2) If there are multiple destinations, **complete a separate form for each destination.**
- 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
- 4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

Operator Information:

Name of Operator: Aaron Van Dyk

Name of Dairy Facility: Flatland Farms LLC

Facility Address: 8431 15th Ave Hanford 93230
Number and Street City Zip Code

Contact Person Name and Phone Number: Aaron Van Dyk 559-679-6844
Name Phone Number

Manure/Process Wastewater Hauler Information:

Name of Hauling Company/Person: Dan & Steve Bettencourt Farms

Address of Hauling Company /Person: 6095 14th Ave Hanford 93230
Number and Street City Zip Code

Contact Person: Diane Bettencourt 559-779-5167
Name Phone Number

Destination Information:

Composting Facility / Broker Farmer Other (identify) _____ (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Dan & Steve Bettencourt Farms 6095 14th Ave Hanford 93230 559-779-5167
Name Number and Street City Zip Code Phone Number

Manure/Process Wastewater Destination Address or Assessor's Parcel Number:

15th & Fargo Hanford 93230
Number and Street City Zip Code Assessor's Parcel Number

Dates Hauled: 1-1-23 – 12-31-23

Amount Hauled:

Enter the amount of manure hauled in tons or cubic yards (indicate the units used), the manure solids content (if amount reported in tons) or manure density (if amount reported in cubic yards), and the method used to calculate the amount:

Manure: _____ Tons or Cubic Yards (indicate which units used)

Manure Solids Content (if amount reported in tons): _____

Manure Density (if amount reported in cubic yards): _____

Waste Discharge Requirements General Order No. R5-2007-0035
Existing Milk Cow Dairies

Method used to determine amount of manure: _____

Enter the amount of process wastewater hauled in gallons and the method used to determine the amount.

Process Wastewater: 515,000 Gallons

Method used to determine volume of process wastewater: Pump Rate _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No. R5-2007-0035) with any party that receives process wastewater from the Operator for its own use? (please check one)

Yes No

If the answer is no, the Operator agrees to have such a written agreement with any such party for any process wastewater transferred after **31 December 2007** to such party.

_____ (Operator shall provide initials here to acknowledge this requirement).

Certification:

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations.

Operator's Signature: Aaron Van Dyk Date: 1/16/24

Hauler's Signature: Diana Bettencourt Date: 1/16/24

ATTACHMENT D

Manure/Process Wastewater Tracking Manifest For Existing Milk Cow Dairies

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
- 2) If there are multiple destinations, **complete a separate form for each destination.**
- 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
- 4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

Operator Information:

Name of Operator: Aaron Van Dyk

Name of Dairy Facility: Flatland Farms LLC

Facility Address: 8431 15th Ave Hanford 93230
Number and Street City Zip Code

Contact Person Name and Phone Number: Aaron Van Dyk 559-679-6844
Name Phone Number

Manure/Process Wastewater Hauler Information:

Name of Hauling Company/Person: Mello Trucking

Address of Hauling Company /Person: 9900 15th Ave Hanford 93230
Number and Street City Zip Code

Contact Person: Brian Mello 559-816-3859
Name Phone Number

Destination Information:

Composting Facility / Broker Farmer Other (identify) _____ (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Daniel Soares 5835 13th Ave Hanford 93230 559-469-2728
Name Number and Street City Zip Code Phone Number

Manure/Process Wastewater Destination Address or Assessor's Parcel Number:

5835 13th Ave Hanford 93230
Number and Street City Zip Code Assessor's Parcel Number

Dates Hauled: 1-1-23 – 12-31-23

Amount Hauled:

Enter the amount of manure hauled in tons or cubic yards (indicate the units used), the manure solids content (if amount reported in tons) or manure density (if amount reported in cubic yards), and the method used to calculate the amount:

Manure: 4500 Tons or Cubic Yards (indicate which units used)

Manure Solids Content (if amount reported in tons): 85%

Manure Density (if amount reported in cubic yards): _____

Waste Discharge Requirements General Order No. R5-2007-0035
Existing Milk Cow Dairies

Method used to determine amount of manure: _____ Scale _____

Enter the amount of process wastewater hauled in gallons and the method used to determine the amount.

Process Wastewater: _____ Gallons

Method used to determine volume of process wastewater: _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No. R5-2007-0035) with any party that receives process wastewater from the Operator for its own use? (please check one)

Yes No

If the answer is no, the Operator agrees to have such a written agreement with any such party for any process wastewater transferred after **31 December 2007** to such party.

_____ (Operator shall provide initials here to acknowledge this requirement).

Certification:

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations.

Operator's Signature: Aaron Van Dyle Date: 2/3/24

Hauler's Signature: B Date: 2/3/24