Livingston Dairy Consulting, Inc.

1635 E. Propserity Ave., Ste B, Tulare
559-687-1440

Soares Dairy #3 (Previously P&E Dairy)
15336 10th Avenue Hanford, CA 93230

X	Annual Report
X	Water Analysis Samples
N/A	Manure Manifest
N/A	Facility / Land Map
X	CCA Nitrogen Retrofit Report

GEO Tracker Confirmation # **Date:**

Facility Info

Reporting Period: **1/1/2023** **to** **12/31/2023**

Name of the Facility

Dairy Name: Soares Dairy #3 *(Previously P&E Dairy)*

Facility Address: 15336 10th Avenue Hanford, CA 93230

Original Operation Date:

Facility APN's: 028-100-016

RWQCB Basin Plan Designation: Tulare Lake Basin

☐ Check if any information has changed

Owner(s)

Owner(s) Name: Manuel L. Soares & Adelia M. Soares Revocable Family Trust

Mailing Address: 5835 13th Ave Hanford, CA 93230

Home Phone Number:

Cell Phone Number: 559-469-4430

☐ Check if any information has changed

Operator(s)

Operator(s) Name: Same as owner

Mailing Address:

Home Phone Number:

Cell Phone Number:

☐ Check if any information has changed

Herd Information

	Milk Cows	Dry Cows	Bred Heifers (12-24 mo)	Heifers (3-12 mo)	Calves (0-3 mo)
Open Confinement:	-	-	-	-	-
Number Under Roof	-	-	-	-	-
Maximum Number		No cows on site			
Average Number					
Average Live Weight (lbs)					

Average Milk Production: _____

Predominant Milk Cow Breed: _____

Manure Generated:

Total manure excreted by the herd: - @40% Moisture *ton/yr*

Total nitrogen from manure: - *lbs*

- *lbs*

- *lbs*

Total salt from manure: - *lbs*

After Ammonia (30% loss applied)

- *lbs per reporting period*

Process Wastewater Generated:

Process wastewater generated: - *gal*

Total nitrogen generated: - *lbs*

- *lbs*

- *lbs*

Total salt (TDS) generated: - *lbs*

List of Land Application Areas

Field Name	APN	APN Acres	Cropable Acres	Total Harvest	Type of Waste Applied
1N	x028 x100 x016 xxxx	154.71	77	2	P.W. & D.M.
2S	x028 x100 x016 xxxx		46	2	P.W. & D.M.
3 TREES	x028 x100 x023 xxxx	139.7	88	0	N/A
4 TREES	x028 x100 x022 xxxx, x028 x100 x023 xxxx		45	0	N/A
5 TREES	x028 x150 x027 xxxx	17.2	8	0	N/A
Total Crop Acres			264.00		

List of Fresh Water Sources

Source Description	Type	Subsurface (Tile) Drainage Sources
Dom #1	Ground Water	No
Dom #2	Ground Water	No
Dom #3	Ground Water	No
Dom #4	Ground Water	No
Well #1	Ground Water	No
Well #2	Ground Water	No
Well #3	Ground Water	No
Canal	Surface Water	No

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
1N	Wheat, Silage	73.50	0.41	0.07	0.33	-	10.60	6-6H52783	06/06/23	Valley Tech
2S	Wheat, Silage	74.80	0.47	0.09	0.60	-	11.80	6-6H52783	06/06/23	Valley Tech
3 TREES	Trees, Pistachios	-	2.81	0.42	3.09	-	-	Book Value		-
4 TREES	Trees, Pistachios	-	2.81	0.42	3.09	-	-	Book Value		-
5 TREES	Trees, Pistachios	-	2.81	0.42	3.09	-	-	Book Value		-

Detectable Lim	*Valley Tech*	*0.10%*	*0.05%*	*0.01%*	*0.01%*	*0.05%*
	Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*	*0.001%*
Detectable Limits						
Valley Tech		*0.10%*	*0.05%*	*0.01%*	*0.01%*	*0.05%*
Dellavalle		*0.001%*	*0.01%*	*0.01%*	*0.003%*	*0.001%*

(SUMMER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
1N	Corn, Silage	67.40	0.44	0.09	0.37	-	5.30	10-19H70152	10/19/23	Valley Tech
2S	Corn, Silage	68.20	0.41	0.08	0.36	-	5.17	10-19H70152	10/19/23	Valley Tech
3 TREES	Trees, Pistachios	-	-	-	-	-	-	TREES		-
4 TREES	Trees, Pistachios	-	-	-	-	-	-	TREES		-
5 TREES	Trees, Pistachios	-	-	-	-	-	-	TREES		-

Detectable Limits					
Valley Tech	*0.10%*	*0.05%*	*0.01%*	*0.01%*	*0.05%*
Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*	*0.001%*

Winter Crops & Harvest

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1N	Wheat, Silage	11/26/22	5/20/23	6-6H52783	73.50	0.41	0.07	0.33	-	10.60	Dry Weight
2S	Wheat, Silage	11/28/22	5/15/23	6-6H52783	74.80	0.47	0.09	0.60	-	11.80	Dry Weight
3 TREES	Trees, Pistachios	1/1/21	11/1/23	Book Value	-	2.81	0.42	3.09	-	-	Dry Weight
4 TREES	Trees, Pistachios	1/1/11	11/1/23	Book Value	-	2.81	0.42	3.09	-	-	Dry Weight
5 TREES	Trees, Pistachios	1/1/15	11/1/23	Book Value	-	2.81	0.42	3.09	-	-	Dry Weight

Detectable L Valley Tech	*0.10%*	*0.05%*	*0.01%*	*0.01%*		*0.05%*
Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*		*0.001%*

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1N	Corn, Silage	6/5/23	9/20/23	10-19H70152	67.40	0.44	0.09	0.37	-	5.30	Dry Weight
2S	Corn, Silage	5/30/23	10/1/23	10-19H70152	68.20	0.41	0.08	0.36	-	5.17	Dry Weight
3 TREES	Trees, Pistachios			TREES	-	-	-	-	-	-	
4 TREES	Trees, Pistachios			TREES	-	-	-	-	-	-	
5 TREES	Trees, Pistachios			TREES	-	-	-	-	-	-	

Detectable L Valley Tech	*0.10%*	*0.05%*	*0.01%*	*0.01%*		*0.05%*
Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*		*0.001%*

Well / Canal Analysis

General Minerals

Well Name/Number	NO3-N (mg/L)	EC (umhos/cm)	TDS (mg/L)	NH4-N (mg/L)	TN (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	HCO3 (mg/L)	CO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Lab #:	Date:	LAB
Dom #1	0.01	709	420	-	-	33.00	1.00	118.00	150.00	0.01	61.20	107.00	VI 2340614	2/1/2023	FGL Enviromental
Dom #2	0.01	731	420	-	0.01	-	-	-	-	-	-	-	VI 2340611	2/1/2023	FGL Enviromental
Dom #3	0.01	700	410	-	0.01	-	-	-	-	-	-	-	VI 2340611	2/1/2023	FGL Enviromental
Dom #4	0.01	614	330	-	0.01	-	-	-	-	-	-	-	VI 2340611	2/1/2023	FGL Enviromental
Well #1	-	-	-	-	-	-	-	-	-	-	-	-	Didn't Use		
Well #2	-	-	-	-	-	-	-	-	-	-	-	-	Didn't Use		
Well #3	-	-	-	-	-	-	-	-	-	-	-	-	Didn't Use		
Canal	0.02	51	2	-	-	-	-	-	-	-	-	-	BSK	6/1/2023	Other

Detectable Limits												
Dellavalle	*0.01*	*1*	*10*	*0.2*	*NR*	*0.1*	*0.1*	*0.15*	*3*	*0.9*	*0.03*	*0.03*
FGL Enviromental	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Valley Tech	*0.1*	*1*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*

Soil Analysis (Winter)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
1N	-	-	-	-	-	-			-
2S	-	-	-	-	-	-			-
3 TREES	-	-	-	-	-	-			-
4 TREES	-	-	-	-	-	-			-
5 TREES	-	-	-	-	-	-			-

Detectable Limits						
Valley Tech	*0.1*	*0.1*				
DellaValle	*0.1*	*0.1*	*1.1*	*0.2*	*0.0015*	*0.0001%*

Soil Analysis (Summer)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
1N	5.2	-	0.99	656.00	0.01	48.20	06-06S52785	06/06/23	Valley Tech
2S	3.4	-	0.48	483.00	0.67	39.30	06-06S52785	06/06/23	Valley Tech
3 TREES	2.6	-	0.45	441.00	0.76	7.40	06-06S52785	06/06/23	Valley Tech
4 TREES	2.0	-	0.41	394.00	0.01	5.10	06-06S52785	06/06/23	Valley Tech
5 TREES	1.7	-	0.24	412.00	1.26	4.90	06-06S52785	06/06/23	Valley Tech

Detectable Limits

Valley Tech	*0.1*	*0.1*				
DellaValle	*0.1*	*0.1*	*1.1*	*0.2*	*0.0015*	*0.0001%*

Nutrient Import & Export

Nutrient Export-Did you sell, give away or otherwise remove slurry, process water or dry manure from your property?

___ No

___ Yes, Manifest attached (Attachment D)

Total Dry Manure Exported

Nutrient Import

No Dry manure nutient imports entered

No Process wastewater nutrient imports entered

Total Process Water Exported

No Commerical or other nutrient imports entered

Field Name	Type of Manure Applied	As Is / Dry Weight	Source

Process Water & Manure Analysis

Process Water															
Quarters:	NH4N (mg/L)	TKN (mg/L)	TP (mg/L)	TK (mg/L)	NO3N (mg/L)	NH3N (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	SO4 (mg/L)	CL (mg/L)	EC (ds/m)	TDS (mg/L)
1	24.4	354.0	20.5	243.0	1.0	-	-	-	-	-	-	-	-	2	1,450
2	14.9	110.0	26.1	263.0	1.0	-	-	-	-	-	-	-	-	2	1,200
3	11.0	133.0	7.5	63.4	1.0	-	0.0	9.6	31.3	0.0	0.0	21.7	0.0	1	458
4	4.1	93.0	13.8	0.0	1.0	-	-	-	-	-	-	-	-	-	598
Detectable Limits															
Valley Tech	2.0	5.0	0.1	0.2										0.10	10
Dellavalle	0.2	0.7	0.02	0.2	0.01		0.05	0.4	0.10	0.9	3	0.01	0.03	0.001	10

				Inorg N	Org N	P2O5	K2O
Qtr	Sample #:	Sample Date:	Source	lbs / Ac In			
1	3-24L44746	3/24/2023	Valley Tech	5.8	74.7	10.6	66.3
2	5-11L49505	5/11/2023	Valley Tech	3.6	21.6	13.6	71.8
3	8-17L62131	8/17/2023	Valley Tech	2.7	27.7	3.9	17.3
4	10-3L67896	10/16/2023	Valley Tech	1.2	20.2	7.2	0.0

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-11M49495	5/11/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-3M67860	10/13/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Recv'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	0.71	0.31	0.59	-	-	-	-	-	-	-	15.90
Corral	1.35	0.64	0.87	1.62	0.63	0.44	0.27	0.20	-	64.90	11.60
Detectable Limits											
Valley Tech	0.01%	0.02%	0.02%								
Dellavalle	0.01%	0.01%	0.003%	0.001%	0.001%	0.001%	0.001%	0.000%		0.001%	0.001%

Nutrient Applications

Field Name/Number: 1N **Acres:** 77.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
11/15/22	W. Manure App.	10.39	-	-	-	-	58.7	64.7	122.3	-	-		-
11/26/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
1/20/23	Canal	-	-	-	5.34	-	0.0	-	-	2	-		-
1/20/23	Process Water	-	-	-	-	1.11	62.6	5.2	61.2	365	-		-
3/2/23	Canal	-	-	-	5.20	-	0.0	-	-	2	-		-
3/2/23	Process Water	-	-	-	-	1.08	61.0	5.0	59.7	356	-		-
4/20/23	Canal	-	-	-	5.30	-	0.0	-	-	2	-		-
4/20/23	Process Water	-	-	-	-	1.10	19.5	6.5	65.9	301	-		-
5/5/23	Canal	-	-	-	5.16	-	0.0	-	-	2	-		-
5/5/23	Process Water	-	-	-	-	1.08	19.0	6.4	64.1	293	-		-
5/20/23	W. Harvest	-	-	-	-	-	(225.7)	(40.5)	(182.3)	-	10.60		27.30
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
8/3/23	S. Comm Fert App.	-	-	110	-	-	110.0	-	-	-	-		-
5/25/23	Canal	-	-	-	6.20	-	0.0	-	-	2	-		-
6/5/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
6/15/23	Canal	-	-	-	6.30	-	0.0	-	-	2	-		-
7/18/23	Canal	-	-	-	5.23	-	0.0	-	-	2	-		-
7/18/23	Process Water	-	-	-	-	1.09	23.2	1.9	15.7	113	-		-
8/3/23	Canal	-	-	-	6.40	-	0.0	-	-	2	-		-
8/30/23	Canal	-	-	-	5.27	-	0.0	-	-	2	-		-
8/30/23	Process Water	-	-	-	-	1.10	23.3	1.9	15.8	114	-		-
9/20/23	S. Harvest	-	-	-	-	-	(263.5)	(52.7)	(222.5)	-	5.30		29.94
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		**10.4**		**110**	**50.41**	**6.56**	**(112)**	**(2)**	**(0)**	**1,557**	**15.90**	**0**	**57.23**

Dry Weight
As Received

Field Name/Number: 1N **Acres:** 77

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	377.5	91.5	404.7	1557.0
Nutrients Removed at Harvest	-489.2	-93.2	-404.8	0.0
Nutrient Balance	-111.7	-1.7	-0.1	1557.0

Winter Nitrogen Crop App / Use Ratio: 1.01 **Summer Nitrogen Crop App / Use Ratio:** 1.04

Field Name/Number: 1N **Acres:** 77

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		10.4	T/Ac	58.7	148.1	146.8
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	2.2	Ac In /Ac	123.7	23.4	145.1
	Q2	2.2	Ac In /Ac	38.4	29.5	156.0
Well Water		-	Ac In /Ac	-		
Canal		21.0	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	11/26/22					
W. Harvest	5/20/23	27.3	T/Ac	(225.7)	(92.8)	(218.8)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		110.0	lbs/Ac	110.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.2	Ac In /Ac	46.5	8.5	37.7
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	110		
Canal		29.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/5/23					
S. Harvest	9/20/23	29.9	T/Ac	(263.5)	(120.7)	(267.0)

Nutrient Applications

Field Name/Number: 2S **Acres:** 46.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
11/20/22	W. Manure App.	13.04	-	-	-	-	73.7	81.2	153.6	-	-		-
11/28/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
1/28/23	Canal	-	-	-	5.24	-	0.0	-	-	2	-		-
1/28/23	Process Water	-	-	-	-	1.09	61.6	5.1	60.2	359	-		-
2/20/23	Canal	-	-	-	5.36	-	0.0	-	-	2	-		-
2/20/23	Process Water	-	-	-	-	1.12	62.9	5.2	61.5	367	-		-
3/24/23	Canal	-	-	-	5.13	-	0.0	-	-	2	-		-
3/24/23	Process Water	-	-	-	-	1.07	60.2	5.0	58.9	351	-		-
4/18/23	Canal	-	-	-	6.63	-	0.0	-	-	2	-		-
5/15/23	W. Harvest	-	-	-	-	-	(276.8)	(54.5)	(349.0)	-	10.60		29.22
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/15/23	S. Comm Fert App.	-	-	100	-	-	100.0	-	-	-	-		-
5/20/23	Canal	-	-	-	6.80	-	0.0	-	-	2	-		-
5/30/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
6/15/23	Canal	-	-	-	6.45	-	0.0	-	-	2	-		-
7/12/23	Canal	-	-	-	5.48	-	0.0	-	-	2	-		-
7/12/23	Process Water	-	-	-	-	1.14	24.3	1.9	16.4	118	-		-
8/23/23	Canal	-	-	-	5.30	-	0.0	-	-	2	-		-
8/23/23	Process Water	-	-	-	-	1.10	23.5	1.9	15.9	115	-		-
9/15/23	Canal	-	-	-	6.74	-	0.0	-	-	2	-		-
10/1/23	S. Harvest	-	-	-	-	-	(244.3)	(49.2)	(212.1)	-	5.30		29.78
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		**13.0**		**100**	**53.14**	**5.52**	**(115)**	**(4)**	**(195)**	**1,327**	**15.90**	**0**	**59.00**

Field Name/Number: 2S **Acres:** 46.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	406.4	43.7	304.2	1326.6
Nutrients Removed at Harvest	-521.2	-45.3	-465.8	0.0
Nutrient Balance	-114.8	-1.5	-161.6	1326.6

Winter Nitrogen Crop App / Use Ratio: 0.96 **Summer Nitrogen Crop App / Use Ratio:** 1.04

Field Name/Number: 2S **Acres:** 46

Winter Crop **Wheat, Silage**

Nutrient Summary :		**Applied**		**N**		
W. Manure App.		13.0	T/Ac	73.7	185.9	184.3
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	3.3	Ac In /Ac	184.7	34.9	216.7
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		22.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	11/28/22					
W. Harvest	5/15/23	29.2	T/Ac	(276.8)	(124.8)	(418.8)

Summer Crop **Corn, Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		100.0	lbs/Ac	100.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.2	Ac In /Ac	47.7	8.7	38.7
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	100.0		
Canal		30.8	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	5/30/23					
S. Harvest	10/1/23	29.8	T/Ac	(244.3)	(112.8)	(254.6)

Nutrient Applications

Field Name/Number: 3 TREES **Acres:** 88.00

							Lab Sample Data					Yield	
Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/21	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/4/23	Canal	-	-	-	1.11	-	0.0	-	-	0	-		-
4/12/23	Canal	-	-	-	1.14	-	0.0	-	-	0	-		-
5/7/23	Canal	-	-	-	2.65	-	0.0	-	-	1	-		-
6/13/23	Canal	-	-	-	6.03	-	0.0	-	-	2	-		-
7/10/23	Canal	-	-	-	8.25	-	0.0	-	-	2	-		-
8/9/23	Canal	-	-	-	7.08	-	0.0	-	-	2	-		-
9/3/23	Canal	-	-	-	5.33	-	0.0	-	-	2	-		-
10/2/23	Canal	-	-	-	2.74	-	0.0	-	-	1	-		-
11/1/23	W. Harvest	-	-	-	-	-	(98.4)	(14.7)	(108.2)	-	10.60		1.75
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		0	34.34	0.00	(98)	(15)	(108)	10	10.60	0	1.75

Field Name/Number: 3 TREES **Acres:** 88.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.2	0.0	0.0	10.3
Nutrients Removed at Harvest	-98.4	-6.4	-89.8	0.0
Nutrient Balance	-98.2	-6.4	-89.8	10.3

Winter Nitrogen Crop App / Use Ratio: 0.07 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: 3 TREES **Acres:** 88

Winter Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		34.3	Ac In /Ac	0.2		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/21					
W. Harvest	11/1/23	1.8	T/Ac	(98.4)	(33.7)	(129.8)

Summer Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		#N/A		#N/A		
S. Planting	#N/A					
S. Harvest	#N/A	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: 4 TREES **Acres:** 45.00

							Lab Sample Data					Yield	
Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/11	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/7/23	Canal	-	-	-	1.12	-	0.0	-	-	0	-		-
4/14/23	Canal	-	-	-	1.18	-	0.0	-	-	0	-		-
5/9/23	Canal	-	-	-	2.65	-	0.0	-	-	1	-		-
6/15/23	Canal	-	-	-	6.01	-	0.0	-	-	2	-		-
7/13/23	Canal	-	-	-	8.25	-	0.0	-	-	2	-		-
8/12/23	Canal	-	-	-	7.07	-	0.0	-	-	2	-		-
9/5/23	Canal	-	-	-	5.30	-	0.0	-	-	2	-		-
10/5/23	Canal	-	-	-	2.71	-	0.0	-	-	1	-		-
11/1/23	W. Harvest	-	-	-	-	-	(98.4)	(14.7)	(108.2)	-	10.60		1.75
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		0	34.29	0.00	(98)	(15)	(108)	10	10.60	0	1.75

Field Name/Number: 4 TREES **Acres:** 45.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.2	0.0	0.0	10.3
Nutrients Removed at Harvest	-98.4	-6.4	-89.8	0.0
Nutrient Balance	-98.2	-6.4	-89.8	10.3

Winter Nitrogen Crop App / Use Ratio: 0.07 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: 4 TREES **Acres:** 45

Winter Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		34.3	Ac In /Ac	0.2		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/11					
W. Harvest	11/1/23	1.8	T/Ac	(98.4)	(33.7)	(129.8)

Summer Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		#N/A		#N/A		
S. Planting	#N/A					
S. Harvest	#N/A	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: **5 TREES** **Acres:** **8.00**

							Lab Sample Data					Yield	
Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/15	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/10/23	Canal	-	-	-	1.13	-	0.0	-	-	0	-		-
4/16/23	Canal	-	-	-	1.16	-	0.0	-	-	0	-		-
5/12/23	Canal	-	-	-	2.65	-	0.0	-	-	1	-		-
6/18/23	Canal	-	-	-	6.00	-	0.0	-	-	2	-		-
7/16/23	Canal	-	-	-	8.28	-	0.0	-	-	2	-		-
8/15/23	Canal	-	-	-	7.12	-	0.0	-	-	2	-		-
9/8/23	Canal	-	-	-	5.30	-	0.0	-	-	2	-		-
10/9/23	Canal	-	-	-	2.82	-	0.0	-	-	1	-		-
11/1/23	W. Harvest	-	-	-	-	-	(98.4)	(14.7)	(108.2)	-	10.60		1.75
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		0	34.46	0.00	(98)	(15)	(108)	10	10.60	0	1.75

Field Name/Number: 5 TREES **Acres:** 8.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.2	0.0	0.0	10.3
Nutrients Removed at Harvest	-98.4	-6.4	-89.8	0.0
Nutrient Balance	-98.2	-6.4	-89.8	10.3

Winter Nitrogen Crop App / Use Ratio: 0.07 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: 5 TREES **Acres:** 8

Winter Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		34.5	Ac In /Ac	0.2		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/15					
W. Harvest	11/1/23	1.8	T/Ac	(98.4)	(33.7)	(129.8)

Summer Crop	**Trees, Pistachios**					
Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		#N/A		#N/A		
S. Planting	#N/A					
S. Harvest	#N/A	#N/A	T/Ac	#N/A	#N/A	#N/A

Notes

Without allowance for the significant amount of rainfall during the winter months of 2022/2023, the irrigation logs on each field page of the annual report, reflect canal and/or well used only during that time frame. The facility did not irrigate during the "Significant Storm Events".

It is inaccurate to present "salt" application without acknowledging that there is substantial uptake and utilization of "salts" by crops. If it is possible to calculate "salt" application, it is also possible to calculate "salt" utilization. That calculation should be included in this report. To calculate "salt" utilization is a lengthy process and cannot be done with the constituents required in the Revised General Order sampling requirements.

The signature(s) affixed to this report does not affirmatively refer to those references to "salt" that we know to be incorrect.

(Initial)

Exception Reporting

Manure , Process Water and Other Dairy Waste Discharges:

The following is a summary of all manure and process water 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 water discharges occurred during the reporting period

Storm Water Discharges:

The follow 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, storm water discharges occurred durging the reporting period

Land Application Area To Surface Water Discharges:

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

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

Nutrient Management Plan (NMP) & Written Agreement Statement

Nutrient Management Plan Statement:

Was the faciltiy NMP updated in the reporting period? Yes

Was the facility's NMP developed and approved by a certified nutrient management specialist? Yes

Written Agreements:

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

Owner and/or Operator Certification

**I certify under penalty of law that all information submitted as part of this document is accurate and true. Certification signatures by a California Registered Professional have been supplied as needed in Part II. I have personally examined and am familiar with the information submitted in Parts I and II of 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.*

Larry Soares

Signature of Owner of Facility

Signature of Operator of Facility

Manuel L. Soares & Adelia M. Soares Revocable Family Trust

Print Name

Same as owner

Print Name

Date

Date

March 9, 2023

Lab No. : VI 2340614
Customer No. : 4018505

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Laboratory Report

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

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(2 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
DOM 1	02/01/2023	02/01/2023	VI 2340614-001	DW

Sampling and Receipt Information:

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

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

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

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

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.** FGL Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-03-09

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

March 9, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM 1
Project : W-4 Soares Dairy #3

Lab No. : VI 2340614-001
Customer No. : 4018505

Sampled On : February 1, 2023 at 07:07
Sampled By : Marlene & Kaylin
Received On : February 1, 2023 at 14:04
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Alkalinity (as CaCO3)	120	10	mg/L		1		02/04/2023	20:41	amm	SM 4500-H+B	02/05/2023	07:00	amm
Bicarbonate	150	10	mg/L		1		02/04/2023	20:41	amm	SM 4500-H+B	02/05/2023	07:00	amm
Carbonate	ND	10	mg/L		1	U	02/04/2023	20:41	amm	SM 4500-H+B	02/05/2023	07:00	amm
Hydroxide	ND	10	mg/L		1	U	02/04/2023	20:41	amm	SM 4500-H+B	02/05/2023	07:00	amm
Chloride	107	1	mg/L	500[2]	1		02/02/2023	12:02	ldm	EPA 300.0	02/02/2023	17:33	ldm
Nitrate Nitrogen	ND	0.1	mg/L	10	1	U	02/02/2023	12:02	ldm	EPA 300.0	02/02/2023	17:33	ldm
Conductivity	709	1	umhos/cm	1600[2]	1		02/04/2023	20:41	amm	SM 4500-H+B	02/05/2023	07:00	amm
Sulfate	61.2	0.5	mg/L	500[2]	1		02/02/2023	12:02	ldm	EPA 300.0	02/02/2023	17:33	ldm
Solids, Total Dissolved (TDS)	420	20	mg/L	1000[2]	1		02/03/2023	11:24	ctl	SM 2540 C	02/06/2023	12:56	ctl
Calcium	33	1	mg/L		1		03/01/2023	06:05	ejc	EPA 200.7	03/03/2023	12:17	ac
Magnesium	1	1	mg/L		1		03/01/2023	06:05	ejc	EPA 200.7	03/03/2023	12:17	ac
Sodium	118	1	mg/L		1		03/01/2023	06:05	ejc	EPA 200.7	03/03/2023	12:17	ac

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

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

March 9, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340614
Customer No. : 4018505

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Calcium	200.7	03/01/2023:202222EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	108 %	85-115	
			MS	mg/L	12.00	114 %	75-125	
		(CH 2371323-001)	MSD	mg/L	12.00	94.7 %	75-125	
			MSRPD	mg/L	0.8000	5.9%	≤20.0	
			MS	mg/L	12.00	90.8 %	75-125	
		(SP 2302035-001)	MSD	mg/L	12.00	102 %	75-125	
			MSRPD	mg/L	0.8000	2.3%	≤20.0	
Magnesium	200.7	03/01/2023:202222EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	110 %	85-115	
			MS	mg/L	12.00	112 %	75-125	
		(CH 2371323-001)	MSD	mg/L	12.00	104 %	75-125	
			MSRPD	mg/L	0.8000	3.8%	≤20	
			MS	mg/L	12.00	106 %	75-125	
		(SP 2302035-001)	MSD	mg/L	12.00	110 %	75-125	
			MSRPD	mg/L	0.8000	2.1%	≤20	
Sodium	200.7	03/01/2023:202222EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	106 %	85-115	
			MS	mg/L	12.00	110 %	75-125	
		(CH 2371323-001)	MSD	mg/L	12.00	99.5 %	75-125	
			MSRPD	mg/L	0.8000	4.5%	≤20.0	
			MS	mg/L	12.00	53.6 %	<¼	
		(SP 2302035-001)	MSD	mg/L	12.00	81.6 %	75-125	
			MSRPD	mg/L	0.8000	2.3%	≤20.0	

Definition

- <¼ : High Sample Background - Spike concentration was less than one forth of the sample concentration.
- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

March 9, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340614
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Alkalinity (as CaCO3)	2320B	02/04/2023:201239AMM	ND	mg/L		0.2%	10	
Bicarbonate	2320B	(VI 2340484-001)	Dup	mg/L		0.2%	10	
E. C.	2320B	(VI 2340484-001)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	02/03/2023:201214CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	100 %	90-110	
		(VI 2340568-001)	Dup	mg/L		2.7%	5	
		(VI 2340568-001)	Dup	mg/L		1.6%	5	
Chloride	300.0	02/02/2023:201219LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	97.1 %	90-110	
			MS	mg/L	50.00	99.4 %	85-121	
		(STK2331230-003)	MSD	mg/L	50.00	100 %	85-121	
			MSRPD	mg/L	10.00	0.7%	≤19	
			MS	mg/L	50.00	101 %	85-121	
		(CH 2370567-001)	MSD	mg/L	50.00	96.8 %	85-121	
			MSRPD	mg/L	10.00	4.3%	≤19	
Nitrate Nitrogen	300.0	02/02/2023:201219LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	97.0 %	90-110	
			MS	mg/L	40.00	101 %	85-119	
		(STK2331230-003)	MSD	mg/L	40.00	101 %	85-119	
			MSRPD	mg/L	10.00	0.7%	≤19	
			MS	mg/L	40.00	104 %	85-119	
		(CH 2370567-001)	MSD	mg/L	40.00	98.8 %	85-119	
			MSRPD	mg/L	10.00	4.5%	≤19	
Sulfate	300.0	02/02/2023:201219LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	50.00	98.5 %	90-110	
			MS	mg/L	100.0	100 %	82-124	
		(STK2331230-003)	MSD	mg/L	100.0	101 %	82-124	
			MSRPD	mg/L	10.00	0.7%	≤23	
			MS	mg/L	100.0	104 %	82-124	
		(CH 2370567-001)	MSD	mg/L	100.0	98.7 %	82-124	
			MSRPD	mg/L	10.00	4.7%	≤23	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

ND : Non-detect - Result was below the DQO listed for the analyte.

Page 4 of 4

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY
www.fglinc.com

Laboratory Copy (1 of 3)

Client: **Livingston Dairy Consulting, Inc.**

Address: Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Phone: (559)687-1440 Fax:

Contact Person: Noreen Livingston

Project Name: W-4 Soares Dairy #3

Purchase Order Number:

Quote Number: VI 20210208-01

Sampler(s) Marlene & Kaylin

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number: VI 2341614 4-18505

42085:03/01/2022

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Dairy Analysis-W-4-Alk. (CaCO3),Cl,Conductivity,NO3-N,TDS,SO4,Ca,Na,Mg 16oz(P)									
1	DOM 1	2/1	7:00	G	DW	P			1									
2				G					1									
3				G					1									
4				G					1									
5				G					1									
6				G					1									
7				G					1									
8				G					1									
9				G					1									
10				G					1									

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Marlene	2/1/23	2:04				GLS	2/2/23	1140
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
	2/1/23	1404		2/1/23				

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
Phone: (805) 392-2000
Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
Phone: (209) 942-0182
Fax: (209) 942-0423

Office & Laboratory
563 E. Lindo
Chico, CA 95926
Phone: (530) 343-5818
Fax: (530) 343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
Phone: (805) 783-2940
Fax: (805) 783-2912

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # GTC
2. Were samples received in a chilled condition? Temps: 2.1 / 4.9 / ____ / ____ / ____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): [illegible]

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 1.C / ____ / ____ / ____ / ____
   Acceptable is above freezing to 6 C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 558732941 945 933

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

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

Sample Verification, Labeling and Distribution:

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

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): HDC

Discrepancy Documentation:

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

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

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2340614
iv 02/01/2023 16:18:42
VI 2340614

Soares Dairy #3

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

February 28, 2023

Lab No. : VI 2340611
Customer No. : 4018505

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Laboratory Report

Introduction: This report package contains a total of 5 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(3 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
DOM #2	02/01/2023	02/01/2023	VI 2340611-001	DW
DOM #3	02/01/2023	02/01/2023	VI 2340611-002	DW
DOM #4	02/01/2023	02/01/2023	VI 2340611-003	DW

Sampling and Receipt Information:

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

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

Test Summary

	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S. Title: Laboratory Director Date: 2023-02-28

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 28, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM #2
Project : W-6 Soares Dairy #3

Lab No. : VI 2340611-001
Customer No. : 4018505

Sampled On : February 1, 2023 at 07:03
Sampled By : Marlene & Kaylin
Received On : February 1, 2023 at 14:04
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AI	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:18	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:22	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:18	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:22	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:18	lcr
Conductivity	731	1	umhos/cm	1600[2]	1		02/15/2023	13:59	sta		02/15/2023	13:59	sta
Solids, Total Dissolved (TDS)	420	20	mg/L	1000[2]	1		02/03/2023	11:43	ctl	SM 2540 C	02/06/2023	12:26	ctl

DQF Flags Definition:
U Constituent results were non-detect.
I The MS/MSD did not meet QC criteria.

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 28, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM #3
Project : W-6 Soares Dairy #3

Lab No. : VI 2340611-002
Customer No. : 4018505

Sampled On : February 1, 2023 at 07:12
Sampled By : Marlene & Kaylin
Received On : February 1, 2023 at 14:04
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	Ul	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:20	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:24	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	Ul	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:20	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:24	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	Ul	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:20	lcr
Conductivity	700	1	umhos/cm	1600[2]	1		02/09/2023	14:28	sta		02/09/2023	14:28	sta
Solids, Total Dissolved (TDS)	410	20	mg/L	1000[2]	1		02/03/2023	11:43	ctl	SM 2540 C	02/06/2023	12:07	ctl

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.

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

Page 3 of 5

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 28, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM #4
Project : W-6 Soares Dairy #3

Lab No. : VI 2340611-003
Customer No. : 4018505

Sampled On : February 1, 2023 at 07:17
Sampled By : Marlene & Kaylin
Received On : February 1, 2023 at 14:04
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:22	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:27	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:22	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	02/02/2023	13:00	lfs	SM 4500-NO3 F	02/02/2023	14:27	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:22	lcr
Conductivity	614	1	umhos/cm	1600[2]	1		02/15/2023	13:59	sta		02/15/2023	13:59	sta
Solids, Total Dissolved (TDS)	330	20	mg/L	1000[2]	1		02/03/2023	15:36	ctl	SM 2540 C	02/06/2023	11:51	ctl

DQF Flags Definition:
U Constituent results were non-detect.
I The MS/MSD did not meet QC criteria.

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

Page 4 of 5

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 28, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340611
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2510B	02/09/2023:201372STA	Blank	umhos/cm		ND	<1	
		(VI 2340831-003)	Dup	umhos/cm		1%	5	
	2510B	02/15/2023:201667STA	Blank	umhos/cm		ND	<1	
		(VI 2340609-001)	Dup	umhos/cm		0.3%	5	
			Blank	umhos/cm		ND	<1	
		(VI 2340657-002)	Dup	umhos/cm		1.03%	5	
Solids, Total Dissolved	2540CE	02/03/2023:201214CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	104 %	90-110	
		(VI 2340617-001)	Dup	mg/L		1.1%	5	
		(VI 2340617-001)	Dup	mg/L		1.5%	5	
			Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	99.8 %	90-110	
		(VI 2340630-003)	Dup	mg/L		0.3%	5	
		(VI 2340630-003)	Dup	mg/L		3.0%	5	
Nitrogen, Total Kjeldahl	351.2	02/14/2023:201629STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	88.1%	73-124	
			MS	mg/L	12.00	62.8%	54-136	
		(VI 2340618-001)	MSD	mg/L	12.00	58.3%	54-136	
			MSRPD	mg/L	12.00	7.6%	≤27	
			MS	mg/L	12.00	47.0%	<Â¼	
		(VI 2340608-002)	MSD	mg/L	12.00	33.6%	54-136	435
			MSRPD	mg/L	12.00	34.7%	≤27	435
Nitrate + Nitrite as N	4500NO3F	02/02/2023:201191LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.2%	80-120	
			MS	mg/L	5.609	82.3%	66-125	
		(SP 2301542-001)	MSD	mg/L	5.609	86.9%	66-125	
			MSRPD	mg/L	5.609	1.9%	≤30.4	
Nitrate Nitrogen	4500NO3F	02/02/2023:201191LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.2%	80-120	
			MS	mg/L	5.609	82.3%	66-125	
		(SP 2301542-001)	MSD	mg/L	5.609	86.9%	66-125	
			MSRPD	mg/L	5.609	1.9%	≤30.4	

Definition

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

Explanation

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY
www.fglinc.com
Laboratory Copy (1 of 3)

42086:03/01/2022

Client: **Livingston Dairy Consulting, Inc.**
Address: Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Phone: (559)687-1440 Fax:
Contact Person: Noreen Livingston
Project Name: W-6 Soares Dairy #3
Purchase Order Number:
Quote Number: **VI 20210208-01**

Sampler(s) Marlene & Kaylin

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number: **VI** 2340611 **4-18505**

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	**SEE REVERSE SIDE** Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information: Dairy Analysis-W-6-Conductivity,NO3-N,Total N,TDS 16oz(P)	Sampling-W-6 - Total N - Split Bottle ***VI Lab to Split for Total N*** 8oz(P)-H2SO4
1	DOM #2	2/1	7:03AM	G	DW	P			1	1
2	DOM 3	↓	7:12AM	G	↓	↓			1	1
3	DOM 4	↓	7:17AM	G	↓	↓			1	1
4				G					1	1
5				G					1	1
6				G					1	1
7				G					1	1
8				G					1	1
9				G					1	1
10				G					1	1

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Marlene Ferreira	2/1/23	2:00				GLS	2/2/23	1140
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
DH	2/1/23	1404		2/1/23	1720	MC	/	/

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
Phone: (805) 392-2000
Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
Phone: (209) 942-0182
Fax: (209) 942-0423

Office & Laboratory
563 E. Lindo
Chico, CA 95926
Phone: (530) 343-5818
Fax: (530) 343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
Phone: (805) 783-2940
Fax: (805) 783-2912

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # GTC
2. Were samples received in a chilled condition? Temps: 4.1 / 4.9 ____ / ____ / ____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): JH

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 1c / ____ / ____ / ____ / ____
   Acceptable is above freezing to 6 C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 558732941 945 933

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

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

Sample Verification, Labeling and Distribution:

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

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): MX

Discrepancy Documentation:

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

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

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2340611
iv 02/01/2023 16:18:23
VI 2340611

2023 KINGS RIVER WATERSHED CANAL RESULTS

LEMOORE WEIR

Constituent	Lab	BPO	RL	Units	Sample Month and Results											
					January	February	March	April	May	June	July	August	September	October	November	December
Physical Parameters/General Chemistry																
Flow	KRWA			cfs	0	0	0	0	0	45	0	0	0	0	0	0
EC	Field	700		umhos/cm						51.3						
pH	Field	6.5-8.3		pH						7.5						
Dissolved Oxygen	Field	5/7		mg/L						9.44						
Temperature	Field	Δ < 5º C		°C						17.7						
Turbidity	BSK	No adv eff.	0.2	NTU						2.2						
TDS	BSK	450	10	mg/L						2.2						
TSS	BSK	-	10	mg/L						ND						
Hardness (as CaCO3)	BSK	-	2.5	mg/L						14						
TOC	BSK	-	0.3	mg/L						1.8						
Pathogens																
E. Coli	BSK	320		MPN						46						
Fecal Coliform	BSK	400		MPN/100mL						46						
Nutrients																
Nitrate (+ Nitrite) - N	BSK	10	0.05	mg/L						0.02						
Total Kjeldahl Nitrogen	BSK		0.5	mg/L						0.17						
Ammonia - N	BSK	chart	0.1	mg/L						ND						
Unionized Ammonia	BSK	chart	0.0015	mg/L						ND						
Orthophosphate - P	BSK	-	0.01	mg/L						0.0069						
Phosphorus	BSK		0.1	mg/L						0.014						
Water Column Toxicity																
Toxicity, minnow	PER	> 80%	(96h test)	% survival						100						
Toxicity, water flea	PER	> 80%	(48h test)	% survival						100						
Toxicity, algae	PER		(48h test)	cells/mL						4800000						
Toxicity, algae (control)	PER		(48h test)	cells/mL						2840000						

Livingston Dairy Consulting, Inc.

FIELD ACTIVITY REPORT

Facility Name: Soares Dairy #3
15336 10th Ave Hanford
Kings County

2023

Sample Collection Equipment:
Bottle Container

Sample Container: (Circle one)
Bottle Container: 8 fl oz 16 fl oz 32 fl oz

Sample Collection Location: (Circle one)
Discharge Pipe **Spigot/Faucet**

Sample Collection Method: (Circle one) *All Samples are labeled with the facility name, date, contents, location and description ** Please see the Sample and Anylsis Plan for more detailed descriptions.

Well: **Sample taken at the Discharge Pipe, Spigot or Faucet using a sample container provided by laboratory**

Sample Type:

Date	Well Name	Time	PH	Temp	Ammonium
2/1	DOM 2	7:03	6	63	Ø
	DOM 1	7:07	6	65	Ø
	DOM 3	7:12	6.5	64	Ø
	DOM 4	7:17	7	64	Ø

Sample Preservation Method: (Circle one) **Ice Chest** **Refrigerator** **Ice Pack**

Livingston Dairy Consulting, Inc.

1635 E. Prosperity Ave. Ste. B
Tulare, CA 93274
559-687-1440

Sunday, April 21, 2024

Re: 2023 NMP
Soares Dairy #3 (Previously P&E Dairy)
15336 10th Avenue Hanford, CA 93230

Enclosed is the 2023/2024 Nutrient Budget for your facility to comply with the California Regional Water Quality Control Board General Oder No. R5-2007-0035.

*2023 Whole Farm Nitrogen Balance

The whole farm nitrogen balance for the crop year 2022 was **0.45**
Nitrogen Summary will show the balances for each field and for the whole farm.

*Ranges for the Whole Farm Nitrogen Balance

Factor	Status	Evaluation
> 1.65	Excessive	Too much nitrogen applied
1.4 - 1.65	Slightly High	Nitrogen is satisfactory to slightly high
0.9 - 1.4	Normal	Normal to slightly low
< 0.9	Low	Low nitrogen status, additional nitrogen needed

*Nutrient Management Plan/ Nutrient Budget Certification

This Nutrient Budget was prepared by a Certified Crop Advisor as required by the California Regional Water Quality Control Board.

Butch Brazil
Certified Crop Advisor #35629

This Nutrient Management Plan / Nutrient Budget is based on samples collected and analyzed by a third party laboratory. This Certified Crop Advisor was not involved in oversight of outside laboratory sample collection, transportation, or analyses. Interpretation of the data is based on submitted information. Where data was incomplete, book values and / or historical data was used. The third party laboratory or Certified Crop Advisor was not involved with the agronomic growth of the crops and the Nutrient Budget is based on information provided by the owner.