Livingston Dairy Consulting, Inc.

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

Whiteside Dairy **WDID 5D155087001**
16477 Scofield Avenue. Wasco, CA 93280

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: Whiteside Dairy WDID 5D155087001

Facility Address: 16477 Scofield Avenue. Wasco, CA 93280

Original Operation Date: 6/14/2001

Facility APN's: 071-190-018

RWQCB Basin Plan Designation: Tulare Lake Basin

☐ Check if any information has changed

Owner(s)

Owner(s) Name: John Vander Poel

Mailing Address: 16461 Scofield Avenue Wasco, CA 93280

Home Phone Number:

Cell Phone Number: 661-354-8577

☐ 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:	-	344	896	611	631
Number Under Roof	2,258	-	-	-	-
Maximum Number	2,258	344	896	611	631
Average Number	2,258	344	896	611	631
Average Live Weight (lbs)	1,400	1,450	950	630	

Average Milk Production: 69

Predominant Milk Cow Breed: Holstein

Manure Generated:

Total manure excreted by the herd:	8,750.79	@40% Moisture	*ton/yr*	
Total nitrogen from manure:	420,735		*lbs*	After Ammonia (30% loss applied)
	52,325		*lbs*	
	249,751		*lbs*	294,515 *lbs per reporting period*
Total salt from manure:	-		*lbs*	

Process Wastewater Generated:

Process wastewater generated:		32,966,800	*gal*
Total nitrogen generated:	294,842		*lbs*
	84,078		*lbs*
	360,350		*lbs*
Total salt (TDS) generated:	2,757,211		*lbs*

List of Land Application Areas

Field Name	APN	APN Acres	Cropable Acres	Total Harvest	Type of Waste Applied
C1	x071 x200 x001 xxxx	315	74	1	P.W. & D.M.
C2	x071 x200 x001 xxxx		75	2	P.W. & D.M.
C3	x071 x200 x001 xxxx		76	0	N/A
C4	x071 x200 x001 xxxx		76	1	P.W. & D.M.
G1	x487 x200 x008 xxxx	158	74	2	P.W. & D.M.
G2	x071 x110 x009 xxxx	158	74	2	P.W. & D.M.
G3	x071 x110 x009 xxxx		77	1	P.W. & D.M.
G4	x487 x200 x008 xxxx		73	1	P.W. & D.M.
WS1	x071 x190 x018 xxxx	156	28	2	P.W. & D.M.
WS2	x071 x190 x018 xxxx		36	2	P.W. & D.M.
WS3	x071 x190 x015 xxxx, x071 x190 x016 xxxx	158	76	1	P.W. & D.M.
WS4	x071 x190 x015 xxxx, x071 x190 x016 xxxx		77	1	P.W. & D.M.
WS5	x071 x130 x022 xxxx	38	36	2	P.W. & D.M.
CJ1	x487 x180 x025 xxxx	160	80	1	Dry Manure
CJ2	x487 x180 x025 xxxx		80	1	Dry Manure
	Total Crop Acres		1,012.00		

List of Land Application Areas

Field Name	APN	APN Acres	Cropable Acres	Total Harvest	Type of Waste Applied
CJ3	x487 x180 x022 xxxx	159	76	2	Dry Manure
CJ4	x487 x180 x022 xxxx		76	0	N/A
S1,3	x071 x130 x017 xxx, x071 x130 x020 xxxx	124	101	0	N/A
A1	x071 x190 x018 xxxx	1.5	1	0	N/A
A2	x071 x190 x018 xxxx	1	1	0	N/A
GS1	x071 x190 x120 xxxx, x071 x190 x070 xxxx, x071 x190 x050 xxxx		128	0	N/A
GS2	x071 x170 x020		74	0	N/A
	Total Crop Acres		456.58		

List of Fresh Water Sources

Source Description	Type	Subsurface (Tile) Drainage Sources
Barn	Ground Water	No
1	Ground Water	No
2	Ground Water	No
3	Ground Water	No
4	Ground Water	No
5	Ground Water	No
6	Ground Water	No
7	Ground Water	No
CJ3	Ground Water	No
CJ1	Ground Water	No
GS1	Ground Water	No
GS2	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**
C1	W. Fallow	-	-	-	-	-	-	Fallow		-
C2	Wheat, Silage	64.60	0.42	0.12	0.63	-	10.00	6-1H51912	06/01/23	Valley Tech
C3	W. Fallow	-	-	-	-	-	-	Fallow		-
C4	W. Fallow	-	-	-	-	-	-	Fallow		-
G1	Wheat, Silage	50.60	0.60	0.15	0.73	-	9.59	6-1H51912	06/01/23	Valley Tech
G2	Wheat, Silage	63.30	0.34	0.10	0.63	-	9.64	6-1H51912	06/01/23	Valley Tech
G3	W. Fallow	-	-	-	-	-	-	Fallow		-
G4	W. Fallow	-	-	-	-	-	-	Fallow		-
WS1	Wheat, Silage	67.20	0.42	0.10	0.55	-	10.40	6-1H51912	06/01/23	Valley Tech
WS2	Wheat, Silage	65.10	0.50	0.13	0.66	-	10.40	6-1H51912	06/01/23	Valley Tech
WS3	W. Fallow	-	-	-	-	-	-	Fallow		-
WS4	W. Fallow	-	-	-	-	-	-	Fallow		-
WS5	Wheat, Silage	64.00	0.35	0.09	0.48	-	10.00	6-1H51912	06/01/23	Valley Tech
CJ1	Wheat, Silage	58.90	0.35	0.10	0.39	-	7.94	6-1H51912	06/01/23	Valley Tech
CJ2	W. Fallow	-	-	-	-	-	-	Fallow		-
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%*			

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)

Field	Crop	Moist %	N%	TP %	TK%	Salt	TFS	Sample #:	Date:	Source
CJ3	Corn, Silage	67.70	0.35	0.08	0.33	-	6.02	8-16H61801	08/16/23	Valley Tech
CJ4	W. Fallow	-	-	-	-	-	-	Fallow		-
S1,3	Trees, Almonds	-	6.50	2.50	8.50	-	-	Book Value	11/01/23	-
A1	Trees, Almonds	-	6.50	2.50	8.50	-	-	Book Value	11/01/23	-
A2	Trees, Almonds	-	6.50	2.50	8.50	-	-	Book Value	11/01/23	-
GS1	Trees, Almonds	-	6.50	2.50	8.50	-	-	Book Value	11/01/23	-
GS2	Trees, Almonds	-	6.50	2.50	8.50	-	-	Book Value	11/01/23	-

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**
C1	Corn, Silage	67.30	0.38	0.09	0.33	-	6.77	9-12H61801	09/12/23	Valley Tech
C2	Corn, Silage	60.90	0.51	0.12	0.41	-	5.68	11-10H72598	11/10/23	Valley Tech
C3	S. Fallow	-	-	-	-	-	-	Fallow		-
C4	Sudangrass Silage	73.00	0.45	0.08	0.70	-	14.30	11-10H72597	11/10/23	Valley Tech
G1	Corn, Silage	73.10	0.36	0.08	0.23	-	5.47	11-14H72961	11/14/23	Valley Tech
G2	Corn, Silage	61.90	0.49	0.11	0.38	-	4.71	11-10H72598	11/14/02	Valley Tech
G3	Corn, Silage	64.50	0.44	0.09	0.45	-	5.81	10-11H68939	10/11/23	Valley Tech
G4	Corn, Silage	66.60	0.47	0.09	0.41	-	5.20	11-10H72598	11/10/23	Valley Tech
WS1	Corn, Silage	73.50	0.33	0.08	0.26	-	5.97	11-14H72961	11/14/23	Valley Tech
WS2	Corn, Silage	59.70	0.48	0.13	0.38	-	5.45	11-14H72961	11/14/23	Valley Tech
WS3	Corn, Silage	64.30	0.31	0.09	0.30	-	5.26	9-12H61801	09/12/23	Valley Tech
WS4	Corn, Silage	66.10	0.36	0.10	0.34	-	6.12	9-12H61801	09/12/23	Valley Tech
WS5	Corn, Silage	69.10	0.36	0.09	0.24	-	4.66	11-14H72961	11/14/23	Valley Tech
CJ1	S. Fallow	-	-	-	-	-	-	Fallow		-
CJ2	Sudangrass Silage	74.80	0.34	0.07	0.54	-	12.40	11-10H72597	11/10/23	Valley Tech

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**
CJ3	Sudangrass Silage	68.20	0.42	0.11	0.82	-	11.00	11-10H72597	11/10/23	Valley Tech
CJ4	S. Fallow	-	-	-	-	-	-	Fallow		-
S1,3	Trees, Almonds	-	-	-	-	-	-	Trees		-
A1	Trees, Almonds	-	-	-	-	-	-	Trees		-
A2	Trees, Almonds	-	-	-	-	-	-	Trees		-
GS1	Trees, Almonds	-	-	-	-	-	-	Trees		-
GS2	Trees, Almonds	-	-	-	-	-	-	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
C1	W. Fallow			Fallow	-	-	-	-	-	-	
C2	Wheat, Silage	11/15/22	5/20/23	6-1H51912	64.60	0.42	0.12	0.63	-	10.00	Dry Weight
C3	W. Fallow			Fallow	-	-	-	-	-	-	
C4	W. Fallow			Fallow	-	-	-	-	-	-	
G1	Wheat, Silage	11/17/23	5/24/23	6-1H51912	50.60	0.60	0.15	0.73	-	9.59	Dry Weight
G2	Wheat, Silage	11/10/22	5/24/23	6-1H51912	63.30	0.34	0.10	0.63	-	9.64	Dry Weight
G3	W. Fallow			Fallow	-	-	-	-	-	-	
G4	W. Fallow			Fallow	-	-	-	-	-	-	
WS1	Wheat, Silage	11/23/22	5/25/23	6-1H51912	67.20	0.42	0.10	0.55	-	10.40	Dry Weight
WS2	Wheat, Silage	11/20/22	5/25/23	6-1H51912	65.10	0.50	0.13	0.66	-	10.40	Dry Weight
WS3	W. Fallow			Fallow	-	-	-	-	-	-	
WS4	W. Fallow			Fallow	-	-	-	-	-	-	
WS5	Wheat, Silage	11/18/22	5/25/23	6-1H51912	64.00	0.35	0.09	0.48	-	10.00	Dry Weight
CJ1	Wheat, Silage	11/15/22	5/20/23	6-1H51912	58.90	0.35	0.10	0.39	-	7.94	Dry Weight
CJ2	W. Fallow			Fallow	-	-	-	-	-	-	

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%*

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
CJ3	Corn, Silage	4/8/23	7/31/23	8-16H61801	67.70	0.35	0.08	0.33	-	6.02	Dry Weight
CJ4	W. Fallow			Fallow	-	-	-	-	-	-	
S1,3	Trees, Almonds	1/1/16	11/1/23	Book Value	-	6.50	2.50	8.50	-	-	Dry Weight
A1	Trees, Almonds	1/1/21	11/1/23	Book Value	-	6.50	2.50	8.50	-	-	Dry Weight
A2	Trees, Almonds	3/1/18	11/1/23	Book Value	-	6.50	2.50	8.50	-	-	Dry Weight
GS1	Trees, Almonds	1/1/06	11/1/23	Book Value	-	6.50	2.50	8.50	-	-	Dry Weight
GS2	Trees, Almonds	5/1/05	11/1/22	Book Value	-	6.50	2.50	8.50	-	-	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
C1	Corn, Silage	4/5/23	8/5/23	9-12H61801	67.30	0.38	0.09	0.33	-	6.77	Dry Weight
C2	Corn, Silage	6/22/23	10/21/23	11-10H72598	60.90	0.51	0.12	0.41	-	5.68	Dry Weight
C3	S. Fallow			Fallow	-	-	-	-	-	-	
C4	Sudangrass Silage	4/6/23	8/5/23	11-10H72597	73.00	0.45	0.08	0.70	-	14.30	Dry Weight
G1	Corn, Silage	7/14/23	11/8/23	11-14H72961	73.10	0.36	0.08	0.23	-	5.47	Dry Weight
G2	Corn, Silage	6/23/23	10/26/23	11-10H72598	61.90	0.49	0.11	0.38	-	4.71	Dry Weight
G3	Corn, Silage	5/15/23	9/5/23	10-11H68939	64.50	0.44	0.09	0.45	-	5.81	Dry Weight
G4	Corn, Silage	7/6/23	10/26/23	11-10H72598	66.60	0.47	0.09	0.41	-	5.20	Dry Weight
WS1	Corn, Silage	6/20/23	10/12/23	11-14H72961	73.50	0.33	0.08	0.26	-	5.97	Dry Weight
WS2	Corn, Silage	6/25/23	10/27/23	11-14H72961	59.70	0.48	0.13	0.38	-	5.45	Dry Weight
WS3	Corn, Silage	4/11/23	8/14/23	9-12H61801	64.30	0.31	0.09	0.30	-	5.26	Dry Weight
WS4	Corn, Silage	4/12/23	8/14/23	9-12H61801	66.10	0.36	0.10	0.34	-	6.12	Dry Weight
WS5	Corn, Silage	6/28/23	10/12/23	11-14H72961	69.10	0.36	0.09	0.24	-	4.66	Dry Weight
CJ1	S. Fallow			Fallow	-	-	-	-	-	-	
CJ2	Sudangrass Silage	8/18/23	11/4/23	11-10H72597	74.80	0.34	0.07	0.54	-	12.40	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
CJ3	Sudangrass Silage	8/15/23	11/3/23	11-10H72597	68.20	0.42	0.11	0.82	-	11.00	Dry Weight
CJ4	S. Fallow			Fallow	-	-	-	-	-	-	
S1,3	Trees, Almonds			Trees	-	-	-	-	-	-	
A1	Trees, Almonds			Trees	-	-	-	-	-	-	
A2	Trees, Almonds			Trees	-	-	-	-	-	-	
GS1	Trees, Almonds			Trees	-	-	-	-	-	-	
GS2	Trees, Almonds			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
Barn	1.90	338	170	-	1.90	-	-	-	-	-	-	-	VI 2340875	2/10/2023	FGL Enviromental
1	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
2	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
3	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
4	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
5	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
6	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
7	3.10	473	280	-	3.10	-	-	-	-	-	-	-	VI 2344641	7/18/2023	FGL Enviromental
CJ3	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
CJ1	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
GS1	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
GS2	-	-	-	-	-	-	-	-	-	-	-	-	Used Canal		
Canal	0.01	320	-	-	-	14.00	2.30	49.00	0.01	0.01	6.70	37.00	2307664-05	10/3/2023	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
C1	-	-	-	-	-	-			-
C2	-	-	-	-	-	-			-
C3	-	-	-	-	-	-			-
C4	-	-	-	-	-	-			-
G1	-	-	-	-	-	-			-
G2	-	-	-	-	-	-			-
G3	-	-	-	-	-	-			-
G4	-	-	-	-	-	-			-
WS1	-	-	-	-	-	-			-
WS2	-	-	-	-	-	-			-
WS3	-	-	-	-	-	-			-
WS4	-	-	-	-	-	-			-
WS5	-	-	-	-	-	-			-
CJ1	-	-	-	-	-	-			-
CJ2	-	-	-	-	-	-			-

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

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
CJ3	-	-	-	-	-	-			-
CJ4	-	-	-	-	-	-			-
S1,3	-	-	-	-	-	-			-
A1	-	-	-	-	-	-			-
A2	-	-	-	-	-	-			-
GS1	-	-	-	-	-	-			-
GS2	-	-	-	-	-	-			-

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
C1	-	-	-	-	-	-			-
C2	-	-	-	-	-	-			-
C3	-	-	-	-	-	-			-
C4	-	-	-	-	-	-			-
G1	-	-	-	-	-	-			-
G2	-	-	-	-	-	-			-
G3	-	-	-	-	-	-			-
G4	-	-	-	-	-	-			-
WS1	-	-	-	-	-	-			-
WS2	-	-	-	-	-	-			-
WS3	-	-	-	-	-	-			-
WS4	-	-	-	-	-	-			-
WS5	-	-	-	-	-	-			-
CJ1	-	-	-	-	-	-			-
CJ2	-	-	-	-	-	-			-

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
CJ3	-	-	-	-	-	-			-
CJ4	-	-	-	-	-	-			-
S1,3	2.6	2.10	0.88	728.00	0.33	9.50	10-25S70692	10/25/23	Valley Tech
A1	1.8	1.70	1.24	975.00	0.01	26.90	10-25S70692	10/25/23	Valley Tech
A2	7.0	4.10	2.05	1,220.00	1.41	51.60	10-25S70692	10/25/23	Valley Tech
GS1	2.4	3.60	0.79	590.00	0.34	20.40	10-25S70692	10/25/23	Valley Tech
GS2	1.9	2.20	0.92	734.00	0.01	5.10	10-25S70692	10/25/23	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?

x No

___ Yes, Manifest attached (Attachment D)

Total Dry Manure Exported [ ]

Nutrient Import

No Dry manure nutient imports entered

No Process wastewater nutrient imports entered

No Commerical or other nutrient imports entered

Total Process Water Exported [ ]

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	527.0	691.0	86.9	865.0	1.0	-	-	-	-	-	-	-	-	10	6,630
2	726.0	783.0	89.1	990.0	1.0	-	-	-	-	-	-	-	-	12	7,820
3	770.0	850.0	158.0	615.0	1.0	-	212.0	192.0	222.0	0.0	88.6	205.0	9.2	12	7,740
4	775.0	760.0	49.8	671.0	1.0	-	-	-	-	-	-	-	-	-	6,650
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	3-9L44124	3/9/2023	Valley Tech	119.7	37.2	45.1	236.2
2	5-12L49733	5/12/2023	Valley Tech	164.8	12.9	46.3	270.3
3	8-15L61715	8/15/2023	Valley Tech	174.8	18.1	82.1	167.9
4	10-3L67672	10/3/2023	Valley Tech	175.9	(3.4)	25.9	183.2

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-12M49747	5/12/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-3M67651	10/3/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Recv'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	0.73	0.31	1.68	-	-	-	-	-	-	-	32.10
Corral	0.71	0.29	1.18	0.89	0.22	0.16	0.24	0.92	-	61.90	26.90
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: C1 **Acres:** 74.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
4/1/23	S. Manure App.	10.14	-	-	-	-	57.5	59.3	238.6	-	-		-
4/5/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
3/2/23	Canal	-	-	-	6.41	-	0.0	-	-	-	-		-
4/25/23	Canal	-	-	-	6.31	-	0.0	-	-	-	-		-
5/4/23	Canal	-	-	-	5.55	-	0.0	-	-	-	-		-
5/4/23	Process Water	-	-	-	-	1.62	201.5	32.7	363.5	2,871	-		-
5/14/23	Canal	-	-	-	6.34	-	0.0	-	-	-	-		-
6/2/23	Canal	-	-	-	6.48	-	0.0	-	-	-	-		-
7/15/23	Canal	-	-	-	6.27	-	0.0	-	-	-	-		-
8/5/23	S. Harvest	-	-	-	-	-	(221.1)	(53.8)	(194.1)	-	6.77		29.39
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
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	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		10.1		0	37.37	1.62	38	38	408	2,871	6.77	0	29.39

Dry Weight
As Received

Field Name/Number: C1 **Acres:** 74

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	259.1	92.0	602.1	2871.4
Nutrients Removed at Harvest	-221.1	-53.8	-194.1	0.0
Nutrient Balance	38.0	38.2	407.9	2871.4

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.20

Field Name/Number: C1 **Acres:** 74

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		10.1	T/Ac	57.5	135.7	286.3
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	1.6	Ac In /Ac	201.5	74.9	436.2
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	2.043E-14		
Canal		37.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	4/5/23					
S. Harvest	8/5/23	29.4	T/Ac	(221.1)	(123.3)	(233.0)

Nutrient Applications

Field Name/Number: C2 **Acres:** 75.00

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. Planting	-	-	-	-	-	-	-	-	-	-		-
11/17/22	Canal	-	-	-	6.75	-	0.0	-	-	-	-		-
2/20/23	Canal	-	-	-	5.44	-	0.0	-	-	-	-		-
2/20/23	Process Water	-	-	-	-	1.59	174.4	31.3	311.3	2,386	-		-
3/20/23	Canal	-	-	-	6.50	-	0.0	-	-	-	-		-
4/20/23	Canal	-	-	-	6.65	-	0.0	-	-	-	-		-
5/20/23	W. Harvest	-	-	-	-	-	(186.1)	(52.1)	(279.2)	-	-		22.28
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
5/22/23	S. Manure App.	10.00	-	-	-	-	56.7	58.5	235.4	-	-		-
5/24/23	Canal	-	-	-	6.82	-	0.0	-	-	-	-		-
6/22/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/7/23	Canal	-	-	-	6.72	-	0.0	-	-	-	-		-
8/1/23	Canal	-	-	-	5.55	-	0.0	-	-	-	-		-
8/1/23	Process Water	-	-	-	-	1.62	218.6	58.0	225.7	2,840	-		-
8/22/23	Canal	-	-	-	6.54	-	0.0	-	-	-	-		-
9/12/23	Canal	-	-	-	6.57	-	0.0	-	-	-	-		-
10/21/23	S. Harvest	-	-	-	-	-	(224.3)	(51.4)	(181.5)	-	6.77		21.89
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
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	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		10.0		0	57.55	3.21	39	44	312	5,227	6.77	0	44.17

Field Name/Number: C2 **Acres:** 75.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	449.8	64.5	641.2	5226.8
Nutrients Removed at Harvest	-410.4	-45.1	-382.4	0.0
Nutrient Balance	39.4	19.3	258.7	5226.8

Winter Nitrogen Crop App / Use Ratio: 0.97 **Summer Nitrogen Crop App / Use Ratio:** 1.26

Field Name/Number: C2 **Acres:** 75

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	1.6	Ac In /Ac	174.4	71.6	373.6
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		25.3	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	11/15/22					
W. Harvest	5/20/23	22.3	T/Ac	(186.1)	(119.2)	(335.0)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		10.0	T/Ac	56.7	133.9	282.5
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	218.6	132.8	270.8
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	0.0		
Canal		32.2	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/22/23					
S. Harvest	10/21/23	21.9	T/Ac	(224.3)	(117.6)	(217.8)

Nutrient Applications

Field Name/Number: C3 **Acres:** 76.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
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	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	S. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
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	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		0	0.00	0.00	-	-	-	-	0.00	0	0.00

Field Name/Number: C3 **Acres:** 76.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.0	0.0	0.0	0.0
Nutrients Removed at Harvest	0.0	0.0	0.0	0.0
Nutrient Balance	0.0	0.0	0.0	0.0

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

Field Name/Number: C3 **Acres:** 76

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **S. Fallow**

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.		Yes		7.0		
S. Planting	#N/A					
S. Harvest	-	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: C4 **Acres:** 76.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/12/23	S. Comm Fert App.	-	-	90	-	-	90.0	-	-	-	-		-
3/2/23	Canal	-	-	-	6.56	-	0.0	-	-	-	-		-
4/6/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
4/27/23	Canal	-	-	-	6.63	-	0.0	-	-	-	-		-
5/20/23	Canal	-	-	-	6.49	-	0.0	-	-	-	-		-
6/12/23	Canal	-	-	-	6.77	-	0.0	-	-	-	-		-
7/6/23	Canal	-	-	-	5.58	-	0.0	-	-	-	-		-
7/6/23	Process Water	-	-	-	-	1.63	202.5	58.3	227.0	2,856	-		-
7/20/23	Canal	-	-	-	6.70	-	0.0	-	-	-	-		-
8/5/23	S. Harvest	-	-	-	-	-	(322.0)	(56.3)	(500.5)	-	6.77		35.92
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		90	38.72	1.63	(29)	2	(273)	2,856	6.77	0	35.92

Field Name/Number: C4 **Acres:** 76.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	292.6	25.4	188.4	2856.5
Nutrients Removed at Harvest	-322.0	-24.5	-415.4	0.0
Nutrient Balance	-29.4	0.9	-227.0	2856.5

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.21

Field Name/Number: C4 **Acres:** 76

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Sudangrass Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		90.0	lbs/Ac	90.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	202.5	133.5	272.3
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	90.0		
Canal		38.7	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	4/6/23					
S. Harvest	8/5/23	35.9	T/Ac	(322.0)	(128.8)	(600.5)

Nutrient Applications

Field Name/Number: G1 **Acres:** 74.00

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)
11/10/23	W. Manure App.	10.14	-	-	-	-	59.5	61.9	340.0	-	-		-
11/17/23	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/21/22	Canal	-	-	-	6.81	-	0.0	-	-	-	-		-
1/10/23	Canal	-	-	-	6.56	-	0.0	-	-	-	-		-
4/20/23	Canal	-	-	-	5.55	-	0.0	-	-	-	-		-
4/20/23	Process Water	-	-	-	-	1.62	177.9	32.7	363.5	2,871	-		-
5/24/23	W. Harvest	-	-	-	-	-	(256.2)	(65.6)	(311.3)	-	-		21.43
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
8/12/23	S. Comm Fert App.	-	-	70	-	-	70.0	-	-	-	-		-
6/18/23	Canal	-	-	-	6.91	-	0.0	-	-	-	-		-
7/14/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/30/23	Canal	-	-	-	6.59	-	0.0	-	-	-	-		-
8/12/23	Canal	-	-	-	6.70	-	0.0	-	-	-	-		-
9/9/23	Canal	-	-	-	6.84	-	0.0	-	-	-	-		-
10/10/23	Canal	-	-	-	6.77	-	0.0	-	-	-	-		-
11/8/23	S. Harvest	-	-	-	-	-	(122.8)	(27.5)	(77.9)	-	6.77		17.03
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		10.1		70	52.74	1.62	(72)	2	314	2,871	6.77	0	38.46

Field Name/Number: G1 **Acres:** 74.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	307.4	41.3	583.9	2871.4
Nutrients Removed at Harvest	-379.0	-40.6	-323.0	0.0
Nutrient Balance	-71.5	0.7	260.9	2871.4

Winter Nitrogen Crop App / Use Ratio: 0.95 **Summer Nitrogen Crop App / Use Ratio:** 1.20

Field Name/Number: G1 **Acres:** 74

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		10.1	T/Ac	59.5	141.8	408.0
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	1.6	Ac In /Ac	177.9	74.9	436.2
Well Water		-	Ac In /Ac	-		
Canal		18.9	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/17/23					
W. Harvest	5/24/23	21.4	T/Ac	(256.2)	(150.3)	(373.5)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		70.0	lbs/Ac	70.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	70.0		
Canal		33.8	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	7/14/23					
S. Harvest	11/8/23	17.0	T/Ac	(122.8)	(62.9)	(93.4)

Nutrient Applications

Field Name/Number: G2 **Acres:** 74.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
4/10/23	W. Comm Fert App.	-	-	70	-	-	70.0	-	-	-	-		-
11/10/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/11/22	Canal	-	-	-	6.81	-	0.0	-	-	-	-		-
1/18/23	Canal	-	-	-	6.99	-	0.0	-	-	-	-		-
4/10/23	Canal	-	-	-	6.88	-	0.0	-	-	-	-		-
5/5/23	Canal	-	-	-	7.09	-	0.0	-	-	-	-		-
5/24/23	W. Harvest	-	-	-	-	-	(127.3)	(38.3)	(235.4)	-	-		18.65
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5/25/23	S. Manure App.	14.86	-	-	-	-	84.3	86.9	349.9	-	-		-
5/28/23	Canal	-	-	-	7.13	-	0.0	-	-	-	-		-
6/23/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/7/23	Canal	-	-	-	6.95	-	0.0	-	-	-	-		-
7/20/23	Canal	-	-	-	7.02	-	0.0	-	-	-	-		-
8/29/23	Canal	-	-	-	5.55	-	0.0	-	-	-	-		-
8/29/23	Process Water	-	-	-	-	1.62	195.6	58.0	225.8	2,842	-		-
9/15/23	Canal	-	-	-	6.88	-	0.0	-	-	-	-		-
10/26/23	S. Harvest	-	-	-	-	-	(245.1)	(53.2)	(191.9)	-	6.77		24.93
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		14.9		70	61.30	1.62	(22)	53	148	2,842	6.77	0	43.58

Field Name/Number: G2 **Acres:** 74.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	350.1	63.3	477.9	2842.0
Nutrients Removed at Harvest	-372.4	-39.9	-354.7	0.0
Nutrient Balance	-22.3	23.3	123.2	2842.0

Winter Nitrogen Crop App / Use Ratio: 1.16 **Summer Nitrogen Crop App / Use Ratio:** 1.17

Field Name/Number: G2 **Acres:** 74

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		70.0	lbs/Ac	70.0		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	70.0		
Canal		27.8	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	11/10/22					
W. Harvest	5/24/23	18.6	T/Ac	(127.3)	(87.8)	(282.5)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		14.9	T/Ac	84.3	199.1	419.9
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	195.6	132.8	271.0
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	(0.0)		
Canal		33.5	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/23/23					
S. Harvest	10/26/23	24.9	T/Ac	(245.1)	(121.8)	(230.3)

Nutrient Applications

Field Name/Number: G3 **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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
4/1/23	S. Manure App.	12.99	-	-	-	-	73.7	75.9	305.7	-	-		-
4/14/23	7.00	-	-	-	6.69	-	4.7	-	-	255	-		-
5/15/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
5/30/23	7.00	-	-	-	6.51	-	4.6	-	-	248	-		-
6/12/23	7.00	-	-	-	6.60	-	4.6	-	-	251	-		-
6/24/23	7.00	-	-	-	5.31	-	3.7	-	-	202	-		-
6/24/23	Process Water	-	-	-	-	1.86	204.0	37.5	416.9	3,294	-		-
8/1/23	7.00	-	-	-	6.71	-	4.7	-	-	256	-		-
9/5/23	S. Harvest	-	-	-	-	-	(263.6)	(54.8)	(267.8)	-	6.77		29.70
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Totals:		13.0		0	31.82	1.86	36	59	455	4,506	6.77	0	29.70

Field Name/Number: G3 **Acres:** 77.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	300.0	49.5	599.9	4505.8
Nutrients Removed at Harvest	-263.6	-23.9	-222.3	0.0
Nutrient Balance	36.4	25.6	377.5	4505.8

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.16

Field Name/Number: G3 **Acres:** 77

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Corn, Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		13.0	T/Ac	73.7	173.9	366.8
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	1.9	Ac In /Ac	204.0	85.9	500.3
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		31.8	Ac In /Ac	22.4		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	5/15/23					
S. Harvest	9/5/23	29.7	T/Ac	(263.6)	(125.6)	(321.4)

Nutrient Applications

Field Name/Number: G4 **Acres:** 73.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/1/23	7.00	-	-	-	6.63	-	4.7	-	-	252	-		-
7/6/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/15/23	7.00	-	-	-	6.81	-	4.8	-	-	259	-		-
7/29/23	7.00	-	-	-	6.69	-	4.7	-	-	255	-		-
8/14/23	7.00	-	-	-	5.39	-	3.8	-	-	205	-		-
8/14/23	Process Water	-	-	-	-	1.89	234.6	67.5	262.9	3,308	-		-
9/14/23	7.00	-	-	-	6.75	-	4.7	-	-	257	-		-
10/26/23	S. Harvest	-	-	-	-	-	(210.1)	(41.7)	(184.7)	-	6.77		22.30
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Totals:		0.0		0	32.26	1.89	47	26	78	4,537	6.77	0	22.30

Field Name/Number: G4 **Acres:** 73.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	257.3	29.5	218.2	4537.4
Nutrients Removed at Harvest	-210.1	-18.2	-153.3	0.0
Nutrient Balance	47.2	11.3	64.9	4537.4

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.26

Field Name/Number: G4 **Acres:** 73

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.9	Ac In /Ac	234.6	154.7	315.4
	Q4	-	Ac In /Ac	-	-	-
Well Water		32.3	Ac In /Ac	22.7		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	7/6/23					
S. Harvest	10/26/23	22.3	T/Ac	(210.1)	(95.5)	(221.7)

Nutrient Applications

Field Name/Number: WS1 **Acres:** 28.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
11/23/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/25/22	Canal	-	-	-	6.53	-	0.0	-	-	-	-		-
1/15/23	Canal	-	-	-	5.59	-	0.0	-	-	-	-		-
1/15/23	Process Water	-	-	-	-	1.63	178.9	32.1	319.5	2,449	-		-
4/27/23	Canal	-	-	-	6.82	-	0.0	-	-	-	-		-
5/25/23	W. Harvest	-	-	-	-	-	(204.3)	(47.5)	(264.5)	-	-		24.14
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7/22/23	S. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-		-
5/28/23	Canal	-	-	-	6.91	-	0.0	-	-	-	-		-
6/20/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/12/23	Canal	-	-	-	6.44	-	0.0	-	-	-	-		-
7/22/23	Canal	-	-	-	6.72	-	0.0	-	-	-	-		-
8/1/23	Canal	-	-	-	6.15	-	0.0	-	-	-	-		-
8/9/23	Canal	-	-	-	6.82	-	0.0	-	-	-	-		-
9/5/23	Canal	-	-	-	6.34	-	0.0	-	-	-	-		-
10/12/23	S. Harvest	-	-	-	-	-	(138.6)	(34.1)	(107.8)	-	6.77		20.75
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Totals:		0.0		80	58.32	1.63	#N/A	-	-	#N/A	6.77	0	44.89

Field Name/Number: WS1 **Acres:** 28.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	259.1	14.0	265.2	2449.0
Nutrients Removed at Harvest	-342.9	-35.6	-309.0	0.0
Nutrient Balance	-83.8	-21.6	-43.8	2449.0

Winter Nitrogen Crop App / Use Ratio: 0.91 **Summer Nitrogen Crop App / Use Ratio:** 1.21

Field Name/Number: WS1 **Acres:** 28

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	1.6	Ac In /Ac	178.9	73.5	383.4
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		18.9	Ac In /Ac	0.0		
Atm. Depos.		Yes		7.0		
W. Planting	11/23/22					
W. Harvest	5/25/23	24.1	T/Ac	(204.3)	(108.8)	(317.4)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		80.0	lbs/Ac	80.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	80.0		
Canal		39.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/20/23					
S. Harvest	10/12/23	20.8	T/Ac	(138.6)	(78.1)	(129.3)

Nutrient Applications

Field Name/Number: WS2 **Acres:** 36.00

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.	9.72	-	-	-	-	57.0	59.4	326.1	-	-		-
11/20/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/23/22	Canal	-	-	-	6.70	-	0.0	-	-	-	-		-
1/22/23	Canal	-	-	-	5.52	-	0.0	-	-	-	-		-
1/22/23	Process Water	-	-	-	-	1.61	176.9	31.7	315.9	2,421	-		-
4/27/23	Canal	-	-	-	6.78	-	0.0	-	-	-	-		-
5/25/23	W. Harvest	-	-	-	-	-	(220.5)	(57.5)	(295.1)	-	-		22.25
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/1/23	Canal	-	-	-	6.85	-	0.0	-	-	-	-		-
6/25/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/10/23	Canal	-	-	-	6.48	-	0.0	-	-	-	-		-
7/22/23	Canal	-	-	-	6.19	-	0.0	-	-	-	-		-
7/29/23	Canal	-	-	-	5.60	-	0.0	-	-	-	-		-
7/29/23	Process Water	-	-	-	-	1.63	220.5	58.5	227.6	2,864	-		-
8/19/23	Canal	-	-	-	6.63	-	0.0	-	-	-	-		-
9/2/23	Canal	-	-	-	6.55	-	0.0	-	-	-	-		-
10/27/23	S. Harvest	-	-	-	-	-	(187.3)	(50.8)	(149.2)	-	6.77		19.69
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Totals:		9.7		0	57.29	3.24	47	41	425	5,286	6.77	0	41.94

Field Name/Number: WS2 **Acres:** 36.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	454.5	65.3	721.8	5285.8
Nutrients Removed at Harvest	-407.8	-47.2	-368.8	0.0
Nutrient Balance	46.7	18.0	353.0	5285.8

Winter Nitrogen Crop App / Use Ratio: 1.09 **Summer Nitrogen Crop App / Use Ratio:** 1.21

Field Name/Number: WS2 **Acres:** 36

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		9.7	T/Ac	57.0	136.1	391.3
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	1.6	Ac In /Ac	176.9	72.7	379.1
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		19.0	Ac In /Ac	0.0		
Atm. Depos.		Yes		7.0		
W. Planting	11/20/22					
W. Harvest	5/25/23	22.3	T/Ac	(220.5)	(131.6)	(354.1)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	220.5	133.9	273.1
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	0.0		
Canal		38.3	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/25/23					
S. Harvest	10/27/23	19.7	T/Ac	(187.3)	(116.3)	(179.1)

Nutrient Applications

Field Name/Number: WS3 **Acres:** 76.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
2/25/23	S. Manure App.	10.00	-	-	-	-	56.7	58.5	235.4	-	-		-
3/2/23	Canal	-	-	-	6.63	-	0.0	-	-	-	-		-
4/11/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
4/27/23	Canal	-	-	-	6.42	-	0.0	-	-	-	-		-
5/6/23	Canal	-	-	-	6.84	-	0.0	-	-	-	-		-
6/12/23	Canal	-	-	-	5.62	-	0.0	-	-	-	-		-
6/12/23	Process Water	-	-	-	-	1.64	179.9	33.1	367.6	2,904	-		-
7/15/23	Canal	-	-	-	6.80	-	0.0	-	-	-	-		-
8/14/23	S. Harvest	-	-	-	-	-	(198.8)	(57.8)	(196.4)	-	6.77		32.37
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		10.0		0	32.30	1.64	38	34	407	2,904	6.77	0	32.37

Field Name/Number: WS3 **Acres:** 76.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	236.7	40.0	500.6	2904.0
Nutrients Removed at Harvest	-198.8	-25.2	-163.1	0.0
Nutrient Balance	37.9	14.7	337.5	2904.0

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.23

Field Name/Number: WS3 **Acres:** 76

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		10.0	T/Ac	56.7	133.9	282.5
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	1.6	Ac In /Ac	179.9	75.8	441.1
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	0.0		
Canal		32.3	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	4/11/23					
S. Harvest	8/14/23	32.4	T/Ac	(198.8)	(132.3)	(235.7)

Nutrient Applications

Field Name/Number: WS4 **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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
2/25/23	S. Manure App.	12.99	-	-	-	-	73.7	75.9	305.7	-	-		-
3/2/23	Canal	-	-	-	6.51	-	0.0	-	-	-	-		-
4/12/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
4/25/23	Canal	-	-	-	6.82	-	0.0	-	-	-	-		-
5/18/23	Canal	-	-	-	5.61	-	0.0	-	-	-	-		-
5/18/23	Process Water	-	-	-	-	1.64	179.8	33.1	367.4	2,902	-		-
6/12/23	Canal	-	-	-	6.92	-	0.0	-	-	-	-		-
7/7/23	Canal	-	-	-	6.40	-	0.0	-	-	-	-		-
8/1/23	Canal	-	-	-	6.65	-	0.0	-	-	-	-		-
8/14/23	S. Harvest	-	-	-	-	-	(236.3)	(64.0)	(218.6)	-	6.77		32.57
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Totals:		13.0		0	38.91	1.64	17	45	454	2,902	6.77	0	32.57

Field Name/Number: WS4 **Acres:** 77.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	253.5	47.6	558.7	2901.9
Nutrients Removed at Harvest	-236.3	-27.9	-181.5	0.0
Nutrient Balance	17.2	19.6	377.2	2901.9

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.10

Field Name/Number: WS4 **Acres:** 77

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Corn, Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		13.0	T/Ac	73.7	173.9	366.8
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	1.6	Ac In /Ac	179.8	75.7	440.8
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	(0.0)		
Canal		38.9	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	4/12/23					
S. Harvest	8/14/23	32.6	T/Ac	(236.3)	(146.7)	(262.4)

Nutrient Applications

Field Name/Number: WS5 **Acres:** 36.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
4/22/23	W. Comm Fert App.	-	-	70	-	-	70.0	-	-	-	-		-
11/18/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/20/22	1.00	-	-	-	6.90	-	-	-	-	-	-		-
1/10/23	1.00	-	-	-	7.07	-	-	-	-	-	-		-
4/22/23	1.00	-	-	-	7.12	-	-	-	-	-	-		-
5/25/23	W. Harvest	-	-	-	-	-	(125.2)	(32.0)	(170.0)	-	-		17.75
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/5/23	Canal	-	-	-	6.63	-	0.0	-	-	-	-		-
6/28/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/7/23	Canal	-	-	-	6.26	-	0.0	-	-	-	-		-
7/27/23	Canal	-	-	-	6.48	-	0.0	-	-	-	-		-
8/4/23	Canal	-	-	-	5.45	-	0.0	-	-	-	-		-
8/4/23	Process Water	-	-	-	-	1.59	214.7	56.9	221.6	2,789	-		-
9/1/23	Canal	-	-	-	6.11	-	0.0	-	-	-	-		-
10/12/23	S. Harvest	-	-	-	-	-	(163.7)	(39.5)	(108.7)	-	6.77		22.83
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		70	52.03	1.59	(4)	(15)	(57)	2,789	6.77	0	40.58

Field Name/Number: WS5 **Acres:** 36.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	284.7	24.8	183.9	2789.0
Nutrients Removed at Harvest	-288.9	-31.2	-231.3	0.0
Nutrient Balance	-4.2	-6.3	-47.3	2789.0

Winter Nitrogen Crop App / Use Ratio: 1.17 **Summer Nitrogen Crop App / Use Ratio:** 1.35

Field Name/Number: WS5 **Acres:** 36

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		70.0	lbs/Ac	70.0		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		21.1	Ac In /Ac	70.0		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/18/22					
W. Harvest	5/25/23	17.8	T/Ac	(125.2)	(73.2)	(204.0)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	214.7	130.4	265.9
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	(0.0)		
Canal		30.9	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	6/28/23					
S. Harvest	10/12/23	22.8	T/Ac	(163.7)	(90.5)	(130.4)

Nutrient Applications

Field Name/Number: CJ1 **Acres:** 80.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
11/1/22	W. Manure App.	12.50	-	-	-	-	73.3	76.4	419.3	-	-		-
11/15/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
11/17/22	CJ1	-	-	-	6.49	-	-	-	-	-	-		-
1/10/23	CJ1	-	-	-	6.90	-	-	-	-	-	-		-
4/20/23	CJ1	-	-	-	6.74	-	-	-	-	-	-		-
5/20/23	W. Harvest	-	-	-	-	-	(79.5)	(23.1)	(87.9)	-	-		11.25
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	S. Fallow	-	-	-	-	-	-	-	-	-	-		-
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Totals:		12.5		0	20.13	0.00	(6)	53	331	-	0.00	0	11.25

Field Name/Number: CJ1 **Acres:** 80.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	73.3	33.3	348.0	0.0
Nutrients Removed at Harvest	-79.5	-10.1	-72.9	0.0
Nutrient Balance	-6.2	23.2	275.1	0.0

Winter Nitrogen Crop App / Use Ratio: 1.01 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: CJ1 **Acres:** 80

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		12.5	T/Ac	73.3	174.9	503.1
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		20.1	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/15/22					
W. Harvest	5/20/23	11.3	T/Ac	(79.5)	(52.9)	(105.4)

Summer Crop **S. Fallow**

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.		Yes		7.0		
S. Planting	#N/A					
S. Harvest	-	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: CJ2 **Acres:** 80.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
10/10/23	S. Comm Fert App.	-	-	50	-	-	50.0	-	-	-	-		-
8/18/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
8/19/23	Canal	-	-	-	6.96	-	0.0	-	-	-	-		-
10/10/23	Canal	-	-	-	7.03	-	0.0	-	-	-	-		-
11/4/23	S. Harvest	-	-	-	-	-	(89.4)	(17.1)	(140.1)	-	6.77		13.05
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Totals:		0.0		50	13.98	0.00	(39)	(17)	(140)	-	6.77	0	13.05

Field Name/Number: CJ2 **Acres:** 80.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	50.0	0.0	0.0	0.0
Nutrients Removed at Harvest	-89.4	-7.5	-116.3	0.0
Nutrient Balance	-39.4	-7.5	-116.3	0.0

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.20

Field Name/Number: CJ2 **Acres:** 80

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **Sudangrass Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		50.0	lbs/Ac	50.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	50.0		
Canal		14.0	Ac In /Ac	0.0		
Atm. Depos.		Yes		7.0		
S. Planting	8/18/23					
S. Harvest	11/4/23	13.1	T/Ac	(89.4)	(39.2)	(168.1)

Nutrient Applications

Field Name/Number: CJ3 **Acres:** 76.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
5/26/23	W. Comm Fert App.	-	-	120	-	-	120.0	-	-	-	-		-
4/8/23	W. Planting	-	-	-	-	-	-	-	-	-	-		-
4/27/23	Canal	-	-	-	6.28	-	0.0	-	-	-	-		-
5/5/23	Canal	-	-	-	6.17	-	0.0	-	-	-	-		-
5/26/23	Canal	-	-	-	6.35	-	0.0	-	-	-	-		-
6/4/23	Canal	-	-	-	6.03	-	0.0	-	-	-	-		-
6/14/23	Canal	-	-	-	6.14	-	0.0	-	-	-	-		-
7/7/23	Canal	-	-	-	6.38	-	0.0	-	-	-	-		-
7/31/23	W. Harvest	-	-	-	-	-	(237.3)	(57.7)	(228.4)	-	6.02		34.33
	-	-	-	-	-	-	-	-	-	-	-		-
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9/5/23	S. Comm Fert App.	-	-	60	-	-	60.0	-	-	-	-		-
8/15/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
8/20/23	Canal	-	-	-	6.42	-	0.0	-	-	-	-		-
9/5/23	Canal	-	-	-	6.21	-	0.0	-	-	-	-		-
9/21/23	Canal	-	-	-	6.31	-	0.0	-	-	-	-		-
10/7/23	Canal	-	-	-	6.10	-	0.0	-	-	-	-		-
11/3/23	S. Harvest	-	-	-	-	-	(111.3)	(29.5)	(216.8)	-	11.00		13.26
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Totals:		0.0		180	62.41	0.00	(168)	(87)	(445)	-	17.02	0	47.59

Dry Weight
As Received

Field Name/Number: CJ3 **Acres:** 76

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	180.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-348.6	-87.2	-445.2	0.0
Nutrient Balance	-168.5	-87.2	-445.2	0.0

Winter Nitrogen Crop App / Use Ratio: 1.04 **Summer Nitrogen Crop App / Use Ratio:** 1.14

Field Name/Number: CJ3 **Acres:** 76

Winter Crop **Corn, Silage**

Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		120.0	lbs/Ac	120.0		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	120.0		
Canal		37.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	4/8/23					
W. Harvest	7/31/23	34.3	T/Ac	(237.3)	(132.0)	(274.1)

Summer Crop **Sudangrass Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		60.0	lbs/Ac	60.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	60		
Canal		25.0	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
S. Planting	8/15/23					
S. Harvest	11/3/23	13.3	T/Ac	(111.3)	(67.6)	(260.1)

Nutrient Applications

Field Name/Number: CJ4 **Acres:** 76.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
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	S. Fallow	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		0	0.00	0.00	-	-	-	-	0.00	0	0.00

Field Name/Number: CJ4 **Acres:** 76.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.0	0.0	0.0	0.0
Nutrients Removed at Harvest	0.0	0.0	0.0	0.0
Nutrient Balance	0.0	0.0	0.0	0.0

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

Field Name/Number: CJ4 **Acres:** 76

Winter Crop **W. Fallow**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop **S. Fallow**

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.		Yes		7.0		
S. Planting	#N/A					
S. Harvest	-	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: S1,3 **Acres:** 100.77

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/16	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/2/23	Canal	-	-	-	1.29	-	0.0	-	-	-	-		-
4/6/23	Canal	-	-	-	2.00	-	0.0	-	-	-	-		-
5/10/23	Canal	-	-	-	4.37	-	0.0	-	-	-	-		-
6/13/23	Canal	-	-	-	4.68	-	0.0	-	-	-	-		-
7/15/23	Canal	-	-	-	4.92	-	0.0	-	-	-	-		-
8/8/23	Canal	-	-	-	4.45	-	0.0	-	-	-	-		-
9/9/23	Canal	-	-	-	3.18	-	0.0	-	-	-	-		-
10/10/23	Canal	-	-	-	2.05	-	0.0	-	-	-	-		-
11/1/23	W. Harvest	-	-	-	-	-	(129.0)	(49.6)	(168.7)	-	6.02		0.99
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Totals:		0.0		0	26.94	0.00	(129)	(50)	(169)	-	6.02	0	0.99

Field Name/Number: S1,3 **Acres:** 100.77

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-129.0	-21.7	-140.0	0.0
Nutrient Balance	-128.9	-21.7	-140.0	0.0

Winter Nitrogen Crop App / Use Ratio: 0.05 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: S1,3 **Acres:** 100.77

Winter Crop **Trees, Almonds**

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		26.9	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/16					
W. Harvest	11/1/23	1.0	T/Ac	(129.0)	(113.6)	(202.4)

Summer Crop **Trees, Almonds**

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: A1 **Acres:** 1.00

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/21	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/8/23	Canal	-	-	-	2.92	-	0.0	-	-	-	-		-
4/8/23	Canal	-	-	-	4.24	-	0.0	-	-	-	-		-
5/10/23	Canal	-	-	-	9.81	-	0.0	-	-	-	-		-
6/9/23	Canal	-	-	-	9.54	-	0.0	-	-	-	-		-
7/11/23	Canal	-	-	-	10.87	-	0.0	-	-	-	-		-
8/10/23	Canal	-	-	-	10.07	-	0.0	-	-	-	-		-
9/11/23	Canal	-	-	-	7.16	-	0.0	-	-	-	-		-
10/12/23	Canal	-	-	-	4.24	-	0.0	-	-	-	-		-
11/1/23	W. Harvest	-	-	-	-	-	(227.5)	(87.5)	(297.5)	-	6.02		1.75
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		0	58.85	0.00	(227)	(88)	(298)	-	6.02	0	1.75

Field Name/Number: A1 **Acres:** 1.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-227.5	-38.2	-247.0	0.0
Nutrient Balance	-227.4	-38.2	-247.0	0.0

Winter Nitrogen Crop App / Use Ratio: 0.03 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: A1 **Acres:** 1

Winter Crop **Trees, Almonds**

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		58.9	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/21					
W. Harvest	11/1/23	1.8	T/Ac	(227.5)	(200.4)	(357.0)

Summer Crop **Trees, Almonds**

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: A2 **Acres:** 0.60

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
3/1/18	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/2/23	Canal	-	-	-	2.65	-	0.0	-	-	-	-		-
4/2/23	Canal	-	-	-	3.09	-	0.0	-	-	-	-		-
5/6/23	Canal	-	-	-	7.51	-	0.0	-	-	-	-		-
6/6/23	Canal	-	-	-	8.40	-	0.0	-	-	-	-		-
7/4/23	Canal	-	-	-	8.84	-	0.0	-	-	-	-		-
8/5/23	Canal	-	-	-	7.95	-	0.0	-	-	-	-		-
9/7/23	Canal	-	-	-	5.30	-	0.0	-	-	-	-		-
10/4/23	Canal	-	-	-	3.98	-	0.0	-	-	-	-		-
11/1/23	W. Harvest	-	-	-	-	-	(227.5)	(87.5)	(297.5)	-	6.02		1.75
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		0	47.72	0.00	(227)	(88)	(298)	-	6.02	0	1.75

Field Name/Number: A2 **Acres:** 0.60

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-227.5	-38.2	-247.0	0.0
Nutrient Balance	-227.4	-38.2	-247.0	0.0

Winter Nitrogen Crop App / Use Ratio: 0.03 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: A2 **Acres:** 0.6

Winter Crop **Trees, Almonds**

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		47.7	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	3/1/18					
W. Harvest	11/1/23	1.8	T/Ac	(227.5)	(200.4)	(357.0)

Summer Crop **Trees, Almonds**

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: GS1 **Acres:** 127.76

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
1/1/06	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/8/23	Canal	-	-	-	2.32	-	0.0	-	-	-	-		-
4/4/23	Canal	-	-	-	3.71	-	0.0	-	-	-	-		-
5/15/23	Canal	-	-	-	8.32	-	0.0	-	-	-	-		-
6/6/23	Canal	-	-	-	8.55	-	0.0	-	-	-	-		-
7/4/23	Canal	-	-	-	9.19	-	0.0	-	-	-	-		-
8/2/23	Canal	-	-	-	8.09	-	0.0	-	-	-	-		-
9/1/23	Canal	-	-	-	5.96	-	0.0	-	-	-	-		-
10/6/23	Canal	-	-	-	3.78	-	0.0	-	-	-	-		-
11/1/23	W. Harvest	-	-	-	-	-	(225.9)	(86.9)	(295.4)	-	6.02		1.74
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		0	49.93	0.00	(226)	(87)	(295)	-	6.02	0	1.74

Field Name/Number: GS1 **Acres:** 127.76

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-225.9	-37.9	-245.2	0.0
Nutrient Balance	-225.8	-37.9	-245.2	0.0

Winter Nitrogen Crop App / Use Ratio: 0.03 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: GS1 **Acres:** 127.76

Winter Crop **Trees, Almonds**

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		49.9	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	1/1/06					
W. Harvest	11/1/23	1.7	T/Ac	(225.9)	(199.0)	(354.5)

Summer Crop **Trees, Almonds**

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: GS2 **Acres:** 74.45

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)
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
5/1/05	W. Planting	-	-	-	-	-	-	-	-	-	-		-
3/6/23	Canal	-	-	-	2.42	-	0.0	-	-	-	-		-
4/2/23	Canal	-	-	-	3.70	-	0.0	-	-	-	-		-
5/8/23	Canal	-	-	-	7.80	-	0.0	-	-	-	-		-
6/7/23	Canal	-	-	-	8.40	-	0.0	-	-	-	-		-
7/3/23	Canal	-	-	-	8.80	-	0.0	-	-	-	-		-
8/7/23	Canal	-	-	-	7.48	-	0.0	-	-	-	-		-
9/9/23	Canal	-	-	-	6.05	-	0.0	-	-	-	-		-
10/4/23	Canal	-	-	-	3.74	-	0.0	-	-	-	-		-
11/1/22	W. Harvest	-	-	-	-	-	(225.3)	(86.6)	(294.6)	-	6.02		1.73
	-	-	-	-	-	-	-	-	-	-	-		-
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Totals:		0.0		0	48.39	0.00	(225)	(87)	(295)	-	6.02	0	1.73

Field Name/Number: GS2 **Acres:** 74.45

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	0.0
Nutrients Removed at Harvest	-225.3	-37.8	-244.5	0.0
Nutrient Balance	-225.1	-37.8	-244.5	0.0

Winter Nitrogen Crop App / Use Ratio: 0.03 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: GS2 **Acres:** 74.45

Winter Crop **Trees, Almonds**

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		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	5/1/05					
W. Harvest	11/1/22	1.7	T/Ac	(225.3)	(198.4)	(353.5)

Summer Crop **Trees, Almonds**

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.*

Signature of Owner of Facility	**Signature of Operator of Facility**
John Vander Poel	Same as owner
Print Name	**Print Name**
4/11/24	
Date	**Date**

Livingston Dairy Consulting, Inc.

FIELD ACTIVITY REPORT

Facility Name: Whiteside Dairy
16461 Scofield Ave., Wasco
Kern 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
2-10	Barn	7:53	6-8	68	Ø
7/18	#7	6:39	7	65	Ø

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

Livingston Dairy Contuling, Inc. 2020

Whiteside

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

March 9, 2023

Lab No. : **VI 2340875**
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 3 pages divided into 3 sections:

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

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
Barn	02/10/2023	02/10/2023	VI 2340875-001	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

	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: 2023-03-09

Page 1 of 3

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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 : Barn
Project : W-6 Whiteside Dairy

Lab No. : VI 2340875-001
Customer No. : 4018505

Sampled On : February 10, 2023 at 07:53
Sampled By : KC / MF
Received On : February 10, 2023 at 10:39
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	U	02/24/2023	11:30	sta	EPA 351.2	03/01/2023	17:35	lcr
Nitrate Nitrogen	1.9	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:52	lfs
Nitrogen, Total as Nitrogen	1.9	0.5	mg/L		1		02/24/2023	11:30	sta	EPA 351.2	03/01/2023	17:35	lcr
Nitrate + Nitrite as N	1.9	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:52	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	02/24/2023	11:30	sta	EPA 351.2	03/01/2023	17:35	lcr
Conductivity	338	1	umhos/cm	1600[2]	1		02/21/2023	14:01	sta		02/21/2023	14:01	sta
Solids, Total Dissolved (TDS)	170	20	mg/L	1000[2]	1		02/14/2023	15:27	ctl	SM 2540 C	02/15/2023	12:28	ctl

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.

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March 9, 2023
Livingston Dairy Consulting, Inc.

Lab No. : VI 2340875
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2510B	02/21/2023:201893STA	Blank	umhos/cm		ND	<1	
		(VI 2340956-001)	Dup	umhos/cm		0.6%	5	
Solids, Total Dissolved	2540CE	02/14/2023:201630CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	101 %	90-110	
		(STK2331874-006)	Dup	mg/L		1.4%	5	
		(STK2331874-006)	Dup	mg/L		0.1%	5	
Nitrogen, Total Kjeldahl	351.2	02/24/2023:202049STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	91.2%	73-124	
			MS	mg/L	12.00	84.9%	54-136	
		(VI 2340880-001)	MSD	mg/L	12.00	83.6%	54-136	
			MSRPD	mg/L	12.00	1.5%	≤27	
			MS	mg/L	12.00	88.2%	54-136	
		(VI 2340880-002)	MSD	mg/L	12.00	89.0%	54-136	
			MSRPD	mg/L	12.00	0.8%	≤27	
Nitrate + Nitrite as N	4500NO3F	02/22/2023:201947LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
			MS	mg/L	5.609	97.3%	66-125	
		(SP 2302530-001)	MSD	mg/L	5.609	99.4%	66-125	
			MSRPD	mg/L	5.609	1.8%	≤30.4	
Nitrate Nitrogen	4500NO3F	02/22/2023:201947LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
			MS	mg/L	5.609	97.3%	66-125	
		(SP 2302530-001)	MSD	mg/L	5.609	99.4%	66-125	
			MSRPD	mg/L	5.609	1.8%	≤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.

Page 3 of 3

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FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY
www.fglinc.com

Laboratory Copy (1 of 3)

42086:03/01/2022

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

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 Whiteside Dairy
Purchase Order Number:
Quote Number: VI 20210208-01

Sampler(s) MF/KC

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

Lab Number: VI 2340875 4-18505

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-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	Barn	2/10/23	7:53	G	DW	P			1	1								
2				G					1	1								
3				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:
[illegible]	2/10/23	1039	MRC	2/10/23	1700	GLS	2/11/23	1210
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
MRC	2-10-23	1039	GLS	2/10/23	1700	[illegible]	/	/

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Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # OTC
2. Were samples received in a chilled condition? Temps: 6.0 / 7.0 / ____ / ____ / ____
   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): MPC

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 2C / ____ / ____ / ____ / ____
   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: 558796176 154 195

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): MDC

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 co
contacts)

(4018505)
Livingston Dairy Consulting, Inc.
VI 2340875
iv 02/13/2023 10:11:05
VI_2340875

Whiteside

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

August 11, 2023

Lab No. : **VI 2344641**
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 3 pages divided into 3 sections:

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

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
#7	07/18/2023	07/18/2023	VI 2344641-001	AGW

Sampling and Receipt Information:

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

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

Test Summary

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

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

KD: EHB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-08-11

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August 11, 2023

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

Lab No. : VI 2344641-001
Customer No. : 4018505

Sampled On : July 18, 2023 at 06:39
Sampled By : Marlene / Noreen
Received On : July 18, 2023 at 10:00
Matrix : Ag Water

Description : #7
Project : W-6 Whiteside Dairy

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	EPA 351.2	08/10/2023	18:21	lcr
Nitrate Nitrogen	3.1	0.4	mg/L		1		07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:08	lfs
Nitrogen, Total as Nitrogen	3.1	0.5	mg/L		1		08/08/2023	08:55	sta	Calc.	08/10/2023	18:21	lcr
Nitrate + Nitrite as N	3.1	0.4	mg/L		1		07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:08	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/08/2023	08:55	sta	EPA 351.2	08/10/2023	18:21	lcr
Conductivity	473	1	umhos/cm		1		07/31/2023	14:51	amm	SM 4500-H+B	07/31/2023	16:43	amm
Solids, Total Dissolved (TDS)	280	20	mg/L		1		07/20/2023	16:15	ctl	SM 2540 C	07/21/2023	11:10	ctl

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

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

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August 11, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2344641
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(SP 2312486-006)	Dup	umhos/cm		0.09%	5	
Solids, Total Dissolved	2540CE	07/20/2023:207946CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	993.7	102%	90-110	
		(STK2339578-001)	Dup	mg/L		0.4%	5	
		(STK2339578-001)	Dup	mg/L		1.98%	5	
Nitrogen, Total Kjeldahl	351.2	08/08/2023:208707STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	94.2%	73-124	
			MS	mg/L	12.00	87.3%	54-136	
		(VI 2344643-002)	MSD	mg/L	12.00	90.0%	54-136	
			MSRPD	mg/L		3.1%	≤27	
			MS	mg/L	12.00	93.8%	54-136	
		(VI 2344643-003)	MSD	mg/L	12.00	93.2%	54-136	
			MSRPD	mg/L		0.6%	≤27	
Nitrate + Nitrite as N	4500NO3F	07/19/2023:207926LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	97.8%	80-120	
			MS	mg/L	5.609	91.9%	66-125	
		(STK2339515-001)	MSD	mg/L	5.609	94.5%	66-125	
			MSRPD	mg/L		1.2%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/19/2023:207926LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	97.8%	80-120	
			MS	mg/L	5.609	91.9%	66-125	
		(STK2339515-001)	MSD	mg/L	5.609	94.5%	66-125	
			MSRPD	mg/L		1.2%	≤30.4	

Definition

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

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

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

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

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

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

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

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

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Laboratory Copy (1 of 2)

42086:04/01/2023

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

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 Whiteside Dairy
Purchase Order Number:
Quote Number: VI 20210208-01
Sampler(s) Marlene & Noreen

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

Lab Number: VI 23446 41 4-18505

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-6-Conductivity,NO3-N,Total N,TDS 16oz(P)	Bottles/Containers Split Fee 8oz(P)-H2SO4
1	#7	7/18/23	6:30PM	G	AgW	NP			1	1
2				G					1	1
3				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:
[signature]	7/18/23	10:00	SRO	7/18/23	1730	GLS	7/19/23	1100
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
SRO	7/18/23	1000	GLS	7/18/23	1730	MC		

R01
4.4°C

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Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH (VI)

1. Number of ice chests/packages received: 1 Shipping tracking # OTC
2. Were samples received in a chilled condition? Temps: R01 / 4.4°C / ____ / ____ / ____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

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

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 3c / ____ / ____ / ____ / ____
   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: 559787246 6815

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): MDC

Discrepancy Documentation:

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

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

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2344641
iv 07/18/2023 11:29:38
VI 2344641

2023 KERN RIVER - CANAL RESULTS

Check #1

LOCATION OF TESTS

IRRIGATION WATER ANALYSIS
ALL CONSTITUENTS P.P.M. (MGN/LITER)

DATE OF TESTING	LABS USED	LAB NUM.	u/g L ARSENIC	mg/L CALCIUM	mg/L MAGNESIUM	mg/L SODIUM	mg/L POTASSIUM	mg/L HYDROXIDE	mg/L CARBONATE	mg/L BICARBONATE	mg/L CHLORIDE	mg/L FLUORIDE	mg/L SULFATE	mg/L NO 3 NITRATE	mg/L NO 3-N NITRATE	mg/L PHOSPATE	Std Units PH	umho/cm EC @ 25 C	mg/L TOTAL DISSOLVED SOLIDS	mg/L TOTAL HARDNESS AS CACO3	mg/L BORON	Ratio SAR OF WATER	% ESP OF SOIL	lb/sc-ft GYP REQ.	Std Units PHC	Ratio ADJ SAR
02/23/22	OEC	2201203-06	None Det.	21.00	3.40	130.00	4.10	None Det.	None Det.	180.0	88.0	0.53	9.2	None Det.	None Det.	None Det.	7.40	660.0	430.00	67.0	0.76	8.70	8.90	538.0	8.81	7.20
03/15/22	OEC	2201604-06	None Det.	21.00	3.30	120.00	3.90	None Det.	None Det.	180.0	94.0	0.52	8.7	None Det.	None Det.	None Det.	7.36	650.0	470.00	67.0	0.79	8.60	8.70	538.0	8.60	7.10
04/06/22	OEC	2202151-06	None Det.	22.00	3.40	120.00	4.10	None Det.	None Det.	170.0	92.0	0.60	16.0	None Det.	None Det.	None Det.	7.43	670.0	440.00	70.0	0.77	8.30	8.40	468.0	7.00	6.70
05/24/22	OEC	2203176-06	None Det.	20.00	3.20	120.00	3.80	None Det.	None Det.	190.0	90.0	0.46	11.0	None Det.	None Det.	None Det.	7.17	680.0	470.00	63.0	0.69	8.50	8.60	585.0	5.38	7.00
06/21/22	OEC	2203781-06	None Det.	18.00	2.80	110.00	3.20	None Det.	None Det.	160.0	81.0	0.48	11.0	None Det.	None Det.	None Det.	7.61	640.0	360.00	58.0	0.81	8.30	8.40	491.0	8.11	6.50
07/19/22	OEC	2204358-06	None Det.	18.00	2.40	70.00	2.40	None Det.	None Det.	100.0	49.0	None Det.	27.0	None Det.	None Det.	None Det.	7.42	480.0	280.00	58.0	0.35	4.10	6.20	211.0	6.93	3.70
08/01/22	OEC	2204664-06	None Det.	19.00	2.80	110.00	3.20	None Det.	None Det.	170.0	95.0	0.54	11.0	None Det.	None Det.	None Det.	7.57	640.0	410.00	58.0	0.82	8.50	8.60	516.0	7.86	6.70
09/01/22	OEC	2205388-07	None Det.	20.00	2.80	120.00	3.40	None Det.	None Det.	170.0	100.0	0.52	15.0	None Det.	None Det.	None Det.	7.44	690.0	460.00	63.0	0.62	7.00	9.20	515.0	7.09	7.40
10/06/22	OEC	2206250-06	None Det.	27.00	2.40	110.00	3.60	None Det.	None Det.	150.0	90.0	None Det.	69.0	None Det.	None Det.	None Det.	7.47	720.0	470.00	76.0	0.52	5.40	7.50	351.0	7.24	5.80
11/03/22	OEC	2206972-06	None Det.	21.00	3.00	120.00	4.00	None Det.	None Det.	190.0	94.0	0.51	15.0	None Det.	None Det.	None Det.	7.20	670.0	420.00	66.0	0.68	6.40	8.50	585.0	5.57	6.90
01/06/23	OEC	2300177-06	None Det.	21.00	3.30	120.00	4.10	None Det.	None Det.	200.0	99.0	0.5	8.4	None Det.	None Det.	None Det.	7.87	710.0		470.00	67.0			0.75	6.20	8.30
02/09/23	OEC	2301037-06	None Det.	22.00	3.80	130.00	4.10	None Det.	None Det.	200.0	100.0	0.46	8.7	None Det.	None Det.	None Det.	6.38	730.0		470.00	71.0			0.72	6.80	9.00
03/03/23	OEC	2301899-06	None Det.	23.00	3.20	110.00	4.10	None Det.	None Det.	180.0	98.0	0.43	9.9	None Det.	None Det.	None Det.	7.68	640.0		450.00	70.0			0.64	5.60	7.70
04/21/23	OEC	2303083-06	None Det.	14.00	2.50	42.00	2.20	None Det.	None Det.	91.0	31.0	None Det.	7.6	None Det.	None Det.	None Det.	7.87	300.0		220.00	47.0			0.26	2.70	4.70
05/19/23	OEC	2303878-06	None Det.	13.00	2.10	37.00	2.40	None Det.	None Det.	78.0	28.0	None Det.	5.9	None Det.	None Det.	None Det.	7.59	260.0		180.00	40.0			None Det	2.50	4.50
06/13/23	OEC	2304531-06	None Det.	11.00	1.80	33.00	2.10	None Det.	None Det.	69.0	23.0	None Det.	5.0	None Det.	None Det.	None Det.	7.00	210.0		150.00	36.0			None Det	2.40	4.40
07/11/23	OEC	2305247-06	None Det.	9.10	1.50	25.00	1.50	None Det.	None Det.	58.0	18.0	None Det.	4.2	None Det.	None Det.	None Det.	7.54	140.0		84.00	29.0			None Det	2.00	4.00
08/03/23	OEC	2306030-04	None Det.	9.20	1.10	11.00	1.10	None Det.	None Det.	37.0	5.7	None Det.	3.2	None Det.	None Det.	None Det.	7.74	93.0		74.00	20.0			None Det	1.10	3.10
09/06/23	OEC	2306941-06	None Det.	10.00	1.80	27.00	1.80	None Det.	None Det.	61.0	15.0	None Det.	4.7	None Det.	None Det.	None Det.	7.52	180.0		120.00	32.0			None Det	2.00	4.00
10/03/23	OEC	2307664-06	None Det.	14.00	2.30	49.00	2.00	None Det.	None Det.	98.0	37.0	None Det.	8.7	None Det.	None Det.	None Det.	7.26	320.0		200.00	45.0			0.31	3.20	5.20

Check #5

LOCATION OF TESTS

IRRIGATION WATER ANALYSIS
ALL CONSTITUENTS P.P.M. (MGN/LITER)

DATE OF TESTING	LABS USED	LAB NUM.	u/g L ARSENIC	mg/L CALCIUM	mg/L MAGNESIUM	mg/L SODIUM	mg/L POTASSIUM	mg/L HYDROXIDE	mg/L CARBONATE	mg/L CARBONAT	mg/L CHLORIDE	mg/L FLUORIDE	mg/L SULFATE	mg/L NO 3 NITRATE	mg/L NO 3-N NITRATE	mg/L PHOSPATE	Std Units PH	umho/cm EC @ 25 C	mg/L TOTAL DISSOLVED SOLIDS	mg/L TOTAL HARDNESS AS CACO3	mg/L BORON
02/23/22	OEC	2201203-0	None Det.	10.00	1.50	92.00	1.90	None Det.	None Det.	120.0	57.0	0.50	13.0	None Det.	None Det.	None Det.	8.05	480.0	290.00	32.0	0.40
03/15/22	OEC	2201604-0	None Det.	16.00	2.40	110.00	3.00	None Det.	None Det.	160.0	77.0	0.51	9.3	None Det.	None Det.	None Det.	7.87	550.0	380.00	50.0	0.61
04/06/22	OEC	2202151-0	None Det.	7.10	0.84	81.00	1.30	None Det.	None Det.	110.0	44.0	0.53	16.0	None Det.	None Det.	None Det.	8.55	390.0	260.00	21.0	0.33
05/24/22	OEC	2203176-0	None Det.	12.00	1.60	93.00	2.00	None Det.	None Det.	130.0	65.0	0.47	16.0	None Det.	None Det.	None Det.	7.67	520.0	350.00	37.0	0.42
06/21/22	OEC	2203781-0	None Det.	6.40	0.79	76.00	0.96	None Det.	None Det.	97.0	46.0	0.44	13.0	None Det.	None Det.	None Det.	8.58	400.0	250.00	19.0	0.26
07/19/22	OEC	2204358-0	None Det.	15.00	1.90	68.00	1.90	None Det.	None Det.	110.0	46.0	0.40	23.0	None Det.	None Det.	None Det.	7.85	450.0	280.00	45.0	0.30
08/01/22	OEC	2204664-0	None Det.	11.00	1.60	91.00	1.90	None Det.	None Det.	130.0	66.0	0.53	12.0	None Det.	None Det.	None Det.	8.00	500.0	300.00	35.0	0.40
09/01/22	OEC	2205388-0	None Det.	13.00	1.60	93.00	2.10	None Det.	None Det.	130.0	75.0	0.51	16.0	None Det.	None Det.	None Det.	7.82	540.0	350.00	39.0	0.42
10/06/22	OEC	2206250-0	None Det.	21.00	1.50	88.00	2.40	None Det.	None Det.	110.0	68.0	None Det.	58.0	None Det.	None Det.	None Det.	7.93	600.0	350.00	59.0	0.33
11/03/22	OEC	2206972-0	None Det.	15.00	2.10	100.00	3.10	None Det.	None Det.	150.0	75.0	0.54	14.0	None Det.	None Det.	None Det.	7.68	550.0	350.00	47.0	0.51

Livingston Dairy Consulting, Inc.

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

Sunday, April 21, 2024

Re: 2023 NMP
Whiteside Dairy WDID 5D155087001
16477 Scofield Avenue. Wasco, CA 93280

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 **0.86**
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.