

Central Valley Dairy Representative Monitoring Program Year 8 Annual Report (2019)



Part V of V

Prepared by



Luhdorff & Scalmanini
Consulting Engineers

April 1, 2020

Attachment B4

Laboratory Reports, 2019Q3

2019Q3

North Area



Date of Report: 09/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Brentwood Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927516

Invoice ID: B353785

Enclosed are the results of analyses for samples received by the laboratory on 8/17/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927516

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
Name: Luidorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911	
19-27516 Report to: Reduced Constituent Suite		Analysis Requested	
Project: Dairy Representative Monitoring Program Site: Brentwood Farms Samplers Name: David Bisset Global ID - WDR100038422		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Lab # 1 2 3 4 5 6 7 8 9 10	Strike out non-sampled wells BRE-MW1s, BRE-MW4d BRE-MW2s, BRE-MW2d BRE-MW3s, BRE-MW3d Field Duplicate	Date Sampled 08/14/19 08/16/19 08/16/19	Time Sampled 1005 1050 1130
		Matrix W W W	Q1 Pe Unpreserved x x x x
			CHK BY: DISTRIBUTION GJL
			SUB-OUT
			SHORT HOLDING TIME Cr ⁶⁺ NO ₃ (NO ₃) OP SS DO Cl ₂ BOD MBAS COT
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: llve@lscce.com, rbryson@lscce.com, pdhalwai@lscce.com, jlovelis@lscce.com 4) Send invoices to Janelle Lovelis (jlovelis@lscce.com).		Relinquished by: (Signature) [Signature] Relinquished by: (Signature) [Signature] Relinquished by: (Signature) [Signature]	
		Received By: [Signature] Date & Time: 8/16/19 15:00 Received By: [Signature] Date & Time: 8/16/19 15:00 Received By: [Signature] Date & Time: 8/17/19 10:28	
		(A)= Analysis (C)= Container (P)= Preservative	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27516

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) GSO

SHIPPING CONTAINER: Ice Chest None Box Other (Specify)

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals: Ice Chest Containers None Comments: no custody seal

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/17/19 10:28

Temperature: (A) 14 °C / (C) 2.1 °C Analyst Init: SW

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
5oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/809										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 5270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 8/19 1811

Sample Numbering Completed By: GSP

A = Actual / C = Corrected

Rev 21 05/23/2016 (S://WPDec/WordPerfect/LAB_DOCS/FORMS/SAMRECrev 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927516-01	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	Brentwood Farms	Sampling Date:	08/16/2019 10:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BRE-MW1s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
	<hr/>			
	1927516-02	COC Number:	---	Receive Date:
Project Number:		Brentwood Farms	Sampling Date:	08/16/2019 10:50
Sampling Location:		---	Sample Depth:	---
Sampling Point:		BRE-MW2s	Lab Matrix:	Water
Sampled By:		David B. of BTST	Sample Type:	Water
<hr/>				
1927516-03		COC Number:	---	Receive Date:
	Project Number:	Brentwood Farms	Sampling Date:	08/16/2019 11:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BRE-MW3s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927516-01	Client Sample Name: Brentwood Farms, BRE-MW1s, 8/16/2019 10:05:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.4	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	340	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	0.074	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 17:22		SAV	IC8	1	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	2	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:03		JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927516-02	Client Sample Name: Brentwood Farms, BRE-MW2s, 8/16/2019 10:50:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.5	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	230	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 18:44		SAV	IC8	1	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	2	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:07		JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927516-03	Client Sample Name: Brentwood Farms, BRE-MW3s, 8/16/2019 11:30:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	210	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 19:05		SAV	IC8	1	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	2	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:08		JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053951						
Nitrate as N	B053951-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054995						
Total Dissolved Solids @ 180 C	B054995-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056251						
Ammonia as N	B056251-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053951										
Nitrate as N	B053951-BS1	LCS	4.9500	5.0000	mg/L	99.0		90 - 110		
QC Batch ID: B054995										
Total Dissolved Solids @ 180 C	B054995-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B056251										
Ammonia as N	B056251-BS1	LCS	2.0640	2.0000	mg/L	103		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B053951		Used client sample: Y - Description: BRE-MW1s, 08/16/2019 10:05									
Nitrate as N	DUP	1927516-01	8.3700	8.3640		mg/L	0.1		10		
	MS	1927516-01	8.3700	13.464	5.0505	mg/L		101		80 - 120	
	MSD	1927516-01	8.3700	13.484	5.0505	mg/L	0.1	101	10	80 - 120	
QC Batch ID: B054995		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1927333-01	20700	21100		mg/L	1.9		10		
QC Batch ID: B056251		Used client sample: Y - Description: BRE-MW1s, 08/16/2019 10:05									
Ammonia as N	DUP	1927516-01	0.074200	ND		mg/L			10		
	MS	1927516-01	0.074200	2.3773	2.2222	mg/L		104		90 - 110	
	MSD	1927516-01	0.074200	2.3631	2.2222	mg/L	0.6	103	10	90 - 110	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:34
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit



Date of Report: 09/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Creekside Silveira Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927517

Invoice ID: B353786

Enclosed are the results of analyses for samples received by the laboratory on 8/17/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry).....	8
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Water Analysis (General Chemistry)

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Case Narratives

Case Narrative for Work Order 1927517

Sample #1927517-01 was analyzed within holding time, but the result for 300.0 nitrate was above the quantitation range and not accurate. So the sample was re-analyzed past holding time for a more accurate result.

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
Report to: 19-27517 Luidhoff and Scalmani Reduced Constituent Suite		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911	
Analysis Requested			
Name	Address	City	State
Luidhoff and Scalmani <td>500 First Street <td>Woodland <td>95695 </td></td></td>	500 First Street <td>Woodland <td>95695 </td></td>	Woodland <td>95695 </td>	95695
Project	Site	Samplers Name	Global ID
Daily Representative Monitoring Program	Creekside Silveira Dairy		WDR100038297
Date Sampled	Time Sampled	Matrix	Qt Pa Unreserved
8/16/15	1115	w	x
8/16/15	1118	w	x
8/16/15	1030	w	x
Field Duplicate (15)			
Lab #	Strike out non-sampled wells	Time Sampled	Matrix
1	CRE-MW1s, CRE-MW1d		
2	CRE-MW2s, CRE-MW2d		
3	CRE-MW3s, CRE-MW3d		
4			
5			
6			
7			
8			
9			
10			
Comments:			
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luidhoff and Scalmani Consulting Engineers via email: llvagrine@lisce.com, roryson@lisce.com, pahalwal@lisce.com, jlovelis@lisce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lisce.com).			
Relinquished By: (Signature)	Relinquished By: (Signature)	Relinquished By: (Signature)	Relinquished By: (Signature)
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Received By: (Signature)	Received By: (Signature)	Received By: (Signature)	Received By: (Signature)
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Date & Time	Date & Time	Date & Time	Date & Time
8/16/15 1424	8/16/15 1500	8/17/15 1028	

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1927517 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1927517

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) GSO

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: no custody seal
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/17/19 10:28
 Temperature: (A) 14 °C / (C) 2.1 °C Analyst Init: SMW

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: 2 bottles say CKE MWIS but 0 times match
 Sample Numbering Completed By: GSI Date/Time: 8/17 1811
 A = Actual / C = Corrected

Rev 21 05/23/2016
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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927517-01	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	Creekside Silveira Dairy	Sampling Date:	08/16/2019 11:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW1s	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927517-02	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	Creekside Silveira Dairy	Sampling Date:	08/16/2019 11:18
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW2s	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927517-03	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	Creekside Silveira Dairy	Sampling Date:	08/16/2019 10:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW3s	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927517-01	Client Sample Name: Creekside Silveira Dairy, CRE-MW1s, 8/16/2019 11:45:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	94	mg/L	0.50	0.21	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/18/19 14:02		SAV	IC8	5	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	5	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:10		JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927517-02	Client Sample Name: Creekside Silveira Dairy, CRE-MW2s, 8/16/2019 11:18:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	510	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 21:49		SAV	IC8	1	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	3.333	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:12		JMH	SC-2	1	B056251

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927517-03	Client Sample Name: Creekside Silveira Dairy, CRE-MW3s, 8/16/2019 10:50:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.8	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 22:10		SAV	IC8	1	B053951
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	5	B054995
3	EPA-350.1	09/05/19 16:30	09/06/19 11:12		JMH	SC-2	1	B056251

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Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053951						
Nitrate as N	B053951-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054995						
Total Dissolved Solids @ 180 C	B054995-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056251						
Ammonia as N	B056251-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053951										
Nitrate as N	B053951-BS1	LCS	4.9500	5.0000	mg/L	99.0		90 - 110		
QC Batch ID: B054995										
Total Dissolved Solids @ 180 C	B054995-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B056251										
Ammonia as N	B056251-BS1	LCS	2.0640	2.0000	mg/L	103		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053951		Used client sample: N								
Nitrate as N	DUP	1927516-01	8.3700	8.3640		mg/L	0.1		10	
	MS	1927516-01	8.3700	13.464	5.0505	mg/L		101		80 - 120
	MSD	1927516-01	8.3700	13.484	5.0505	mg/L	0.1	101	10	80 - 120
QC Batch ID: B054995		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927333-01	20700	21100		mg/L	1.9		10	
QC Batch ID: B056251		Used client sample: N								
Ammonia as N	DUP	1927516-01	0.074200	ND		mg/L			10	
	MS	1927516-01	0.074200	2.3773	2.2222	mg/L		104		90 - 110
	MSD	1927516-01	0.074200	2.3631	2.2222	mg/L	0.6	103	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:41
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S05 The sample holding time was exceeded.



Date of Report: 09/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: MTSJ Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927518

Invoice ID: B353795

Enclosed are the results of analyses for samples received by the laboratory on 8/17/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927518

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
19-27518 Report to: Reduced Constituent Suite							
Name: Luhdorff and Scalmani Address: 500 First Street City: Woodland State: 95695 Attn: Tili Angermann		Project: Dairy Representative Monitoring Program Site: MTSJ Dairy Samplers Name: Global ID - WDR100039114					
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pre Unpreserved	CHK BY	DISTRIBUTION
1	MTS-MW1	8/16/19	0700	W	x	[Signature]	MA
2	MTS-MW2s, MTS-MW2d	8/16/19	0959	W	x	[Signature]	
3	MTS-MW3s, MTS-MW3d	8/16/19	0927	W	x	[Signature]	
4	Field Duplicate	8/16/19		W	x	[Signature]	SUB OUT
5							
6							
7							
8							
9							
10							
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: lsavagnino@lscce.com, rbryson@lscce.com, pdhall@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).				Relinquished by: (Signature) [Signature] Relinquished by: (Signature) [Signature] Relinquished by: (Signature) [Signature]	Received By: [Signature] Date & Time 8/16/19 10:28 Received by: [Signature] Date & Time 8/16/19 10:28 Received By: [Signature] Date & Time 8/17/19 10:28	SHORT HOPEING TIME Cr+0 NO NO3 OP SS DO Cr/2 BOD MBAS COT	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27518

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) GSO

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: no custody seal
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 5/17/19 10:28
 Temperature: (A) 14 °C / (C) 2.1 °C Analyst Init: SMU

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/603/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GSP Date/Time: 5/19 1811
 A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927518-01	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	MTSJ Dairy	Sampling Date:	08/16/2019 09:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MTS-MW1	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927518-02	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	MTSJ Dairy	Sampling Date:	08/16/2019 09:59
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MTS-MW2d	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927518-03	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	MTSJ Dairy	Sampling Date:	08/16/2019 09:27
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MTS-MW3d	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927518-04	COC Number:	---	Receive Date:	08/17/2019 10:28
	Project Number:	MTSJ Dairy	Sampling Date:	08/16/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927518-01	Client Sample Name: MTSJ Dairy, MTS-MW1, 8/16/2019 9:00:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	530	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 19:26	SAV	IC8	5	B053951
2	SM-2540C	08/22/19 17:00	08/22/19 17:00	CAD	MANUAL	3.333	B054999
3	EPA-350.1	09/05/19 16:30	09/06/19 11:14	JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927518-02	Client Sample Name: MTSJ Dairy, MTS-MW2d, 8/16/2019 9:59:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	22	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	500	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 19:46	SAV	IC8	2	B053951
2	SM-2540C	08/22/19 17:00	08/22/19 17:00	CAD	MANUAL	3.333	B054999
3	EPA-350.1	09/05/19 16:30	09/06/19 11:14	JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927518-03	Client Sample Name: MTSJ Dairy, MTS-MW3d, 8/16/2019 9:27:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	530	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 20:48		SAV	IC8	2	B053951
2	SM-2540C	08/22/19 17:00	08/22/19 17:00		CAD	MANUAL	3.333	B054999
3	EPA-350.1	09/05/19 16:30	09/06/19 11:16		JMH	SC-2	1	B056251

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Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927518-04	Client Sample Name: MTSJ Dairy, Field Duplicate, 8/16/2019 12:00:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	520	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/17/19 16:00	08/17/19 21:08	SAV	IC8	5	B053951
2	SM-2540C	08/22/19 17:00	08/22/19 17:00	CAD	MANUAL	3.333	B054999
3	EPA-350.1	09/05/19 16:30	09/06/19 11:16	JMH	SC-2	1	B056251

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053951						
Nitrate as N	B053951-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054999						
Total Dissolved Solids @ 180 C	B054999-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056251						
Ammonia as N	B056251-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053951										
Nitrate as N	B053951-BS1	LCS	4.9500	5.0000	mg/L	99.0		90 - 110		
QC Batch ID: B054999										
Total Dissolved Solids @ 180 C	B054999-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B056251										
Ammonia as N	B056251-BS1	LCS	2.0640	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053951		Used client sample: N								
Nitrate as N	DUP	1927516-01	8.3700	8.3640		mg/L	0.1		10	
	MS	1927516-01	8.3700	13.464	5.0505	mg/L		101		80 - 120
	MSD	1927516-01	8.3700	13.484	5.0505	mg/L	0.1	101	10	80 - 120
QC Batch ID: B054999		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927445-01	26100	25900		mg/L	0.8		10	
QC Batch ID: B056251		Used client sample: N								
Ammonia as N	DUP	1927516-01	0.074200	ND		mg/L			10	
	MS	1927516-01	0.074200	2.3773	2.2222	mg/L		104		90 - 110
	MSD	1927516-01	0.074200	2.3631	2.2222	mg/L	0.6	103	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:42
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

South Area



Date of Report: 08/27/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Aukeman Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926900

Invoice ID: B352277

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926900

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Name: Lulidoff and Scalmanini Address: 500 First Street City: Woodland State: 95695 A/TN: Till Angermann Project: Daily Representative Monitoring Program Site: Aukeman Farms Samplers Name: Global ID - WDR100036978			
Lab #	Strike out non-sampled wells	Date Sampled	Time @ Sampled
1	AUK-MW1	8/13/19	1605
2	AUK-MW2	8/13/19	1651
3	AUK-MW3	8/13/19	1605
4	Field Duplicate MW3	8/13/19	
5			
6			
7			
8			
9			
10			
From Filtered Sample:	Ammonia-N, NO3-N, Total Dissolved Solids	Qt Pe Unpreserved	Matrix
		x	w
		x	w
		x	w
		x	w
CHK BY	DISTRIBUTION	SUB OUT	
Received By:	Date & Time	8-14-19 13:50	
Received by:	Date & Time	8-14-19 13:50	
Received By:	Date & Time	8-14-19 13:50	

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lulidoff and Scalmanini Consulting Engineers via email: lsavignio@isce.com, rryson@isce.com, pohnatwa@isce.com, jlovelle@isce.com
 4) Send invoices to Jeanette Lovells (jlovels@isce.com).



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1926900

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 97 Container: pipe Thermometer ID: 274 Date/Time: 8/14/19

Temperature: (A) 0-0 °C / (C) 0-0 °C Analyst Initials: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: 1 Bottle bag MW2 but time matches. [Signature]

Sample Numbering Completed By: _____ Date/Time: 8/14 1:36

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926900-01	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Aukeman Farms	Sampling Date:	08/13/2019 17:54
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW1	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1926900-02	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Aukeman Farms	Sampling Date:	08/13/2019 16:51
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW2	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1926900-03	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Aukeman Farms	Sampling Date:	08/13/2019 16:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW3	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1926900-04	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Aukeman Farms	Sampling Date:	08/13/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUP-4	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926900-01	Client Sample Name: Aukeman Farms, AUK-MW1, 8/13/2019 5:54:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	56	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 01:33		SAV	IC8	5	B053693
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	5	B053973
3	EPA-350.1	08/22/19 14:15	08/23/19 12:38		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926900-02	Client Sample Name: Aukeman Farms, AUK-MW2, 8/13/2019 4:51:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	67	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 01:53		SAV	IC8	10	B053693
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	5	B053973
3	EPA-350.1	08/22/19 14:15	08/23/19 12:39		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926900-03	Client Sample Name: Aukeman Farms, AUK-MW3, 8/13/2019 4:05:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	56	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 10:58		SAV	IC8	5	B053693
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	5	B053973
3	EPA-350.1	08/22/19 14:15	08/23/19 12:40		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926900-04	Client Sample Name: Aukeman Farms, DUP-4, 8/13/2019 12:00:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	56	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 11:18		SAV	IC8	5	B053693
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	5	B053973
3	EPA-350.1	08/22/19 14:15	08/23/19 12:41		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053693						
Nitrate as N	B053693-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053973						
Total Dissolved Solids @ 180 C	B053973-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055052						
Ammonia as N	B055052-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053693										
Nitrate as N	B053693-BS1	LCS	5.1950	5.0000	mg/L	104		90 - 110		
QC Batch ID: B053973										
Total Dissolved Solids @ 180 C	B053973-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B055052										
Ammonia as N	B055052-BS1	LCS	2.0753	2.0000	mg/L	104		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053693		Used client sample: N								
Nitrate as N	DUP	1926888-01	ND	ND		mg/L			10	
	MS	1926888-01	ND	5.2556	5.0505	mg/L		104		80 - 120
	MSD	1926888-01	ND	5.2697	5.0505	mg/L	0.3	104	10	80 - 120
QC Batch ID: B053973		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926720-01	26100	26500		mg/L	1.5		10	
QC Batch ID: B055052		Used client sample: N								
Ammonia as N	DUP	1926765-11	ND	ND		mg/L			10	
	MS	1926765-11	ND	2.5001	2.2222	mg/L		113		90 - 110 Q03
	MSD	1926765-11	ND	2.5254	2.2222	mg/L	1.0	114	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:57
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

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Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Dairyland Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926901

Invoice ID: B352886

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926901

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody		
Report to:				Analysis Requested		
Name: Lohdorff and Scalmani		Reduced Constituent Suite				
Address: 500 First Street		Project: Dairy Representative Monitoring Program				
City: Woodland		Site: Dairyland Farms				
State: 95695		Samplers Name:				
City: CA		Global ID - WDR100039173				
Attn: Tili Angermann						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qr Pe Unpreserved	From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids
1	DLF-MW4	8/13/17	1350	W	x	x
2	DLF-MW2	8/13/17	1350	W	x	x
3	DLF-MW3	8/13/17	1350	W	x	x
4	DLF-MW4A, DLF-MW4B DLF-MW4C	8/13/17	1113	W	x	x
5	DLF-MW5A, DLF-MW5B DLF-MW5C	8/13/17	1025	W	x	x
6	DLF-MW6A, DLF-MW6B DLF-MW6C, DLF-MW6D	8/13/17	0905	W	x	x
7	Field-Duplicate DLF-3-5	8/13/17		W	x	x
8						
9						
10						

Received By: [Signature]	Date & Time: 8/14/19
Received By: [Signature]	Date & Time: 8-14-19 1350
Received By: [Signature]	Date & Time: 8-14-19 1350

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sample wells exactly as shown on this CoC.
 3) Send lab reports to Lohdorff and Scalmani Consulting Engineers via email: llavagnino@lsc.com, rryson@lsc.com, pthelwel@lsc.com, jloveis@lsc.com
 4) Send invoices to Jeannette Lovelis (jloveis@lsc.com).

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26901

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 97 Container: pipe Thermometer ID: 274 Date/Time: 8/14/19
 Temperature: (A) 0.0 °C (C) 0.0 °C Analyst Initials: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B					
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 8/14 1736

Sample Numbering Completed By: GSP

A = Actual / C = Corrected

Rev 21 05/23/2010
 (S:\WP\Dev\WordPerfect\AE_DCS\FORMS\GSA\REC\rev 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926901-01	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Dairyland Farms	Sampling Date:	08/13/2019 13:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW2	Lab Matrix:	Water
	Sampled By:	DTO	Sample Type:	Water
1926901-02	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Dairyland Farms	Sampling Date:	08/13/2019 11:13
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW4A	Lab Matrix:	Water
	Sampled By:	DTO	Sample Type:	Water
1926901-03	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Dairyland Farms	Sampling Date:	08/13/2019 10:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW5B	Lab Matrix:	Water
	Sampled By:	DTO	Sample Type:	Water
1926901-04	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Dairyland Farms	Sampling Date:	08/13/2019 09:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW6C	Lab Matrix:	Water
	Sampled By:	DTO	Sample Type:	Water
1926901-05	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Dairyland Farms	Sampling Date:	08/13/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUP-3	Lab Matrix:	Water
	Sampled By:	DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926901-01	Client Sample Name: Dairyland Farms, DLF-MW2, 8/13/2019 1:50:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	600	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 17:00	08/14/19 23:09		CMM	IC8	2	B053692
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	3.333	B053973
3	EPA-350.1	08/27/19 11:45	08/29/19 08:43		JMH	SC-2	1	B055429

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926901-02	Client Sample Name: Dairyland Farms, DLF-MW4A, 8/13/2019 11:13:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	640	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 17:00	08/14/19	23:29	SAV	IC8	5	B053692
2	SM-2540C	08/19/19 10:30	08/19/19	10:30	CAD	MANUAL	3.333	B053973
3	EPA-350.1	08/27/19 11:45	08/29/19	08:47	JMH	SC-2	1	B055429

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926901-03	Client Sample Name: Dairyland Farms, DLF-MW5B, 8/13/2019 10:25:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	430	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 17:00	08/14/19 23:50		SAV	IC8	1	B053692
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	2	B053973
3	EPA-350.1	08/27/19 11:45	08/29/19 08:48		JMH	SC-2	1	B055429

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926901-04	Client Sample Name: Dairyland Farms, DLF-MW6C, 8/13/2019 9:05:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	68	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	900	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 17:00	08/15/19 09:56		SAV	IC8	5	B053692
2	SM-2540C	08/19/19 10:30	08/19/19 10:30		CAD	MANUAL	5	B053973
3	EPA-350.1	08/27/19 11:45	08/29/19 08:50		JMH	SC-2	1	B055429

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926901-05	Client Sample Name: Dairyland Farms, DUP-3, 8/13/2019 12:00:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	69	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	920	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/14/19 17:00	08/15/19 10:37	SAV	IC8	5	B053692
2	SM-2540C	08/19/19 10:30	08/19/19 10:30	CAD	MANUAL	5	B053973
3	EPA-350.1	08/27/19 11:45	08/29/19 08:52	JMH	SC-2	1	B055429

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Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053692						
Nitrate as N	B053692-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053973						
Total Dissolved Solids @ 180 C	B053973-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055429						
Ammonia as N	B055429-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053692										
Nitrate as N	B053692-BS1	LCS	5.0030	5.0000	mg/L	100		90 - 110		
QC Batch ID: B053973										
Total Dissolved Solids @ 180 C	B053973-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B055429										
Ammonia as N	B055429-BS1	LCS	2.0204	2.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053692		Used client sample: N								
Nitrate as N	DUP	1926866-01	1.6980	1.6910		mg/L	0.4		10	
	MS	1926866-01	1.6980	6.8465	5.0505	mg/L		102		80 - 120
	MSD	1926866-01	1.6980	6.8919	5.0505	mg/L	0.7	103	10	80 - 120
QC Batch ID: B053973		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926720-01	26100	26500		mg/L	1.5		10	
QC Batch ID: B055429		Used client sample: Y - Description: DLF-MW2, 08/13/2019 13:50								
Ammonia as N	DUP	1926901-01	0.11400	0.083500		mg/L	30.9		10	J,A02
	MS	1926901-01	0.11400	2.4363	2.2222	mg/L		105		90 - 110
	MSD	1926901-01	0.11400	2.3209	2.2222	mg/L	4.9	99.3	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 08/29/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Giacomazzi Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926903

Invoice ID: B352696

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926903

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody				
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested				
Report to: Reduced Constituent Suite						
Name: Lulidoff and Scalmanni						
Address: 500 First Street						
City: Woodland						
State: 95686						
Attn: Till Angermann						
Project: Dairy Representative Monitoring Program						
Site: Giacomazzi Dairy						
Samplers Name:						
Global ID - WDR100037884						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ch Pe Unpreserved	From Filtered Sample:
1	ZZJ-MW1A, ZZJ-MW1B ZZJ-MW1C, ZZJ-MW1D	8/14/19	0827	W	X	Ammonia-N, NO3-N, Total Dissolved Solids
2	ZZJ-MW2A, ZZJ-MW2B ZZJ-MW2C, ZZJ-MW2D	8/14/19	0910	W	X	
3	ZZJ-MW3A, ZZJ-MW3AA ZZJ-MW3B	8/14/19	0845	W	X	
4	ZZJ-MW5A, ZZJ-MW5B ZZJ-MW5C, ZZJ-MW5D	8/14/19	1040	W	X	
5	ZZJ-MW6A, ZZJ-MW6B ZZJ-MW6C, ZZJ-MW6D	8/14/19	1035	W	X	
6	ZZJ-MW7A, ZZJ-MW7B ZZJ-MW7C, ZZJ-MW7D	8/14/19	0935	W	X	
7	ZZJ-MW9A, ZZJ-MW9B ZZJ-MW9C, ZZJ-MW9D	8/14/19	0957	W	X	
8	Field Duplicate					
9						
10						
11						

CHAIN OF CUSTODY DISTRIBUTION
 GAK
 SUB OUT

SHORT HOLDING TIME
 Cr⁶⁺ NO₂ (NG₃) OP SS
 DO O₂ BOD MBAS COT

Relinquished by: (Signature)	Date & Time: 8/14/19
Relinquished by: (Signature)	Date & Time: 8-14-19 1350
Relinquished by: (Signature)	Date & Time: 8-14-19 13:50

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lulidoff and Scalmanni Consulting Engineers via email: llavagnine@lscce.com, rlryson@lscce.com, pdhritwal@lscce.com, jlovelis@lscce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1926903

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 97 Container: pipe Thermometer ID: 274 Date/Time: 8/14/19

Temperature: (A) 0.0 °C (C) 0.0 °C Analyst Initials: [Signature] 13:50

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B			
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/628/6289										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 891SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TREDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSP Date/Time: 8/14 17:36 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926903-01	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 08:27
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW1C	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-02	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 09:10
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW2C	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-03	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 08:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW3B	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-04	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 10:40
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW5D	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-05	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 10:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW6D	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-06	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 09:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW7C	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
1926903-07	COC Number:	---	Receive Date: 08/14/2019 13:50
	Project Number:	Giacomazzi Dairy	Sampling Date: 08/14/2019 09:51
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW9C	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-01	Client Sample Name: Giacomazzi Dairy, ZZI-MW1C, 8/14/2019 8:27:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.8	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	400	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 03:19		SAV	IC5	1	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	2	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 10:00		JMH	SC-2	1	B055430

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-02	Client Sample Name: Giacomazzi Dairy, ZZI-MW2C, 8/14/2019 9:10:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.6	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	250	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 04:31		SAV	IC5	1	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	2	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:13		JMH	SC-2	1	B055430

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-03	Client Sample Name: Giacomazzi Dairy, ZZI-MW3B, 8/14/2019 8:45:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	510	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 04:49		SAV	IC5	1	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	3.333	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:15		JMH	SC-2	1	B055430

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-04	Client Sample Name: Giacomazzi Dairy, ZZI-MW5D, 8/14/2019 10:40:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	950	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 05:06		SAV	IC5	5	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	5	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:17		JMH	SC-2	1	B055430

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-05	Client Sample Name: Giacomazzi Dairy, ZZI-MW6D, 8/14/2019 10:35:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	39	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 05:24		SAV	IC5	5	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	5	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:18		JMH	SC-2	1	B055430

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500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-06	Client Sample Name: Giacomazzi Dairy, ZZI-MW7C, 8/14/2019 9:35:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.5	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	880	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 06:18		SAV	IC5	1	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	5	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:19		JMH	SC-2	1	B055430

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Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926903-07	Client Sample Name: Giacomazzi Dairy, ZZI-MW9C, 8/14/2019 9:51:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.0	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	290	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 06:36		SAV	IC5	1	B053700
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	2	B053977
3	EPA-350.1	08/27/19 11:45	08/28/19 09:20		JMH	SC-2	1	B055430

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Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053700						
Nitrate as N	B053700-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053977						
Total Dissolved Solids @ 180 C	B053977-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055430						
Ammonia as N	B055430-BLK1	ND	mg/L	0.20	0.067	

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Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053700										
Nitrate as N	B053700-BS1	LCS	5.0400	5.0000	mg/L	101		90 - 110		
QC Batch ID: B053977										
Total Dissolved Solids @ 180 C	B053977-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B055430										
Ammonia as N	B055430-BS1	LCS	2.0515	2.0000	mg/L	103		90 - 110		

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Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053700		Used client sample: Y - Description: ZZI-MW1C, 08/14/2019 08:27								
Nitrate as N	DUP	1926903-01	2.7740	2.7760		mg/L	0.1		10	
	MS	1926903-01	2.7740	7.9889	5.0505	mg/L		103		80 - 120
	MSD	1926903-01	2.7740	8.0030	5.0505	mg/L	0.2	104	10	80 - 120
QC Batch ID: B053977		Used client sample: Y - Description: ZZI-MW5D, 08/14/2019 10:40								
Total Dissolved Solids @ 180 C	DUP	1926903-04	950.00	930.00		mg/L	2.1		10	
QC Batch ID: B055430		Used client sample: Y - Description: ZZI-MW1C, 08/14/2019 08:27								
Ammonia as N	DUP	1926903-01	ND	ND		mg/L			10	
	MS	1926903-01	ND	2.4669	2.2222	mg/L		111		90 - 110 Q03
	MSD	1926903-01	ND	2.3029	2.2222	mg/L	6.9	104	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/29/2019 10:49
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

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Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J & A Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926902

Invoice ID: B352887

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926902

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			Analysis Requested		
Name: Luhdorff and Scalmanihi		Reduced Constituent Suite			
Address: 500 First Street		Project: Dairy Representative Monitoring Program			
City: Woodland		Site: J & A Dairy			
State: 96695		Samplers Name:			
Attn: Till Angermann		Global ID: WDR100038668			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Pa Unpreserved
1	JAD-MW1				X
2	JAD-MW2				X
3	JAD-MW3	8/13/19	14:0	W	X
4	JAD-MW4s, JAD-MW4d	8/13/19	13:07	W	X
5	JAD-MW5s, JAD-MW6d				X
6	JAD-MW6s, JAD-MW6d	8/13/19	15:35	W	X
7	JAD-MW7s, JAD-MW7d				X
8	Field Duplicate				X
9					
10					
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids					
DISTRIBUTION MA					
SUB OUT <input type="checkbox"/>					
SHORT HOLDING TIME Cr-6 NO2 MG3 OP SS BG Cl2 BOD MBAS COT					
Relinquished by (Signature)				Date & Time 12:10	
Relinquished by (Signature)				Date & Time 8/14/19	
Relinquished by (Signature)				Date & Time 8-14-19 13:50	
Relinquished by (Signature)				Date & Time 8-14-19 13:50	
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanihi Consulting Engineers via email: llavagnino@lscce.com, rtrayson@lscce.com, pdhaliwal@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).					
(A)= Analysis (C)= Container (P)= Preservative					

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-26902

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 97 Container: pipe Thermometer ID: 274 Date/Time: 8/14/19

Temperature: (A) 0-0 °C / (C) 0-0 °C Analyst Initials: [Signature] 13:00

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/6080										
QT EPA 515.1/3150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 546										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 8/14 1736 Rev 21 05/23/2016

Sample Numbering Completed By: GSP

A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926902-01	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	J & A Dairy	Sampling Date:	08/13/2019 14:40
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	JAD-MW3	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
	<hr/>			
1926902-02	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	J & A Dairy	Sampling Date:	08/13/2019 13:07
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	JAD-MW4d	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
	<hr/>			
1926902-03	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	J & A Dairy	Sampling Date:	08/13/2019 15:35
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	JAD-MW6d	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926902-01	Client Sample Name: J & A Dairy, JAD-MW3, 8/13/2019 2:40:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	760	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/14/19 23:26		SAV	IC5	2	B053699
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/27/19 11:45	08/29/19 08:52		JMH	SC-2	1	B055429

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926902-02	Client Sample Name: J & A Dairy, JAD-MW4d, 8/13/2019 1:07:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	350	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/14/19 23:09		CMM	IC5	1	B053699
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	2	B053809
3	EPA-350.1	08/27/19 11:45	08/29/19 08:54		JMH	SC-2	1	B055429

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926902-03	Client Sample Name: J & A Dairy, JAD-MW6d, 8/13/2019 3:35:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	720	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 00:20		SAV	IC5	2	B053699
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/27/19 11:45	08/29/19 08:54		JMH	SC-2	1	B055429

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053699						
Nitrate as N	B053699-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053809						
Total Dissolved Solids @ 180 C	B053809-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055429						
Ammonia as N	B055429-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053699										
Nitrate as N	B053699-BS1	LCS	5.0000	5.0000	mg/L	100		90 - 110		
QC Batch ID: B053809										
Total Dissolved Solids @ 180 C	B053809-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B055429										
Ammonia as N	B055429-BS1	LCS	2.0204	2.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053699		Used client sample: N								
Nitrate as N	DUP	1926869-01	14.058	14.144		mg/L	0.6		10	
	MS	1926869-01	14.058	24.616	10.101	mg/L		105		80 - 120
	MSD	1926869-01	14.058	24.661	10.101	mg/L	0.2	105	10	80 - 120
QC Batch ID: B053809		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926762-01	14500	14100		mg/L	2.8		10	
QC Batch ID: B055429		Used client sample: N								
Ammonia as N	DUP	1926901-01	0.11400	0.083500		mg/L	30.9		10	J,A02
	MS	1926901-01	0.11400	2.4363	2.2222	mg/L		105		90 - 110
	MSD	1926901-01	0.11400	2.3209	2.2222	mg/L	4.9	99.3	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 09/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Longfellow Farming Co.

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927202

Invoice ID: B353480

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927202

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-27202		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:							
Reduced Constituent Suite							
Project: Dairy Representative Monitoring Program							
Site: Longfellow Farming Co.							
Samplers Name:							
Global ID - WDD10006573							
Name: Luidorff and Scalmanini							
Address: 500 First Street							
City: Woodland							
State: 96695							
CA							
Attn: Till Angermann							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/P1 Unpreserved	From Filtered Sample:	Analysis Requested
1	LON-MW1A, LON-MW1B, LON-MW1C -1	08/14/19	1540	W	x	x	
2	LON-MW2A, LON-MW2B, LON-MW2C	08/14/19			x	x	
3	LON-MW3A, LON-MW3B -2, LON-MW3C	08/16/19	1445	W	x	x	
4	LON-MW4A, LON-MW4B, LON-MW4C, LON-MW4D	08/14/19	1355	W	x	x	
5	LON-MW5A, LON-MW5B, LON-MW5C				x	x	
6	LON-MW6A, LON-MW6B, LON-MW6C				x	x	
7	LON-MW7A, LON-MW7B, LON-MW7C, LON-MW7D				x	x	
8	Field Duplicate				x	x	
9							
10							
11							

SHORT HOLDING TIME

Cl⁻ NO₂ (AC) OP SS

DO Cl₂ BOD MBAS CCT

CHK BY

DISTRIBUTION

SUB-OUT

Received By: [Signature]	Date & Time: 8/15/19 19:30
Received By: [Signature]	Date & Time: 8/15/19
Received By: [Signature]	Date & Time: 8/15/19 22:15
Received By: [Signature]	Date & Time: [Blank]

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: lsc@ludorffandscalmanini.com, rlyson@lsc.com, pthalliw@lsc.com.
- Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27202

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes/No.

All samples received? Yes/No. All samples containers intact? Yes/No. Description(s) match COC? Yes/No.

COC Received: YES/NO. Emissivity: 0.98. Container: 15. Thermometer ID: 208. Date/Time: 8/15/2015. Temperature: (A) 0.9 °C, (C) 1.6 °C. Analyst: EML

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT PE UNPRES (A, A, A), FT CYANIDE (B, B, B), and various EPA methods.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 8-15-19 230 Rev 21 06/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927202-01	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Longfellow Farming Co.	Sampling Date:	08/14/2019 15:40
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW1C	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927202-02	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Longfellow Farming Co.	Sampling Date:	08/14/2019 14:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW3B	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1927202-03	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Longfellow Farming Co.	Sampling Date:	08/14/2019 13:55
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW4C	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927202-01	Client Sample Name: Longfellow Farming Co., LON-MW1C, 8/14/2019 3:40:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	480	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 05:53		SAV	IC5	1	B053867
2	SM-2540C	08/20/19 16:00	08/20/19 16:00		CAD	MANUAL	3.333	B054774
3	EPA-350.1	08/31/19 14:15	09/03/19 13:52		JMH	SC-2	1	B055907

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927202-02	Client Sample Name: Longfellow Farming Co., LON-MW3B, 8/14/2019 2:45:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 06:10	SAV	IC5	1	B053867
2	SM-2540C	08/20/19 16:00	08/20/19 16:00	CAD	MANUAL	5	B054774
3	EPA-350.1	08/31/19 14:15	09/03/19 13:57	JMH	SC-2	1	B055907

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927202-03	Client Sample Name: Longfellow Farming Co., LON-MW4C, 8/14/2019 1:55:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 06:28		SAV	IC5	5	B053867
2	SM-2540C	08/20/19 16:00	08/20/19 16:00		CAD	MANUAL	10	B054774
3	EPA-350.1	08/31/19 14:15	09/03/19 13:57		JMH	SC-2	1	B055907

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053867						
Nitrate as N	B053867-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054774						
Total Dissolved Solids @ 180 C	B054774-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055907						
Ammonia as N	B055907-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053867										
Nitrate as N	B053867-BS1	LCS	5.0240	5.0000	mg/L	100		90 - 110		
QC Batch ID: B054774										
Total Dissolved Solids @ 180 C	B054774-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B055907										
Ammonia as N	B055907-BS1	LCS	2.0029	2.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053867		Used client sample: N								
Nitrate as N	DUP	1927099-01	11.092	11.090		mg/L	0.0		10	
	MS	1927099-01	11.092	16.228	5.0505	mg/L		102		80 - 120
	MSD	1927099-01	11.092	16.226	5.0505	mg/L	0.0	102	10	80 - 120
QC Batch ID: B054774		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927152-02	1105.0	1100.0		mg/L	0.5		10	
QC Batch ID: B055907		Used client sample: Y - Description: LON-MW1C, 08/14/2019 15:40								
Ammonia as N	DUP	1927202-01	ND	ND		mg/L			10	
	MS	1927202-01	ND	2.1613	2.2222	mg/L		97.3		90 - 110
	MSD	1927202-01	ND	2.2452	2.2222	mg/L	3.8	101	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming Co.
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 09/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Manuel and Alda Lawrence Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1927195
Invoice ID: B353479

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927195

Samples were filtered through a 0.45 micron prior to analysis.

Sample # 1927195-08 was re-analyzed past holding time to confirm nitrate result that was over calibration range, recheck result is consistent.



BC Laboratories, Inc. 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody				
Report to: 19-27195 Reduced Constituent Suite						
Name: Luhdorff and Scalmani Address: 1500 First Street City: Woodland State: 95695 CA Atrn: Till Angermann		Analysis Requested From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids				
Project: Dairy Representative Monitoring Program Site: Manuel and Aida Lawrence Dairy Samplers Name: Global ID - WDR10003911B						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Oil Pe Unpreserved	Other
1	MAL-MW1	08/15/19	0925	W	x	
2	MAL-MW2	08/15/19	0850	W	x	
3	MAL-MW3	08/15/19	1050	W	x	
4	MAL-MW4	08/15/19	1005	W	x	
5	MAL-MW5	08/15/19	0830	W	x	
6	MAL-MW6	08/15/19	0745	W	x	
7	MAL-MW7	08/15/19	0810	W	x	
8	MAL-MW8	08/15/19	0730	W	x	
9	Field Duplicate					
10						
11						
12						

CHK BY: DISTRIBUTION
 [Signature]

SHOBT HOLDING TIME
 Cr+6 NO3 OP SS
 DO CH BOD MBAS COT

Relinquished by: (Signature) [Signature]	Date & Time 1230
Relinquished by: (Signature) [Signature]	Date & Time 8/15/19
Relinquished by: (Signature) [Signature]	Date & Time 8/15/19 22:15

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llavagnino@lscs.com, rbryson@lscs.com, pdtrialwell@lscs.com, jlvelis@lscs.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lscs.com).
 (A)= Analysis (C)= Container (P)= Preservative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1
 Submission #: 1927195

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____
 SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____
 FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____
 Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/15 2215
 Temperature: (A) 3.2 °C / (C) 3.9 °C Analyst Init: EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B	B		
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8050										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GSR Date/Time: 8/15/2015
 A = Actual / C = Corrected Rev 21 05/23/2016 (S:\WPDoc\WordPerfect\LAB_DOC\FORMS\SAMRECov 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1927195-01	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 09:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW1	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-02	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 08:50
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW2	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-03	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 10:50
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW3	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-04	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 10:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW4	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-05	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 08:30
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW5	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-06	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 07:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW6	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		
1927195-07	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 08/15/2019 08:10
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW7	Lab Matrix: Water
	Sampled By:	BTST	Sample Type: Water
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927195-08	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date:	08/15/2019 07:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MAL-MW8	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-01	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW1, 8/15/2019 9:25:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 18:51		CMM	IC8	5	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:41		JMH	SC-2	1	B055906

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-02	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW2, 8/15/2019 8:50:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	170	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.079	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 19:12		CMM	IC8	10	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:43		JMH	SC-2	1	B055906

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500 First Street
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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-03	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW3, 8/15/2019 10:50:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5000	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	0.44	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 03:45		SAV	IC8	5	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	50	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:44		JMH	SC-2	1	B055906

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-04	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW4, 8/15/2019 10:05:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.0	mg/L	0.10	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 04:05		SAV	IC8	1	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:45		JMH	SC-2	1	B055906

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-05	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW5, 8/15/2019 8:30:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	330	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5500	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	0.23	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 20:13		CMM	IC8	20	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	50	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:46		JMH	SC-2	1	B055906

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-06	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW6, 8/15/2019 7:45:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	76	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 04:26		SAV	IC8	5	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:46		JMH	SC-2	1	B055906

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-07	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW7, 8/15/2019 8:10:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	73	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 04:46		SAV	IC8	5	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:48		JMH	SC-2	1	B055906

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927195-08	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW8, 8/15/2019 7:30:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	67	mg/L	0.20	0.084	EPA-300.0	ND	A07,S01,Z1	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.082	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 21:15		CMM	IC8	2	B053864
2	SM-2540C	08/21/19 15:30	08/21/19 15:30		CAD	MANUAL	10	B054869
3	EPA-350.1	08/31/19 14:15	09/03/19 13:48		JMH	SC-2	1	B055906

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053864						
Nitrate as N	B053864-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054869						
Total Dissolved Solids @ 180 C	B054869-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055906						
Ammonia as N	B055906-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053864										
Nitrate as N	B053864-BS1	LCS	5.0280	5.0000	mg/L	101		90 - 110		
QC Batch ID: B054869										
Total Dissolved Solids @ 180 C	B054869-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B055906										
Ammonia as N	B055906-BS1	LCS	1.8612	2.0000	mg/L	93.1		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: B053864		Used client sample: N								
Nitrate as N	DUP	1927122-01	8.2630	8.3680		mg/L	1.3		10	
	MS	1927122-01	8.2630	13.552	5.0505	mg/L		105	80 - 120	
	MSD	1927122-01	8.2630	13.535	5.0505	mg/L	0.1	104	10	80 - 120
QC Batch ID: B054869		Used client sample: Y - Description: MAL-MW1, 08/15/2019 09:25								
Total Dissolved Solids @ 180 C	DUP	1927195-01	1520.0	1540.0		mg/L	1.3		10	
QC Batch ID: B055906		Used client sample: N								
Ammonia as N	DUP	1927193-06	ND	ND		mg/L			10	
	MS	1927193-06	ND	2.1981	2.2222	mg/L		98.9	90 - 110	
	MSD	1927193-06	ND	2.2886	2.2222	mg/L	4.0	103	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S01 Sample result is not within the quantitation range of the method.
- Z1 Sample was re-analyzed to confirm result , recheck result was consistent.



Date of Report: 09/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Maple Avenue Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927204

Invoice ID: B353482

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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1927204-01 - MAP-MW10

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Case Narratives

Case Narrative for Work Order 1927204

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 19-27204 Report to:		Chain of Custody 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911	
Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Maple Avenue Dairy Samplers Name: Global ID - WDR100038510		Analysis Requested From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Attn: Till Angermann	Date Sampled: 8/14/15 Time Sampled: 15:15 Matrix: ~ Date & Time: 8/15/15	Date & Time: 8/15/15 Date & Time: 8/15/15 Date & Time: 8/15/15	Received By: [Signature] Received By: [Signature] Received By: [Signature]
Lab # 1: MAP-MW8 (P) Lab # 2: MAP-MW9 (P) Lab # 3: MAP-MW10 -1 Lab # 4: Field Duplicate (P)	Strike out non-sampled wells Date Sampled Time Sampled Matrix Date & Time	OI, Pe Unpreserved x x x x	SHORT HOLDING TIME Cr+6 NO2 NH3 OP SS DO O2 BOB MBAS OOT CHK BY [Signature] DISTRIBUTION [Signature] SUB OUT []
Comments: 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CcC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lavagnino@isce.com , rtyson@isce.com , pchalivrel@isce.com , jlovelis@isce.com 4) Send invoices to Jeanette Lovelis (jlovelis@isce.com).		Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	Relinquished by: (Signature) Relinquished by: (Signature)
(A)= Analysis (C)= Container (P)= Preservative			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27204

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.98. Container: 15. Thermometer ID: 208. Date/Time: 8/15/2015. Temperature: (A) 0.9 °C / (C) 1.6 °C. Analyst Init: EML

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various container types like QT PE UNPRES, PT CYANIDE, etc.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 8-15-19 2310. Rev 21 05/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927204-01	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Maple Valley Dairy	Sampling Date:	08/14/2019 15:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MAP-MW10	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927204-01	Client Sample Name: Maple Valley Dairy, MAP-MW10, 8/14/2019 3:15:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	870	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.067	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 07:04	SAV	IC5	5	B053867
2	SM-2540C	08/20/19 16:00	08/20/19 16:00	CAD	MANUAL	5	B054775
3	EPA-350.1	08/31/19 14:15	09/03/19 13:59	JMH	SC-2	1	B055907

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053867						
Nitrate as N	B053867-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054775						
Total Dissolved Solids @ 180 C	B054775-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055907						
Ammonia as N	B055907-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053867										
Nitrate as N	B053867-BS1	LCS	5.0240	5.0000	mg/L	100		90 - 110		
QC Batch ID: B054775										
Total Dissolved Solids @ 180 C	B054775-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B055907										
Ammonia as N	B055907-BS1	LCS	2.0029	2.0000	mg/L	100		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053867		Used client sample: N								
Nitrate as N	DUP	1927099-01	11.092	11.090		mg/L	0.0		10	
	MS	1927099-01	11.092	16.228	5.0505	mg/L		102		80 - 120
	MSD	1927099-01	11.092	16.226	5.0505	mg/L	0.0	102	10	80 - 120
QC Batch ID: B054775		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927190-02	1820.0	1800.0		mg/L	1.1		10	
QC Batch ID: B055907		Used client sample: N								
Ammonia as N	DUP	1927202-01	ND	ND		mg/L			10	
	MS	1927202-01	ND	2.1613	2.2222	mg/L		97.3		90 - 110
	MSD	1927202-01	ND	2.2452	2.2222	mg/L	3.8	101	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 08/23/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Richmar Farms Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926744

Invoice ID: B352037

Enclosed are the results of analyses for samples received by the laboratory on 8/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926744

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luthdorff and Scalmanini		Reduced Constituent Suite			
Address: 500 First Street		Project: Daily Representative Monitoring Program			
City: Woodland		Site: Richmar Farms Dairy			
State: 95695		Samplers Name: RG / DB			
Attn: Till Angermann		Global ID - WDR100038761			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved
- 1	RIC-MW1, RIC-MW2	8/21/19	1640	W	x
- 2	RIC-MW3, RIC-MW4	8/21/19	1455	W	x
- 3	RIC-MW5, RIC-MW6	8/22/19	1610	W	x
- 4	RIC-MW7s, RIC-MW7d	8/22/19	1703	W	x
- 5	RIC-MW8s, RIC-MW8d	8/22/19	1355	W	x
- 6	RIC-MW9s, RIC-MW9d	8/22/19	1735	W	x
7	Field Duplicate				
8					
9					
10					
11					
12					
13					
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids					
SHORT FLOWING TIME Cr+8 NO2 NO3 OP SS DO CH2 PO MBAS COT					
CHK BY: [Signature] DISTRIBUTION [Signature] SUS OUT []					
Relinquished by: (Signature) [Signature]				Date & Time 8/18/19	
Relinquished by: (Signature) [Signature]				Date & Time 10/12	
Relinquished by: (Signature) [Signature]				Date & Time 8.13.19 11.51	
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthdorff and Scalmanini Consulting Engineers via email: llavegnino@lisce.com, rlryson@lisce.com, pdhallival@lisce.com, jlavelles@lisce.com 4) Send invoices to Jeanette Lovells (jlovells@lisce.com).					
(A)= Analysis (C)= Container (P)= Preservative					

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BC LABORATORIES INC. COOLER RECEIPT FORM Page Of

Submission #: 19-26744

SHIPPING INFORMATION
Fed Ex [] UPS [] Ontrac [] Hand Delivery [x]
BC Lab Field Service [] Other [] (Specify) _____

SHIPPING CONTAINER
Ice Chest [x] None [] Box []
Other [] (Specify) _____

FREE LIQUID
YES [] NO []
W / S

Refrigerant: Ice [x] Blue Ice [] None [] Other [] Comments:

Custody Seals Ice Chest [] Containers [] None [] Comments:
Intact? Yes [] No [] Intact? Yes [] No []

All samples received? Yes [x] No [] All samples containers intact? Yes [x] No [] Description(s) match COC? Yes [x] No []

COC Received YES [x] NO []
Emissivity: 95 Container: PPE Thermometer ID: 274 Date/Time: 8-13-19 11:51
Temperature: (A) 0.0 C (C) 0.0 C Analyst Init: [Signature]

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, PT CYANIDE, etc.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 8-13-19 1923 Rev 21
A = Actual / C = Corrected

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1926744-01	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 16:40
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW1		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water
1926744-02	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 14:55
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW4		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water
1926744-03	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 16:10
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW5		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water
1926744-04	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 17:03
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW7s		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water
1926744-05	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 13:55
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW8s		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water
1926744-06	COC Number:	---		08/13/2019 11:51	
	Project Number:	Richmar Farms Dairy		Sampling Date:	08/12/2019 17:35
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	RIC-MW9s		Lab Matrix:	Water
	Sampled By:	RG/ DB of BTST		Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-01	Client Sample Name: Richmar Farms Dairy, RIC-MW1, 8/12/2019 4:40:00PM, RG/ DB
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.23	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 09:14	SAV	IC2	1	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00	CAD	MANUAL	5	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 01:55	EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-02	Client Sample Name: Richmar Farms Dairy, RIC-MW4, 8/12/2019 2:55:00PM, RG/ DB
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.8	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.87	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 09:34		SAV	IC2	1	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00		CAD	MANUAL	10	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 01:57		EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-03	Client Sample Name: Richmar Farms Dairy, RIC-MW5, 8/12/2019 4:10:00PM, RG/ DB
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.80	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	250	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 00:34		SAV	IC2	1	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00		CAD	MANUAL	2	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 01:57		EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-04	Client Sample Name: Richmar Farms Dairy, RIC-MW7s, 8/12/2019 5:03:00PM, RG/ DB
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.084	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 09:55	SAV	IC2	1	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00	CAD	MANUAL	10	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 01:59	EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-05	Client Sample Name: Richmar Farms Dairy, RIC-MW8s, 8/12/2019 1:55:00PM, RG/ DB
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	720	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 01:15		SAV	IC2	1	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00		CAD	MANUAL	5	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 01:59		EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926744-06	Client Sample Name: Richmar Farms Dairy, RIC-MW9s, 8/12/2019 5:35:00PM, RG/ DB
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	960	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/13/19 18:00	08/14/19 10:16		SAV	IC2	5	B053517
2	SM-2540C	08/15/19 14:00	08/15/19 14:00		CAD	MANUAL	5	B053665
3	EPA-350.1	08/21/19 17:30	08/23/19 02:00		EMM	SC-1	1	B054947

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053517						
Nitrate as N	B053517-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053665						
Total Dissolved Solids @ 180 C	B053665-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B054947						
Ammonia as N	B054947-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053517										
Nitrate as N	B053517-BS1	LCS	4.9810	5.0000	mg/L	99.6		90 - 110		
QC Batch ID: B053665										
Total Dissolved Solids @ 180 C	B053665-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B054947										
Ammonia as N	B054947-BS1	LCS	2.0040	2.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B053517		Used client sample: N									
Nitrate as N	DUP	1926688-01	ND	ND		mg/L			10		
	MS	1926688-01	ND	4.8737	5.0505	mg/L		96.5		80 - 120	
	MSD	1926688-01	ND	4.9364	5.0505	mg/L	1.3	97.7	10	80 - 120	
QC Batch ID: B053665		Used client sample: Y - Description: RIC-MW1, 08/12/2019 16:40									
Total Dissolved Solids @ 180 C	DUP	1926744-01	1160.0	1155.0		mg/L	0.4		10		
QC Batch ID: B054947		Used client sample: N									
Ammonia as N	DUP	1925638-02	0.20890	0.19510		mg/L	6.8		10		J
	MS	1925638-02	0.20890	2.6107	2.2222	mg/L		108		90 - 110	
	MSD	1925638-02	0.20890	2.7067	2.2222	mg/L	3.6	112	10	90 - 110	Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/23/2019 16:55
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 08/27/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Sierra View Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1926899
Invoice ID: B352276

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926899

Samples were filterethrough a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Sierra View Dairy Samplers Name: Global ID - WDR100038780		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann	Date Sampled 08/13/19 08/13/19 Field-Duplicate	Time Sampled 1755 1730	Matrix W W
Lab # 1 2 3 4 5 6 7 8 9 10	Strike out non-sampled wells SIE-MW1 -1 SIE-MW2 SIE-MW3 -2 SIE-MW4 Field-Duplicate	Q1 Pe Unpreserved x x x x x x x x x	DISTRIBUTION CHK [initials] SUB OUT [initials] SHORT HOLDING TIME NO. (NO) OP SS LTO C ₂ BOD MBAS COT
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pthaiwal@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).		Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	Received by: [Signature] Date & Time: 8/14/19 12:10 Received by: [Signature] Date & Time: 8-14-19 1350 Received by: [Signature] Date & Time: 8-14-19 13:50
(A)= Analysis (C)= Container (P)= Preservative			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1926899

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Intact? Yes No Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 97 Container: pipe Thermometer ID: 274 Date/Time: 8/14/19

Temperature: (A) 0-0 °C (C) 0-0 °C Analyst Initials: JS 13:50

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSP Date/Time: 8/14 1736

A = Actual / C = Corrected

Rev 21 06/23/2016
IS:\WP\Dept\Word\Perfect\LAB_BOCS\FORMS\GAMREC.rtf 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926899-01	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Sierra View Dairy	Sampling Date:	08/13/2019 17:55
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SIE-MW1	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water
1926899-02	COC Number:	---	Receive Date:	08/14/2019 13:50
	Project Number:	Sierra View Dairy	Sampling Date:	08/13/2019 17:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SIE-MW3	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926899-01	Client Sample Name: Sierra View Dairy, SIE-MW1, 8/13/2019 5:55:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	480	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 02:55		SAV	IC8	2	B053693
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	2	B053977
3	EPA-350.1	08/22/19 14:15	08/23/19 12:36		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926899-02	Client Sample Name: Sierra View Dairy, SIE-MW3, 8/13/2019 5:30:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	410	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 20:00	08/15/19 03:15		SAV	IC8	2	B053693
2	SM-2540C	08/19/19 12:45	08/19/19 12:45		CAD	MANUAL	2	B053977
3	EPA-350.1	08/22/19 14:15	08/23/19 12:38		JMH	SC-1	1	B055052

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053693						
Nitrate as N	B053693-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053977						
Total Dissolved Solids @ 180 C	B053977-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055052						
Ammonia as N	B055052-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053693										
Nitrate as N	B053693-BS1	LCS	5.1950	5.0000	mg/L	104		90 - 110		
QC Batch ID: B053977										
Total Dissolved Solids @ 180 C	B053977-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B055052										
Ammonia as N	B055052-BS1	LCS	2.0753	2.0000	mg/L	104		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053693		Used client sample: N								
Nitrate as N	DUP	1926888-01	ND	ND		mg/L			10	
	MS	1926888-01	ND	5.2556	5.0505	mg/L		104		80 - 120
	MSD	1926888-01	ND	5.2697	5.0505	mg/L	0.3	104	10	80 - 120
QC Batch ID: B053977		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926903-04	950.00	930.00		mg/L	2.1		10	
QC Batch ID: B055052		Used client sample: N								
Ammonia as N	DUP	1926765-11	ND	ND		mg/L			10	
	MS	1926765-11	ND	2.5001	2.2222	mg/L		113		90 - 110 Q03
	MSD	1926765-11	ND	2.5254	2.2222	mg/L	1.0	114	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/27/2019 9:53
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

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Date of Report: 09/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Zonneveld Dairy Complex

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927203

Invoice ID: B353481

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927203

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 19-27203 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			
Analysis Requested			
Name: Luldorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Zonneveld Dairy Complex Samplers Name: Global ID - WDR100038511	
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab # 1 2 3 4 5 6 7 8 9 10	Strike out non-sampled wells ZON-MW1A, ZON-MW1B (C) ZON-MW2A, ZON-MW2B (C) ZON-MW3A, ZON-MW3B (C) ZON-MW4A, ZON-MW4B (C) ZON-MW5A, ZON-MW5B (C) ZON-MW7 (C) Field Duplicate (C)	Date Sampled 8/15/19 1705	Time Sampled 1705
		Matrix W	Qt Pe Unpreserved x x x x x x x
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luldorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pohnalwell@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).		SHORT HOLDING TIME Cr+5 NO3 OP SS DO Cl2 BOD MBAS GOT CHK BY: [Signature] DISTRIBUTION SUB OUT	
Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)		Received By: [Signature] Date & Time 8/15/19 1400 Received by: [Signature] Date & Time 8/15/19 1725 Received By: [Signature] Date & Time 8/15/19 2215	
(A)= Analysis (C)= Container (P)= Preservative			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1
Submission #: 19-27203

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____
SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____
FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____
Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO
Emissivity: 0.98 Container: 15 Thermometer ID: 208 Date/Time: 8/15/2015
Temperature: (A) 0.9 °C / (C) 1.6 °C Analyst Init: EAL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 502018/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
Sample Numbering Completed By: GMR Date/Time: 8-15-19 2310 Rev 21 05/23/2016
= Actual / C = Corrected (S:\WPDec\Word\PolSci\LAB DECISION\MS\SAMREC.docx 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927203-01	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Zonneveld Dairy Complex	Sampling Date:	08/14/2019 17:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	ZON-MW3B	Lab Matrix:	Water
	Sampled By:	BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927203-01	Client Sample Name: Zonneveld Dairy Complex, ZON-MW3B, 8/14/2019 5:05:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	780	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 06:46		SAV	IC5	5	B053867
2	SM-2540C	08/20/19 16:00	08/20/19 16:00		CAD	MANUAL	3.333	B054774
3	EPA-350.1	08/31/19 14:15	09/03/19 13:59		JMH	SC-2	1	B055907

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053867						
Nitrate as N	B053867-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054774						
Total Dissolved Solids @ 180 C	B054774-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055907						
Ammonia as N	B055907-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053867										
Nitrate as N	B053867-BS1	LCS	5.0240	5.0000	mg/L	100		90 - 110		
QC Batch ID: B054774										
Total Dissolved Solids @ 180 C	B054774-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B055907										
Ammonia as N	B055907-BS1	LCS	2.0029	2.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053867		Used client sample: N								
Nitrate as N	DUP	1927099-01	11.092	11.090		mg/L	0.0		10	
	MS	1927099-01	11.092	16.228	5.0505	mg/L		102		80 - 120
	MSD	1927099-01	11.092	16.226	5.0505	mg/L	0.0	102	10	80 - 120
QC Batch ID: B054774		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927152-02	1105.0	1100.0		mg/L	0.5		10	
QC Batch ID: B055907		Used client sample: N								
Ammonia as N	DUP	1927202-01	ND	ND		mg/L			10	
	MS	1927202-01	ND	2.1613	2.2222	mg/L		97.3		90 - 110
	MSD	1927202-01	ND	2.2452	2.2222	mg/L	3.8	101	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:07
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

Central Area



Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Albert Mendes Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926941

Invoice ID: B352891

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Quality Control Reports

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Case Narratives

Case Narrative for Work Order 1926941

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested			
Report to: Reduced Constituent Suite		From Filtered Sample:			
Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids			
Site: Albert Mendes Dairy 30 2019					
Samplers Name: Del Tech - Seely Light					
Global ID - GADDAIRY00001					
Name: Lufdorff and Scalmanini					
Address: 500 First Street					
City: Woodland					
State: 95695					
Att: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pp Unpreserved
1	MEN-MW1s, MEN-MW1s	8-14-19	13:32	GW	x
2	MEN-MW2s, MEN-MW2s		13:59		x
3	MEN-MW3s, MEN-MW3s		15:49		x
4	MEN-MW4s, MEN-MW4s		16:20		x
5	MEN-MW5s, MEN-MW5s		16:45		x
6	MEN-MW6s, MEN-MW6s		14:25		x
7	MEN-MW7s, MEN-MW7s		14:55		x
8	MEN-MW8s, MEN-MW8s		15:20		x
9	Field Duplicate # 7		0/A		x
10					
11					
12					

CHECKED BY: MA DISTRIBUTION
 SUB OUT:

SHORT HOLDING TIME
 G-18 NO₂ NO₃ OP SS
 DO BOD MBAS COT

Received By: <u>ASB</u>	Date & Time: 8/14/19 17:30
Received by: <u>Gardner</u>	Date & Time: 8/14/19 2:00
Received By:	Date & Time:

Relinquished by: (Signature) Seely Light 8/14/19 17:30

Relinquished by: (Signature) ASB

Relinquished by: (Signature)

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lufdorff and Scalmanini Consulting Engineers via email: lvasgrino@lsce.com, trayson@lsce.com, pjhathiel@lsce.com, jlovelis@lsce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26941

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S _____
---	--	---	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/14 2200

Temperature: (A) 1.1 °C / (C) 1.8 °C Analyst Init: GML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/08/0080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GML Date/Time: 8/14 2238

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926941-01	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 13:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-02	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 13:59
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-03	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 15:49
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-04	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 16:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-05	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 16:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-06	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 14:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1926941-07	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date: 08/14/2019 14:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MEN-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926941-08	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	08/14/2019 15:20
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1926941-09	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	08/14/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #7	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-01	Client Sample Name: Albert Mendes Dairy, MEN-MW1s, 8/14/2019 1:32:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	84	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4000	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	2.4	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 22:43		CMM	IC5	5	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	20	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:16		JMH	SC-2	1	B055569

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500 First Street
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Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-02	Client Sample Name: Albert Mendes Dairy, MEN-MW2s, 8/14/2019 1:59:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3100	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	2.5	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 23:01		CMM	IC5	5	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	20	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:19		JMH	SC-2	1	B055569

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-03	Client Sample Name: Albert Mendes Dairy, MEN-MW3s, 8/14/2019 3:49:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	96	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.22	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 23:19	CMM	IC5	10	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:21	JMH	SC-2	1	B055569

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-04	Client Sample Name: Albert Mendes Dairy, MEN-MW4s, 8/14/2019 4:20:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.16	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 23:37		CMM	IC5	10	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:23		JMH	SC-2	1	B055569

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500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-05	Client Sample Name: Albert Mendes Dairy, MEN-MW5s, 8/14/2019 4:45:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 23:55	SAV	IC5	5	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:24	JMH	SC-2	1	B055569

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Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-06	Client Sample Name: Albert Mendes Dairy, MEN-MW6s, 8/14/2019 2:25:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.2	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.69	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 01:24	SAV	IC5	2	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:25	JMH	SC-2	1	B055569

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-07	Client Sample Name: Albert Mendes Dairy, MEN-MW7s, 8/14/2019 2:55:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	74	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 01:42	SAV	IC5	5	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:26	JMH	SC-2	1	B055569

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-08	Client Sample Name: Albert Mendes Dairy, MEN-MW8s, 8/14/2019 3:20:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	22	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 02:00		SAV	IC5	2	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	10	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:27		JMH	SC-2	1	B055569

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926941-09	Client Sample Name: Albert Mendes Dairy, Field Duplicate #7, 8/14/2019 12:00:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	82	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3900	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	2.2	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 17:00	08/16/19 10:39	SAV	IC5	5	B053751
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	20	B053896
3	EPA-350.1	08/28/19 13:00	08/29/19 09:28	JMH	SC-2	1	B055569

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053751						
Nitrate as N	B053751-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053896						
Total Dissolved Solids @ 180 C	B053896-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055569						
Ammonia as N	B055569-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053751										
Nitrate as N	B053751-BS1	LCS	5.0100	5.0000	mg/L	100		90 - 110		
QC Batch ID: B053896										
Total Dissolved Solids @ 180 C	B053896-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B055569										
Ammonia as N	B055569-BS1	LCS	2.0558	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053751		Used client sample: Y - Description: MEN-MW1s, 08/14/2019 13:32								
Nitrate as N	DUP	1926941-01	83.960	84.410		mg/L	0.5		10	
	MS	1926941-01	83.960	108.58	25.253	mg/L		97.5		80 - 120
	MSD	1926941-01	83.960	108.64	25.253	mg/L	0.1	97.7	10	80 - 120
QC Batch ID: B053896		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926908-01	34500	34900		mg/L	1.2		10	
QC Batch ID: B055569		Used client sample: Y - Description: MEN-MW1s, 08/14/2019 13:32								
Ammonia as N	DUP	1926941-01	2.3650	2.3406		mg/L	1.0		10	
	MS	1926941-01	2.3650	4.6978	2.2222	mg/L		105		90 - 110
	MSD	1926941-01	2.3650	4.6828	2.2222	mg/L	0.3	104	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Anchor J. Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927306

Invoice ID: B353695

Enclosed are the results of analyses for samples received by the laboratory on 8/16/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927306

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Report to:				Analysis Requested				Chain of Custody			
Name: Luidorff and Scalmanini				Reduced Constituent Suite				From Filtered Sample:							
Address: 500 First Street				Project: Dairy Representative Monitoring Program				Ammonia-N, NO3-N, Total Dissolved Solids							
City: Woodland				Site: Anchor J. Dairy 302019											
State: 95695				Samples Name: Del Tech Stacy Light											
Attn: Till Angermann				Global ID - GADAIRY00002											
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl Pe Unpreserved										
1	ANC-MW1	8/16/19	9:55	GLW	x										
2	ANC-MW2		9:32		x										
3	ANC-MW3		8:58		x										
4	ANC-MW4		10:32		x										
5	ANC-MW5s, ANC-MW5d		11:03		x										
6	ANC-MW6s, ANC-MW6d		8:35		x										
7	ANC-MW7s, ANC-MW7d		8:08		x										
8	Field Duplicate # 6		7:14	SS	x										
9															
10															
11															
12															
Comments:				Relinquished by: (Signature)				Received By: (Signature)				Date & Time			
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.				Jae [Signature] 8/16/19				Jae [Signature]				8/16/19 12:16			
2) Lab reports shall identify sampled wells exactly as shown on this CoC.				Relinquished by: (Signature)				Received by: (Signature)				Date & Time			
3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: lsc@luidorff.com, rbyson@luidorff.com, pdhalwal@luidorff.com.				[Signature]				Curtis [Signature]				8/16/19 18:50			
4) Send invoices to Jeannette Lovells (jlovells@luidorff.com).				Relinquished by: (Signature)				Received By: (Signature)				Date & Time			
(A)= Analysis (C)= Container (P)= Preservative															

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1927306

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service, Other

SHIPPING CONTAINER: Ice Chest, None, Box, Other

FREE LIQUID: YES, NO, W/S

Refrigerant: Ice, Blue Ice, None, Other

Custody Seals: Ice Chest, Containers, None

All samples received? All samples containers intact? Description(s) match COC?

COC Received: YES, NO

Emissivity, Container, Thermometer ID, Date/Time, Temperature, Analyst Init

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc.

Comments: Sample Numbering Completed By: GISP Date/Time: 8/15/1841



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1927306-01	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 09:55
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW1		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-02	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 09:32
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW2		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-03	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 08:58
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW3		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-04	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 10:32
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW4		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-05	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 11:03
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW5s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-06	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 08:35
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW6s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927306-07	COC Number:	---		08/16/2019 18:00	
	Project Number:	Anchor J. Dairy		Sampling Date:	08/16/2019 08:08
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	ANC-MW7s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927306-08	COC Number:	---	Receive Date:	08/16/2019 18:00
	Project Number:	Anchor J. Dairy	Sampling Date:	08/16/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #6	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-01	Client Sample Name: Anchor J. Dairy, ANC-MW1, 8/16/2019 9:55:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.54	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.080	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 05:31		SAV	IC1	1	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	10	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:41		JMH	SC-2	1	B056153

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-02	Client Sample Name: Anchor J. Dairy, ANC-MW2, 8/16/2019 9:32:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.16	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 07:37		SAV	IC1	5	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	10	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:42		JMH	SC-2	1	B056153

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-03	Client Sample Name: Anchor J. Dairy, ANC-MW3, 8/16/2019 8:58:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	760	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 07:58		SAV	IC1	5	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	5	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:46		JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-04	Client Sample Name: Anchor J. Dairy, ANC-MW4, 8/16/2019 10:32:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 08:19		SAV	IC1	5	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	5	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:50		JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-05	Client Sample Name: Anchor J. Dairy, ANC-MW5s, 8/16/2019 11:03:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 08:40		SAV	IC1	2	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	10	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:51		JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-06	Client Sample Name: Anchor J. Dairy, ANC-MW6s, 8/16/2019 8:35:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	56	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.083	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 09:01		SAV	IC1	5	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	5	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:52		JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-07	Client Sample Name: Anchor J. Dairy, ANC-MW7s, 8/16/2019 8:08:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 09:22		SAV	IC1	2	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00		CAD	MANUAL	5	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:53		JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927306-08	Client Sample Name: Anchor J. Dairy, Field Duplicate #6, 8/16/2019 12:00:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 09:43	SAV	IC1	2	B053945
2	SM-2540C	08/22/19 13:00	08/22/19 13:00	CAD	MANUAL	5	B054993
3	EPA-350.1	09/04/19 16:15	09/05/19 15:53	JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053945						
Nitrate as N	B053945-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054993						
Total Dissolved Solids @ 180 C	B054993-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056153						
Ammonia as N	B056153-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B056154						
Ammonia as N	B056154-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053945										
Nitrate as N	B053945-BS1	LCS	5.2440	5.0000	mg/L	105		90 - 110		
QC Batch ID: B054993										
Total Dissolved Solids @ 180 C	B054993-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B056153										
Ammonia as N	B056153-BS1	LCS	2.0824	2.0000	mg/L	104		90 - 110		
QC Batch ID: B056154										
Ammonia as N	B056154-BS1	LCS	2.1495	2.0000	mg/L	107		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053945		Used client sample: Y - Description: ANC-MW1, 08/16/2019 09:55								
Nitrate as N	DUP	1927306-01	0.53500	0.53300		mg/L	0.4		10	
	MS	1927306-01	0.53500	6.2273	5.0505	mg/L		113		80 - 120
	MSD	1927306-01	0.53500	6.3960	5.0505	mg/L	2.7	116	10	80 - 120
QC Batch ID: B054993		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927318-01	27800	27900		mg/L	0.4		10	
QC Batch ID: B056153		Used client sample: N								
Ammonia as N	DUP	1929502-01	ND	ND		mg/L			10	
	MS	1929502-01	ND	2.3161	2.2222	mg/L		104		90 - 110
	MSD	1929502-01	ND	2.2573	2.2222	mg/L	2.6	102	10	90 - 110
QC Batch ID: B056154		Used client sample: Y - Description: ANC-MW3, 08/16/2019 08:58								
Ammonia as N	DUP	1927306-03	ND	ND		mg/L			10	
	MS	1927306-03	ND	2.4244	2.2222	mg/L		109		90 - 110
	MSD	1927306-03	ND	2.3116	2.2222	mg/L	4.8	104	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 11:33
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Bettencourt & Marson Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1927307
Invoice ID: B353783

Enclosed are the results of analyses for samples received by the laboratory on 8/16/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927307

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
Report to:				Analysis Requested			
Name: Luthdorff and Scalmanini				4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Address: 500 First Street				From Filtered Sample:			
City: Woodland				Ammonia-N, NO3-N, Total Dissolved Solids			
State: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Bettencourt & Marson Dairy							
Samplers Name: DETECH ASINCY POTRAM							
Global ID - GADAIRY00003							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl/Ps Unpreserved		
1	BET-MW1s, BET-MW1d	8/19	9:20	GW	x		
2	BET-MW2s, BET-MW2d		9:09		x		
3	BET-MW3s, BET-MW3d		8:30		x		
4	BET-MW4s, BET-MW4d		9:54		x		
5	BET-MW5s, BET-MW5d		10:20		x		
6	BET-MW6s, BET-MW6d		11:09		x		
7	BET-MW7s, BET-MW7d		10:43		x		
8	BET-MW8s, BET-MW8d		11:57		x		
9	Field duplicate						
10							
11							
12							
Comments:				Requisitioned by: (Signature) <i>Johly Bottom</i> 8/10/19 / 12:16 Date & Time: 8/16/19 12:16 Relinquished by: (Signature) <i>Johly Bottom</i> Date & Time: 8/16/19 1800 Relinquished by: (Signature) <i>Johly Bottom</i> Date & Time: 8/16/19 1800			
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.							
2) Lab reports shall identify sampled wells exactly as shown on this CoC.							
3) Send lab reports to Luthdorff and Scalmanini Consulting Engineers via email: lvavagnino@lscce.com , rhoyson@lscce.com , pdhainwal@lscce.com .							
4) Send invoices to Jeanette Lovells (jlovelis@lscce.com).							
(A)= Analysis				(C)= Container			
				(P)= Preservative			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-21351

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
---	--	---	--	---	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time 8/16/2000
 Temperature: (A) 0.1 °C / (C) 0.8 °C Analyst Init EdR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/008/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 301SM										
QT EPA 8370										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GSP Date/Time: 8/16/2000 Rev 21 05/23/2016
 A = Actual / C = Corrected B:\NFD\test\Work\PerfectLAB_DOC\FORMS\SAMRECrev 206



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1927307-01	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 09:26
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-02	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 09:09
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW2s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-03	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 08:36
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-04	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 09:54
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW4s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-05	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 10:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-06	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 11:09
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW6s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1927307-07	COC Number:	---	Receive Date: 08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 08/16/2019 10:43
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW7s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927307-08	COC Number:	---	Receive Date:	08/16/2019 18:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date:	08/16/2019 11:37
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BET-MW8s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-01	Client Sample Name: Bettencourt & Marson Dairy, BET-MW1s, 8/16/2019 9:26:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	140	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 10:46	SAV	IC1	10	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	5	B054994
3	EPA-350.1	09/04/19 16:15	09/05/19 15:54	JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-02	Client Sample Name: Bettencourt & Marson Dairy, BET-MW2s, 8/16/2019 9:09:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	29	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 11:07	SAV	IC1	2	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	5	B054994
3	EPA-350.1	09/04/19 16:15	09/05/19 15:57	JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-03	Client Sample Name: Bettencourt & Marson Dairy, BET-MW3s, 8/16/2019 8:36:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 11:28	SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	5	B054994
3	EPA-350.1	09/04/19 16:15	09/05/19 15:58	JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-04	Client Sample Name: Bettencourt & Marson Dairy, BET-MW4s, 8/16/2019 9:54:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3500	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	1.1	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 11:49	SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	20	B054994
3	EPA-350.1	09/04/19 16:15	09/05/19 15:59	JMH	SC-2	1	B056154

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-05	Client Sample Name: Bettencourt & Marson Dairy, BET-MW5s, 8/16/2019 10:20:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	41	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	530	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	0.068	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 12:10	SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	3.333	B054994
3	EPA-350.1	09/05/19 15:45	09/06/19 10:54	JMH	SC-2	1	B056250

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-06	Client Sample Name: Bettencourt & Marson Dairy, BET-MW6s, 8/16/2019 11:09:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	460	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 12:31		SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00		CAD	MANUAL	2	B054994
3	EPA-350.1	09/05/19 15:45	09/06/19 10:56		JMH	SC-2	1	B056250

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-07	Client Sample Name: Bettencourt & Marson Dairy, BET-MW7s, 8/16/2019 10:43:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	520	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	0.073	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 12:52	SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	2	B054994
3	EPA-350.1	09/05/19 15:45	09/06/19 10:56	JMH	SC-2	1	B056250

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927307-08	Client Sample Name: Bettencourt & Marson Dairy, BET-MW8s, 8/16/2019 11:37:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	560	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 21:00	08/17/19 16:01	SAV	IC1	5	B053946
2	SM-2540C	08/22/19 15:00	08/22/19 15:00	CAD	MANUAL	2	B054994
3	EPA-350.1	09/05/19 15:45	09/06/19 10:58	JMH	SC-2	1	B056250

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053946						
Nitrate as N	B053946-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054994						
Total Dissolved Solids @ 180 C	B054994-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056154						
Ammonia as N	B056154-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B056250						
Ammonia as N	B056250-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053946										
Nitrate as N	B053946-BS1	LCS	5.0030	5.0000	mg/L	100		90 - 110		
QC Batch ID: B054994										
Total Dissolved Solids @ 180 C	B054994-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B056154										
Ammonia as N	B056154-BS1	LCS	2.1495	2.0000	mg/L	107		90 - 110		
QC Batch ID: B056250										
Ammonia as N	B056250-BS1	LCS	1.8528	2.0000	mg/L	92.6		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053946		Used client sample: Y - Description: BET-MW2s, 08/16/2019 09:09								
Nitrate as N	DUP	1927307-02	28.692	29.496		mg/L	2.8		10	
	MS	1927307-02	28.692	39.671	10.101	mg/L		109		80 - 120
	MSD	1927307-02	28.692	39.392	10.101	mg/L	0.7	106	10	80 - 120
QC Batch ID: B054994		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927319-01	27200	27000		mg/L	0.7		10	
QC Batch ID: B056154		Used client sample: N								
Ammonia as N	DUP	1927306-03	ND	ND		mg/L			10	
	MS	1927306-03	ND	2.4244	2.2222	mg/L		109		90 - 110
	MSD	1927306-03	ND	2.3116	2.2222	mg/L	4.8	104	10	90 - 110
QC Batch ID: B056250		Used client sample: N								
Ammonia as N	DUP	1929723-01	ND	ND		mg/L			10	
	MS	1929723-01	ND	2.2737	2.2222	mg/L		102		90 - 110
	MSD	1929723-01	ND	2.2103	2.2222	mg/L	2.8	99.5	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/06/2019 17:26
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 08/22/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Diepersloot Ranch

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926191

Invoice ID: B351864

Enclosed are the results of analyses for samples received by the laboratory on 8/8/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926191

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
19-26191 Report to: Reduced Constituent Suite		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Analysis Requested					
Name: Luhdorff and Scalmani Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Diepersfoot Ranch Samplers Name: Antonio Del-Tech Global ID - WDR100039237			
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl/Pb Unpreserved
1	DIE-MW1 -1	8/19/19	1749	GW	x
2	DIE-MW2 -2		1715		x
3	DIE-MW3 -3		1737		x
4	DIE-MW4 -4		1803		x
5	Field Duplicates				x
6					
7					
8					
9					
10					
11					
12					

SHORT HOLDING TIME Cr ⁶ NO ₂ NO ₃ OP SS NO Cl BOD MBAS COT	CHK BY DISTRIBUTION GW	SUB-OUT <input type="checkbox"/>
---	---------------------------	----------------------------------

Relinquished by: (Signature) [Signature] 8/8/19	Received By: [Signature] 8/8/19 19:45 Date & Time
Relinquished by: (Signature) [Signature]	Received By: [Signature] 8-8-19 230 Date & Time

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llaves@lsc.com, rhrystan@lsc.com, pthalkwal@lsc.com, jlovelis@lsc.com
- Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26191

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:				
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments:				
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.08</u> Container: <u>PE</u> Thermometer ID: <u>208</u> Temperature: (A) <u>1.2</u> °C / (C) <u>1.9</u> °C		Date/Time <u>8/8 2300</u> Analyst Init <u>EWK</u>

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	A	2	3	4	5	6	7	8	9	10
QT PE UNPRES --	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/510										
QT EPA 515/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531I										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EWK Date/Time: 8-8-19 2359 Rev 21 05/23/2016
 A = Actual / C = Corrected

G:\WPDoc\Word\Perfec\LAB_DOC\FORMS\15ANR\Rev 20

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1926191-01	COC Number:	---	08/08/2019 23:00	08/08/2019 17:49	---	Water	Groundwater
	Project Number:	Diepersloot Ranch					
	Sampling Location:	---					
	Sampling Point:	DIE-MW1					
	Sampled By:	Antonio Morales of DTO					
1926191-02	COC Number:	---	08/08/2019 23:00	08/08/2019 17:15	---	Water	Groundwater
	Project Number:	Diepersloot Ranch					
	Sampling Location:	---					
	Sampling Point:	DIE-MW2					
	Sampled By:	Antonio Morales of DTO					
1926191-03	COC Number:	---	08/08/2019 23:00	08/08/2019 17:37	---	Water	Groundwater
	Project Number:	Diepersloot Ranch					
	Sampling Location:	---					
	Sampling Point:	DIE-MW3					
	Sampled By:	Antonio Morales of DTO					
1926191-04	COC Number:	---	08/08/2019 23:00	08/08/2019 18:03	---	Water	Groundwater
	Project Number:	Diepersloot Ranch					
	Sampling Location:	---					
	Sampling Point:	DIE-MW4					
	Sampled By:	Antonio Morales of DTO					

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926191-01	Client Sample Name: Diepersloot Ranch, DIE-MW1, 8/8/2019 5:49:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.086	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/10/19 02:41		CMM	IC1	10	B053245
2	SM-2540C	08/14/19 14:00	08/14/19 14:00		CAD	MANUAL	5	B053531
3	EPA-350.1	08/16/19 10:45	08/19/19 14:17		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926191-02	Client Sample Name: Diepersloot Ranch, DIE-MW2, 8/8/2019 5:15:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	18	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	600	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/09/19 16:12		CMM	IC1	1	B053245
2	SM-2540C	08/14/19 14:00	08/14/19 14:00		CAD	MANUAL	3.333	B053531
3	EPA-350.1	08/16/19 10:45	08/19/19 14:17		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926191-03	Client Sample Name: Diepersloot Ranch, DIE-MW3, 8/8/2019 5:37:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	840	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/09/19 14:06		CMM	IC1	2	B053245
2	SM-2540C	08/14/19 14:00	08/14/19 14:00		CAD	MANUAL	5	B053531
3	EPA-350.1	08/16/19 10:45	08/19/19 14:19		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926191-04	Client Sample Name: Diepersloot Ranch, DIE-MW4, 8/8/2019 6:03:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	880	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.072	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/10/19 01:38		CMM	IC1	5	B053245
2	SM-2540C	08/14/19 14:00	08/14/19 14:00		CAD	MANUAL	5	B053531
3	EPA-350.1	08/16/19 10:45	08/19/19 14:19		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053245						
Nitrate as N	B053245-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053531						
Total Dissolved Solids @ 180 C	B053531-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B053823						
Ammonia as N	B053823-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053245										
Nitrate as N	B053245-BS1	LCS	5.2910	5.0000	mg/L	106		90 - 110		
QC Batch ID: B053531										
Total Dissolved Solids @ 180 C	B053531-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B053823										
Ammonia as N	B053823-BS1	LCS	2.0528	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B053245		Used client sample: N									
Nitrate as N	DUP	1926192-01	16.659	16.546		mg/L	0.7		10		
	MS	1926192-01	16.659	21.979	5.0505	mg/L		105		80 - 120	
	MSD	1926192-01	16.659	21.576	5.0505	mg/L	1.9	97.4	10	80 - 120	
QC Batch ID: B053531		Used client sample: Y - Description: DIE-MW1, 08/08/2019 17:49									
Total Dissolved Solids @ 180 C	DUP	1926191-01	1255.0	1235.0		mg/L	1.6		10		
QC Batch ID: B053823		Used client sample: N									
Ammonia as N	DUP	1926488-01	0.24520	0.26690		mg/L	8.5		10		
	MS	1926488-01	0.24520	2.5923	2.2222	mg/L		106		90 - 110	
	MSD	1926488-01	0.24520	2.6699	2.2222	mg/L	2.9	109	10	90 - 110	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 16:27
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/11/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Durrer Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1928284

Invoice ID: B354290

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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1928284-06 - DUR-MW7	
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Case Narratives

Case Narrative for Work Order 1928284

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody				
19-28284		4100 Atlas CL Bakersfield, CA 93308 (661) 327-4911				
Report to: Reduced Constituent Suite						
Analysis Requested						
Name: Luhdorff and Scalmanini		From Filtered Sample:				
Address: 500 First Street		Ammonia-N, NO3-N				
City: Woodland		Total Dissolved Solids				
State: 95695						
CA:						
Attn: Till Angermann						
Project: Daily Representative Monitoring Program						
Site: Durrer Dairy 302019						
Samplers Name: Del Tech Jody Joffe						
Global ID - WDR100038159						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl Pp Unpreserved	Comments
1	DUR-MW1 -1	8-23-19	11:34	GW	x	
2	DUR-MW2 -2		11:56		x	
3	DUR-MW3 -3		10:32		x	
4	DUR-MW4 -4		11:07		x	
5	DUR-MW6 -5		8:59		x	
6	DUR-MW7 -6		9:29		x	
7	DUR-MW8 -7		12:23		x	
8	DUR-MW9 -8		12:59		x	
9	DUR-MW10s, DUR-MW40d -9		10:06		x	
10	Field Duplicate					
11						
12						
13						

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: jlvegnino@isca.com, rolyson@isca.com, pdhallwell@isca.com, jlowells@isce.com

4) Send invoices to Jeanette Lovells (jlowells@isce.com).

Relinquished by: (Signature) *[Signature]* Date & Time 8-23-19 1440

Relinquished by: (Signature) *[Signature]* Date & Time 8-23-19 16100

Relinquished by: (Signature) *[Signature]* Date & Time 8-23-19 2130

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-28284

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.98. Container: PE. Thermometer ID: 208. Date/Time: 8/23/19. Analyst Init: EAR.

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like OT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Sample numbers 1-9 are marked with 'A'.

Comments: Sample Numbering Completed By: EAR Date/Time: 8-23-19 2:30. Rev 21 03/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1928284-01	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 11:34
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW1	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-02	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 11:56
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW2	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-03	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 10:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW3	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-04	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 11:04
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW4	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-05	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 08:59
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW6	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-06	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 09:29
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW7	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
1928284-07	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date: 08/23/2019 12:23
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW8	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1928284-08	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date:	08/23/2019 12:59
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUR-MW9	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928284-09	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Durrer Dairy	Sampling Date:	08/23/2019 10:06
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUR-MW10s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-01	Client Sample Name: Durrer Dairy, DUR-MW1, 8/23/2019 11:34:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	97	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19	20:46	CMM	IC1	10	B055241
2	SM-2540C	08/29/19 14:00	08/29/19	14:00	CAD	MANUAL	10	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19	13:02	JMH	SC-1	1	B056380

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-02	Client Sample Name: Durrer Dairy, DUR-MW2, 8/23/2019 11:56:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	14	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	27	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19 19:22		CMM	IC1	1	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	10	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:41		JMH	SC-1	25	B056380

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-03	Client Sample Name: Durrer Dairy, DUR-MW3, 8/23/2019 10:32:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	65	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/25/19	08:13	CMM	IC1	5	B055241
2	SM-2540C	08/29/19 14:00	08/29/19	14:00	CAD	MANUAL	10	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19	13:04	JMH	SC-1	1	B056380

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500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-04	Client Sample Name: Durrer Dairy, DUR-MW4, 8/23/2019 11:04:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	89	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2600	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	120	mg/L	10	3.4	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19 21:28	CMM	IC1	10	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00	CAD	MANUAL	20	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:43	JMH	SC-1	50	B056380

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Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-05	Client Sample Name: Durrer Dairy, DUR-MW6, 8/23/2019 8:59:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	97	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.18	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19 21:49		CMM	IC1	5	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	10	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:08		JMH	SC-1	1	B056380

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500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-06	Client Sample Name: Durrer Dairy, DUR-MW7, 8/23/2019 9:29:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	1.4	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/25/19 08:34		CMM	IC1	10	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	10	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:09		JMH	SC-1	1	B056380

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500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-07	Client Sample Name: Durrer Dairy, DUR-MW8, 8/23/2019 12:23:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	810	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.59	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19	23:13	CMM	IC1	5	B055241
2	SM-2540C	08/29/19 14:00	08/29/19	14:00	CAD	MANUAL	5	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19	13:09	JMH	SC-1	1	B056380

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500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-08	Client Sample Name: Durrer Dairy, DUR-MW9, 8/23/2019 12:59:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	580	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	0.39	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19 23:34		CMM	IC1	1	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	3.333	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:11		JMH	SC-1	1	B056380

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Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928284-09	Client Sample Name: Durrer Dairy, DUR-MW10s, 8/23/2019 10:06:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.7	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	6800	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	8.3	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 18:00	08/24/19 23:55		CMM	IC1	5	B055241
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	50	B055658
3	EPA-350.1	09/06/19 17:00	09/09/19 13:11		JMH	SC-1	5	B056380

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055241						
Nitrate as N	B055241-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055658						
Total Dissolved Solids @ 180 C	B055658-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056380						
Ammonia as N	B056380-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055241										
Nitrate as N	B055241-BS1	LCS	5.3520	5.0000	mg/L	107		90 - 110		
QC Batch ID: B055658										
Total Dissolved Solids @ 180 C	B055658-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B056380										
Ammonia as N	B056380-BS1	LCS	2.0639	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055241		Used client sample: Y - Description: DUR-MW2, 08/23/2019 11:56								
Nitrate as N	DUP	1928284-02	13.590	13.463		mg/L	0.9		10	
	MS	1928284-02	13.590	18.617	5.0505	mg/L		99.5		80 - 120
	MSD	1928284-02	13.590	18.685	5.0505	mg/L	0.4	101	10	80 - 120
QC Batch ID: B055658		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1928487-01	18700	19100		mg/L	2.1		10	
QC Batch ID: B056380		Used client sample: N								
Ammonia as N	DUP	1927926-01	ND	ND		mg/L			10	
	MS	1927926-01	ND	ND	2.2222	mg/L		-0.4		90 - 110 Q03
	MSD	1927926-01	ND	ND	2.2222	mg/L	110	-1.5	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 20:38
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 09/09/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #1

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927757

Invoice ID: B353952

Enclosed are the results of analyses for samples received by the laboratory on 8/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927757

Samples were filtered through a 0.45 micron filter prior to analysis.



<p>BC Laboratories, Inc. 19-27757</p>		<p>Chain of Custody</p>			
<p>4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911</p>		<p>Analysis Requested</p>			
<p>Report to: Reduced Constituent Suite</p>		<p>From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids</p>			
<p>Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Airt: Till Angermann</p>		<p>Project: Dairy Representative Monitoring Program Site: Frank J. Gomes Dairy #1 Samplers Name: Dextech Kassandra Barton Global ID - GADAIRY00004</p>			
<p>Lab #</p>	<p>Strike out non-sampled wells</p>	<p>Date Sampled</p>	<p>Time Sampled</p>	<p>Matrix</p>	<p>Qt Pe Unpreserved</p>
1	FG1-MW1s, FG1-MW1d	8-20-19	1149	GW	x
2	FG1-MW2s, FG1-MW2d		1246		x
3	FG1-MW3s, FG1-MW3d		1214		x
4	FG1-MW4s, FG1-MW4d		1537		x
5	FG1-MW5s, FG1-MW5d		1322		x
6	FG1-MW6s, FG1-MW6d		1441		x
7	FG1-MW7s, FG1-MW7d		1418		x
8	FG1-MW8s, FG1-MW8d		1347		x
9	FG1-MW9s, FG1-MW9d	SL#	1517	SL#	x
10	Field Duplicate				x
11					
12					
13					

SHORT HOLDING TIME
Cr⁶⁺ NO₂ NO₃ OP SS
DO CL BOD MBAS COT

CHK BY DISTRIBUTION
GSD MK
SUB OUT

Relinquished by: (Signature) <i>Casandra Barton</i>	Date & Time 8/20/19 16:30
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 8/20/19 22:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time [Blank]

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsavage@lsce.com, trypson@lsce.com, pulhatal@lsce.com, jlovelis@lsce.com
 4) Send invoices to Jeanette Lovells (jlovelis@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27757

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/20/2009

Temperature: (A) 3.7 °C / (C) 4.4 °C Analyst Init: GNL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GNL Date/Time: 8-20-09 2359 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1927757-01	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 11:49
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW1s		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-02	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 12:45
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW2d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-03	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 12:14
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW3d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-04	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 15:37
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW4s		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-05	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 13:22
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW5s		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-06	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 14:41
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW6s		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater
1927757-07	COC Number:	---		08/20/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #1		Sampling Date:	08/20/2019 14:18
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	FG1-MW7s		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927757-08	COC Number:	---	Receive Date:	08/20/2019 22:00
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date:	08/20/2019 13:47
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG1-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1927757-09	COC Number:	---	Receive Date:	08/20/2019 22:00
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date:	08/20/2019 15:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG1-MW9d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-01	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW1s, 8/20/2019 11:49:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.21	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 00:17	SAV	IC2	1	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30	CAD	MANUAL	10	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 14:54	JMH	SC-2	1	B056337

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-02	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW2d, 8/20/2019 12:45:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	43	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 00:38	SAV	IC2	5	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30	CAD	MANUAL	5	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:00	JMH	SC-2	1	B056337

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Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-03	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW3d, 8/20/2019 12:14:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 00:58	SAV	IC2	1	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30	CAD	MANUAL	5	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:00	JMH	SC-2	1	B056337

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Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-04	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW4s, 8/20/2019 3:37:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 01:19		SAV	IC2	20	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30		CAD	MANUAL	10	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:01		JMH	SC-2	1	B056337

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Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-05	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW5s, 8/20/2019 1:22:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 01:39		SAV	IC2	2	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30		CAD	MANUAL	5	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:02		JMH	SC-2	1	B056337

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Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-06	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW6s, 8/20/2019 2:41:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	760	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 02:00	SAV	IC2	5	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30	CAD	MANUAL	3.333	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:03	JMH	SC-2	1	B056337

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500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-07	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW7s, 8/20/2019 2:18:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	680	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 02:21		SAV	IC2	5	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30		CAD	MANUAL	3.333	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:03		JMH	SC-2	1	B056337

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Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-08	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW8s, 8/20/2019 1:47:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	910	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 12:39		SAV	IC2	2	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30		CAD	MANUAL	5	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:05		JMH	SC-2	1	B056337

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Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927757-09	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW9d, 8/20/2019 3:17:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.17	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	250	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 03:43	SAV	IC2	1	B054970
2	SM-2540C	08/24/19 11:30	08/24/19 11:30	CAD	MANUAL	2	B055189
3	EPA-350.1	09/06/19 11:30	09/06/19 15:07	JMH	SC-2	1	B056337

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Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B054970						
Nitrate as N	B054970-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055189						
Total Dissolved Solids @ 180 C	B055189-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056337						
Ammonia as N	B056337-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B054970										
Nitrate as N	B054970-BS1	LCS	5.2030	5.0000	mg/L	104		90 - 110		
QC Batch ID: B055189										
Total Dissolved Solids @ 180 C	B055189-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B056337										
Ammonia as N	B056337-BS1	LCS	1.9887	2.0000	mg/L	99.4		90 - 110		

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Luhdorf & Scalmanini
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Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B054970		Used client sample: Y - Description: FG1-MW9d, 08/20/2019 15:17								
Nitrate as N	DUP	1927757-09	0.16600	0.17000		mg/L	2.4		10	
	MS	1927757-09	0.16600	5.4515	5.0505	mg/L		105		80 - 120
	MSD	1927757-09	0.16600	5.3919	5.0505	mg/L	1.1	103	10	80 - 120
QC Batch ID: B055189		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927669-01	26200	26600		mg/L	1.5		10	
QC Batch ID: B056337		Used client sample: Y - Description: FG1-MW1s, 08/20/2019 11:49								
Ammonia as N	DUP	1927757-01	0.20730	0.20660		mg/L	0.3		10	
	MS	1927757-01	0.20730	2.4027	2.2222	mg/L		98.8		90 - 110
	MSD	1927757-01	0.20730	2.4363	2.2222	mg/L	1.4	100	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:01
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/11/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Bear Creek
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1928287
Invoice ID: B354299

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1928287

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-28287		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:							
Name: Lohdorff and Scalmanini		Analysis Requested					
Address: 500 First Street		From Filtered Sample:					
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids					
State: CA							
Zip: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Gallo Cattle Company Bear Creek							
Samplers Name: <u>DEPTEN ASHLEY RUBIN</u>							
Global ID - GADAIRY00005							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved	From Filtered Sample:	Analysis Requested
1	BEA-MW1dd -1	8-23-19	1609	SW	x		
2	BEA-MW2dd -2		17:18		x		
3	BEA-MW3d -3		1651		x		
4	BEA-MW4d -4		1652		x		
5							
6							
7							
8							
9							
10							
11							

SHORT HOLDING TIME Cr ⁶ NO ₂ (NO ₃) OP SS DO Cl ₂ BOD MRAS COT	CHK BY DISTRIBUTION GSA WIA SUB OUT
---	--

Retinquished by: (Signature)	Date & Time
<i>[Signature]</i>	8/23/19 17:20
Retinquished by: (Signature)	Date & Time
<i>[Signature]</i>	8-23-19 2130
Retinquished by: (Signature)	Date & Time
<i>[Signature]</i>	

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lsce.com, tlryson@lsce.com, pdhallwa@lsce.com, jlowells@lsce.com
- Send invoices to Jeannette Lovells (jlowells@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-18287

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>		Other <input type="checkbox"/> (Specify) _____		W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/23/18

Temperature: (A) 1.3 °C / (C) 2.0 °C Analyst Init: EDK

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EDK Date/Time: 8-23-18 2300 Rev 21 05/23/2016

A = Actual / C = Corrected

(S:\WPDoc\Inet\PerfectLAB_DOC\FORMS\5\5AMREC.rtf 20)

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1928287-01	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	08/23/2019 16:09
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW1dd	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928287-02	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	08/23/2019 17:18
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW2dd	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928287-03	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	08/23/2019 16:31
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW3d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928287-04	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	08/23/2019 16:52
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW4d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928287-01	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW1dd, 8/23/2019 4:09:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	600	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	18	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 08:10	CMM	IC8	1	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00	CAD	MANUAL	5	B055656
3	EPA-350.1	09/09/19 13:30	09/10/19 11:32	JMH	SC-2	5	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928287-02	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW2dd, 8/23/2019 5:18:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.1	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	550	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 07:09		CMM	IC8	1	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	3.333	B055656
3	EPA-350.1	09/09/19 13:30	09/10/19 10:23		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928287-03	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW3d, 8/23/2019 4:31:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.075	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 09:32		CMM	IC8	10	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 13:30	09/10/19 10:24		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928287-04	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW4d, 8/23/2019 4:52:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	860	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 09:53		CMM	IC8	1	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055656
3	EPA-350.1	09/09/19 13:30	09/10/19 10:24		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055227						
Nitrate as N	B055227-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055656						
Total Dissolved Solids @ 180 C	B055656-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056493						
Ammonia as N	B056493-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055227										
Nitrate as N	B055227-BS1	LCS	5.0970	5.0000	mg/L	102		90 - 110		
QC Batch ID: B055656										
Total Dissolved Solids @ 180 C	B055656-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B056493										
Ammonia as N	B056493-BS1	LCS	1.9027	2.0000	mg/L	95.1		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055227		Used client sample: Y - Description: BEA-MW1dd, 08/23/2019 16:09								
Nitrate as N	DUP	1928287-01	ND	ND		mg/L			10	
	MS	1928287-01	ND	5.0475	5.0505	mg/L		99.9		80 - 120
	MSD	1928287-01	ND	5.0848	5.0505	mg/L	0.7	101	10	80 - 120
QC Batch ID: B055656		Used client sample: Y - Description: BEA-MW1dd, 08/23/2019 16:09								
Total Dissolved Solids @ 180 C	DUP	1928287-01	605.00	610.00		mg/L	0.8		10	
QC Batch ID: B056493		Used client sample: N								
Ammonia as N	DUP	1928285-01	ND	ND		mg/L			10	
	MS	1928285-01	ND	2.4559	2.2222	mg/L		111		90 - 110 Q03
	MSD	1928285-01	ND	2.3781	2.2222	mg/L	3.2	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 09/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Cottonwood
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1928286
Invoice ID: B354141

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry).....	8
1928286-03 - COT-MW11d	
Water Analysis (General Chemistry).....	9
1928286-04 - COT-MW12d	
Water Analysis (General Chemistry).....	10
1928286-05 - COT-MW13d	
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1928286-06 - COT-MW14d	
Water Analysis (General Chemistry).....	12
1928286-07 - Field Duplicate	
Water Analysis (General Chemistry).....	13

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Case Narratives

Case Narrative for Work Order 1928286

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-28286		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:							
Reduced Constituent Suite							
Analysis Requested							
Name: Luhdorff and Scalimanni		From Filtered Sample:					
Address: 500 First Street		Ammonia-N, NO3-N, Total Dissolved Solids					
City: Woodland							
State: 95695							
CA:							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Gallo Cattle Company Cottonwood							
Samplers Name: DeTECH ASHLEY RYAN							
Global ID - GADAIR700006							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	CI Pp Unpreserved	Received By:	Date & Time
1	COT-MW1, COT-MW1d DRY	NA	NA	GW	X	[Signature]	8/23/19 17:20
2	COT-MW2 DRY				X	[Signature]	8-23-19 2:30
3	COT-MW3 DRY				X	[Signature]	8-23-19 2:30
4	COT-MW4 DRY				X	[Signature]	8-23-19 2:30
5	COT-MW5 DRY				X	[Signature]	8-23-19 2:30
6	COT-MW6 DRY				X	[Signature]	8-23-19 2:30
7	COT-MW7 DRY				X	[Signature]	8-23-19 2:30
8	COT-MW8 DRY				X	[Signature]	8-23-19 2:30
9	COT-MW9 -1				X	[Signature]	8-23-19 2:30
10	COT-MW10 -2				X	[Signature]	8-23-19 2:30
11	COT-MW11d -3				X	[Signature]	8-23-19 2:30
12	COT-MW12d -4				X	[Signature]	8-23-19 2:30
13	COT-MW13d -5				X	[Signature]	8-23-19 2:30
14	COT-MW14d -6				X	[Signature]	8-23-19 2:30
15	Field Duplicate 2-7				X	[Signature]	8-23-19 2:30
16							
17							
18							

Comments:
 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this COC.
 3) Send lab reports to Luhdorff and Scalimanni Consulting Engineers via email: luhdorff@lscce.com, roryson@lscce.com, patstival@lscce.com, jlovelis@lscce.com
 4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).

[A]= Analyze [C]= Container [P]= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-28286

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/23/19

Temperature: (A) 1.3 °C / (C) 2.0 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8050										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 8-23-19 2300 Rev 21 05/23/2016

A = Actual / C = Corrected [S:\WP\Des\Ward\PerfectLAB_DOCS\FORMS\SHWREC\rev 20]



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1928286-01	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 12:01
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW9		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-02	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 11:45
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW10		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-03	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 10:09
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW11d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-04	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 10:37
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW12d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-05	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 11:12
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW13d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-06	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 09:50
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	COT-MW14d		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water
1928286-07	COC Number:	---		08/23/2019 21:30	
	Project Number:	Gallo Cattle Company Cottonwood		Sampling Date:	08/23/2019 00:00
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	Field Duplicate		Lab Matrix:	Water
	Sampled By:	Del Tech of DTO		Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-01	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW9, 8/23/2019 12:01:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	46	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 08:01	CMM	IC5	5	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00	CAD	MANUAL	5	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:44	JMH	SC-2	1	B056502

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-02	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW10, 8/23/2019 11:45:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 08:19		CMM	IC5	2	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	5	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:48		JMH	SC-2	1	B056502

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-03	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW11d, 8/23/2019 10:09:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.6	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	320	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 06:13		CMM	IC5	1	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	2	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:49		JMH	SC-2	1	B056502

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-04	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW12d, 8/23/2019 10:37:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	82	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 08:37	CMM	IC5	5	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00	CAD	MANUAL	5	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:51	JMH	SC-2	1	B056502

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-05	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW13d, 8/23/2019 11:12:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 08:54		CMM	IC5	5	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	5	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:53		JMH	SC-2	1	B056502

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-06	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW14d, 8/23/2019 9:50:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	90	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 09:12	CMM	IC5	5	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00	CAD	MANUAL	10	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:53	JMH	SC-2	1	B056502

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928286-07	Client Sample Name: Gallo Cattle Company Cottonwood, Field Duplicate, 8/23/2019 12:00:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 23:00	08/24/19 09:30		CMM	IC5	2	B055234
2	SM-2540C	08/29/19 14:00	08/29/19 14:00		CAD	MANUAL	5	B055657
3	EPA-350.1	09/09/19 16:15	09/10/19 10:55		JMH	SC-2	1	B056502

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055234						
Nitrate as N	B055234-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055657						
Total Dissolved Solids @ 180 C	B055657-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056502						
Ammonia as N	B056502-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055234										
Nitrate as N	B055234-BS1	LCS	5.0700	5.0000	mg/L	101		90 - 110		
QC Batch ID: B055657										
Total Dissolved Solids @ 180 C	B055657-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B056502										
Ammonia as N	B056502-BS1	LCS	2.0019	2.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B055234		Used client sample: Y - Description: COT-MW11d, 08/23/2019 10:09								
Nitrate as N	DUP	1928286-03	3.5720	3.5490		mg/L	0.6		10	
	MS	1928286-03	3.5720	8.6394	5.0505	mg/L		100		80 - 120
	MSD	1928286-03	3.5720	8.6061	5.0505	mg/L	0.4	99.7	10	80 - 120
QC Batch ID: B055657		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1928280-01	1180.0	1200.0		mg/L	1.7		10	
QC Batch ID: B056502		Used client sample: Y - Description: COT-MW9, 08/23/2019 12:01								
Ammonia as N	DUP	1928286-01	ND	ND		mg/L			10	
	MS	1928286-01	ND	2.3170	2.2222	mg/L		104		90 - 110
	MSD	1928286-01	ND	2.3716	2.2222	mg/L	2.3	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/11/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Santa Rita

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1928285

Invoice ID: B354298

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1928285

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-28285		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:							
Reduced Constituent Suite							
Name:	Luhdorff and Scalmanini	Analysis Requested					
Address:	500 First Street	From Filtered Sample:					
City:	Woodland	Ammonia-N, NO3-N					
State:	95695	Total Dissolved Solids					
CA:							
Attn:	Till Angermann						
Project:	Dairy Representative Monitoring Program						
Site:	Gallo Cattle Company Santa Rita						
Samplers Name:	DETRICH ASHLEY PATRICK						
Global ID:	GADAIRY00007						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pts Unpreserved	CHRY	DISTRIBUTION
1	San-MW1d -1	8/23/19	1420	GW	x		
2	San-MW2s, SAN-MW2d DRY				x		
3	San-MW3s, SAN-MW3d DRY				x		
4	San-MW4s, SAN-MW4d -2	8/23/19	1517	GW	x		
5	San-MW5s, SAN-MW5d -3		1445		x		
6	San-MW6s, SAN-MW6d -4		1245		x		
7	San-MW7s, SAN-MW7d -5		1310		x		
8	San-MW8s, SAN-MW8d -6		1319		x		
9	Non-applicable				x		
10					x		
11							
12							

Received By: <i>[Signature]</i>	Date & Time: 8/23/19 1720
Received by: <i>[Signature]</i>	Date & Time: 8-23-19 2130
Relinquished by: <i>[Signature]</i>	Date & Time:
Relinquished by: <i>[Signature]</i>	Date & Time:

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsca@lsce.com, lsce@lsce.com, lsce@lsce.com, lsce@lsce.com
- Send invoices to Jeanette Lovell (jlovelis@lsce.com).

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-28285

SHIPPING INFORMATION		SHIPPING CONTAINER	FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____		Ice Chest <input checked="" type="checkbox"/>
		None <input type="checkbox"/>	Box <input type="checkbox"/>
		Other <input type="checkbox"/> (Specify) _____	
			YES <input type="checkbox"/>
			NO <input type="checkbox"/>
			W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/23/19

Temperature: (A) 1.3 °C / (C) 2.0 °C Analyst Init: EWR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁺⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/603/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SIEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EWR Date/Time: 8-23-19 2:30 Rev 21 08/23/2016

A = Actual / C = Corrected

ISSUED: Dec 11, 2013; Revised: Feb 2014; LAR, DDC by JRM/MS/USAM/REC/ev 20



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1928285-01	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 14:26
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW1d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			
1928285-02	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 15:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW4d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			
1928285-03	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 14:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW5d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			
1928285-04	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 12:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW6d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			
1928285-05	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 13:16
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW7d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			
1928285-06	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	08/23/2019 13:49
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW8d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-01	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW1d, 8/23/2019 2:26:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 10:13		CMM	IC8	2	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	10	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:12		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-02	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW4d, 8/23/2019 3:17:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 10:34		CMM	IC8	5	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:15		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-03	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW5d, 8/23/2019 2:45:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 10:54		CMM	IC8	5	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:17		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-04	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW6d, 8/23/2019 12:45:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	46	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 11:15		CMM	IC8	5	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:19		JMH	SC-2	1	B056493

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-05	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW7d, 8/23/2019 1:16:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 12:16		CMM	IC8	2	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:21		JMH	SC-2	1	B056493

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Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928285-06	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW8d, 8/23/2019 1:49:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 01:00	08/24/19 12:37		CMM	IC8	2	B055227
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	5	B055655
3	EPA-350.1	09/09/19 13:30	09/10/19 10:21		JMH	SC-2	1	B056493

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Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055227						
Nitrate as N	B055227-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055655						
Total Dissolved Solids @ 180 C	B055655-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056493						
Ammonia as N	B056493-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055227										
Nitrate as N	B055227-BS1	LCS	5.0970	5.0000	mg/L	102		90 - 110		
QC Batch ID: B055655										
Total Dissolved Solids @ 180 C	B055655-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B056493										
Ammonia as N	B056493-BS1	LCS	1.9027	2.0000	mg/L	95.1		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B055227		Used client sample: N								
Nitrate as N	DUP	1928287-01	ND	ND		mg/L			10	
	MS	1928287-01	ND	5.0475	5.0505	mg/L		99.9		80 - 120
	MSD	1928287-01	ND	5.0848	5.0505	mg/L	0.7	101	10	80 - 120
QC Batch ID: B055655		Used client sample: Y - Description: SAN-MW1d, 08/23/2019 14:26								
Total Dissolved Solids @ 180 C	DUP	1928285-01	1400.0	1430.0		mg/L	2.1		10	
QC Batch ID: B056493		Used client sample: Y - Description: SAN-MW1d, 08/23/2019 14:26								
Ammonia as N	DUP	1928285-01	ND	ND		mg/L			10	
	MS	1928285-01	ND	2.4559	2.2222	mg/L		111		90 - 110 Q03
	MSD	1928285-01	ND	2.3781	2.2222	mg/L	3.2	107	10	90 - 110

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500 First Street
Woodland, CA 95695

Reported: 09/11/2019 22:42
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

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Date of Report: 08/28/2019

Till Angermann

Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Client Project: Genasci Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1926765
Invoice ID: B352428

Enclosed are the results of analyses for samples received by the laboratory on 8/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926765

Samples were filtered through a 0.45 micron filter prior to analysis.



19-26765

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			Analysis Requested		
Name: Luhdorff and Scalmanini		Reduced Constituent Suite			
Address: 500 First Street		Project: Daily Representative Monitoring Program			
City: Woodland		Site: Genasci Dairy			
State: 95895		Samplers Name: DeFien Ashley Patrom			
Attn: Till Angermann		Global ID - WDR100037867			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Pc Unpreserved
1	GEN-MW1	8/3/19	12:10	GW	x
2	GEN-MW2		13:27		x
3	GEN-MW3		11:53		x
4	GEN-MW5		13:49		x
5	GEN-MW6		14:35		x
6	GEN-MW7		14:55		x
7	GEN-MW8		3:04		x
8	GEN-MW9		11:10		x
9	GEN-MW10		12:40		x
10	GEN-MW11s, [REDACTED]		10:47		x
11	GEN-MW12s, [REDACTED]		14:10		x
12	[REDACTED]				
13					
14					
15					

From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	CHK BY: DISTRIBUTION GFL MFL	Sub OUT <input type="checkbox"/>
SHORT HOLDING TIME Cr ⁶⁺ NO ₂ NO ₃ OF SS DO Cl ₂ BOD mDBAS COI		

Relinquished by: (Signature) Dorley Patrom 8/3/19 16:00	Received By: [Signature] Date & Time: 8/13/19 16:00
Relinquished by: (Signature) [Signature]	Received by: (Signature) Date & Time: 8/13/19 22:15
Relinquished by: (Signature)	Received By: (Signature) Date & Time:

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rtryson@lscce.com, pthallwa@lscce.com, jlovelle@lscce.com
- Send invoices to Jeanette Lovells (jlovelle@lscce.com).

(A)= Analysis (C)= ContAINER (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 19-26765

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/13/2015

Temperature: (A) 1.3 °C / (C) 20 °C Analyst Init: EAC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	H	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 8/13/2013

Sample Numbering Completed By: GSP

A = Actual / C = Corrected

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 19-26765

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received AYES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time 8/13/2015
 Temperature: (A) 1.3 °C / (C) 20 °C Analyst Init EJC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	(11) A									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/5050										
QT EPA 515/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GP Date/Time: 8/13 2313 Rev 21 05/23/2016
 A = Actual / C = Corrected 18:\WP\Dev\Work\Period\LAB_DOC\CFORMS\SIGMA\RECrev 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926765-01	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 12:16
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW1	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-02	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 13:27
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW2	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-03	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 11:53
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW3	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-04	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 13:49
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW5	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-05	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 14:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW6	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-06	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 14:53
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW7	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1926765-07	COC Number:	---	Receive Date: 08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date: 08/13/2019 13:04
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GEN-MW8	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Water
	<hr/>		
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500 First Street
Woodland, CA 95695

Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926765-08	COC Number:	---	Receive Date:	08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date:	08/13/2019 11:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW9	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Water
1926765-09	COC Number:	---	Receive Date:	08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date:	08/13/2019 12:40
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW10	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Water
1926765-10	COC Number:	---	Receive Date:	08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date:	08/13/2019 10:47
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW11s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Water
1926765-11	COC Number:	---	Receive Date:	08/13/2019 22:15
	Project Number:	Genasci Dairy	Sampling Date:	08/13/2019 14:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW12s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Water

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500 First Street
Woodland, CA 95695

Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-01	Client Sample Name: Genasci Dairy, GEN-MW1, 8/13/2019 12:16:00PM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.99	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	2.6	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/14/19 10:35		SAV	IC1	2	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	10	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:04		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-02	Client Sample Name: Genasci Dairy, GEN-MW2, 8/13/2019 1:27:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/14/19 21:27		CMM	IC1	5	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	10	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:04		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-03	Client Sample Name: Genasci Dairy, GEN-MW3, 8/13/2019 11:53:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	200	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4400	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	4.1	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/14/19 22:09		CMM	IC1	20	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	20	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:06		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-04	Client Sample Name: Genasci Dairy, GEN-MW5, 8/13/2019 1:49:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/14/19 22:51		CMM	IC1	10	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	10	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:08		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-05	Client Sample Name: Genasci Dairy, GEN-MW6, 8/13/2019 2:35:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 10:24		SAV	IC1	10	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	5	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:09		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-06	Client Sample Name: Genasci Dairy, GEN-MW7, 8/13/2019 2:53:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	69	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	930	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 01:18		SAV	IC1	5	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	5	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:09		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-07	Client Sample Name: Genasci Dairy, GEN-MW8, 8/13/2019 1:04:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2600	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	77	mg/L	10	3.4	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/14/19 14:26		SAV	IC1	2	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	20	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 15:29		JMH	SC-2	50	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-08	Client Sample Name: Genasci Dairy, GEN-MW9, 8/13/2019 11:10:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	67	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 02:00		SAV	IC1	5	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	5	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:11		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-09	Client Sample Name: Genasci Dairy, GEN-MW10, 8/13/2019 12:40:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	63	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 02:21		SAV	IC1	5	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	10	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:13		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-10	Client Sample Name: Genasci Dairy, GEN-MW11s, 8/13/2019 10:47:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	86	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.26	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 03:03		SAV	IC1	5	B053515
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	5	B053666
3	EPA-350.1	08/22/19 14:00	08/27/19 14:00		JMH	SC-2	1	B055040

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926765-11	Client Sample Name: Genasci Dairy, GEN-MW12s, 8/13/2019 2:10:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	950	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/14/19 09:00	08/15/19 03:24		SAV	IC1	5	B053516
2	SM-2540C	08/15/19 16:00	08/15/19 16:00		CAD	MANUAL	5	B053667
3	EPA-350.1	08/22/19 14:15	08/23/19 12:31		JMH	SC-1	1	B055052

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053515						
Nitrate as N	B053515-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053516						
Nitrate as N	B053516-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053666						
Total Dissolved Solids @ 180 C	B053666-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B053667						
Total Dissolved Solids @ 180 C	B053667-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055040						
Ammonia as N	B055040-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B055052						
Ammonia as N	B055052-BLK1	ND	mg/L	0.20	0.067	

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Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053515										
Nitrate as N	B053515-BS1	LCS	5.2580	5.0000	mg/L	105		90 - 110		
QC Batch ID: B053516										
Nitrate as N	B053516-BS1	LCS	5.1180	5.0000	mg/L	102		90 - 110		
QC Batch ID: B053666										
Total Dissolved Solids @ 180 C	B053666-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B053667										
Total Dissolved Solids @ 180 C	B053667-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B055040										
Ammonia as N	B055040-BS1	LCS	2.1467	2.0000	mg/L	107		90 - 110		
QC Batch ID: B055052										
Ammonia as N	B055052-BS1	LCS	2.0753	2.0000	mg/L	104		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053515		Used client sample: Y - Description: GEN-MW5, 08/13/2019 13:49								
Nitrate as N	DUP	926765-04RE2	145.52	144.59		mg/L	0.6		10	
	MS	926765-04RE2	145.52	196.69	50.505	mg/L		101		80 - 120
	MSD	926765-04RE2	145.52	196.64	50.505	mg/L	0.0	101	10	80 - 120
QC Batch ID: B053516		Used client sample: Y - Description: GEN-MW12s, 08/13/2019 14:10								
Nitrate as N	DUP	1926765-11	51.046	51.120		mg/L	0.1		10	
	MS	1926765-11	51.046	55.160	5.0505	mg/L		81.4		80 - 120
	MSD	1926765-11	51.046	55.257	5.0505	mg/L	0.2	83.4	10	80 - 120
QC Batch ID: B053666		Used client sample: Y - Description: GEN-MW1, 08/13/2019 12:16								
Total Dissolved Solids @ 180 C	DUP	1926765-01	1910.0	1910.0		mg/L	0		10	
QC Batch ID: B053667		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926718-01	28400	28600		mg/L	0.7		10	
QC Batch ID: B055040		Used client sample: Y - Description: GEN-MW11s, 08/13/2019 10:47								
Ammonia as N	DUP	1926765-10	0.26020	0.25740		mg/L	1.1		10	
	MS	1926765-10	0.26020	2.6627	2.2222	mg/L		108		90 - 110
	MSD	1926765-10	0.26020	2.6688	2.2222	mg/L	0.2	108	10	90 - 110
QC Batch ID: B055052		Used client sample: Y - Description: GEN-MW12s, 08/13/2019 14:10								
Ammonia as N	DUP	1926765-11	ND	ND		mg/L			10	
	MS	1926765-11	ND	2.5001	2.2222	mg/L		113		90 - 110 Q03
	MSD	1926765-11	ND	2.5254	2.2222	mg/L	1.0	114	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/28/2019 10:56
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 08/22/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J. Troost Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926192

Invoice ID: B351812

Enclosed are the results of analyses for samples received by the laboratory on 8/8/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926192

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 19-26192		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to: Reduced Constituent Suite					
Name: Luhdorff and Scalimantini		Project: Dairy Representative Monitoring Program		Analysis Requested	
Address: 500 First Street		Site: J. Troost Dairy		From Filtered Sample:	
City: Woodland		3/01/2019		Ammonia-N, NO3-N, Total Dissolved Solids	
State: 95685		Samplers Name: Antonio Del-Tran			
CA		Global ID - WDR100038424			
Attn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt/Pc Unpreserved
1	TRO-MW1 -1	8/18/19	1502	GW	x
2	TRO-MW2	8/18/19	1533		x
3	TRO-MW3	8/18/19	1554		x
4	Field Duplicate				x
5					
6					
7					
8					
9					
10					
11					
12					

SHOR-T HOLDING TIME	Date & Time
Cr-6 NO ₂ NO ₃ OP SS	8/18/19 19:45
DO Cl ₂ BOD MBAS COT	Date & Time
CHK BY: [Signature]	Received By: [Signature]
DISTRIBUTION	Date & Time
SUB OUT	8-8-19 2300

Relinquished by: (Signature) [Signature] 8/18/19 Date & Time

Relinquished by: (Signature) [Signature] Date & Time

Relinquished by: (Signature) [Signature] Date & Time

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalimantini Consulting Engineers via email: llavagnine@lscce.com, rtrayson@lscce.com, pdhalliwell@lscce.com, jlovelis@lscce.com
 4) Send invoices to: Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-26192

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.08 Container: PE Thermometer ID: 208 Date/Time: 8/8 2300
 Temperature: (A) 1.2 °C / (C) 1.9 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/088090										
QT EPA 515.1/8190										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLREVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 8-8-19 2359 Rev 21 05/23/2016
 A = Actual / C = Corrected [S:\WP\DocWork\Ferret\LAB_DCCS\FORMS\BAIRRECrev 20]



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926192-01	COC Number:	---	Receive Date: 08/08/2019 23:00
	Project Number:	J. Troost Dairy	Sampling Date: 08/08/2019 15:02
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TRO-MW1	Lab Matrix: Water
	Sampled By:	Antonio Morales of DTO	Sample Type: Groundwater
	<hr/>		
	1926192-02	COC Number:	---
Project Number:		J. Troost Dairy	Sampling Date: 08/08/2019 16:31
Sampling Location:		---	Sample Depth: ---
Sampling Point:		TRO-MW2	Lab Matrix: Water
Sampled By:		Antonio Morales of DTO	Sample Type: Groundwater
<hr/>			
1926192-03		COC Number:	---
	Project Number:	J. Troost Dairy	Sampling Date: 08/08/2019 15:54
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TRO-MW3	Lab Matrix: Water
	Sampled By:	Antonio Morales of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926192-01	Client Sample Name: J. Troost Dairy, TRO-MW1, 8/8/2019 3:02:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	640	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/09/19 10:57		TMS	IC1	1	B053245
2	SM-2540C	08/13/19 13:30	08/13/19 13:30		CAD	MANUAL	3.333	B053418
3	EPA-350.1	08/16/19 10:45	08/19/19 14:21		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926192-02	Client Sample Name: J. Troost Dairy, TRO-MW2, 8/8/2019 4:31:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	90	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.083	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/10/19 00:14		CMM	IC1	10	B053245
2	SM-2540C	08/13/19 13:30	08/13/19 13:30		CAD	MANUAL	5	B053418
3	EPA-350.1	08/16/19 10:45	08/19/19 14:21		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926192-03	Client Sample Name: J. Troost Dairy, TRO-MW3, 8/8/2019 3:54:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	620	mg/L	33	17	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/09/19 09:00	08/10/19 00:35		CMM	IC1	5	B053245
2	SM-2540C	08/13/19 13:30	08/13/19 13:30		CAD	MANUAL	3.333	B053418
3	EPA-350.1	08/16/19 10:45	08/19/19 14:22		JMH	SC-1	1	B053823

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053245						
Nitrate as N	B053245-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053418						
Total Dissolved Solids @ 180 C	B053418-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B053823						
Ammonia as N	B053823-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053245										
Nitrate as N	B053245-BS1	LCS	5.2910	5.0000	mg/L	106		90 - 110		
QC Batch ID: B053418										
Total Dissolved Solids @ 180 C	B053418-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B053823										
Ammonia as N	B053823-BS1	LCS	2.0528	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B053245		Used client sample: Y - Description: TRO-MW1, 08/08/2019 15:02									
Nitrate as N	DUP	1926192-01	16.659	16.546		mg/L	0.7		10		
	MS	1926192-01	16.659	21.979	5.0505	mg/L		105		80 - 120	
	MSD	1926192-01	16.659	21.576	5.0505	mg/L	1.9	97.4	10	80 - 120	
QC Batch ID: B053418		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1926142-01	4940.0	5000.0		mg/L	1.2		10		
QC Batch ID: B053823		Used client sample: N									
Ammonia as N	DUP	1926488-01	0.24520	0.26690		mg/L	8.5		10		
	MS	1926488-01	0.24520	2.5923	2.2222	mg/L		106		90 - 110	
	MSD	1926488-01	0.24520	2.6699	2.2222	mg/L	2.9	109	10	90 - 110	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/22/2019 13:57
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: P & L Souza Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1928289

Invoice ID: B354143

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry).....	9
1928289-04 - PLS-MW4s	
Water Analysis (General Chemistry).....	10
1928289-05 - PLS-MW5s	
Water Analysis (General Chemistry).....	11
1928289-06 - PLS-MW6s	
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Case Narratives

Case Narrative for Work Order 1928289

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 19-28289 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody			
Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: P & L Souza Dairy Samplers Name: <u>Det-Tech/Cassandra Huda</u> Global ID - GADAIRY00008					
Name: <u>Luhdorff and Scalmanini</u> Address: <u>500 First Street</u> City: <u>Woodland</u> State: <u>95605</u> CA Attn: <u>Till Angermann</u>		Analysis Requested From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/P6 Unpreserved
- 1	PLS-MW1s, PLS-MW1d-	8-23-19	1040	GW	x
- 2	PLS-MW2s, PLS-MW2d-		1014		x
- 3	PLS-MW3s, PLS-MW3d-		1205		x
- 4	PLS-MW4s, PLS-MW4d-		1135		x
- 5	PLS-MW5s, PLS-MW5d-		1107		x
- 6	PLS-MW6s, PLS-MW6d-		1232		x
- 7	PLS-MW7s, PLS-MW7d-	SLT	949	SLT	x
8	-Field Duplicate-				
9					
10					
11					
12					

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rlryson@lsc.com, pdfballival@lsc.com, jlovelis@lsc.com

4) Send invoices to Jeannette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

Relinquished by: (Signature) Cassandra Huda 8-23-19 Date & Time
 Relinquished by: (Signature) [Signature] Date & Time
 Relinquished by: (Signature) [Signature] 8-23-19 2130 Date & Time

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-28289

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: [Seal 1] [Seal 2] None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.08 Container: PE Thermometer ID: 208 Date/Time: 8/23/2016

Temperature: (A) 3.6 °C / (C) 4.3 °C Analyst Init: EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/3080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EML Date/Time: 8-23-19 2300 Rev 21 05/23/2016

A = Actual / C = Corrected

[B:\WPDoc\WordPerfect\LAB_DOC\FORMS\ISAMECRev 20]

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1928289-01	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 10:40
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-02	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 10:14
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-03	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 12:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-04	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 11:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-05	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 11:07
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-06	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 12:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		
1928289-07	COC Number:	---	Receive Date: 08/23/2019 21:30
	Project Number:	P & L Souza Dairy	Sampling Date: 08/23/2019 09:49
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	PLS-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Water
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-01	Client Sample Name: P & L Souza Dairy, PLS-MW1s, 8/23/2019 10:40:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	78	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.081	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 08:41		CMM	IC2	5	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	10	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:07		JMH	SC-2	1	B056504

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Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-02	Client Sample Name: P & L Souza Dairy, PLS-MW2s, 8/23/2019 10:14:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	99	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.20	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 09:02		CMM	IC2	5	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	10	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:08		JMH	SC-2	1	B056504

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Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-03	Client Sample Name: P & L Souza Dairy, PLS-MW3s, 8/23/2019 12:05:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	65	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.095	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 09:22		CMM	IC2	5	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	5	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:09		JMH	SC-2	1	B056504

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-04	Client Sample Name: P & L Souza Dairy, PLS-MW4s, 8/23/2019 11:35:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 09:43		CMM	IC2	2	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	10	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:10		JMH	SC-2	1	B056504

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500 First Street
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Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-05	Client Sample Name: P & L Souza Dairy, PLS-MW5s, 8/23/2019 11:07:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	84	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.095	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 10:04		CMM	IC2	5	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	10	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:11		JMH	SC-2	1	B056504

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500 First Street
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Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-06	Client Sample Name: P & L Souza Dairy, PLS-MW6s, 8/23/2019 12:32:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	39	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 10:24	CMM	IC2	5	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00	CAD	MANUAL	10	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:13	JMH	SC-2	1	B056504

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928289-07	Client Sample Name: P & L Souza Dairy, PLS-MW7s, 8/23/2019 9:49:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	72	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.26	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 22:00	08/24/19 10:45		CMM	IC2	10	B055230
2	SM-2540C	08/29/19 16:00	08/29/19 16:00		CAD	MANUAL	5	B055692
3	EPA-350.1	09/09/19 16:15	09/10/19 11:15		JMH	SC-2	1	B056504

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Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055230						
Nitrate as N	B055230-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055692						
Total Dissolved Solids @ 180 C	B055692-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056504						
Ammonia as N	B056504-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055230										
Nitrate as N	B055230-BS1	LCS	5.1370	5.0000	mg/L	103		90	110	
QC Batch ID: B055692										
Total Dissolved Solids @ 180 C	B055692-BS1	LCS	565.00	586.00	mg/L	96.4		90	110	
QC Batch ID: B056504										
Ammonia as N	B056504-BS1	LCS	1.9911	2.0000	mg/L	99.6		90	110	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B055230		Used client sample: N								
Nitrate as N	DUP	1928245-01	ND	ND		mg/L			10	
	MS	1928245-01	ND	5.1556	5.0505	mg/L		102		80 - 120
	MSD	1928245-01	ND	5.0980	5.0505	mg/L	1.1	101	10	80 - 120
QC Batch ID: B055692		Used client sample: Y - Description: PLS-MW1s, 08/23/2019 10:40								
Total Dissolved Solids @ 180 C	DUP	1928289-01	1460.0	1410.0		mg/L	3.5		10	
QC Batch ID: B056504		Used client sample: N								
Ammonia as N	DUP	1928288-04	ND	ND		mg/L			10	
	MS	1928288-04	ND	2.4401	2.2222	mg/L		110		90 - 110
	MSD	1928288-04	ND	2.4234	2.2222	mg/L	0.7	109	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:34
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Paul Caetano Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1928133
Invoice ID: B354138

Enclosed are the results of analyses for samples received by the laboratory on 8/22/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1928133

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Name: Lundorff and Scalmanini		From Filtered Sample:			
Address: 500 First Street		Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland					
State: 95695					
CA: Till Angermann					
Alt: Till Angermann					
Project: Dairy Representative Monitoring Program					
Site: Paul Caetano Dairy					
Samplers Name: Del-Tech/Cassandra Haxton					
Global ID - GADAIRY00009					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	OT Pe Unpreserved
1	GAE-MW1s, CAE-MW1d	8-22-19	1302	GW	x
2	CAE-MW2s, GAE-MW2d		1353		x
3	CAE-MW3s, GAE-MW3d		1417		x
4	GAE-MW4s, CAE-MW4d		1337		x
5	CAE-MW5s, GAE-MW5d		1234		x
6	CAE-MW6s, GAE-MW6d	GH	1215	GH	x
7	Field-Duplicate GH				x
8					
9					
10					
11					
12					
<p>Comments:</p> <p>1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.</p> <p>2) Lab reports shall identify sampled wells exactly as shown on this CoC.</p> <p>3) Send lab reports to Lundorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbyson@lscce.com, pdhaffel@lscce.com, jlovells@lscce.com</p> <p>4) Send invoices to Jeanette Lovells (jlovells@lscce.com).</p>					
Relinquished by: (Signature)		Cassandra Haxton 8-22-19		Received By: [Signature] Date & Time 8/22/19 19:45	
Relinquished by: (Signature)		[Signature]		Received by: [Signature] Date & Time 8/22/19 19:45	
Relinquished by: (Signature)		[Signature]		Received By: [Signature] Date & Time 8/22/19 19:45	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-28133

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: [Seal 1] [Seal 2] None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/22/2016 Analyst Init: GSP

Temperature: (A) 1.9 °C / (C) 2.6 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	A	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/508/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 8/22/2016 Rev 21 05/23/2016
 Sample Numbering Completed By: GSP
 A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1928133-01	COC Number:	---	08/22/2019 22:30	08/22/2019 13:02	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW1d					
	Sampled By:	Del Tech of DTO					
1928133-02	COC Number:	---	08/22/2019 22:30	08/22/2019 13:53	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW2s					
	Sampled By:	Del Tech of DTO					
1928133-03	COC Number:	---	08/22/2019 22:30	08/22/2019 14:17	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW3s					
	Sampled By:	Del Tech of DTO					
1928133-04	COC Number:	---	08/22/2019 22:30	08/22/2019 13:37	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW4d					
	Sampled By:	Del Tech of DTO					
1928133-05	COC Number:	---	08/22/2019 22:30	08/22/2019 12:34	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW5s					
	Sampled By:	Del Tech of DTO					
1928133-06	COC Number:	---	08/22/2019 22:30	08/22/2019 12:15	---	Water	Groundwater
	Project Number:	Paul Caetano Dairy					
	Sampling Location:	---					
	Sampling Point:	CAE-MW6s					
	Sampled By:	Del Tech of DTO					

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-01	Client Sample Name: Paul Caetano Dairy, CAE-MW1d, 8/22/2019 1:02:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.2	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	89	mg/L	10	3.4	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19 06:36		SAV	IC5	2	B055092
2	SM-2540C	08/26/19 15:30	08/26/19 15:30		CAD	MANUAL	10	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19 13:45		JMH	SC-1	50	B056382

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500 First Street
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Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-02	Client Sample Name: Paul Caetano Dairy, CAE-MW2s, 8/22/2019 1:53:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	29	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	460	mg/L	20	10	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19 07:30		SAV	IC5	5	B055092
2	SM-2540C	08/26/19 15:30	08/26/19 15:30		CAD	MANUAL	2	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19 13:20		JMH	SC-1	1	B056382

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-03	Client Sample Name: Paul Caetano Dairy, CAE-MW3s, 8/22/2019 2:17:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.21	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19 09:18		SAV	IC5	5	B055092
2	SM-2540C	08/26/19 15:30	08/26/19 15:30		CAD	MANUAL	10	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19 13:22		JMH	SC-1	1	B056382

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Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-04	Client Sample Name: Paul Caetano Dairy, CAE-MW4d, 8/22/2019 1:37:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	170	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19	08:06	SAV	IC5	10	B055092
2	SM-2540C	08/26/19 15:30	08/26/19	15:30	CAD	MANUAL	10	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19	13:22	JMH	SC-1	1	B056382

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-05	Client Sample Name: Paul Caetano Dairy, CAE-MW5s, 8/22/2019 12:34:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	88	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19	08:24	SAV	IC5	5	B055092
2	SM-2540C	08/26/19 15:30	08/26/19	15:30	CAD	MANUAL	5	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19	13:23	JMH	SC-1	1	B056382

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928133-06	Client Sample Name: Paul Caetano Dairy, CAE-MW6s, 8/22/2019 12:15:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	110	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/23/19 01:00	08/23/19	08:42	SAV	IC5	10	B055092
2	SM-2540C	08/26/19 15:30	08/26/19	15:30	CAD	MANUAL	5	B055280
3	EPA-350.1	09/06/19 17:00	09/09/19	13:24	JMH	SC-1	1	B056382

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Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055092						
Nitrate as N	B055092-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055280						
Total Dissolved Solids @ 180 C	B055280-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056382						
Ammonia as N	B056382-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055092										
Nitrate as N	B055092-BS1	LCS	5.1270	5.0000	mg/L	103		90 - 110		
QC Batch ID: B055280										
Total Dissolved Solids @ 180 C	B055280-BS1	LCS	615.00	586.00	mg/L	105		90 - 110		
QC Batch ID: B056382										
Ammonia as N	B056382-BS1	LCS	2.0784	2.0000	mg/L	104		90 - 110		

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Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B055092		Used client sample: N									
Nitrate as N	DUP	1928101-01	6.3180	6.3430		mg/L	0.4		10		
	MS	1928101-01	6.3180	11.591	5.0505	mg/L		104		80 - 120	
	MSD	1928101-01	6.3180	11.591	5.0505	mg/L	0	104	10	80 - 120	
QC Batch ID: B055280		Used client sample: Y - Description: CAE-MW1d, 08/22/2019 13:02									
Total Dissolved Solids @ 180 C	DUP	1928133-01	1650.0	1670.0		mg/L	1.2		10		
QC Batch ID: B056382		Used client sample: N									
Ammonia as N	DUP	1928018-01	ND	ND		mg/L			10		
	MS	1928018-01	ND	2.4354	2.2222	mg/L		110		90 - 110	
	MSD	1928018-01	ND	2.4212	2.2222	mg/L	0.6	109	10	90 - 110	

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500 First Street
Woodland, CA 95695

Reported: 09/10/2019 18:12
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Robert Gioletti & Sons Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926940

Invoice ID: B352890

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926940

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Analysis Requested			
Name: Lundorf and Scallamini		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Project: Daily Representative Monitoring Program			
Site: Robert Gioletti & Sons Dairy 302019			
Sampler Name: <i>Rob Tech - Stacy Light</i>			
Global ID - GADAIRY00010			
Address: 500 First Street	City: Woodland	Date Sampled	Matrix
State: 95895	State: CA	Time Sampled	Matrix
Airt: Till Angermann			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled
1	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s	8/14/19	10:33
2	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		10:54
3	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		11:19
4	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		11:37
5	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		12:05
6	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		9:21
7	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		9:47
8	ROB-MW1s, ROB-MW2s, ROB-MW3s, ROB-MW4s, ROB-MW5s, ROB-MW6s, ROB-MW7s, ROB-MW8s		10:13
9	Field Duplicate		
10			
11			
12			
Comments:		Relinquished By: (Signature) <i>[Signature]</i> 8/14/19 17:30	
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.		Relinquished By: (Signature) <i>[Signature]</i> 8/14/19 17:30	
2) Lab reports shall identify sampled wells exactly as shown on this CoC.		Relinquished By: (Signature) <i>[Signature]</i> 8/14/19 17:30	
3) Send lab reports to Lundorf and Scallamini Consulting Engineers via email: lvagnino@lisco.com , tryston@lisco.com , pdhnlwa@lisco.com , jovellis@lisco.com		Received By: <i>[Signature]</i> 8/14/19 17:30	
4) Send invoices to Jeanette Lovells (jovellis@lisco.com).		Received By: <i>[Signature]</i> 8/14/19 17:30	
(A)= Analysis	(C)= Container	(F)= Preservative	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26940

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/14 2200

Temperature: (A) 1.1 °C / (C) 1.8 °C Analyst Init: GUL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/08/080										
QT EPA 515/15/150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
3oz EPA 54E										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSL Date/Time: 8/14 2238 Rev 21 05/23/2016

A = Actual / C = Corrected (S:\WFOcc\Ward\Perfor\LAB_docs\FORMS\CHAINCOV 20)

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926940-01	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 10:33
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	1926940-02	COC Number:	---
Project Number:		Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 10:54
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW2s	Lab Matrix: Water
Sampled By:		Del Tech / Stacy Light of DTO	Sample Type: Groundwater
<hr/>			
1926940-03		COC Number:	---
	Project Number:	Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 11:19
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	1926940-04	COC Number:	---
Project Number:		Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 11:37
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW4s	Lab Matrix: Water
Sampled By:		Del Tech / Stacy Light of DTO	Sample Type: Groundwater
<hr/>			
1926940-05		COC Number:	---
	Project Number:	Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 12:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
	1926940-06	COC Number:	---
Project Number:		Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 09:21
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW6s	Lab Matrix: Water
Sampled By:		Del Tech / Stacy Light of DTO	Sample Type: Groundwater
<hr/>			
1926940-07		COC Number:	---
	Project Number:	Robert Gioletti Sons & Dairy	Sampling Date: 08/14/2019 09:47
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926940-08	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Robert Gioletti Sons & Dairy	Sampling Date:	08/14/2019 10:13
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	ROB-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-01	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW1s, 8/14/2019 10:33:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	30	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 16:41		CMM	IC2	10	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 11:47		JMH	SC-2	25	B055570

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-02	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW2s, 8/14/2019 10:54:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 17:01	CMM	IC2	20	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 09:55	JMH	SC-2	1	B055570

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-03	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW3s, 8/14/2019 11:19:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.080	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 17:22		CMM	IC2	5	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 10:50		JMH	SC-2	1	B055570

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-04	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW4s, 8/14/2019 11:37:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	870	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 18:24		CMM	IC2	5	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	5	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 09:57		JMH	SC-2	1	B055570

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-05	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW5s, 8/14/2019 12:05:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	66	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 20:28	CMM	IC2	5	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 10:52	JMH	SC-2	1	B055570

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500 First Street
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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-06	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW6s, 8/14/2019 9:21:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	54	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 19:05	CMM	IC2	1	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00	CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 11:10	JMH	SC-2	25	B055570

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-07	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW7s, 8/14/2019 9:47:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	72	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.088	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 20:48		CMM	IC2	5	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	5	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 10:54		JMH	SC-2	1	B055570

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Luhdorf & Scalmanini
500 First Street
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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926940-08	Client Sample Name: Robert Gioletti Sons & Dairy, ROB-MW8s, 8/14/2019 10:13:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	95	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 19:46		CMM	IC2	10	B053695
2	SM-2540C	08/17/19 11:00	08/17/19 11:00		CAD	MANUAL	10	B053895
3	EPA-350.1	08/28/19 15:30	08/29/19 10:54		JMH	SC-2	1	B055570

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053695						
Nitrate as N	B053695-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053895						
Total Dissolved Solids @ 180 C	B053895-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055570						
Ammonia as N	B055570-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053695										
Nitrate as N	B053695-BS1	LCS	5.0090	5.0000	mg/L	100		90 - 110		
QC Batch ID: B053895										
Total Dissolved Solids @ 180 C	B053895-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B055570										
Ammonia as N	B055570-BS1	LCS	2.0008	2.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini
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Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053695		Used client sample: N								
Nitrate as N	DUP	1926890-01	3.3630	3.2340		mg/L	3.9		10	
	MS	1926890-01	3.3630	8.5152	5.0505	mg/L		102		80 - 120
	MSD	1926890-01	3.3630	8.5323	5.0505	mg/L	0.2	102	10	80 - 120
QC Batch ID: B053895		Used client sample: Y - Description: ROB-MW1s, 08/14/2019 10:33								
Total Dissolved Solids @ 180 C	DUP	1926940-01	1800.0	1810.0		mg/L	0.6		10	
QC Batch ID: B055570		Used client sample: N								
Ammonia as N	DUP	1928673-01	1.3477	1.2768		mg/L	5.4		10	
	MS	1928673-01	1.3477	3.1104	2.0000	mg/L		88.1		90 - 110 Q03
	MSD	1928673-01	1.3477	3.1178	2.0000	mg/L	0.2	88.5	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Woods Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926939

Invoice ID: B352889

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926939

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Name: Lufdorff and Scalmani		Project: Dairy Representative Monitoring Program		From Filtered Sample:	
Address: 500 First Street		Site: Woods Dairy		Ammonite-N, NO3-N, Total Dissolved Solids	
City: Woodland		Samplers Name: Antonio Del-Tech			
State: 95695		Global ID - WDR100039199			
CA					
Attn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	WOO-MW1	8/14/19	1341	6W	x
2	WOO-MW2	1415	1415	I	x
3	WOO-MW3	1312	1312	I	x
4	Field Duplicate #1				x
5					
6					
7					
8					
9					
10					
11					
12					
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampler wells exactly as shown on this CoC. 3) Send lab reports to Lufdorff and Scalmani Consulting Engineers via email: lavagnino@lsc.com , foryston@lsc.com , pdhawal@lsc.com , jovellis@lsc.com 4) Send invoices to Jeanette Lovells (jlovells@lsc.com). (A)= Analysis (C)= Container (P)= Preservative					
Relinquished by: (Signature)		Relinquished by: (Signature)		Relinquished by: (Signature)	
Date & Time		Date & Time		Date & Time	
8/14/19 16:50		8/14/19 16:50		8/14/19 22:00	

CHK BY: DISTRIBUTION
 MAI
 SUB OUT

SHORT HOLDING TIME
 Cr-6 NO3- GP SS
 DO Cl2 BOD MBAS COT



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26939

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/14 2200
 Temperature: (A) 1.1 °C / (C) 1.8 °C Analyst Init: GSL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1661										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/608/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GSL Date/Time: 8/14 2238
 A = Actual / C = Corrected

Rev 21 06/23/2016
 (S:\WPDec\Wes\Perloff\LAB\DCS\FORMS\SAMREC\cv 20)

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1926939-01	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Woods Dairy	Sampling Date:	08/14/2019 13:41
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW1	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1926939-02	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Woods Dairy	Sampling Date:	08/14/2019 14:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW2	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1926939-03	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Woods Dairy	Sampling Date:	08/14/2019 13:12
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW3	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1926939-04	COC Number:	---	Receive Date:	08/14/2019 22:00
	Project Number:	Woods Dairy	Sampling Date:	08/14/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #1	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926939-01	Client Sample Name: Woods Dairy, WOO-MW1, 8/14/2019 1:41:00PM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	60	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 02:40		SAV	IC8	5	B053857
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/28/19 13:00	08/29/19 08:59		JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926939-02	Client Sample Name: Woods Dairy, WOO-MW2, 8/14/2019 2:15:00PM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	27	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	680	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 03:01		SAV	IC8	2	B053857
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/28/19 13:00	08/29/19 09:05		JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926939-03	Client Sample Name: Woods Dairy, WOO-MW3, 8/14/2019 1:12:00PM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	820	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 03:21		SAV	IC8	5	B053857
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/28/19 13:00	08/29/19 09:05		JMH	SC-2	1	B055567

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926939-04	Client Sample Name: Woods Dairy, Field Duplicate #1, 8/14/2019 12:00:00AM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	26	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	680	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 03:42		SAV	IC8	5	B053857
2	SM-2540C	08/16/19 13:00	08/16/19 13:00		CAD	MANUAL	5	B053809
3	EPA-350.1	08/28/19 13:00	08/29/19 09:06		JMH	SC-2	1	B055567

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053809						
Total Dissolved Solids @ 180 C	B053809-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B053857						
Nitrate as N	B053857-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055567						
Ammonia as N	B055567-BLK1	ND	mg/L	0.20	0.067	

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053809										
Total Dissolved Solids @ 180 C	B053809-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B053857										
Nitrate as N	B053857-BS1	LCS	5.1990	5.0000	mg/L	104		90 - 110		
QC Batch ID: B055567										
Ammonia as N	B055567-BS1	LCS	1.9691	2.0000	mg/L	98.5		90 - 110		

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053809		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1926762-01	14500	14100		mg/L	2.8		10	
QC Batch ID: B053857		Used client sample: Y - Description: WOO-MW1, 08/14/2019 13:41								
Nitrate as N	DUP	1926939-01	59.760	59.745		mg/L	0.0		10	
	MS	1926939-01	59.760	85.152	25.253	mg/L		101		80 - 120
	MSD	1926939-01	59.760	85.525	25.253	mg/L	0.4	102	10	80 - 120
QC Batch ID: B055567		Used client sample: Y - Description: WOO-MW1, 08/14/2019 13:41								
Ammonia as N	DUP	1926939-01	0.10790	ND		mg/L			10	
	MS	1926939-01	0.10790	2.3562	2.2222	mg/L		101		90 - 110
	MSD	1926939-01	0.10790	2.2381	2.2222	mg/L	5.1	95.9	10	90 - 110

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Reported: 08/30/2019 15:02
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/04/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Antone L. Gomes & Sons Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1927193
Invoice ID: B353454

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927193

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luthdorff and Scalmanini		Reduced Constituent Suite			
Address: 500 First Street		Project: Dairy Representative Monitoring Program			
City: Woodland		Site: Antone L. Gomes & Sons Dairy 3003019			
State: 95685		Samplers Name: Bob Teek Steeg Joffe			
Attn: Till Angermann		Global ID - GADAIRY00011			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	ANT-MW1d	8/15/19	1454	GW	x
2	ANT-MW2s		1520		x
3	ANT-MW3s		1611		x
4	ANT-MW4s		1543		x
5	ANT-MW5s		1425		x
6	ANT-MW6s		1637		x
7	Field Duplicate #4		N/A		x
8					
9					
10					
11					
12					

From Filtered Sample:	
Ammonia-N, NO3-N,	
Total Dissolved Solids	

CHK BY: <u>USA</u>	DISTRIBUTION
<u>GM</u>	SUB OUT <input type="checkbox"/>
SHORT HOLDING TIME	
Cr6	NO2 (NO3) OP SS
DO	Cl2 BOD MBAS COT

Received By: <u>[Signature]</u>	Date & Time: <u>8/15/19 17:05</u>
Received By: <u>[Signature]</u>	Date & Time: <u>8/15/19 20:15</u>
Received By: <u>[Signature]</u>	Date & Time: <u>[Blank]</u>

Relinquished by: (Signature) [Signature] 81579

Relinquished by: (Signature) [Signature]

Relinquished by: (Signature) [Signature]

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luthdorff and Scalmanini Consulting Engineers via email: lvagnino@lscce.com, rdyson@lscce.com, pohalwai@lscce.com, jlovelle@lscce.com
- Send invoices to Jeannette Lovelle (jlovelle@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27193

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.98 Container: 15 Thermometer ID: 208 Date/Time: 8/15 2215
 Temperature: (A) 0.9 °C / (C) 1.6 °C Analyst Init: EMC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 504/618/8150										
QT EPA 515/18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 301SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EMC Date/Time: 8/15 2251 Rev 21 05/23/2016
 A = Actual / C = Corrected

15:\WP\Doc\Wet\Perfect\LAB_02CS\FORMS\SI\SANREC\rev 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1927193-01	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 14:54
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW1d	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-02	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 15:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-03	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 16:11
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-04	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 15:43
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-05	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 14:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-06	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 16:37
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1927193-07	COC Number:	---	Receive Date: 08/15/2019 22:15
	Project Number:	Antone L. Gomes & Son Dairy	Sampling Date: 08/15/2019 00:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	Field Duplicate #4	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater

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Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-01	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW1d, 8/15/2019 2:54:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 03:04		SAV	IC8	10	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	10	B054861
3	EPA-350.1	08/30/19 15:30	09/03/19 10:02		JMH	SC-2	1	B055854

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Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-02	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW2s, 8/15/2019 3:20:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	47	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 15:46		CMM	IC8	5	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	10	B054861
3	EPA-350.1	08/30/19 15:30	09/03/19 10:04		JMH	SC-2	1	B055854

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Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-03	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW3s, 8/15/2019 4:11:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 16:07	CMM	IC8	5	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30	CAD	MANUAL	10	B054861
3	EPA-350.1	08/30/19 15:30	09/03/19 10:04	JMH	SC-2	1	B055854

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-04	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW4s, 8/15/2019 3:43:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 16:27		CMM	IC8	2	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	10	B054861
3	EPA-350.1	08/30/19 15:30	09/03/19 10:06		JMH	SC-2	1	B055854

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Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-05	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW5s, 8/15/2019 2:25:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 16:48		CMM	IC8	2	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	5	B054861
3	EPA-350.1	08/30/19 15:30	09/03/19 10:06		JMH	SC-2	1	B055854

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500 First Street
Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-06	Client Sample Name: Antone L. Gomes & Son Dairy, ANT-MW6s, 8/15/2019 4:37:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/16/19 13:00	08/17/19 03:24	SAV	IC8	5	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30	CAD	MANUAL	10	B054861
3	EPA-350.1	08/31/19 14:15	09/03/19 13:36	JMH	SC-2	1	B055906

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927193-07	Client Sample Name: Antone L. Gomes & Son Dairy, Field Duplicate #4, 8/15/2019 12:00:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 13:00	08/16/19 17:29		CMM	IC8	5	B053863
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	10	B054861
3	EPA-350.1	08/31/19 14:15	09/03/19 13:39		JMH	SC-2	1	B055906

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Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053863						
Nitrate as N	B053863-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054861						
Total Dissolved Solids @ 180 C	B054861-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055854						
Ammonia as N	B055854-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B055906						
Ammonia as N	B055906-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053863										
Nitrate as N	B053863-BS1	LCS	5.0950	5.0000	mg/L	102		90 - 110		
QC Batch ID: B054861										
Total Dissolved Solids @ 180 C	B054861-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B055854										
Ammonia as N	B055854-BS1	LCS	2.0415	2.0000	mg/L	102		90 - 110		
QC Batch ID: B055906										
Ammonia as N	B055906-BS1	LCS	1.8612	2.0000	mg/L	93.1		90 - 110		

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Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B053863		Used client sample: N								
Nitrate as N	DUP	927107-01RE'	ND	ND		mg/L			10	
	MS	927107-01RE'	ND	25.793	25.253	mg/L		102		80 - 120
	MSD	927107-01RE'	ND	25.742	25.253	mg/L	0.2	102	10	80 - 120
QC Batch ID: B054861		Used client sample: Y - Description: ANT-MW1d, 08/15/2019 14:54								
Total Dissolved Solids @ 180 C	DUP	1927193-01	1850.0	1870.0		mg/L	1.1		10	
QC Batch ID: B055854		Used client sample: N								
Ammonia as N	DUP	1927188-03	0.84720	0.83470		mg/L	1.5		10	
	MS	1927188-03	0.84720	2.9530	2.2222	mg/L		94.8		90 - 110
	MSD	1927188-03	0.84720	3.0248	2.2222	mg/L	2.4	98.0	10	90 - 110
QC Batch ID: B055906		Used client sample: Y - Description: ANT-MW6s, 08/15/2019 16:37								
Ammonia as N	DUP	1927193-06	ND	ND		mg/L			10	
	MS	1927193-06	ND	2.1981	2.2222	mg/L		98.9		90 - 110
	MSD	1927193-06	ND	2.2886	2.2222	mg/L	4.0	103	10	90 - 110

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Woodland, CA 95695

Reported: 09/04/2019 16:10
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/09/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Correia Family Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927928

Invoice ID: B353958

Enclosed are the results of analyses for samples received by the laboratory on 8/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927928

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
19-27928		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Report to:					
Name: Luhdorff and Scalmanini		Analysis Requested			
Address: 500 First Street		From Filtered Sample:			
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids			
State: 95695					
Altin: Till Angermann					
Project: Dairy Representative Monitoring Program					
Site: Correlia Family Dairy					
Samplers Name: DeTeach Ashley Rotam					
Global ID - GADAIRY00012					
Reduced Constituent Suite					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Fe Unpreserved
- 1	COR-MW1s, COR-MW2s, COR-MW3s, COR-MW4s, COR-MW5s, GAD-MW1s, GAD-MW2s, GAD-MW3s, GAD-MW4s, GAD-MW5s	8/21/19	10:41	GW	x
- 2	COR-MW2s, COR-MW3s, COR-MW4s, COR-MW5s, GAD-MW1s, GAD-MW2s, GAD-MW3s, GAD-MW4s, GAD-MW5s		11:00		x
- 3	COR-MW3s, COR-MW4s, COR-MW5s, GAD-MW1s, GAD-MW2s, GAD-MW3s, GAD-MW4s, GAD-MW5s		11:10		x
- 4	COR-MW4s, COR-MW5s, GAD-MW1s, GAD-MW2s, GAD-MW3s, GAD-MW4s, GAD-MW5s		10:21		x
- 5	COR-MW5s, GAD-MW1s, GAD-MW2s, GAD-MW3s, GAD-MW4s, GAD-MW5s		10:04		x
6	GAD-MW1s				
7					
8					
9					
10					
11					
SHORT HOLDING TIME Cr-6 NO2 NO3 OP SS DO Cl2 BOD MBAS GOT CHK BY DISTRIBUTION SUB OUT					
Relinquished by: (Signature) <i>Janey Rotam</i> 8/21/19 17:06 Relinquished by: (Signature) <i>Janey Rotam</i> 8/21/19 17:06 Relinquished by: (Signature) <i>Janey Rotam</i> 8/21/19 22:00					
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rdryson@lsc.com, pdhatwal@lsc.com, jlovelis@lsc.com 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com). (A)= Analysis (C)= Container (P)= Preservative					

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27928

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	--	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/21/2000
 Temperature: (A) 1.9 °C (C) 2.6 °C Analyst Init: EWK

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EWK Date/Time: 8-21-00 2230 Rev 21 05/23/2016
 A = Actual / C = Corrected

(S:\WPDoc\Word\PerfectLAB_DOC\SI\FORMS\CHAINRECrev 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927928-01	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Correia Family Dairy	Sampling Date:	08/21/2019 10:41
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COR-MW1s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1927928-02	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Correia Family Dairy	Sampling Date:	08/21/2019 11:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COR-MW2s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1927928-03	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Correia Family Dairy	Sampling Date:	08/21/2019 11:16
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COR-MW3s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1927928-04	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Correia Family Dairy	Sampling Date:	08/21/2019 10:21
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COR-MW4s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1927928-05	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Correia Family Dairy	Sampling Date:	08/21/2019 10:04
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COR-MW5s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater

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500 First Street
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Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927928-01	Client Sample Name: Correia Family Dairy, COR-MW1s, 8/21/2019 10:41:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	41	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2600	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/22/19 15:00	08/22/19 20:58		CMM	IC8	5	B055084
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	20	B055245
3	EPA-350.1	09/06/19 14:30	09/06/19 20:28		EMM	SC-2	1	B056379

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Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927928-02	Client Sample Name: Correia Family Dairy, COR-MW2s, 8/21/2019 11:00:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/22/19 15:00	08/22/19 21:18		CMM	IC8	1	B055084
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055245
3	EPA-350.1	09/06/19 14:30	09/06/19 20:29		EMM	SC-2	1	B056379

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Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927928-03	Client Sample Name: Correia Family Dairy, COR-MW3s, 8/21/2019 11:16:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/22/19 15:00	08/22/19 21:39		CMM	IC8	1	B055084
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055245
3	EPA-350.1	09/06/19 14:30	09/06/19 20:29		EMM	SC-2	1	B056379

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Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927928-04	Client Sample Name: Correia Family Dairy, COR-MW4s, 8/21/2019 10:21:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.2	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/22/19 15:00	08/22/19 21:59		CMM	IC8	2	B055084
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055245
3	EPA-350.1	09/06/19 14:30	09/06/19 20:31		EMM	SC-2	1	B056379

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Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927928-05	Client Sample Name: Correia Family Dairy, COR-MW5s, 8/21/2019 10:04:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.91	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/22/19 15:00	08/22/19 22:20		CMM	IC8	1	B055084
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055245
3	EPA-350.1	09/06/19 14:30	09/06/19 20:33		EMM	SC-2	1	B056379

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500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055084						
Nitrate as N	B055084-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055245						
Total Dissolved Solids @ 180 C	B055245-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056379						
Ammonia as N	B056379-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055084										
Nitrate as N	B055084-BS1	LCS	5.1050	5.0000	mg/L	102		90 - 110		
QC Batch ID: B055245										
Total Dissolved Solids @ 180 C	B055245-BS1	LCS	620.00	586.00	mg/L	106		90 - 110		
QC Batch ID: B056379										
Ammonia as N	B056379-BS1	LCS	2.0133	2.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: B055084		Used client sample: N								
Nitrate as N	DUP	1927931-01	16.902	16.880		mg/L	0.1		10	
	MS	1927931-01	16.902	21.804	5.0505	mg/L		97.1		80 - 120
	MSD	1927931-01	16.902	21.837	5.0505	mg/L	0.2	97.7	10	80 - 120
QC Batch ID: B055245		Used client sample: Y - Description: COR-MW1s, 08/21/2019 10:41								
Total Dissolved Solids @ 180 C	DUP	1927928-01	2600.0	2640.0		mg/L	1.5		10	
QC Batch ID: B056379		Used client sample: N								
Ammonia as N	DUP	1927850-02	0.18760	0.14190		mg/L	27.7		10	J,A02
	MS	1927850-02	0.18760	2.5230	2.2222	mg/L		105		90 - 110
	MSD	1927850-02	0.18760	2.5004	2.2222	mg/L	0.9	104	10	90 - 110

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Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 09/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #2
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1928288
Invoice ID: B354142

Enclosed are the results of analyses for samples received by the laboratory on 8/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1928288

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC Laboratories, Inc. 19-20288 Report to:		Chain of Custody																																																																																											
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested																																																																																											
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Frank J. Gomes Dairy #2 Samplers Name: DeFeck/Cassandra Harlan Global ID: GADAIRY00013																																																																																											
Name: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Frank J. Gomes Dairy #2 Samplers Name: DeFeck/Cassandra Harlan Global ID: GADAIRY00013		From Filtered Sample: Ammonia-N, NO3-N Total Dissolved Solids																																																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Lab #</th> <th>Strike out non-sampled wells</th> <th>Date Sampled</th> <th>Time Sampled</th> <th>Matrix</th> <th>Q1 Pp</th> <th>Unpreserved</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>FG2-MW1s, FG2-MW1d -1</td> <td>8-23-19</td> <td>1350</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>2</td> <td>FG2-MW2s, FG2-MW2d -3</td> <td></td> <td>1440</td> <td></td> <td>x</td> <td></td> </tr> <tr> <td>3</td> <td>FG2-MW3s, FG2-MW3d -3</td> <td></td> <td>1515</td> <td></td> <td>x</td> <td></td> </tr> <tr> <td>4</td> <td>FG2-MW4s, FG2-MW4d -4</td> <td></td> <td>1422</td> <td></td> <td>x</td> <td></td> </tr> <tr> <td>5</td> <td>FG2-MW5s, FG2-MW5d -5</td> <td></td> <td>1540</td> <td>SLB</td> <td>x</td> <td></td> </tr> <tr> <td>6</td> <td>Field Duplicate #3-6</td> <td></td> <td></td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pp	Unpreserved	1	FG2-MW1s, FG2-MW1d -1	8-23-19	1350	GW	x		2	FG2-MW2s, FG2-MW2d -3		1440		x		3	FG2-MW3s, FG2-MW3d -3		1515		x		4	FG2-MW4s, FG2-MW4d -4		1422		x		5	FG2-MW5s, FG2-MW5d -5		1540	SLB	x		6	Field Duplicate #3-6			GW	x		7							8							9							10							11							12							Distribution SUB OUT <input type="checkbox"/>	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pp	Unpreserved																																																																																							
1	FG2-MW1s, FG2-MW1d -1	8-23-19	1350	GW	x																																																																																								
2	FG2-MW2s, FG2-MW2d -3		1440		x																																																																																								
3	FG2-MW3s, FG2-MW3d -3		1515		x																																																																																								
4	FG2-MW4s, FG2-MW4d -4		1422		x																																																																																								
5	FG2-MW5s, FG2-MW5d -5		1540	SLB	x																																																																																								
6	Field Duplicate #3-6			GW	x																																																																																								
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Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: jlavagnino@lisco.com, rbryson@lisco.com, pdhalmel@lisco.com, jovellis@lisco.com 4) Send invoices to Jeanette Lovellis (jlovelis@lisco.com).		Relinquished by: (Signature) Cacomandre Valda 8-23-19 Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature)																																																																																											
(A)= Analysis (C)= Container (P)= Preservative		Date & Time Date & Time Date & Time																																																																																											

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-28288

SHIPPING INFORMATION
Fed Ex [] UPS [] Ontrac [] Hand Delivery []
BC Lab Field Service [x] Other [] (Specify) _____

SHIPPING CONTAINER
Ice Chest [x] None [] Box []
Other [] (Specify) _____

FREE LIQUID
YES [] NO []
W / S

Refrigerant: Ice [x] Blue Ice [] None [] Other [] Comments:

Custody Seals Ice Chest [] Containers []
Intact? Yes [] No [] Intact? Yes [] No []

All samples received? Yes [x] No [] All samples containers intact? Yes [x] No [] Description(s) match COC? Yes [x] No []

COC Received
[] YES [x] NO

Emissivity: 0.08 Container: PG Thermometer ID: 208
Temperature: (A) 13.6 °C / (C) 4.3 °C

Date/Time 8/23/2019
Analyst Init ENK

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, FT INORGANIC CHEMICAL METALS, etc. Handwritten 'A' marks are present in the first six columns of the first row.

Comments:
Sample Numbering Completed By: ENK Date/Time: 8-23-19 2300 Rev 21 05/23/2016
A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1928288-01	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 13:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW1s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928288-02	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 14:46
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW2s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928288-03	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 15:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW3s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928288-04	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 14:22
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW4s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928288-05	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 15:40
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW5s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1928288-06	COC Number:	---	Receive Date:	08/23/2019 21:30
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	08/23/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #3	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-01	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW1s, 8/23/2019 1:50:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	3200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/24/19 13:00	08/24/19 16:06	CMM	IC2	1	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00	CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 10:55	JMH	SC-2	1	B056502

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-02	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW2s, 8/23/2019 2:46:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 13:00	08/24/19 17:29		CMM	IC2	1	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 10:57		JMH	SC-2	1	B056502

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-03	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW3s, 8/23/2019 3:15:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.4	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	4000	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 13:00	08/24/19 17:49		CMM	IC2	1	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	20	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 10:57		JMH	SC-2	1	B056502

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-04	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW4s, 8/23/2019 2:22:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/24/19 13:00	08/25/19 08:12	CMM	IC2	2	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00	CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 11:00	JMH	SC-2	1	B056504

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-05	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW5s, 8/23/2019 3:40:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.6	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 13:00	08/24/19 18:30		CMM	IC2	1	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 11:06		JMH	SC-2	1	B056504

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1928288-06	Client Sample Name: Frank J. Gomes Dairy #2, Field Duplicate #3, 8/23/2019 12:00:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.4	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/24/19 13:00	08/24/19 19:32		CMM	IC2	1	B055231
2	SM-2540C	08/29/19 13:00	08/29/19 13:00		CAD	MANUAL	10	B055656
3	EPA-350.1	09/09/19 16:15	09/10/19 11:06		JMH	SC-2	1	B056504

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B055231						
Nitrate as N	B055231-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055656						
Total Dissolved Solids @ 180 C	B055656-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056502						
Ammonia as N	B056502-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B056504						
Ammonia as N	B056504-BLK1	ND	mg/L	0.20	0.067	

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Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B055231										
Nitrate as N	B055231-BS1	LCS	5.0740	5.0000	mg/L	101		90 - 110		
QC Batch ID: B055656										
Total Dissolved Solids @ 180 C	B055656-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B056502										
Ammonia as N	B056502-BS1	LCS	2.0019	2.0000	mg/L	100		90 - 110		
QC Batch ID: B056504										
Ammonia as N	B056504-BS1	LCS	1.9911	2.0000	mg/L	99.6		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B055231		Used client sample: Y - Description: FG2-MW1s, 08/23/2019 13:50								
Nitrate as N	DUP	1928288-01	0.11300	0.10700		mg/L	5.5		10	
	MS	1928288-01	0.11300	5.1636	5.0505	mg/L		100		80 - 120
	MSD	1928288-01	0.11300	5.1434	5.0505	mg/L	0.4	99.6	10	80 - 120
QC Batch ID: B055656		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1928287-01	605.00	610.00		mg/L	0.8		10	
QC Batch ID: B056502		Used client sample: N								
Ammonia as N	DUP	1928286-01	ND	ND		mg/L			10	
	MS	1928286-01	ND	2.3170	2.2222	mg/L		104		90 - 110
	MSD	1928286-01	ND	2.3716	2.2222	mg/L	2.3	107	10	90 - 110
QC Batch ID: B056504		Used client sample: Y - Description: FG2-MW4s, 08/23/2019 14:22								
Ammonia as N	DUP	1928288-04	ND	ND		mg/L			10	
	MS	1928288-04	ND	2.4401	2.2222	mg/L		110		90 - 110
	MSD	1928288-04	ND	2.4234	2.2222	mg/L	0.7	109	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/10/2019 19:33
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Godhino Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926943

Invoice ID: B352893

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926943

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody																																																																																												
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested																																																																																												
Name: Lohdorff and Scalmanini																																																																																														
Address: 500 First Street																																																																																														
City: Woodland																																																																																														
State: 95695																																																																																														
City: Till Angermann																																																																																														
Project: Dairy Representative Monitoring Program																																																																																														
Site: Godinho Dairy																																																																																														
Samplers Name: DeFech Ashley Putnam																																																																																														
Global ID - GADAIRY00014																																																																																														
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids																																																																																														
<table border="1"> <thead> <tr> <th>Lab #</th> <th>Strike out non-sampled wells</th> <th>Date Sampled</th> <th>Time Sampled</th> <th>Matrix</th> <th>Ot Pe Unpreserved</th> <th>Analysis Requested</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GOD-MW1s, GOD-MW1s</td> <td>8/14/19</td> <td>8:06</td> <td>GW</td> <td>x</td> <td>MA DISTRIBUTION</td> </tr> <tr> <td>2</td> <td>GOD-MW2s, GOD-MW2s</td> <td>8/14/19</td> <td>8:09</td> <td>GW</td> <td>x</td> <td>MA SUB OUT</td> </tr> <tr> <td>3</td> <td>GOD-MW3s, GOD-MW3s</td> <td>8/14/19</td> <td>8:14</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>4</td> <td>GOD-MW4s, GOD-MW4s</td> <td>8/14/19</td> <td>8:28</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>5</td> <td>GOD-MW5s, GOD-MW5s</td> <td>8/14/19</td> <td>10:15</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>6</td> <td>GOD-MW6s, GOD-MW6s</td> <td>8/14/19</td> <td>9:20</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>7</td> <td>GOD-MW7s, GOD-MW7s</td> <td>8/14/19</td> <td>9:40</td> <td>GW</td> <td>x</td> <td></td> </tr> <tr> <td>8</td> <td>Field-Samples</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ot Pe Unpreserved	Analysis Requested	1	GOD-MW1s, GOD-MW1s	8/14/19	8:06	GW	x	MA DISTRIBUTION	2	GOD-MW2s, GOD-MW2s	8/14/19	8:09	GW	x	MA SUB OUT	3	GOD-MW3s, GOD-MW3s	8/14/19	8:14	GW	x		4	GOD-MW4s, GOD-MW4s	8/14/19	8:28	GW	x		5	GOD-MW5s, GOD-MW5s	8/14/19	10:15	GW	x		6	GOD-MW6s, GOD-MW6s	8/14/19	9:20	GW	x		7	GOD-MW7s, GOD-MW7s	8/14/19	9:40	GW	x		8	Field-Samples						9							10							11							12						
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<p>Comments:</p> <p>1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.</p> <p>2) Lab reports shall identify sampled wells exactly as shown on this CoC.</p> <p>3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lscs.com, rbyson@lscs.com, pthahval@lscs.com, jlovelis@lscs.com</p> <p>4) Send invoices to Jeanette Lovelis (jlovelis@lscs.com).</p>																																																																																														
<p>Relinquished by: (Signature) <i>[Signature]</i> Date & Time: 8/14/19 17:30</p> <p>Relinquished by: (Signature) <i>[Signature]</i> Date & Time: 8/14/19 2:00</p> <p>Relinquished by: (Signature) <i>[Signature]</i> Date & Time: 8/14/19 2:00</p>																																																																																														

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26943

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.08. Container: PE. Thermometer ID: 708. Date/Time: 8/14/2000. Temperature: (A) 1.1 °C / (C) 1.8 °C. Analyst In/It: GML.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT PE UNPRES, 4oz / 8oz / 16oz PE UNPRES, 2oz Cr*, QT INORGANIC CHEMICAL METALS, INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, 2oz NITRATE/NITRITE, PT TOTAL ORGANIC CARBON, PT CHEMICAL OXYGEN DEMAND, PA PHENOLICS, 40ml VOA VIAL TRAVEL BLANK, 40ml VOA VIAL, QT EPA 1664, PT ODOR, RADIOLOGICAL, BACTERIOLOGICAL, 40 ml VOA VIAL- 504, QT EPA 505018/5050, QT EPA 515.18150, QT EPA 525, QT EPA 525 TRAVEL BLANK, 40ml EPA 547, 40ml EPA 531.1, 8oz EPA 548, QT EPA 549, QT EPA 8011M, QT EPA 827, 8oz / 16oz / 32oz AMBER, 8oz / 16oz / 32oz JAR, SOIL SLIEVE, PCB VIAL, PLASTIC BAG, TEDLAR BAG, FERROUS IRON, ENCORE, SMART KIT, SUMMA CANISTER.

Comments: Sample Numbering Completed By: GML Date/Time: 8/14/2000 Rev 21 05/23/2016 [S:\WP\Doc\WordPerfect\LAB_DOC\CS\FORMS\SANITR\Rev 20]



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926943-01	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Godhino Dairy	Sampling Date: 08/14/2019 08:06
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1926943-02	COC Number:	---
Project Number:		Godhino Dairy	Sampling Date: 08/14/2019 09:04
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW2s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1926943-03		COC Number:	---
	Project Number:	Godhino Dairy	Sampling Date: 08/14/2019 08:44
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1926943-04	COC Number:	---
Project Number:		Godhino Dairy	Sampling Date: 08/14/2019 08:28
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW4s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1926943-05		COC Number:	---
	Project Number:	Godhino Dairy	Sampling Date: 08/14/2019 10:15
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1926943-06	COC Number:	---
Project Number:		Godhino Dairy	Sampling Date: 08/14/2019 09:26
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW6s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1926943-07		COC Number:	---
	Project Number:	Godhino Dairy	Sampling Date: 08/14/2019 09:48
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW7s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-01	Client Sample Name: Godhino Dairy, GOD-MW1s, 8/14/2019 8:06:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19	18:14	CMM	IC5	1	B053750
2	SM-2540C	08/20/19 14:00	08/20/19	14:00	CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19	09:32	JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-02	Client Sample Name: Godhino Dairy, GOD-MW2s, 8/14/2019 9:04:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 18:32		CMM	IC5	2	B053750
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19 09:37		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-03	Client Sample Name: Godhino Dairy, GOD-MW3s, 8/14/2019 8:44:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.069	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 18:50		CMM	IC5	2	B053750
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19 09:37		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-04	Client Sample Name: Godhino Dairy, GOD-MW4s, 8/14/2019 8:28:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3200	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 19:08		CMM	IC5	2	B053750
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	20	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19 09:39		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-05	Client Sample Name: Godhino Dairy, GOD-MW5s, 8/14/2019 10:15:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19	19:26	CMM	IC5	1	B053750
2	SM-2540C	08/20/19 14:00	08/20/19	14:00	CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19	09:39	JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-06	Client Sample Name: Godhino Dairy, GOD-MW6s, 8/14/2019 9:26:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 19:44		CMM	IC5	5	B053750
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19 09:41		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926943-07	Client Sample Name: Godhino Dairy, GOD-MW7s, 8/14/2019 9:48:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.83	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.090	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 17:00	08/15/19 20:02		CMM	IC5	1	B053750
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	10	B054084
3	EPA-350.1	08/28/19 15:30	08/29/19 09:41		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053750						
Nitrate as N	B053750-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054084						
Total Dissolved Solids @ 180 C	B054084-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055572						
Ammonia as N	B055572-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053750										
Nitrate as N	B053750-BS1	LCS	4.9160	5.0000	mg/L	98.3		90 - 110		
QC Batch ID: B054084										
Total Dissolved Solids @ 180 C	B054084-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B055572										
Ammonia as N	B055572-BS1	LCS	2.1084	2.0000	mg/L	105		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053750		Used client sample: N								
Nitrate as N	DUP	1926975-02	0.72100	0.77200		mg/L	6.8		10	
	MS	1926975-02	0.72100	5.8808	5.0505	mg/L		102		80 - 120
	MSD	1926975-02	0.72100	5.9061	5.0505	mg/L	0.4	103	10	80 - 120
QC Batch ID: B054084		Used client sample: Y - Description: GOD-MW1s, 08/14/2019 08:06								
Total Dissolved Solids @ 180 C	DUP	1926943-01	1640.0	1610.0		mg/L	1.8		10	
QC Batch ID: B055572		Used client sample: Y - Description: GOD-MW1s, 08/14/2019 08:06								
Ammonia as N	DUP	1926943-01	ND	0.093200		mg/L			10	J
	MS	1926943-01	ND	2.2910	2.2222	mg/L		103		90 - 110
	MSD	1926943-01	ND	2.3874	2.2222	mg/L	4.1	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Godhino Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/04/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: John Machado Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1926944

Invoice ID: B353394

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926944

Samples were filtered through a 0.45 micron filter prior to analysis.

BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Analysis Requested			
Name: Lunderdoff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann				Project: Dairy Representative Monitoring Program Site: John Machado Dairy Samplers Name: <u>DefTech Ashley Patton</u> Global ID - GADAIRY00015			
Report to: Reduced Constituent Suite From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids				CHK BY: <u>WA</u> DISTRIBUTION SUB OUT: <input type="checkbox"/>			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved		
1	MAC-MW1s, MAC-MW2s	8/14/19	11:18	GW	x		
2	MAC-MW2s, MAC-MW3s		12:50		x		
3	MAC-MW3s, MAC-MW4s		12:45		x		
4	MAC-MW4s, MAC-MW5s		12:16		x		
5	MAC-MW5s, MAC-MW6s		11:46		x		
6	MAC-MW6s						
7							
8							
9							
10							
11							
12							

SHORT HOLDING TIME Cr ⁶ NO ₂ NO ₃ OP SS DO Cl ₂ BOD MBAS COT	Received By: <u>[Signature]</u> Date & Time: 8/14/19 17:30 Received By: <u>[Signature]</u> Date & Time: 8/14/19 22:00 Received By: <u>[Signature]</u> Date & Time:
--	--

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lunderdoff and Scalmanini Consulting Engineers via email: lavagnino@lscce.com, rhyson@lscce.com, pdmahua@lscce.com, jlovelis@lscce.com
- Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-26944

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time 8/14 2200

Temperature: (A) 1.1 °C / (C) 1.8 °C Analyst Init GUL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/605/8050										
QT EPA 515/L8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSL Date/Time: 8/14 2238

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1926944-01	COC Number:	---	08/14/2019 22:00	08/14/2019 11:18	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW1s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1926944-02	COC Number:	---	08/14/2019 22:00	08/14/2019 10:55	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW2s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1926944-03	COC Number:	---	08/14/2019 22:00	08/14/2019 12:45	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW3s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1926944-04	COC Number:	---	08/14/2019 22:00	08/14/2019 12:16	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW4s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1926944-05	COC Number:	---	08/14/2019 22:00	08/14/2019 11:46	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW5s					
	Sampled By:	Del-Tech/Ashley Light of DTO					

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926944-01	Client Sample Name: John Machado Dairy, MAC-MW1s, 8/14/2019 11:18:00AM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.093	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 14:57	CMM	IC8	2	B053696
2	SM-2540C	08/20/19 14:00	08/20/19 14:00	CAD	MANUAL	10	B054085
3	EPA-350.1	08/28/19 15:30	08/29/19 09:42	JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926944-02	Client Sample Name: John Machado Dairy, MAC-MW2s, 8/14/2019 10:55:00AM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2200	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 15:18		CMM	IC8	2	B053696
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	10	B054085
3	EPA-350.1	08/28/19 15:30	08/29/19 09:45		JMH	SC-2	1	B055572

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500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926944-03	Client Sample Name: John Machado Dairy, MAC-MW3s, 8/14/2019 12:45:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	9800	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	0.074	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 15:38		CMM	IC8	5	B053696
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	50	B054085
3	EPA-350.1	08/28/19 15:30	08/29/19 09:46		JMH	SC-2	1	B055572

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926944-04	Client Sample Name: John Machado Dairy, MAC-MW4s, 8/14/2019 12:16:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	19	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3200	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.082	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 15:59	CMM	IC8	2	B053696
2	SM-2540C	08/20/19 14:00	08/20/19 14:00	CAD	MANUAL	20	B054085
3	EPA-350.1	08/29/19 15:15	08/30/19 13:41	JMH	SC-2	1	B055725

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926944-05	Client Sample Name: John Machado Dairy, MAC-MW5s, 8/14/2019 11:46:00AM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	19	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 13:00	08/15/19 16:19		CMM	IC8	2	B053696
2	SM-2540C	08/20/19 14:00	08/20/19 14:00		CAD	MANUAL	20	B054085
3	EPA-350.1	08/29/19 15:15	08/30/19 13:42		JMH	SC-2	1	B055725

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053696						
Nitrate as N	B053696-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054085						
Total Dissolved Solids @ 180 C	B054085-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055572						
Ammonia as N	B055572-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B055725						
Ammonia as N	B055725-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053696										
Nitrate as N	B053696-BS1	LCS	5.1240	5.0000	mg/L	102		90 - 110		
QC Batch ID: B054085										
Total Dissolved Solids @ 180 C	B054085-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B055572										
Ammonia as N	B055572-BS1	LCS	2.1084	2.0000	mg/L	105		90 - 110		
QC Batch ID: B055725										
Ammonia as N	B055725-BS1	LCS	2.0382	2.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B053696		Used client sample: N								
Nitrate as N	DUP	1926973-01	0.063000	0.062000		mg/L	1.6		10	J
	MS	1926973-01	0.063000	5.2273	5.0505	mg/L		102	80 - 120	
	MSD	1926973-01	0.063000	5.2859	5.0505	mg/L	1.1	103	10	80 - 120
QC Batch ID: B054085		Used client sample: Y - Description: MAC-MW1s, 08/14/2019 11:18								
Total Dissolved Solids @ 180 C	DUP	1926944-01	1710.0	1680.0		mg/L	1.8		10	
QC Batch ID: B055572		Used client sample: N								
Ammonia as N	DUP	1926943-01	ND	0.093200		mg/L			10	J
	MS	1926943-01	ND	2.2910	2.2222	mg/L		103	90 - 110	
	MSD	1926943-01	ND	2.3874	2.2222	mg/L	4.1	107	10	90 - 110
QC Batch ID: B055725		Used client sample: N								
Ammonia as N	DUP	1926907-08RE1	ND	ND		mg/L			10	
	MS	1926907-08RE1	ND	1.9894	2.2222	mg/L		89.5	90 - 110	Q03
	MSD	1926907-08RE1	ND	1.8263	2.2222	mg/L	8.5	82.2	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/04/2019 12:47
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 08/30/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Jose Nunes Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1926942
Invoice ID: B352892

Enclosed are the results of analyses for samples received by the laboratory on 8/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1926942

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Analysis Requested			
Report to: 1926942 Reduced Constituent Suite				From Filtered Sample:			
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95995 Attn: Till Angermann				Project: Dairy Representative Monitoring Program Site: Jose Nunes Dairy Samplers Name: Del-Tech Ashley Putnam Global ID - GADAIRY00016			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qi Pe Unpreserved	CHK BY	DISTRIBUTION
1	NUN-MW1s, NON-MW1d	8/14/19	1430	GW	x	UP	MA
2	NUN-MW2s, NON-MW2d	8/14/19	1400		x		
3	NUN-MW3s, NON-MW3d	8/14/19	1455		x		
4	NUN-MW4s, NON-MW4d	8/14/19	1520		x		
5	NUN-MW5s, NON-MW5d	8/14/19	1510		x		
6	Field Duplicate 8				x		
7							
8							
9							
10							
11							
12							

SHORT HOLDING TIME

Cr⁶⁺ NO₂ NO₃ OP SS

DO Cl₂ BOD MBAS COT

Relinquished by: (Signature) <i>Donny Putnam</i>	Date & Time 8/14/19 17:30
Relinquished by: (Signature) <i>Putnam</i>	Date & Time 8/14/19 22:00
Relinquished by: (Signature) <i>Putnam</i>	Date & Time

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rlsc@lsc.com, pdh@lsc.com.
- Send invoices to Jeannette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1
Submission #: 19-26942

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery Other (Specify) _____
SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____
FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO
Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/14 2200
Temperature: (A) 1.1 °C / (C) 1.8 °C Analyst Init: GUL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
45ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 509/018/0080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
3oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
Sample Numbering Completed By: GUL Date/Time: 8/14 2238
A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1926942-01	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 14:38
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
1926942-02	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 14:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW2s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
1926942-03	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 14:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
1926942-04	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 15:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW4s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
1926942-05	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 14:16
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
1926942-06	COC Number:	---	Receive Date: 08/14/2019 22:00
	Project Number:	Jose Nunes Dairy	Sampling Date: 08/14/2019 00:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	Field Duplicate 8	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-01	Client Sample Name: Jose Nunes Dairy, NUN-MW1s, 8/14/2019 2:38:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	4500	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 04:02	SAV	IC8	1	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00	CAD	MANUAL	20	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:07	JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-02	Client Sample Name: Jose Nunes Dairy, NUN-MW2s, 8/14/2019 2:00:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.075	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 04:23		SAV	IC8	1	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00		CAD	MANUAL	10	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:08		JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-03	Client Sample Name: Jose Nunes Dairy, NUN-MW3s, 8/14/2019 2:55:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4900	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.090	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 10:12	SAV	IC8	2	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00	CAD	MANUAL	20	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:08	JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-04	Client Sample Name: Jose Nunes Dairy, NUN-MW4s, 8/14/2019 3:20:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.5	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	9700	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 06:26		SAV	IC8	1	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00		CAD	MANUAL	50	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:10		JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-05	Client Sample Name: Jose Nunes Dairy, NUN-MW5s, 8/14/2019 2:16:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	6600	mg/L	500	250	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 06:46	SAV	IC8	1	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00	CAD	MANUAL	50	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:12	JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1926942-06	Client Sample Name: Jose Nunes Dairy, Field Duplicate 8, 8/14/2019 12:00:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4700	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.086	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/15/19 21:00	08/16/19 07:07	SAV	IC8	2	B053857
2	SM-2540C	08/17/19 12:00	08/17/19 12:00	CAD	MANUAL	20	B053897
3	EPA-350.1	08/28/19 13:00	08/29/19 09:14	JMH	SC-2	1	B055567

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053857						
Nitrate as N	B053857-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B053897						
Total Dissolved Solids @ 180 C	B053897-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055567						
Ammonia as N	B055567-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053857										
Nitrate as N	B053857-BS1	LCS	5.1990	5.0000	mg/L	104		90 - 110		
QC Batch ID: B053897										
Total Dissolved Solids @ 180 C	B053897-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B055567										
Ammonia as N	B055567-BS1	LCS	1.9691	2.0000	mg/L	98.5		90 - 110		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: B053857		Used client sample: N								
Nitrate as N	DUP	1926939-01	59.760	59.745		mg/L	0.0		10	
	MS	1926939-01	59.760	85.152	25.253	mg/L		101		80 - 120
	MSD	1926939-01	59.760	85.525	25.253	mg/L	0.4	102	10	80 - 120
QC Batch ID: B053897		Used client sample: Y - Description: NUN-MW1s, 08/14/2019 14:38								
Total Dissolved Solids @ 180 C	DUP	1926942-01	4480.0	4460.0		mg/L	0.4		10	
QC Batch ID: B055567		Used client sample: N								
Ammonia as N	DUP	1926939-01	0.10790	ND		mg/L			10	
	MS	1926939-01	0.10790	2.3562	2.2222	mg/L		101		90 - 110
	MSD	1926939-01	0.10790	2.2381	2.2222	mg/L	5.1	95.9	10	90 - 110

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 08/30/2019 15:03
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 09/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Moonshine Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1927194
Invoice ID: B353478

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Water Analysis (General Chemistry).....	9
1927194-03 - MOO-MW3	
Water Analysis (General Chemistry).....	10
1927194-04 - MOO-MW4	
Water Analysis (General Chemistry).....	11
1927194-05 - MOO-MW5s	
Water Analysis (General Chemistry).....	12
1927194-06 - MOO-MW6s	
Water Analysis (General Chemistry).....	13
1927194-07 - MOO-MW7s	
Water Analysis (General Chemistry).....	14
1927194-08 - MOO-MW8d	
Water Analysis (General Chemistry).....	15
1927194-09 - Field Duplicate #5	
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Case Narratives

Case Narrative for Work Order 1927194

Samples were filtered through a 0.45 micron prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
Report to: 19-27194 Reduced Constituent Suite							
Name: Luhdorff and Scalmani	Project: Daily Representative Monitoring Program	From Filtered Sample:					
Address: 500 First Street	Site: Moonshine Dairy	Ammonia-N, NO3-N, Total Dissolved Solids					
City: Woodland	State: CA						
State: 95695	City: Moonshine Dairy						
CA	Sample Name: Del Peck Steeglight						
Attn: Till Angermann	Global ID - GADAIRY00017						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl Pp Unpreserved	CHK BY	DISTRIBUTION
1	M00-MW1	8-15-19	12:13	GW	x	GW	
2	M00-MW2		11:17		x		
3	M00-MW3		9:58		x		
4	M00-MW4		8:49		x		
5	M00-MW5s, M00-MW5d		10:28		x		
6	M00-MW6s, M00-MW6d		12:40		x		
7	M00-MW7s, M00-MW7d		12:59		x		
8	M00-MW8s, M00-MW8d		13:27		x		
9	Field Duplicate # 5		VSS DIA	VSS	x		
10							
11							
12							
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llavagnino@lisce.com, rbryson@lisce.com, pdhalvial@lisce.com, jlovelis@lisce.com 4) Send invoices to Jeannette Lovelis (jlovelis@lisce.com).						Received By: <i>[Signature]</i> Date & Time: 8/15/19 17:05 Received by: <i>[Signature]</i> Date & Time: 8/15/19 22:15 Received By: <i>[Signature]</i> Date & Time:	
Relinquished by: <i>[Signature]</i> Date & Time: 8/15/19 8:15:19 Relinquished by: <i>[Signature]</i> Date & Time: 8/15/19 8:50 Relinquished by: <i>[Signature]</i> Date & Time:						DO Cl ₂ SO ₄ / MBAS / COT SHORT HOLDING TIME Cl ⁻ NO ₂ NO ₃ OF SS	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1927194

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.98 Container: YE Thermometer ID: 208 Date/Time: 8/15 2215
 Temperature: (A) 0.9 °C / (C) 1.6 °C Analyst Init: EM

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GS Date/Time: 8/15 2251 Rev 21 05/23/2016
 A = Actual / C = Corrected

IS:\WPDoc\Word\PerfectLAB_DOC\FORMS\SIGAVR\REV 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1927194-01	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 12:13
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW1		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-02	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 11:17
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW2		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-03	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 09:58
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW3		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-04	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 08:49
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW4		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-05	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 10:28
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW5s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-06	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 12:40
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW6s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater
1927194-07	COC Number:	---		08/15/2019 22:15	
	Project Number:	Moonshine Dairy		Sampling Date:	08/15/2019 12:59
	Sampling Location:	---		Sample Depth:	---
	Sampling Point:	MOO-MW7s		Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO		Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927194-08	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Moonshine Dairy	Sampling Date:	08/15/2019 13:27
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MOO-MW8d	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1927194-09	COC Number:	---	Receive Date:	08/15/2019 22:15
	Project Number:	Moonshine Dairy	Sampling Date:	08/15/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #5	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-01	Client Sample Name: Moonshine Dairy, MOO-MW1, 8/15/2019 12:13:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.2	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	1.3	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	11:19	SAV	IC1	1	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:25	JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-02	Client Sample Name: Moonshine Dairy, MOO-MW2, 8/15/2019 11:17:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	22	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	11:40	SAV	IC1	2	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:25	JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-03	Client Sample Name: Moonshine Dairy, MOO-MW3, 8/15/2019 9:58:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.6	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19 12:01		SAV	IC1	1	B053862
2	SM-2540C	08/21/19 13:30	08/21/19 13:30		CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19 13:26		JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-04	Client Sample Name: Moonshine Dairy, MOO-MW4, 8/15/2019 8:49:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.9	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	17:37	CMM	IC1	2	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:27	JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-05	Client Sample Name: Moonshine Dairy, MOO-MW5s, 8/15/2019 10:28:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	17:16	CMM	IC1	2	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:28	JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-06	Client Sample Name: Moonshine Dairy, MOO-MW6s, 8/15/2019 12:40:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.7	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	13:46	SAV	IC1	1	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:28	JMH	SC-2	1	B055905

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Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-07	Client Sample Name: Moonshine Dairy, MOO-MW7s, 8/15/2019 12:59:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	14:07	SAV	IC1	5	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:30	JMH	SC-2	1	B055905

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500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-08	Client Sample Name: Moonshine Dairy, MOO-MW8d, 8/15/2019 1:27:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	2.1	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	14:28	SAV	IC1	1	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	5	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:32	JMH	SC-2	1	B055905

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Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927194-09	Client Sample Name: Moonshine Dairy, Field Duplicate #5, 8/15/2019 12:00:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.9	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/16/19 08:00	08/16/19	14:49	SAV	IC1	1	B053862
2	SM-2540C	08/21/19 13:30	08/21/19	13:30	CAD	MANUAL	10	B054862
3	EPA-350.1	08/31/19 12:00	09/03/19	13:34	JMH	SC-2	1	B055905

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B053862						
Nitrate as N	B053862-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B054862						
Total Dissolved Solids @ 180 C	B054862-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B055905						
Ammonia as N	B055905-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B053862										
Nitrate as N	B053862-BS1	LCS	5.1510	5.0000	mg/L	103		90 - 110		
QC Batch ID: B054862										
Total Dissolved Solids @ 180 C	B054862-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B055905										
Ammonia as N	B055905-BS1	LCS	2.1140	2.0000	mg/L	106		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B053862		Used client sample: N								
Nitrate as N	DUP	927101-01RE'	ND	ND		mg/L			10	
	MS	927101-01RE'	ND	10.097	10.101	mg/L		100		80 - 120
	MSD	927101-01RE'	ND	10.034	10.101	mg/L	0.6	99.3	10	80 - 120
QC Batch ID: B054862		Used client sample: Y - Description: MOO-MW1, 08/15/2019 12:13								
Total Dissolved Solids @ 180 C	DUP	1927194-01	1640.0	1610.0		mg/L	1.8		10	
QC Batch ID: B055905		Used client sample: N								
Ammonia as N	DUP	1928142-01	0.16610	0.16100		mg/L	3.1		10	J
	MS	1928142-01	0.16610	2.4158	2.2222	mg/L		101		90 - 110
	MSD	1928142-01	0.16610	2.3998	2.2222	mg/L	0.7	101	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/05/2019 8:06
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 09/09/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1927927

Invoice ID: B353957

Enclosed are the results of analyses for samples received by the laboratory on 8/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1927927

Samples were filtered through a 0.45 micron filter prior to analysis.



19-27927

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

Chain of Custody

Report to:				Analysis Requested			
Name: Luidorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann				From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Project: Dairy Representative Monitoring Program Site: Tony L. Lopes Dairy LP Samplers Name: DeTorch Ashley Putnam Global ID - GADAIRY00018							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl	Fe	Unpreserved
- 1	TON-MW1s, [REDACTED]	8/22/09	1404	GW	x		
- 2	TON-MW2s, [REDACTED]		1427		x		
- 3	[REDACTED], TON-MW3d		1442		x		
- 4	[REDACTED], TON-MW4d		1340		x		
- 5	[REDACTED], TON-MW5d		1310		x		
- 6	TON-MW6s, [REDACTED]		1452		x		
- 7	TON-MW7s, [REDACTED]		1517		x		
- 8	TON-MW8s, [REDACTED]		1517		x		
10							
11							
12							

SHORT HOLDING TIME

Cr-6 NO₂ NO₃ OP SS

DO CL BOD MBAS COT

CHIEFY DISTRIBUTION

SUB-OUT

Received By: [Signature] Date & Time: 8/21/09 17:06

Relinquished By: [Signature] Date & Time: 8/21/09 2200

Relinquished By: [Signature] Date & Time:

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: llavagnne@liscce.com, rbyson@liscce.com, pdhallwa@liscce.com, jlovelis@liscce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@liscce.com).



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-27927

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/21/2000
 Temperature: (A) 1.9 °C / (C) 2.6 °C Analyst Init: EWK

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁺⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/602/6080										
QT EPA 515.1A/150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EWK Date/Time: 8-21-00 2230 Rcv 21 08/23/2016
 A = Actual / C = Corrected

BC LABORATORIES, INC. 15151 SAN VICENTE BLVD. BAKERSFIELD, CA 93311 (805) 833-7230



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1927927-01	COC Number:	---	Receive Date: 08/21/2019 22:00
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 14:04
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1927927-02	COC Number:	---
Project Number:		Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 14:27
Sampling Location:		---	Sample Depth: ---
Sampling Point:		TON-MW2s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1927927-03		COC Number:	---
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 12:42
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW3d	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1927927-04	COC Number:	---
Project Number:		Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 13:40
Sampling Location:		---	Sample Depth: ---
Sampling Point:		TON-MW4d	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1927927-05		COC Number:	---
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 13:10
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW5d	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1927927-06	COC Number:	---
Project Number:		Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 14:52
Sampling Location:		---	Sample Depth: ---
Sampling Point:		TON-MW6s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1927927-07		COC Number:	---
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 08/21/2019 15:47
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW7s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1927927-08	COC Number:	---	Receive Date:	08/21/2019 22:00
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date:	08/21/2019 15:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	TON-MW8s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-01	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW1s, 8/21/2019 2:04:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	46	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	47	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 15:24	CMM	IC2	5	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30	CAD	MANUAL	10	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:57	EMM	SC-2	25	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-02	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW2s, 8/21/2019 2:27:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.80	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 09:34	SAV	IC2	2	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30	CAD	MANUAL	20	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:11	EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-03	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW3d, 8/21/2019 12:42:00PM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	47	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 16:05		CMM	IC2	5	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:13		EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-04	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW4d, 8/21/2019 1:40:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 10:56		SAV	IC2	5	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:13		EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-05	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW5d, 8/21/2019 1:10:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.8	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.067	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 11:17	SAV	IC2	5	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30	CAD	MANUAL	10	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:15	EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-06	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW6s, 8/21/2019 2:52:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.7	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND		2
Ammonia as N	0.16	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 11:37		SAV	IC2	1	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30		CAD	MANUAL	10	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:15		EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-07	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW7s, 8/21/2019 3:47:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.91	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 11:58	SAV	IC2	1	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30	CAD	MANUAL	5	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:16	EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1927927-08	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW8s, 8/21/2019 3:17:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	46	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2900	mg/L	200	100	SM-2540C	ND		2
Ammonia as N	0.083	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/21/19 22:00	08/22/19 16:26	CMM	IC2	5	B054971
2	SM-2540C	08/26/19 11:30	08/26/19 11:30	CAD	MANUAL	20	B055244
3	EPA-350.1	09/06/19 14:30	09/06/19 20:17	EMM	SC-2	1	B056378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B054971						
Nitrate as N	B054971-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B055244						
Total Dissolved Solids @ 180 C	B055244-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B056378						
Ammonia as N	B056378-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B054971										
Nitrate as N	B054971-BS1	LCS	5.2540	5.0000	mg/L	105		90 - 110		
QC Batch ID: B055244										
Total Dissolved Solids @ 180 C	B055244-BS1	LCS	620.00	586.00	mg/L	106		90 - 110		
QC Batch ID: B056378										
Ammonia as N	B056378-BS1	LCS	1.9374	2.0000	mg/L	96.9		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B054971		Used client sample: N								
Nitrate as N	DUP	927828-01RE'	23.060	23.046		mg/L	0.1		10	
	MS	927828-01RE'	23.060	33.297	10.101	mg/L		101		80 - 120
	MSD	927828-01RE'	23.060	33.248	10.101	mg/L	0.1	101	10	80 - 120
QC Batch ID: B055244		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1927952-01	31500	31700		mg/L	0.6		10	
QC Batch ID: B056378		Used client sample: N								
Ammonia as N	DUP	1927848-01	0.089100	ND		mg/L			10	
	MS	1927848-01	0.089100	2.4113	2.2222	mg/L		105		90 - 110
	MSD	1927848-01	0.089100	2.3816	2.2222	mg/L	1.2	103	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 09/09/2019 21:28
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

Attachment B5

Laboratory Reports, 2019Q4

2019Q4

North Area



Date of Report: 12/17/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Brentwood Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1940075

Invoice ID: B365606

Enclosed are the results of analyses for samples received by the laboratory on 11/26/2019. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000975768

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1940075

Samples were filtered through a 0.45 micron filter prior to analysis.



19-40075

Chain of Custody

4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

BC Laboratories, Inc.

Report to:

Name: Luldorff and Scalmani
Address: 500 First Street
City: Woodland
State: CA
Attn: Till Angermann
Project: Dairy Representative Monitoring Program
Site: Brentwood Farms
Samplers Name: David Blansett
Global ID - WDR100038422

Analysis Requested

From Filled Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved
1	BRE-MW16, BRE-MW17, BRE-MW18, BRE-MW19, BRE-MW20, BRE-MW21, BRE-MW22, BRE-MW23, BRE-MW24	11/25/19	0940	W	x
2	BRE-MW24	↓	1015	W	x
3	BRE-MW3s, BRE-MW3d	↓	1100	W	x
4	Field-Duplicated	↓	1110	W	x
5					
6					
7					
8					
9					
10					

Relinquished by: (Signature) *[Signature]* Date & Time 11-25 14:15
 Relinquished by: (Signature) *[Signature]* Date & Time 11-25 17:15
 Relinquished by: (Signature) *[Signature]* Date & Time 11-25 17:15

Comments:
 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luldorff and Scalmani Consulting Engineers via email: lscalmani@lsce.com, rlryson@lsce.com, pdhainwell@lsce.com, jlovelis@lsce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).
 (A)= Analysis (C)= Container (P)= Preservative

SHORT HOLDING TIME
 Cr-6 NO2 NO3 OP SS
 DO Cl2 BOD MBAS COT

DISTRIBUTION
 MR [Signature]
 SUB OUT



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-40075

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) GSO

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify)

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: .96 Container: PE Thermometer ID: 274 Date/Time: 11/26/19 9:00
 Temperature: (A) 0.9 °C / (C) 0.7 °C Analyst Init: TKS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- SM										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: DJM Date/Time: 11/26/19 11:05 Rev-21-05/23/2016

A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1940075-01	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Brentwood Farms	Sampling Date:	11/25/2019 09:40
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BRE-MW1d	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940075-02	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Brentwood Farms	Sampling Date:	11/25/2019 10:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BRE-MW2d	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940075-03	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Brentwood Farms	Sampling Date:	11/25/2019 11:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BRE-MW3s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940075-04	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Brentwood Farms	Sampling Date:	11/25/2019 11:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUP1	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940075-01	Client Sample Name: Brentwood Farms, BRE-MW1d, 11/25/2019 9:40:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.0	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	280	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 01:21		SAV	IC5	1	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	2	B063469
3	EPA-350.1	12/11/19 16:15	12/12/19 08:56		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940075-02	Client Sample Name: Brentwood Farms, BRE-MW2d, 11/25/2019 10:15:00AM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.9	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	220	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.094	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 01:39		SAV	IC5	1	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	2	B063469
3	EPA-350.1	12/11/19 16:15	12/12/19 08:58		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940075-03	Client Sample Name: Brentwood Farms, BRE-MW3s, 11/25/2019 11:00:00AM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.2	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	220	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.074	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 01:57		SAV	IC5	1	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	2	B063469
3	EPA-350.1	12/11/19 16:15	12/12/19 08:58		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940075-04	Client Sample Name: Brentwood Farms, DUP1, 11/25/2019 11:10:00AM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.5	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	230	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.071	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 04:02		SAV	IC5	1	B063356
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	2	B063469
3	EPA-350.1	12/11/19 16:15	12/12/19 09:00		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B063355						
Nitrate as N	B063355-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063356						
Nitrate as N	B063356-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063469						
Total Dissolved Solids @ 180 C	B063469-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B064421						
Ammonia as N	B064421-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063355										
Nitrate as N	B063355-BS1	LCS	5.1460	5.0000	mg/L	103		90 - 110		
QC Batch ID: B063356										
Nitrate as N	B063356-BS1	LCS	5.1450	5.0000	mg/L	103		90 - 110		
QC Batch ID: B063469										
Total Dissolved Solids @ 180 C	B063469-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B064421										
Ammonia as N	B064421-BS1	LCS	1.9667	2.0000	mg/L	98.3		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063355		Used client sample: N								
Nitrate as N	DUP	1940073-01	75.780	76.260		mg/L	0.6		10	
	MS	1940073-01	75.780	125.02	50.505	mg/L		97.5		80 - 120
	MSD	1940073-01	75.780	125.24	50.505	mg/L	0.2	97.9	10	80 - 120
QC Batch ID: B063356		Used client sample: N								
Nitrate as N	DUP	940123-01RE'	178.55	178.72		mg/L	0.1		10	
	MS	940123-01RE'	178.55	224.04	50.505	mg/L		90.1		80 - 120
	MSD	940123-01RE'	178.55	224.66	50.505	mg/L	0.3	91.3	10	80 - 120
QC Batch ID: B063469		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1940173-06	1115.0	1125.0		mg/L	0.9		10	
QC Batch ID: B064421		Used client sample: N								
Ammonia as N	DUP	1940074-01	ND	0.096500		mg/L			10	J
	MS	1940074-01	ND	2.6360	2.2222	mg/L		119		90 - 110 Q03
	MSD	1940074-01	ND	2.6832	2.2222	mg/L	1.8	121	10	90 - 110 Q03

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/17/2019 14:50
Project: Dairy Representative Monitoring Program
Project Number: Brentwood Farms
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/13/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Creekside Silveira Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1940073

Invoice ID: B365401

Enclosed are the results of analyses for samples received by the laboratory on 11/26/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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1940073-02 - CRE-MW2s	
Water Analysis (General Chemistry).....	8
1940073-03 - CRE-MW3s	
Water Analysis (General Chemistry).....	9
1940073-04 - DUP2	
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Quality Control Reports

Water Analysis (General Chemistry)

Method Blank Analysis.....	11
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Case Narratives

Case Narrative for Work Order 1940073

Samples were filtered through a 0.45 micron filter prior to analysis.



19-840073

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

Chain of Custody

Report to:

Luhdorff and Scalmanni
Reduced Constituent Suite

Address: 500 First Street
City: Woodland
State: 95695
Attn: Till Angermann

Project: Dairy Representative Monitoring Program
Site: Creekside Silveira Dairy

Samplers Name: David Blawieck, Wesley Stricker
Global ID - WDR100038297

Analysis Requested

From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pe Unpreserved
1	CRE-MW1s, GRE-MW1d	1/25/19	1150	W	x
2	CRE-MW2s, GRE-MW2d		1135	W	x
3	CRE-MW3s, CRE-MW3d		1100	W	x
4	Field Duplites		1200	W	x
5					
6					
7					
8					
9					
10					

Comments:

- 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
- 3) Send lab reports to Luhdorff and Scalmanni Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pdheltwa@lscce.com, jlovelis@lscce.com
- 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

Relinquished by: (Signature)	Received By:	Date & Time
Relinquished by: (Signature)	Received by:	Date & Time
Relinquished by: (Signature)	Received By:	Date & Time

CHK BY: [Signature] DATE: 1/25/19

DISPATCHING: [Signature]

SUB OUT: [Signature]

SHORT HOURLY TIME

Cr⁶ NO₂ NO₃ JP SS

DO Cl₂ BOD MRAS COT



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-40073

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) GSO

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers Intact? Yes No Intact? Yes No None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 90 Container: PE Thermometer ID: 274 Date/Time: 12/19/90

Temperature: (A) 0.9 °C / (C) 0.7 °C Analyst Init: TKJ

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PJA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/028/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: AYM Date/Time: 11/21/90 11:05



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1940073-01	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Silveira Dairy	Sampling Date:	11/25/2019 11:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW1s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940073-02	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Silveira Dairy	Sampling Date:	11/25/2019 11:35
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW2s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940073-03	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Silveira Dairy	Sampling Date:	11/25/2019 11:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	CRE-MW3s	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water
1940073-04	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	Silveira Dairy	Sampling Date:	11/25/2019 12:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUP2	Lab Matrix:	Water
	Sampled By:	David B. of BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940073-01	Client Sample Name: Silveira Dairy, CRE-MW1s, 11/25/2019 11:50:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	76	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/26/19 23:16		SAV	IC5	10	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	5	B063468
3	EPA-350.1	12/11/19 10:45	12/11/19 15:52		JMH2	SC-2	1	B064350

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500 First Street
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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940073-02	Client Sample Name: Silveira Dairy, CRE-MW2s, 11/25/2019 11:35:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	560	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/26/19 23:34		SAV	IC5	1	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	3.333	B063468
3	EPA-350.1	12/11/19 10:45	12/11/19 15:54		JMH2	SC-2	1	B064350

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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940073-03	Client Sample Name: Silveira Dairy, CRE-MW3s, 11/25/2019 11:00:00AM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.20	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	700	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/26/19 23:52		SAV	IC5	1	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	5	B063468
3	EPA-350.1	12/11/19 10:45	12/11/19 15:54		JMH2	SC-2	1	B064350

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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940073-04	Client Sample Name: Silveira Dairy, DUP2, 11/25/2019 12:00:00PM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	72	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 00:09	SAV	IC5	5	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00	CAD	MANUAL	5	B063468
3	EPA-350.1	12/11/19 10:45	12/11/19 15:56	JMH2	SC-2	1	B064350

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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B063355						
Nitrate as N	B063355-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063468						
Total Dissolved Solids @ 180 C	B063468-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B064350						
Ammonia as N	B064350-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063355										
Nitrate as N	B063355-BS1	LCS	5.1460	5.0000	mg/L	103		90 - 110		
QC Batch ID: B063468										
Total Dissolved Solids @ 180 C	B063468-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B064350										
Ammonia as N	B064350-BS1	LCS	1.9630	2.0000	mg/L	98.2		90 - 110		

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500 First Street
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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B063355		Used client sample: Y - Description: CRE-MW1s, 11/25/2019 11:50								
Nitrate as N	DUP	1940073-01	75.780	76.260		mg/L	0.6		10	
	MS	1940073-01	75.780	125.02	50.505	mg/L		97.5		80 - 120
	MSD	1940073-01	75.780	125.24	50.505	mg/L	0.2	97.9	10	80 - 120
QC Batch ID: B063468		Used client sample: Y - Description: CRE-MW1s, 11/25/2019 11:50								
Total Dissolved Solids @ 180 C	DUP	1940073-01	1005.0	1015.0		mg/L	1.0		10	
QC Batch ID: B064350		Used client sample: N								
Ammonia as N	DUP	1939999-01	1.7281	1.7874		mg/L	3.4		10	
	MS	1939999-01	1.7281	4.1383	2.2222	mg/L		108		90 - 110
	MSD	1939999-01	1.7281	4.1627	2.2222	mg/L	0.6	110	10	90 - 110

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500 First Street
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Reported: 12/13/2019 18:24
Project: Dairy Representative Monitoring Program
Project Number: Creekside Silveira Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/16/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: MTSJ Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1940074

Invoice ID: B365605

Enclosed are the results of analyses for samples received by the laboratory on 11/26/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1940074

Samples were filtered through a 0.45 micron filter prior to analysis.



19-40074

Chain of Custody

4100 Atlas CL
Bakersfield, CA 93308
(661) 327-4911

BC Laboratories, Inc.

Analysis Requested

Report to:

Reduced Constituent Suite

Name: Luhdorff and Scalmanini

Address: 500 First Street

City: Woodland

State: 95695

Attn: Till Angermann

Project: Daily Representative Monitoring Program

Site: MTSJ Dairy

Samplers Name: WDSH of Skalmanini - Sheldrick

Global ID - WDR100039114

From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Ps	
					Unpreserved	
1	MTS-MW1	11/25/19	0900	WBS	x	
2	MTS-MW2s, (MTS-MW2d)	11/25/19	0925	WBS	x	
3	MTS-MW3s, (MTS-MW3d)	11/25/19	1000	WBS	x	
4	Field Duplicate				x	
5						
6						
7						
8						
9						
10						

Relinquished by: (Signature) *[Signature]* Date & Time 11/25 14:15

Relinquished by: (Signature) *[Signature]* Date & Time 11/25/19 17:15

Relinquished by: (Signature) *[Signature]* Date & Time 11/25/19 900

Comments:

- 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
- 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lavagnino@lscce.com, rbryson@lscce.com, pdhalliwell@lscce.com, jlovelis@lscce.com
- 4) Send invoices to: Jeanette Lovell (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

CHK BY: *[Signature]* DISTRIBUTION: *[Signature]* SUB OUT: *[Signature]*

SHORT HOLDING TIME	
Cr ⁶	NO ₂
DO	Cl ₂
BOD	MBAS
COT	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1
Submission #: 19-40074

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, Other (Specify) GSO
SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify)
FREE LIQUID: YES, NO, W/S

Refrigerant: Ice, Blue Ice, None, Other
Custody Seals: Ice Chest, Containers, None

All samples received? Yes, No
All samples containers intact? Yes, No
Description(s) match COC? Yes, No
COC Received: YES, NO
Emissivity: .96, Container: PE, Thermometer ID: 274, Date/Time: 11/26/19 9:00
Temperature: (A) 0.9 °C / (C) 0.7 °C, Analyst Init: TKJ

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Handwritten 'A' and 'B' are present in some cells.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 11/26/19 11:45



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1940074-01	COC Number:	---	Receive Date:	11/26/2019 09:00
	Project Number:	MTSJ Dairy	Sampling Date:	11/25/2019 09:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MTS-MW1	Lab Matrix:	Water
	Sampled By:	Wesley Sherman-Shochley of BTST	Sample Type:	Water
	<hr/>			
	1940074-02	COC Number:	---	Receive Date:
Project Number:		MTSJ Dairy	Sampling Date:	11/25/2019 09:25
Sampling Location:		---	Sample Depth:	---
Sampling Point:		MTS-MW2d	Lab Matrix:	Water
Sampled By:		Wesley Sherman-Shochley of BTST	Sample Type:	Water
<hr/>				
1940074-03		COC Number:	---	Receive Date:
	Project Number:	MTSJ Dairy	Sampling Date:	11/25/2019 10:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MTS-MW3d	Lab Matrix:	Water
	Sampled By:	Wesley Sherman-Shochley of BTST	Sample Type:	Water
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940074-01	Client Sample Name: MTSJ Dairy, MTS-MW1, 11/25/2019 9:00:00AM, Wesley Sherman-Shochley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	520	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 00:27		SAV	IC5	2	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	3.333	B063468
3	EPA-350.1	12/11/19 16:15	12/12/19 08:49		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940074-02	Client Sample Name: MTSJ Dairy, MTS-MW2d, 11/25/2019 9:25:00AM, Wesley Sherman-Shochley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	470	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.073	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 00:45		SAV	IC5	2	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	3.333	B063468
3	EPA-350.1	12/11/19 16:15	12/12/19 08:53		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1940074-03	Client Sample Name: MTSJ Dairy, MTS-MW3d, 11/25/2019 10:00:00AM, Wesley Sherman-Shochley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	520	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/26/19 22:00	11/27/19 01:03		SAV	IC5	2	B063355
2	SM-2540C	12/02/19 15:00	12/02/19 15:00		CAD	MANUAL	3.333	B063468
3	EPA-350.1	12/11/19 16:15	12/12/19 08:54		JMH2	SC-2	1	B064421

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B063355						
Nitrate as N	B063355-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063468						
Total Dissolved Solids @ 180 C	B063468-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B064421						
Ammonia as N	B064421-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063355										
Nitrate as N	B063355-BS1	LCS	5.1460	5.0000	mg/L	103		90 - 110		
QC Batch ID: B063468										
Total Dissolved Solids @ 180 C	B063468-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B064421										
Ammonia as N	B064421-BS1	LCS	1.9667	2.0000	mg/L	98.3		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B063355		Used client sample: N								
Nitrate as N	DUP	1940073-01	75.780	76.260		mg/L	0.6		10	
	MS	1940073-01	75.780	125.02	50.505	mg/L		97.5		80 - 120
	MSD	1940073-01	75.780	125.24	50.505	mg/L	0.2	97.9	10	80 - 120
QC Batch ID: B063468		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1940073-01	1005.0	1015.0		mg/L	1.0		10	
QC Batch ID: B064421		Used client sample: Y - Description: MTS-MW1, 11/25/2019 09:00								
Ammonia as N	DUP	1940074-01	ND	0.096500		mg/L			10	J
	MS	1940074-01	ND	2.6360	2.2222	mg/L		119		90 - 110 Q03
	MSD	1940074-01	ND	2.6832	2.2222	mg/L	1.8	121	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/16/2019 19:05
Project: Dairy Representative Monitoring Program
Project Number: MTSJ Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

South Area



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Aukeman Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939618

Invoice ID: B364743

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939618

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-39618		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:		Analysis Requested					
Luhdorff and Scalmani Reduced Constituent Suite		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids					
Address: 500 First Street		Project: Dairy Representative Monitoring Program					
City: Woodland		Site: Aukeman Farms					
State: 95695		Samplers Name:					
Attn: Till Angermann		Global ID - WDR100038978					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl	Fe	Unpreserved
1	AUK-MW1	11/20/19	12:00	W		X	X
2	AUK-MW2	11/20/19	13:00	W		X	X
3	AUK-MW3	11/20/19	14:00	W		X	X
4	Field-Duplicate					X	X
5	CHK BY						
6							
7							
8							
9							
10							
Comments:		Relinquished by: (Signature)		Received By:		Date & Time	
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.		[Signature]		[Signature]		11/20/19 20:35	
2) Lab reports shall identify sampled wells exactly as shown on this CoC.		Relinquished by: (Signature)		Received by:		Date & Time	
3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: jlvelis@isce.com, rryson@isce.com, pthalwal@isce.com, jlovelis@isce.com		[Signature]		[Signature]		11/20/19 22:30	
4) Send invoices to Jeanette Lovelis (jlovelis@isce.com)		Relinquished by: (Signature)		Received by:		Date & Time	
(A)= Analysis (C)= Container (P)= Preservative							

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-39618

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 708 Date/Time: 11/20 2230

Temperature: (A) 3.5 °C / (C) 2.9 °C Analyst Init: EWR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz C ⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8200										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 545										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TRDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: JFW Date/Time: 11/21/19 11:37

A = Actual / C = Corrected

Rev 21 05/23/2016
 (B:\WPDoc\Word\Perf\LAB_DOC\FORMS\515AMRECrev 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939618-01	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Aukeman Farms	Sampling Date:	11/20/2019 12:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW1	Lab Matrix:	Water
	Sampled By:	Client of BTST	Sample Type:	Water
1939618-02	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Aukeman Farms	Sampling Date:	11/20/2019 13:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW2	Lab Matrix:	Water
	Sampled By:	Client of BTST	Sample Type:	Water
1939618-03	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Aukeman Farms	Sampling Date:	11/20/2019 14:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	AUK-MW3	Lab Matrix:	Water
	Sampled By:	Client of BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939618-01	Client Sample Name: Aukeman Farms, AUK-MW1, 11/20/2019 12:50:00PM, Client
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 21:07		MRC	IC2	5	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063094
3	EPA-350.1	12/06/19 14:15	12/07/19 11:07		JMH2	SC-1	1	B063991

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939618-02	Client Sample Name: Aukeman Farms, AUK-MW2, 11/20/2019 1:15:00PM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	67	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 21:27		MRC	IC2	5	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063094
3	EPA-350.1	12/06/19 14:15	12/07/19 11:10		JMH2	SC-1	1	B063991

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939618-03	Client Sample Name: Aukeman Farms, AUK-MW3, 11/20/2019 2:00:00PM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.081	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 21:48		MRC	IC2	5	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063094
3	EPA-350.1	12/06/19 14:15	12/07/19 11:12		JMH2	SC-1	1	B063991

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062893						
Nitrate as N	B062893-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063094						
Total Dissolved Solids @ 180 C	B063094-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063991						
Ammonia as N	B063991-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062893										
Nitrate as N	B062893-BS1	LCS	5.1930	5.0000	mg/L	104		90 - 110		
QC Batch ID: B063094										
Total Dissolved Solids @ 180 C	B063094-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B063991										
Ammonia as N	B063991-BS1	LCS	2.0246	2.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062893		Used client sample: N								
Nitrate as N	DUP	1939580-01	3.9150	3.8810		mg/L	0.9		10	
	MS	1939580-01	3.9150	9.0919	5.0505	mg/L		103		80 - 120
	MSD	1939580-01	3.9150	9.1313	5.0505	mg/L	0.4	103	10	80 - 120
QC Batch ID: B063094		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939617-03	850.00	830.00		mg/L	2.4		10	
QC Batch ID: B063991		Used client sample: Y - Description: AUK-MW1, 11/20/2019 12:50								
Ammonia as N	DUP	1939618-01	ND	0.071100		mg/L			10	J
	MS	1939618-01	ND	2.4903	2.2222	mg/L		112		90 - 110 Q03
	MSD	1939618-01	ND	2.4459	2.2222	mg/L	1.8	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:33
Project: Dairy Representative Monitoring Program
Project Number: Aukeman Farms
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Dairyland Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939616

Invoice ID: B364741

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939616

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Analysis Requested			
Report to: Reduced Constituent Suite				From Filtered Sample: Ammonia-N, NO ₃ -N, Total Dissolved Solids			
Name: Luhnoff and Scalmanini Address: 500 First Street City: Woodland State: 95695 GA Attn: Till Angermann				Project: Dairy Representative Monitoring Program Site: Dairyland Farms Sample Name: <i>Edward Hwy - Blake Segovia</i> Global ID - WDR100039173			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved	Received By:	Date & Time
1	DLF-MW1				X	<i>[Signature]</i>	11/20/19 20:35
2	DLF-MW2				X	<i>[Signature]</i>	11/20/19 22:30
3	DLF-MW3				X		
4	DLF-MW4A, DLF-MW4B DLF-MW4C	11/20/2019	0935	W	X		
5	DLF-MW5A, DLF-MW5B DLF-MW5C	11/20/2019	0910	W	X		
6	DLF-MW6A, DLF-MW6B DLF-MW6C, DLF-MW6D	11/20/2019	0820	W	X		
7	Field Duplicate				X		
8							
9							
10							

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhnoff and Scalmanini Consulting Engineers via email: llvagnino@lisce.com, rtrayson@lisce.com, pthahwal@lisce.com, jovellis@lisce.com
 4) Send invoices to Jeanette Lovells (jovellis@lisce.com).

Relinquished by: (Signature) *Blake Segovia*
 Relinquished by: (Signature) *[Signature]*
 Relinquished by: (Signature) *[Signature]*

SHORT HOLDING TIME
 C₁ NO₂ NO₃ OP SS
 DO Cl₂ BOD MBAS COT

CHK BY *[Signature]* DISTRIBUTION
 SUB OUT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-39616

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Container None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 703 Date/Time: 11/20/22:30

Temperature: (A) 1.4 °C / (C) 0.8 °C Analyst Init: EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES 4oz / 8oz / 16oz PE UNPRES	A	A	A							
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE 2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 502/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Date/Time: 11/21/19 11:26

Rev. 21 05/23/2016

Numbering Completed By: JTW

(S:\MPD\del\WastePerfec\LAB DOCS\FORMS\ISS\REC\rev 201)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939616-01	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Dairyland Farms	Sampling Date:	11/20/2019 09:35
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW4B	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type:	Water
1939616-02	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Dairyland Farms	Sampling Date:	11/20/2019 09:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW5A	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type:	Water
1939616-03	COC Number:	---	Receive Date:	11/20/2019 22:30
	Project Number:	Dairyland Farms	Sampling Date:	11/20/2019 08:20
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DLF-MW6D	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939616-01	Client Sample Name: Dairyland Farms, DLF-MW4B, 11/20/2019 9:35:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	450	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 09:22		SAV	IC8	2	B062895
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	3.333	B063093
3	EPA-350.1	12/05/19 16:15	12/07/19 10:42		JMH2	SC-1	1	B063859

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939616-02	Client Sample Name: Dairyland Farms, DLF-MW5A, 11/20/2019 9:10:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	27	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	590	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.090	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 09:42		SAV	IC8	2	B062895
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	3.333	B063093
3	EPA-350.1	12/05/19 16:15	12/07/19 10:43		JMH2	SC-1	1	B063859

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Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939616-03	Client Sample Name: Dairyland Farms, DLF-MW6D, 11/20/2019 8:20:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	69	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	900	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 03:14		SAV	IC8	5	B062895
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063093
3	EPA-350.1	12/05/19 16:15	12/07/19 10:43		JMH2	SC-1	1	B063859

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Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062895						
Nitrate as N	B062895-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063093						
Total Dissolved Solids @ 180 C	B063093-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063859						
Ammonia as N	B063859-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062895										
Nitrate as N	B062895-BS1	LCS	5.3200	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063093										
Total Dissolved Solids @ 180 C	B063093-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B063859										
Ammonia as N	B063859-BS1	LCS	2.0314	2.0000	mg/L	102		90 - 110		

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Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062895		Used client sample: N								
Nitrate as N	DUP	1939592-01	ND	ND		mg/L			10	
	MS	1939592-01	ND	5.2364	5.0505	mg/L		104		80 - 120
	MSD	1939592-01	ND	5.2889	5.0505	mg/L	1.0	105	10	80 - 120
QC Batch ID: B063093		Used client sample: Y - Description: DLF-MW6D, 11/20/2019 08:20								
Total Dissolved Solids @ 180 C	DUP	1939616-03	895.00	890.00		mg/L	0.6		10	
QC Batch ID: B063859		Used client sample: N								
Ammonia as N	DUP	1939615-01	ND	0.091400		mg/L			10	J
	MS	1939615-01	ND	2.4309	2.2222	mg/L		109		90 - 110
	MSD	1939615-01	ND	2.4339	2.2222	mg/L	0.1	110	10	90 - 110

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Reported: 12/10/2019 14:31
Project: Dairy Representative Monitoring Program
Project Number: Dairyland Farms
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Giacomazzi Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1939726
Invoice ID: B364821

Enclosed are the results of analyses for samples received by the laboratory on 11/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939726

Samples were filtered through a 0.45 micron filter prior to analysis.



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page (01)

Submission #: 19-39726

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
--	--	--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time 11/21 2300

Temperature: (A) 1.3 °C / (C) 0.7 °C Analyst Init *EMK*

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B	B		
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/603/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: -6 all bottles have no degradation time or date.

Sample Numbering Completed By: *EMK* Date/Time: 11-21-14 2355 Rev 21 05/23/2016

A = Actual / C = Corrected

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500 First Street
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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1939726-01	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 08:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW1D	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-02	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 09:08
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW2C	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-03	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 09:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW3B	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-04	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 11:10
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW5D	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-05	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 10:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW6D	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-06	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 10:15
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW7D	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
1939726-07	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date: 11/21/2019 11:40
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ZZI-MW9D	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939726-08	COC Number:	---	Receive Date:	11/21/2019 23:00
	Project Number:	Giacomazzi Dairy	Sampling Date:	11/21/2019 09:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type:	Water

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-01	Client Sample Name: Giacomazzi Dairy, ZZI-MW1D, 11/21/2019 8:45:00AM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.9	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	410	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 08:17	SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	2	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:26	JMH2	SC-1	1	B063993

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-02	Client Sample Name: Giacomazzi Dairy, ZZI-MW2C, 11/21/2019 9:08:00AM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	220	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 09:39		SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00		CAD	MANUAL	2	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:31		JMH2	SC-1	1	B063993

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-03	Client Sample Name: Giacomazzi Dairy, ZZI-MW3B, 11/21/2019 9:45:00AM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	510	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 10:00	SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	3.333	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:31	JMH2	SC-1	1	B063993

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-04	Client Sample Name: Giacomazzi Dairy, ZZI-MW5D, 11/21/2019 11:10:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 10:21	SAV	IC2	2	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	5	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:33	JMH2	SC-1	1	B063993

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-05	Client Sample Name: Giacomazzi Dairy, ZZI-MW6D, 11/21/2019 10:45:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 10:41	SAV	IC2	2	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	10	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:33	JMH2	SC-1	1	B063993

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Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-06	Client Sample Name: Giacomazzi Dairy, ZZI-MW7D, 11/21/2019 10:15:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	680	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 11:43	SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	3.333	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:35	JMH2	SC-1	1	B063993

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-07	Client Sample Name: Giacomazzi Dairy, ZZI-MW9D, 11/21/2019 11:40:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.2	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	240	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 12:04	SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	2	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:35	JMH2	SC-1	1	B063993

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939726-08	Client Sample Name: Giacomazzi Dairy, Field Duplicate, 11/21/2019 9:10:00AM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	200	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 12:24	SAV	IC2	1	B062987
2	SM-2540C	11/26/19 17:00	11/26/19 17:00	CAD	MANUAL	2	B063176
3	EPA-350.1	12/06/19 16:00	12/09/19 16:36	JMH2	SC-1	1	B063993

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062987						
Nitrate as N	B062987-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063176						
Total Dissolved Solids @ 180 C	B063176-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063993						
Ammonia as N	B063993-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987										
Nitrate as N	B062987-BS1	LCS	5.2820	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063176										
Total Dissolved Solids @ 180 C	B063176-BS1	LCS	575.00	586.00	mg/L	98.1		90 - 110		
QC Batch ID: B063993										
Ammonia as N	B063993-BS1	LCS	2.1285	2.0000	mg/L	106		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987		Used client sample: Y - Description: ZZI-MW1D, 11/21/2019 08:45								
Nitrate as N	DUP	1939726-01	2.8650	2.6410		mg/L	8.1		10	
	MS	1939726-01	2.8650	8.0899	5.0505	mg/L		103		80 - 120
	MSD	1939726-01	2.8650	8.1394	5.0505	mg/L	0.6	104	10	80 - 120
QC Batch ID: B063176		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939720-01	1340.0	1360.0		mg/L	1.5		10	
QC Batch ID: B063993		Used client sample: Y - Description: ZZI-MW1D, 11/21/2019 08:45								
Ammonia as N	DUP	1939726-01	ND	ND		mg/L			10	
	MS	1939726-01	ND	2.3278	2.2222	mg/L		105		90 - 110
	MSD	1939726-01	ND	2.2567	2.2222	mg/L	3.1	102	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:20
Project: Dairy Representative Monitoring Program
Project Number: Giacomazzi Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Holstein Farms Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939625

Invoice ID: B364744

Enclosed are the results of analyses for samples received by the laboratory on 11/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939625

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested			
Report to: Reduced Constituent Solite		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Name: Luhdorff and Scalmainini Address: 500 First Street City: Woodland State: 94688 CA Attn: Till Angermahn		Project: Dairy Representative Monitoring Program Site: Holstein Farms Dairy Samplers Name: Global ID - WDR100038004			
Lab # Strike out non-sampled wells		Date Sampled Time Sampled Matrix QTY Preserved Unpreserved			
1	HOL-MW1	11/20/19	1600	W	x
2	HOL-MW2	11/20/19	1530	W	x
3	HOL-MW3				x
4	Field Duplicate				x
5					
6					
7					
8					
9					
10					
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmainini Consulting Engineers via email: lsavignone@lsce.com, rbyson@lsce.com, pdattalwa@lsce.com, jlovelis@lsce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).		Requisitioned by: (Signature) Requisitioned by: (Signature) Requisitioned by: (Signature)			
(A) = Analysis (C) = Container (P) = Preservative		Received By: [Signature] Date & Time: 11/20/19 10:00 Received by: [Signature] Date & Time: Received By: [Signature] Date & Time:			

SHORT HOLDING TIME
 Cr+6 NO2 NO3 SS
 DO Cl2 BOD MBAS COT

CHK BY: [Signature]
 DISTRIBUTION
 SUB OUT

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Submission #: 19-54625

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers
 Intact? Yes No Intact? Yes No None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time 11/20/22 2:30
 Temperature: (A) 3.5 °C / (C) 2.9 °C Analyst Init EHL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/5099										
QT EPA 515.1/15150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801504										
QT EPA 8270										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: JHU Date/Time: 11/21/19 13:35 Rev 21 08/23/2016

A = Actual / C = Corrected

\\S:\WP4\Word\Perfec\LAB_DCS\FORMS\SIGAWR\REV 20



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939625-01	COC Number:	---	Receive Date:	11/21/2019 10:00
	Project Number:	Holstein Farms Dairy	Sampling Date:	11/20/2019 16:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	HOL-MW1	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water
1939625-02	COC Number:	---	Receive Date:	11/21/2019 10:00
	Project Number:	Holstein Farms Dairy	Sampling Date:	11/20/2019 15:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	HOL-MW2	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939625-01	Client Sample Name: Holstein Farms Dairy, HOL-MW1, 11/20/2019 4:00:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	530	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 05:17	SAV	IC8	1	B062895
2	SM-2540C	11/25/19 17:00	11/25/19 17:00	CAD	MANUAL	3.333	B063093
3	EPA-350.1	12/06/19 14:15	12/07/19 11:16	JMH2	SC-1	1	B063991

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939625-02	Client Sample Name: Holstein Farms Dairy, HOL-MW2, 11/20/2019 3:30:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	960	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 11:04		SAV	IC8	2	B062895
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063093
3	EPA-350.1	12/06/19 14:15	12/07/19 11:16		JMH2	SC-1	1	B063991

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062895						
Nitrate as N	B062895-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063093						
Total Dissolved Solids @ 180 C	B063093-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063991						
Ammonia as N	B063991-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062895										
Nitrate as N	B062895-BS1	LCS	5.3200	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063093										
Total Dissolved Solids @ 180 C	B063093-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B063991										
Ammonia as N	B063991-BS1	LCS	2.0246	2.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062895		Used client sample: N								
Nitrate as N	DUP	1939592-01	ND	ND		mg/L			10	
	MS	1939592-01	ND	5.2364	5.0505	mg/L		104		80 - 120
	MSD	1939592-01	ND	5.2889	5.0505	mg/L	1.0	105	10	80 - 120
QC Batch ID: B063093		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939616-03	895.00	890.00		mg/L	0.6		10	
QC Batch ID: B063991		Used client sample: N								
Ammonia as N	DUP	1939618-01	ND	0.071100		mg/L			10	J
	MS	1939618-01	ND	2.4903	2.2222	mg/L		112		90 - 110 Q03
	MSD	1939618-01	ND	2.4459	2.2222	mg/L	1.8	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 15:40
Project: Dairy Representative Monitoring Program
Project Number: Holstein Farms Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J & A Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939617

Invoice ID: B364742

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939617

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Report to: Reduced Constituent Suite Project: Daily Representative Monitoring Program Site: J & A Dairy Samplers Name: <i>Edwin Her & Blake Segelstein</i> Global ID - WDR10003668		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Name: Luidorff and Scalmanini Address: 500 First Street City: Woodland State: 95685 CA Attn: Till Angermann		Date Sampled Time Sampled Matrix Qt Pe Unpreserved	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled
1	JAD-MW1		
2	JAD-MW2		
3	JAD-MW3		
4	JAD-MW4s; JAD-MW4d -1	11/20/19	1050
5	JAD-MW5s; JAD-MW5d -2	11/20/19	1115
6	JAD-MW6s; JAD-MW6d -3	11/20/19	1210
7	JAD-MW7s; JAD-MW7d -4	11/20/19	1235
8	Field Duplicate		
9			
10			
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: luidorff@lscce.com , rbryson@lscce.com , pdmattwell@lscce.com , jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com)		Relinquished by: (Signature) <i>[Signature]</i> Relinquished by: (Signature) <i>[Signature]</i> Relinquished by: (Signature) <i>[Signature]</i>	
		Date & Time Date & Time Date & Time	
		Received by: <i>[Signature]</i> 11/20/19 20:35 Received by: <i>[Signature]</i> Received by: <i>[Signature]</i> 11/20/19 22:30	

SHORT HOLDING TIME
 Cr+6 NO2 NO3 OP SS
 DO Cl2 BOD MBAS COT

CHK BY *[Signature]*
 DISTRIBUTION
 SUB OUT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-39617

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 708 Date/Time: 11/20/22 2:30

Temperature: (A) 1.4 °C / (C) 0.8 °C Analyst Init: EWR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 500/600/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Numbering Completed By: JTW Date/Time: 11/21/19 11:26

Rev. 21 05/23/2016

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1939617-01	COC Number:	---	Receive Date: 11/20/2019 22:30
	Project Number:	J & A Dairy	Sampling Date: 11/20/2019 10:50
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	JAD-MW4d	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
	<hr/>		
	1939617-02	COC Number:	---
Project Number:		J & A Dairy	Sampling Date: 11/20/2019 11:15
Sampling Location:		---	Sample Depth: ---
Sampling Point:		JAD-MW5d	Lab Matrix: Water
Sampled By:		Edward Her, Blake Sequeira of BTST	Sample Type: Water
<hr/>			
1939617-03		COC Number:	---
	Project Number:	J & A Dairy	Sampling Date: 11/20/2019 12:10
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	JAD-MW6d	Lab Matrix: Water
	Sampled By:	Edward Her, Blake Sequeira of BTST	Sample Type: Water
	<hr/>		
	1939617-04	COC Number:	---
Project Number:		J & A Dairy	Sampling Date: 11/20/2019 12:35
Sampling Location:		---	Sample Depth: ---
Sampling Point:		JAD-MW7d	Lab Matrix: Water
Sampled By:		Edward Her, Blake Sequeira of BTST	Sample Type: Water
<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939617-01	Client Sample Name: J & A Dairy, JAD-MW4d, 11/20/2019 10:50:00AM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.9	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	410	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 19:03		CMM	IC2	1	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	2	B063094
3	EPA-350.1	12/05/19 16:15	12/07/19 10:45		JMH2	SC-1	1	B063859

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939617-02	Client Sample Name: J & A Dairy, JAD-MW5d, 11/20/2019 11:15:00AM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	510	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 19:24		CMM	IC2	1	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	3.333	B063094
3	EPA-350.1	12/05/19 16:15	12/07/19 10:45		JMH2	SC-1	1	B063859

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939617-03	Client Sample Name: J & A Dairy, JAD-MW6d, 11/20/2019 12:10:00PM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	850	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 20:25		MRC	IC2	2	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063094
3	EPA-350.1	12/05/19 16:15	12/07/19 10:47		JMH2	SC-1	1	B063859

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939617-04	Client Sample Name: J & A Dairy, JAD-MW7d, 11/20/2019 12:35:00PM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	26	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	740	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 15:00	11/21/19 23:12		MRC	IC2	2	B062893
2	SM-2540C	11/25/19 17:00	11/25/19 17:00		CAD	MANUAL	5	B063094
3	EPA-350.1	12/05/19 16:15	12/07/19 10:47		JMH2	SC-1	1	B063859

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062893						
Nitrate as N	B062893-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063094						
Total Dissolved Solids @ 180 C	B063094-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063859						
Ammonia as N	B063859-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062893										
Nitrate as N	B062893-BS1	LCS	5.1930	5.0000	mg/L	104		90 - 110		
QC Batch ID: B063094										
Total Dissolved Solids @ 180 C	B063094-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B063859										
Ammonia as N	B063859-BS1	LCS	2.0314	2.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062893		Used client sample: N								
Nitrate as N	DUP	1939580-01	3.9150	3.8810		mg/L	0.9		10	
	MS	1939580-01	3.9150	9.0919	5.0505	mg/L		103		80 - 120
	MSD	1939580-01	3.9150	9.1313	5.0505	mg/L	0.4	103	10	80 - 120
QC Batch ID: B063094		Used client sample: Y - Description: JAD-MW6d, 11/20/2019 12:10								
Total Dissolved Solids @ 180 C	DUP	1939617-03	850.00	830.00		mg/L	2.4		10	
QC Batch ID: B063859		Used client sample: N								
Ammonia as N	DUP	1939615-01	ND	0.091400		mg/L			10	J
	MS	1939615-01	ND	2.4309	2.2222	mg/L		109		90 - 110
	MSD	1939615-01	ND	2.4339	2.2222	mg/L	0.1	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:32
Project: Dairy Representative Monitoring Program
Project Number: J & A Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Longfellow Farming

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939910

Invoice ID: B364794

Enclosed are the results of analyses for samples received by the laboratory on 11/23/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939910

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Longfellow Farming Co. Samplers Name: Global ID - WDD100006573							
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids							
Name: Luidhoff and Scalmani Address: 500 First Street City: Woodland State: 95695 Attn: Till Angermann							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved	Received By: (Signature)	Date & Time
1	LON-MW1A, LON-MW1B LON-MW1C	11/22/19	0850	WB	x	<i>[Signature]</i>	11/22 14:05
2	LON-MW2A, LON-MW2B LON-MW2C	11/22/19	0910	WB	x	<i>[Signature]</i>	11/22/19 14:50
3	LON-MW3A, LON-MW3B LON-MW3C	11/22/19	0915	WB	x	<i>[Signature]</i>	11-23 9:30
4	LON-MW4A, LON-MW4B LON-MW4C, LON-MW4D	11/22/19	0910	WB	x	<i>[Signature]</i>	
5	LON-MW5A, LON-MW5B LON-MW5C				x		
6	LON-MW6A, LON-MW6B LON-MW6C				x		
7	LON-MW7A, LON-MW7B LON-MW7C, LON-MW7D				x		
8	-Field Duplicate				x		
9							
10							
11							

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luidhoff and Scalmani Consulting Engineers via email: rlavagnino@lsc.com, rbjason@lsc.com, pdhahnd@lsc.com, jlovelis@lsc.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com).
 (A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-39910

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) CSO

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Intact? Yes No Intact? Yes No Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 209 Date/Time: 1-23-930

Temperature: (A) 0.8 °C / (C) 0.2 °C Analyst Init: J

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: JTC Date/Time: 1/25/19 9:21 Rev 21 05/23/2016
 A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939910-01	COC Number:	---	Receive Date:	11/23/2019 09:30
	Project Number:	Longfellow Farming Co.	Sampling Date:	11/22/2019 08:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW1C	Lab Matrix:	Water
	Sampled By:	Blaine Tech of BTST	Sample Type:	Water
1939910-02	COC Number:	---	Receive Date:	11/23/2019 09:30
	Project Number:	Longfellow Farming Co.	Sampling Date:	11/22/2019 09:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW2C	Lab Matrix:	Water
	Sampled By:	Blaine Tech of BTST	Sample Type:	Water
1939910-03	COC Number:	---	Receive Date:	11/23/2019 09:30
	Project Number:	Longfellow Farming Co.	Sampling Date:	11/22/2019 09:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW3C	Lab Matrix:	Water
	Sampled By:	Blaine Tech of BTST	Sample Type:	Water
1939910-04	COC Number:	---	Receive Date:	11/23/2019 09:30
	Project Number:	Longfellow Farming Co.	Sampling Date:	11/22/2019 09:10
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	LON-MW4D	Lab Matrix:	Water
	Sampled By:	Blaine Tech of BTST	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939910-01	Client Sample Name: Longfellow Farming Co., LON-MW1C, 11/22/2019 8:50:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	510	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/23/19 11:37		CMM	IC1	1	B063005
2	SM-2540C	11/26/19 15:00	11/26/19 15:00		CAD	MANUAL	3.333	B063157
3	EPA-350.1	12/09/19 14:30	12/10/19 08:35		JMH2	SC-2	1	B064136

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939910-02	Client Sample Name: Longfellow Farming Co., LON-MW2C, 11/22/2019 9:10:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.1	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	810	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/23/19 11:58		CMM	IC1	1	B063005
2	SM-2540C	11/26/19 15:00	11/26/19 15:00		CAD	MANUAL	5	B063157
3	EPA-350.1	12/09/19 14:30	12/10/19 08:41		JMH2	SC-2	1	B064136

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Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939910-03	Client Sample Name: Longfellow Farming Co., LON-MW3C, 11/22/2019 9:45:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.084	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 23:00	11/23/19 11:39		CMM	IC2	1	B063006
2	SM-2540C	11/26/19 15:00	11/26/19 15:00		CAD	MANUAL	5	B063157
3	EPA-350.1	12/09/19 14:30	12/10/19 08:41		JMH2	SC-2	1	B064136

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939910-04	Client Sample Name: Longfellow Farming Co., LON-MW4D, 11/22/2019 9:10:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 23:00	11/23/19 11:59		CMM	IC2	5	B063006
2	SM-2540C	11/26/19 15:00	11/26/19 15:00		CAD	MANUAL	10	B063157
3	EPA-350.1	12/09/19 14:30	12/10/19 08:43		JMH2	SC-2	1	B064136

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Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B063005						
Nitrate as N	B063005-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063006						
Nitrate as N	B063006-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063157						
Total Dissolved Solids @ 180 C	B063157-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B064136						
Ammonia as N	B064136-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063005										
Nitrate as N	B063005-BS1	LCS	5.2650	5.0000	mg/L	105		90 - 110		
QC Batch ID: B063006										
Nitrate as N	B063006-BS1	LCS	5.0600	5.0000	mg/L	101		90 - 110		
QC Batch ID: B063157										
Total Dissolved Solids @ 180 C	B063157-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B064136										
Ammonia as N	B064136-BS1	LCS	2.0873	2.0000	mg/L	104		90 - 110		

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Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B063005		Used client sample: N								
Nitrate as N	DUP	1939798-01	3.8020	3.8040		mg/L	0.1		10	
	MS	1939798-01	3.8020	9.2030	5.0505	mg/L		107		80 - 120
	MSD	1939798-01	3.8020	9.2263	5.0505	mg/L	0.3	107	10	80 - 120
QC Batch ID: B063006		Used client sample: N								
Nitrate as N	DUP	1939751-01	3.0010	3.2310		mg/L	7.4		10	
	MS	1939751-01	3.0010	8.8081	5.0505	mg/L		115		80 - 120
	MSD	1939751-01	3.0010	8.5838	5.0505	mg/L	2.6	111	10	80 - 120
QC Batch ID: B063157		Used client sample: Y - Description: LON-MW2C, 11/22/2019 09:10								
Total Dissolved Solids @ 180 C	DUP	1939910-02	810.00	805.00		mg/L	0.6		10	
QC Batch ID: B064136		Used client sample: Y - Description: LON-MW1C, 11/22/2019 08:50								
Ammonia as N	DUP	1939910-01	ND	ND		mg/L			10	
	MS	1939910-01	ND	2.3793	2.2222	mg/L		107		90 - 110
	MSD	1939910-01	ND	2.5196	2.2222	mg/L	5.7	113	10	90 - 110 Q03

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 18:37
Project: Dairy Representative Monitoring Program
Project Number: Longfellow Farming
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Manuel and Alda Lawrence Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939725

Invoice ID: B364829

Enclosed are the results of analyses for samples received by the laboratory on 11/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939725

Samples were filtered through a 0.45 micron filter prior to analysis.



19-39725

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(861) 327-4911

Chain of Custody

Report to:

Reduced Constituent Suite
Project: Dairy Representative Monitoring Program
Site: Manuel and Aida Lawrence Dairy
Samplers Name:
Global ID - WDR100039118

Analysis Requested

From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Pe Unpreserved
-1	MAL-MW1	11/21/2019	0730	W/S	x
-2	MAL-MW2	11/21/2019	1010	W/S	x
-3	MAL-MW3	11/21/2019	1255	W/S	x
-4	MAL-MW4	11/21/2019	1330	W/S	x
-5	MAL-MW5	11/21/2019	0705	W/S	x
-6	MAL-MW6	11/21/2019	1115	W/S	x
-7	MAL-MW7	11/21/2019	1040	W/S	x
-8	MAL-MW8	11/21/2019	1225	W/S	x
-9	-Field Duplicate- Depts	11/21/2019	1200	W/S	x
11					
12					

SHORT HOLDING TIME
G.P.E. - NO2 (N) OF SS
DU - Cl2 BOT MBEAS COT
CHRY
IMX
SLIB OUT

Relinquished by: (Signature) _____ Date & Time 11/21/19 21:30

Relinquished by: (Signature) _____ Date & Time 11/21/19 23:00

Relinquished by: (Signature) _____ Date & Time _____

Comments:
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
2) Lab reports shall identify sampled wells exactly as shown on this CoC.
3) Send lab reports to Lühndorff and Scalimanni Consulting Engineers via email: llavagnino@isce.com, rryson@isce.com, pdhstwal@isce.com, jlovells@isce.com
4) Send invoices to Jeanette Lovells (jlovells@isce.com).

(A)= Analysis (C)= Container (P)= Preservative



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>1</u>
Submission #: <u>19-39725</u>				
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____				
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____				
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.85</u> Container: <u>VE</u> Thermometer ID: <u>208</u>		Date/Time: <u>11/23/00</u>
		Temperature: (A) <u>1.3</u> °C / (C) <u>0.7</u> °C		Analyst Init: <u>EAR</u>

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNFRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNFRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B	B	B	
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
Pa PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8089										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
5oz / 16oz / 32oz AMBER										
5oz / 16oz / 32oz JAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EAR Date/Time: 11/21/00 7357 Rev 21 05/23/2016
 A = Actual / C = Corrected

\\S:\WPDoc\Word\Partice\LAB DOCS\FORMS\SAMRECRev 201

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1939725-01	COC Number:	---	Receive Date: 11/21/2019 23:00
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 09:30
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW1	Lab Matrix: Water
	Sampled By:	Client of BTST	Sample Type: Groundwater
	<hr/>		
	1939725-02	COC Number:	---
Project Number:		Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 10:10
Sampling Location:		---	Sample Depth: ---
Sampling Point:		MAL-MW2	Lab Matrix: Water
Sampled By:		Client of BTST	Sample Type: Groundwater
<hr/>			
1939725-03		COC Number:	---
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 12:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW3	Lab Matrix: Water
	Sampled By:	Client of BTST	Sample Type: Groundwater
	<hr/>		
	1939725-04	COC Number:	---
Project Number:		Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 13:20
Sampling Location:		---	Sample Depth: ---
Sampling Point:		MAL-MW4	Lab Matrix: Water
Sampled By:		Client of BTST	Sample Type: Groundwater
<hr/>			
1939725-05		COC Number:	---
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 09:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW5	Lab Matrix: Water
	Sampled By:	Client of BTST	Sample Type: Groundwater
	<hr/>		
	1939725-06	COC Number:	---
Project Number:		Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 11:15
Sampling Location:		---	Sample Depth: ---
Sampling Point:		MAL-MW6	Lab Matrix: Water
Sampled By:		Client of BTST	Sample Type: Groundwater
<hr/>			
1939725-07		COC Number:	---
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date: 11/21/2019 10:40
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MAL-MW7	Lab Matrix: Water
	Sampled By:	Client of BTST	Sample Type: Groundwater
	<hr/>		

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Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939725-08	COC Number:	---	Receive Date:	11/21/2019 23:00
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date:	11/21/2019 12:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MAL-MW8	Lab Matrix:	Water
	Sampled By:	Client of BTST	Sample Type:	Groundwater
1939725-09	COC Number:	---	Receive Date:	11/21/2019 23:00
	Project Number:	Manuel and Alda Lawrence Dairy	Sampling Date:	11/21/2019 12:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUP-5	Lab Matrix:	Water
	Sampled By:	Client of BTST	Sample Type:	Groundwater

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Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-01	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW1, 11/21/2019 9:30:00AM, Client
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.069	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 16:15	MRC	IC2	2	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00	CAD	MANUAL	5	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:00	JMH2	SC-2	1	B063992

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-02	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW2, 11/21/2019 10:10:00AM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	160	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 17:38		MRC	IC2	10	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	20	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:01		JMH2	SC-2	1	B063992

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-03	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW3, 11/21/2019 12:55:00PM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4200	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.37	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 17:58	MRC	IC2	5	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00	CAD	MANUAL	20	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:03	JMH2	SC-2	1	B063992

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-04	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW4, 11/21/2019 1:20:00PM, Client
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.2	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 18:19		MRC	IC2	1	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	10	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:05		JMH2	SC-2	1	B063992

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500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-05	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW5, 11/21/2019 9:05:00AM, Client
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	350	mg/L	2.0	0.50	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5600	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.26	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 18:40		MRC	IC2	20	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	50	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:05		JMH2	SC-2	1	B063992

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-06	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW6, 11/21/2019 11:15:00AM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	70	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 19:41		MRC	IC2	5	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	10	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:07		JMH2	SC-2	1	B063992

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-07	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW7, 11/21/2019 10:40:00AM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	87	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 20:02		CMM	IC2	5	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	10	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:07		JMH2	SC-2	1	B063992

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-08	Client Sample Name: Manuel and Alda Lawrence Dairy, MAL-MW8, 11/21/2019 12:25:00PM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	74	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 20:23	CMM	IC2	5	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00	CAD	MANUAL	10	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:09	JMH2	SC-2	1	B063992

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939725-09	Client Sample Name: Manuel and Alda Lawrence Dairy, DUP-5, 11/21/2019 12:00:00PM, Client
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	71	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.093	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 14:00	11/22/19 20:43		CMM	IC2	5	B062989
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	10	B063246
3	EPA-350.1	12/06/19 14:15	12/10/19 10:09		JMH2	SC-2	1	B063992

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062989						
Nitrate as N	B062989-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063246						
Total Dissolved Solids @ 180 C	B063246-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063992						
Ammonia as N	B063992-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062989										
Nitrate as N	B062989-BS1	LCS	5.1130	5.0000	mg/L	102		90 - 110		
QC Batch ID: B063246										
Total Dissolved Solids @ 180 C	B063246-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B063992										
Ammonia as N	B063992-BS1	LCS	1.9750	2.0000	mg/L	98.8		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062989		Used client sample: Y - Description: MAL-MW1, 11/21/2019 09:30								
Nitrate as N	DUP	1939725-01	22.726	23.332		mg/L	2.6		10	
	MS	1939725-01	22.726	33.289	10.101	mg/L		105		80 - 120
	MSD	1939725-01	22.726	33.255	10.101	mg/L	0.1	104	10	80 - 120
QC Batch ID: B063246		Used client sample: Y - Description: MAL-MW1, 11/21/2019 09:30								
Total Dissolved Solids @ 180 C	DUP	1939725-01	1300.0	1290.0		mg/L	0.8		10	
QC Batch ID: B063992		Used client sample: N								
Ammonia as N	DUP	1939623-01	0.41490	0.44750		mg/L	7.6		10	
	MS	1939623-01	0.41490	2.7976	2.2222	mg/L		107		90 - 110
	MSD	1939623-01	0.41490	2.8503	2.2222	mg/L	1.9	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:36
Project: Dairy Representative Monitoring Program
Project Number: Manuel and Alda Lawrence Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Maple Avenue Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939727

Invoice ID: B364822

Enclosed are the results of analyses for samples received by the laboratory on 11/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939727

Samples were filtered through a 0.45 micron filter prior to analysis.



19-39727

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

Chain of Custody

Analysis Requested

Report to:

Name: Luhdorff and Scalmanini
Address: 500 First Street
City: Woodland
State: 95695
CA
Attr: Till Angermann
Project: Dairy Representative Monitoring Program
Site: Maple Avenue Dairy
Samplers Name: Edward Hill & Blake S. Guesner
Global ID - WDR100038510

From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

CR-6 BY [Signature]
DISTRIBUTION
SUB OUT

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	CI/Pe Unpreserved
1	MAP-MW6				x
2	MAP-MW9				x
3	MAP-MW10	11/21/19	1405		x
4	Field Duplicate				x
5					
6					
7					
8					
9					
10					

SHORT HOLDING TIME
Cr-6 NO2 NO3 OP SS
DO Cl- BOD MBAS COT

SHORT HOLDING TIME
Cr-6 NO2 NO3 OP SS
DO Cl- BOD MBAS COT

Relinquished by: (Signature)
Relinquished by: (Signature)
Relinquished by: (Signature)

Received by: [Signature]
Date & Time: 11/21/19 21:00
Received by: [Signature]
Date & Time: 11/21/19 23:00
Received by: [Signature]

Comments:
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
2) Lab reports shall identify sampled wells exactly as shown on this CoC.
3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rbryson@lsc.com, pdhillwa@lsc.com, jlovelis@lsc.com
4) Send invoices to Jeanette Lovells (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-30727

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/21/2300

Temperature: (A) 2.9 °C / (C) 2.3 °C Analyst Init: EWR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/8080										
QT EPA 515.LB150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz JAR										
SOIL SLERVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
RNCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 11-21-19 2357 Rev. 21_05/23/2016

Sample Numbering Completed By: EWR

(S:\WPDoc\WordPerfect\KAE_DOC\IFORMS\EMRRECrev 201)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939727-01	COC Number:	---	Receive Date:	11/21/2019 23:00
	Project Number:	Maple Avenue Dairy	Sampling Date:	11/21/2019 14:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MAP-MW10	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939727-01	Client Sample Name: Maple Avenue Dairy, MAP-MW10, 11/21/2019 2:05:00PM, Edward Her, Blake Sequeira
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	410	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 12:45	SAV	IC2	5	B062987
2	SM-2540C	11/26/19 19:00	11/26/19 19:00	CAD	MANUAL	2	B063246
3	EPA-350.1	12/06/19 16:00	12/09/19 16:39	JMH2	SC-1	1	B063993

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062987						
Nitrate as N	B062987-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063246						
Total Dissolved Solids @ 180 C	B063246-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063993						
Ammonia as N	B063993-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987										
Nitrate as N	B062987-BS1	LCS	5.2820	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063246										
Total Dissolved Solids @ 180 C	B063246-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B063993										
Ammonia as N	B063993-BS1	LCS	2.1285	2.0000	mg/L	106		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987		Used client sample: N								
Nitrate as N	DUP	1939726-01	2.8650	2.6410		mg/L	8.1		10	
	MS	1939726-01	2.8650	8.0899	5.0505	mg/L		103		80 - 120
	MSD	1939726-01	2.8650	8.1394	5.0505	mg/L	0.6	104	10	80 - 120
QC Batch ID: B063246		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939725-01	1300.0	1290.0		mg/L	0.8		10	
QC Batch ID: B063993		Used client sample: N								
Ammonia as N	DUP	1939726-01	ND	ND		mg/L			10	
	MS	1939726-01	ND	2.3278	2.2222	mg/L		105		90 - 110
	MSD	1939726-01	ND	2.2567	2.2222	mg/L	3.1	102	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Maple Avenue Dairy
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/06/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Richmar Farms Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939497

Invoice ID: B364375

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939497

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
Report to: Reduced Constituent Suite		From Filtered Sample: Ammonia-N, NO ₃ -N, Total Dissolved Solids					
Name: Lufdorff and Scalmanini		Project: Dairy Representative Monitoring Program					
Address: 500 First Street		Site: Richlmar Farms Dairy					
City: Woodland		Samplers Name:					
State: CA		Global ID - WDR100038761					
Attn: Till Angermann							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved	CHK BY	DATE
1	RIC-MW1, RIC-MW2	11/19/11	1430	W	x	MA	11/19/11
2	RIC-MW3, RIC-MW4		1455		x		
3	RIC-MW5, RIC-MW6		1520		x		
4	RIC-MW7s, RIC-MW7d		1355		x		
5	RIC-MW8s, RIC-MW8d		1305		x		
6	RIC-MW9s, RIC-MW9d		1335		x		
7	Field-Duplicate				x		
8					x		
9							
10							
11							
12							
13							

SHORT HOLDING TIME
 G¹-8 NO₂ (NO₃) OP SS
 DU Cl₂ BOD MBAS COT

Relinquished by: (Signature)	Received By: (Signature)	Date & Time
Relinquished by: (Signature)	Received By: (Signature)	Date & Time
Relinquished by: (Signature)	Received By: (Signature)	Date & Time

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lufdorff and Scalmanini Consulting Engineers via email: llavignino@lsc.com, boyson@lsc.com, pohsiwel@lsc.com, jlovelis@lsc.com
- Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= ContAINER (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1939497

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify)

SHIPPING CONTAINER: Ice Chest None Box Other (Specify)

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals: Intact No Containers Intact No None Comments:

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/19/23 30
Temperature: (A) 1.1 °C (C) 0.5 °C Analyst Init: EAL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B				
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Sample Numbering Completed By: [Signature] Date/Time: 11/19/23 1613 Rev 21 06/23/2016
A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1939497-01	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 14:30
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW1	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water
1939497-02	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 14:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW4	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water
1939497-03	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 15:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW5	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water
1939497-04	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 13:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW7s	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water
1939497-05	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 13:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW8d	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water
1939497-06	COC Number:	---	Receive Date: 11/20/2019 08:40
	Project Number:	Richmar Farms Dairy	Sampling Date: 11/19/2019 13:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	RIC-MW9d	Lab Matrix: Water
	Sampled By:	David B. of BTST	Sample Type: Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-01	Client Sample Name: Richmar Farms Dairy, RIC-MW1, 11/19/2019 2:30:00PM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	920	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.21	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/20/19 22:00	11/21/19 02:52	SAV	IC2	1	B062846
2	SM-2540C	11/25/19 14:00	11/25/19 14:00	CAD	MANUAL	5	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:24	JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-02	Client Sample Name: Richmar Farms Dairy, RIC-MW4, 11/19/2019 2:55:00PM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.5	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	930	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.22	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/20/19 22:00	11/21/19 03:13		SAV	IC2	1	B062846
2	SM-2540C	11/25/19 14:00	11/25/19 14:00		CAD	MANUAL	5	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:26		JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-03	Client Sample Name: Richmar Farms Dairy, RIC-MW5, 11/19/2019 3:20:00PM, David B.
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.0	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	270	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/20/19 22:00	11/21/19 03:33		SAV	IC2	1	B062846
2	SM-2540C	11/25/19 14:00	11/25/19 14:00		CAD	MANUAL	2	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:28		JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-04	Client Sample Name: Richmar Farms Dairy, RIC-MW7s, 11/19/2019 1:55:00PM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.15	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/20/19 22:00	11/21/19 03:54		SAV	IC2	1	B062846
2	SM-2540C	11/25/19 14:00	11/25/19 14:00		CAD	MANUAL	5	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:30		JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-05	Client Sample Name: Richmar Farms Dairy, RIC-MW8d, 11/19/2019 1:05:00PM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	860	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/20/19 22:00	11/21/19 04:15	SAV	IC2	1	B062846
2	SM-2540C	11/25/19 14:00	11/25/19 14:00	CAD	MANUAL	5	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:30	JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939497-06	Client Sample Name: Richmar Farms Dairy, RIC-MW9d, 11/19/2019 1:35:00PM, David B.
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.57	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	670	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.095	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/20/19 20:00	11/21/19 02:41	SAV	IC8	1	B062836
2	SM-2540C	11/25/19 14:00	11/25/19 14:00	CAD	MANUAL	3.333	B063082
3	EPA-350.1	12/05/19 08:30	12/05/19 13:31	JMH	SC-1	1	B063749

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062836						
Nitrate as N	B062836-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062846						
Nitrate as N	B062846-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063082						
Total Dissolved Solids @ 180 C	B063082-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063749						
Ammonia as N	B063749-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062836										
Nitrate as N	B062836-BS1	LCS	5.0650	5.0000	mg/L	101		90 - 110		
QC Batch ID: B062846										
Nitrate as N	B062846-BS1	LCS	5.0970	5.0000	mg/L	102		90 - 110		
QC Batch ID: B063082										
Total Dissolved Solids @ 180 C	B063082-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B063749										
Ammonia as N	B063749-BS1	LCS	2.0499	2.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B062836		Used client sample: N								
Nitrate as N	DUP	1939471-01	4.2220	4.2390		mg/L	0.4		10	
	MS	1939471-01	4.2220	9.4495	5.0505	mg/L		104		80 - 120
	MSD	1939471-01	4.2220	9.5747	5.0505	mg/L	1.3	106	10	80 - 120
QC Batch ID: B062846		Used client sample: N								
Nitrate as N	DUP	1939247-01	0.076000	0.10800		mg/L	34.8		10	A02
	MS	1939247-01	0.076000	4.6343	5.0505	mg/L		90.3		80 - 120
	MSD	1939247-01	0.076000	4.6404	5.0505	mg/L	0.1	90.4	10	80 - 120
QC Batch ID: B063082		Used client sample: Y - Description: RIC-MW1, 11/19/2019 14:30								
Total Dissolved Solids @ 180 C	DUP	1939497-01	915.00	895.00		mg/L	2.2		10	
QC Batch ID: B063749		Used client sample: N								
Ammonia as N	DUP	1939492-02	0.77150	0.68220		mg/L	12.3		10	A02
	MS	1939492-02	0.77150	3.1748	2.2222	mg/L		108		90 - 110
	MSD	1939492-02	0.77150	3.2131	2.2222	mg/L	1.2	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/06/2019 15:51
Project: Dairy Representative Monitoring Program
Project Number: Richmar Farms Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Sierra View Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939615

Invoice ID: B364740

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939615

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested			
Report to: 19-39615 Reduced Constituent Suite					
Name: Luhdorff and Scalmani Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Sierra View Dairy Samplers Name: Edward Her & Blake Segueria Global ID: WDR100038780			
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	SIE-MW1 -1	11/20/19	1510	W	x
2	SIE-MW2				x
3	SIE-MW3 -2	11/20/19	1445	W	x
4	SIE-MW4				x
5	Field Duplicate -3	11/20/19	1515	W	x
6	CHK BY [Signature]				
7	DISTRICTION [Signature]				
8	MAX [Signature]				
9	CHP [Signature]				
10					

SHORT HOLDING TIME
 Cr⁶ NO₂ NO₃ OF SG
 DO % BOD MBAS COT

Relinquished by: [Signature]	Date & Time: 11/20/19 20:35
Relinquished by: [Signature]	Date & Time: 11/20/19 22:30
Relinquished by: [Signature]	Date & Time: 11/20/19 22:30

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llavagnino@isce.com, rbryson@isce.com, pdhalliwell@isce.com, jlovelis@isce.com
 4) Send invoices to Jeanette Lovells (jlovelis@isce.com).

(A)= Analysis (C)= Container (P)= Preservative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 101-39615

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify)

SHIPPING CONTAINER: Ice Chest None Box Other (Specify)

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals: Ice Chest Containers None Comments:

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/20/22:30

Temperature: (A) 1.4 °C / (C) 0.8 °C Analyst Init: EWR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
20% NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Description on "12" "3" clont/marker Pt "DUP 3" 11:26

Date/Time: 11/21/19

Rev 21 05/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1939615-01	COC Number:	---	Receive Date:	11/20/2019 22:30	
	Project Number:	Sierra View Dairy	Sampling Date:	11/20/2019 15:10	
	Sampling Location:	---	Sample Depth:	---	
	Sampling Point:	SIE-MW1	Lab Matrix:	Water	
	Sampled By:	Edward Her, Blake Sequeria of BTST	Sample Type:	Water	
				Receive Date:	11/20/2019 22:30
				Sampling Date:	11/20/2019 14:45
1939615-02	COC Number:	---	Receive Date:	11/20/2019 22:30	
	Project Number:	Sierra View Dairy	Sampling Date:	11/20/2019 14:45	
	Sampling Location:	---	Sample Depth:	---	
	Sampling Point:	SIE-MW3	Lab Matrix:	Water	
	Sampled By:	Edward Her, Blake Sequeria of BTST	Sample Type:	Water	
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1939615-03	COC Number:	---	Receive Date:	11/20/2019 22:30	
	Project Number:	Sierra View Dairy	Sampling Date:	11/20/2019 15:15	
	Sampling Location:	---	Sample Depth:	---	
	Sampling Point:	Field Duplicate	Lab Matrix:	Water	
	Sampled By:	Edward Her, Blake Sequeria of BTST	Sample Type:	Water	
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939615-01	Client Sample Name: Sierra View Dairy, SIE-MW1, 11/20/2019 3:10:00PM, Edward Her, Blake Sequeria
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	560	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 04:15		SAV	IC8	2	B062895
2	SM-2540C	11/23/19 13:00	11/23/19 13:00		CAD	MANUAL	3.333	B063001
3	EPA-350.1	12/05/19 16:15	12/07/19 10:34		JMH2	SC-1	1	B063859

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939615-02	Client Sample Name: Sierra View Dairy, SIE-MW3, 11/20/2019 2:45:00PM, Edward Her, Blake Sequeria
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	450	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 04:36		SAV	IC8	2	B062895
2	SM-2540C	11/23/19 13:00	11/23/19 13:00		CAD	MANUAL	3.333	B063001
3	EPA-350.1	12/05/19 16:15	12/07/19 10:38		JMH2	SC-1	1	B063859

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939615-03	Client Sample Name: Sierra View Dairy, Field Duplicate, 11/20/2019 3:15:00PM, Edward Her, Blake Sequeria
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	480	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/21/19 21:00	11/22/19 10:03		SAV	IC8	2	B062895
2	SM-2540C	11/23/19 13:00	11/23/19 13:00		CAD	MANUAL	3.333	B063001
3	EPA-350.1	12/05/19 16:15	12/07/19 10:40		JMH2	SC-1	1	B063859

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062895						
Nitrate as N	B062895-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063001						
Total Dissolved Solids @ 180 C	B063001-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063859						
Ammonia as N	B063859-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062895										
Nitrate as N	B062895-BS1	LCS	5.3200	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063001										
Total Dissolved Solids @ 180 C	B063001-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B063859										
Ammonia as N	B063859-BS1	LCS	2.0314	2.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062895		Used client sample: N								
Nitrate as N	DUP	1939592-01	ND	ND		mg/L			10	
	MS	1939592-01	ND	5.2364	5.0505	mg/L		104		80 - 120
	MSD	1939592-01	ND	5.2889	5.0505	mg/L	1.0	105	10	80 - 120
QC Batch ID: B063001		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939604-01	11000	10800		mg/L	1.8		10	
QC Batch ID: B063859		Used client sample: Y - Description: SIE-MW1, 11/20/2019 15:10								
Ammonia as N	DUP	1939615-01	ND	0.091400		mg/L			10	J
	MS	1939615-01	ND	2.4309	2.2222	mg/L		109		90 - 110
	MSD	1939615-01	ND	2.4339	2.2222	mg/L	0.1	110	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 14:30
Project: Dairy Representative Monitoring Program
Project Number: Sierra View Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/10/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Zonneveld Dairy Complex

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939728

Invoice ID: B364823

Enclosed are the results of analyses for samples received by the laboratory on 11/21/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939728

Samples were filtered through a 0.45 micron filter prior to analysis.



19-39728

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(861) 327-4911

Chain of Custody

Analysis Requested

Report to:

Name: Luthorff and Scalmanini		Reduced Constituent Suite						
Address: 600 First Street		Project: Dairy Representative Monitoring Program						
City: Woodland		Site: Zonneveld Dairy Complex						
State: 95695		Samplers Name: <i>Edward for d Blue Segeira</i>						
CA		Global ID - WDR100038511						
Attr: Tili Angermann								
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pe Unpreserved	From Filtered Sample:	CHK BY	DISTRIBUTION
1	ZON-MW1A, ZON-MW1B				X	Ammonia-N, NO3-N, Total Dissolved Solids	<i>[Signature]</i>	Sub Out <input type="checkbox"/>
2	ZON-MW1C				X			
2	ZON-MW2A, ZON-MW2B	11/21/19	1505	W	X			
3	ZON-MW3A, ZON-MW3B				X			
4	ZON-MW4A, ZON-MW4B				X			
5	ZON-MW5A, ZON-MW5B				X			
6	ZON-MW7				X			
7	Field Duplicate				X			
8								
9								
10								
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthorff and Scalmanini Consulting Engineers via email: lsc@lscce.com , ibryson@lscce.com , pohalwat@lscce.com . 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).						SHOFT HOLDING TIME Cr ⁶ NO ₂ N ₂ OP SS DO Cl ₂ BOD MBAS COT <i>(22)</i>		
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>						Received By: <i>[Signature]</i> Date & Time: 11/21/19 2:20 Received by: <i>[Signature]</i> Date & Time: 11/21/19 2:30 Received By: <i>[Signature]</i> Date & Time: 11/21/19 2:30		

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: _____

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	---

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time 11/21/2300
 Temperature: (A) 0.9 °C / (C) 0.3 °C Analyst Init EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/508/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EML Date/Time: 11-21-19 2358 Rev. 21_05/23/2016
 A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939728-01	COC Number:	---	Receive Date:	11/21/2019 23:00
	Project Number:	Zonneveld Dairy Complex	Sampling Date:	11/21/2019 15:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	ZON-MW2B	Lab Matrix:	Water
	Sampled By:	Edward Her, Blake Sequeira of DTO	Sample Type:	Water

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939728-01	Client Sample Name: Zonneveld Dairy Complex, ZON-MW2B, 11/21/2019 3:05:00PM, Edward Her, Blake Sequeira
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	310	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/22/19 00:01	11/22/19 13:06		SAV	IC2	1	B062987
2	SM-2540C	11/26/19 19:00	11/26/19 19:00		CAD	MANUAL	2	B063247
3	EPA-350.1	12/06/19 16:00	12/09/19 16:40		JMH2	SC-1	1	B063993

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062987						
Nitrate as N	B062987-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B063247						
Total Dissolved Solids @ 180 C	B063247-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063993						
Ammonia as N	B063993-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987										
Nitrate as N	B062987-BS1	LCS	5.2820	5.0000	mg/L	106		90 - 110		
QC Batch ID: B063247										
Total Dissolved Solids @ 180 C	B063247-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B063993										
Ammonia as N	B063993-BS1	LCS	2.1285	2.0000	mg/L	106		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062987		Used client sample: N								
Nitrate as N	DUP	1939726-01	2.8650	2.6410		mg/L	8.1		10	
	MS	1939726-01	2.8650	8.0899	5.0505	mg/L		103		80 - 120
	MSD	1939726-01	2.8650	8.1394	5.0505	mg/L	0.6	104	10	80 - 120
QC Batch ID: B063247		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939730-04	700.00	720.00		mg/L	2.8		10	
QC Batch ID: B063993		Used client sample: N								
Ammonia as N	DUP	1939726-01	ND	ND		mg/L			10	
	MS	1939726-01	ND	2.3278	2.2222	mg/L		105		90 - 110
	MSD	1939726-01	ND	2.2567	2.2222	mg/L	3.1	102	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/10/2019 19:21
Project: Dairy Representative Monitoring Program
Project Number: Zonneveld Dairy Complex
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

Central Area



Date of Report: 11/27/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Albert Mendes Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938497

Invoice ID: B363425

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938497

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Name: Luhdorff and Scalmanini		From Filtered Sample:			
Address: 500 First Street		Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland					
State: 95695					
Attn: Till Angermann					
Project: Dairy Representative Monitoring Program					
Site: Albert Mendez Dairy					
Samplers Name: DeFeen Cassandra Hanley					
Global ID - GADAIRY00001					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	MEN-MW1s, MEN-MW4d	11-12-19	1532	GW	x
2	MEN-MW2s, MEN-MW4d	11-12-19	1515	GW	x
3	MEN-MW3s, MEN-MW4d				x
4	MEN-MW5s, MEN-MW4d				x
5	MEN-MW6s, MEN-MW4d				x
6	MEN-MW7s, MEN-MW4d	11-12-19	1454	GW	x
7	MEN-MW8s, MEN-MW4d				x
8	Field-Depthless	11-12-19	1555	GW	x
9					
10					
11					
12					
Comments:		1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llovelis@lscce.com, rbyson@lscce.com, pdhaliral@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).			
Relinquished by: (Signature)		Cassandra Hanley		11-12-19	
Relinquished by: (Signature)		Cassandra Hanley		11-12-19 16:35	
Relinquished by: (Signature)		Cassandra Hanley		11-12-19 22:00	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-38497

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 203 Date/Time: 11/12/2000

Temperature: (A) 1.8 °C / (C) 1.2 °C Analyst Init: ENL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL, TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 502W05/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____ Date/Time: 11/12/2000 Rev 21 05/23/2016

Sample Numbering Completed By: ENL

A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938497-01	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 15:32
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW1s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
1938497-02	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 15:15
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW2s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
1938497-03	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 14:54
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW6s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
1938497-04	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 15:55
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938497-01	Client Sample Name: Albert Mendes Dairy, MEN-MW1s, 11/12/2019 3:32:00PM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	71	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3800	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	2.5	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 05:35	SAV	IC2	10	B062074
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	20	B062314
3	EPA-350.1	11/22/19 16:15	11/25/19 13:20	JMH2	SC-2	1	B062972

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938497-02	Client Sample Name: Albert Mendes Dairy, MEN-MW2s, 11/12/2019 3:15:00PM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3700	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	1.7	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 05:56		SAV	IC2	2	B062074
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	20	B062314
3	EPA-350.1	11/22/19 16:15	11/25/19 13:20		JMH2	SC-2	1	B062972

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938497-03	Client Sample Name: Albert Mendes Dairy, MEN-MW6s, 11/12/2019 2:54:00PM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	11	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 06:17	SAV	IC2	1	B062074
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	10	B062314
3	EPA-350.1	11/22/19 16:15	11/25/19 13:43	JMH2	SC-2	5	B062972

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938497-04	Client Sample Name: Albert Mendes Dairy, MEN-MW8s, 11/12/2019 3:55:00PM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.24	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 06:37	SAV	IC2	2	B062074
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	20	B062313
3	EPA-350.1	11/22/19 16:15	11/25/19 13:22	JMH2	SC-2	1	B062972

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062074						
Nitrate as N	B062074-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062313						
Total Dissolved Solids @ 180 C	B062313-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062314						
Total Dissolved Solids @ 180 C	B062314-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062972						
Ammonia as N	B062972-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062074										
Nitrate as N	B062074-BS1	LCS	5.0240	5.0000	mg/L	100		90 - 110		
QC Batch ID: B062313										
Total Dissolved Solids @ 180 C	B062313-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: B062314										
Total Dissolved Solids @ 180 C	B062314-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B062972										
Ammonia as N	B062972-BS1	LCS	1.9954	2.0000	mg/L	99.8		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: B062074		Used client sample: N									
Nitrate as N	DUP	1938492-01	ND	ND		mg/L					10
	MS	1938492-01	ND	5.1707	5.0505	mg/L		102		80 - 120	
	MSD	1938492-01	ND	5.0929	5.0505	mg/L	1.5	101	10	80 - 120	
QC Batch ID: B062313		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1938493-01	2330.0	2300.0		mg/L	1.3				10
QC Batch ID: B062314		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1938494-01	1380.0	1340.0		mg/L	2.9				10
QC Batch ID: B062972		Used client sample: N									
Ammonia as N	DUP	1938669-01	1.0045	1.0358		mg/L	3.1				10
	MS	1938669-01	1.0045	3.1437	2.2222	mg/L		96.3		90 - 110	
	MSD	1938669-01	1.0045	3.0502	2.2222	mg/L	3.0	92.1	10	90 - 110	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/27/2019 15:32
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/02/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Albert Mendes Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1938493
Invoice ID: B363217

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000967652

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938493

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.
4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

Chain of Custody

Report to: 19-38493
Luhdorff and Scalmaniini
Reduced Constituent Suite

Project: Dairy Representative Monitoring Program

Site: ~~XXXXXXXXXX~~ Albert Mendes Dairy

Sampling Name: Milk Teak / Steag Field

Global ID: GADAIRY00001

Analysis Requested

From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Pc Unpreserved	CHICK BY	DISTRIBUTION
1	ANC-MW1				X		
2	ANC-MW2				X		
3	ANC-MW3	11-2-19	1524	GW	X		
4	ANC-MW4	11-2-19	1459	GW	X		
5	ANC-MW5s, ANC-MW5d	11-2-19	1549	GW	X		
6	ANC-MW6s, ANC-MW6d				X		
7	ANC-MW7s, ANC-MW7d	11-2-19	1434	GW	X		
8	MEN 8 Field Duplicate				X		
9							
10							
11							
12							

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmaniini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pdhaliwal@lscce.com, jlovells@lscce.com
 4) Send invoices to Jeanette Lovells (jlovells@lscce.com).

Relinquished by: (Signature)
[Signature] 11-2-19

Relinquished by: (Signature)
[Signature]

Relinquished by: (Signature)
[Signature]

Received By: *[Signature]* 11/2/19 16:35
Date & Time

Received by: *[Signature]* 11/2/19 22:00
Date & Time

Received By: *[Signature]*
Date & Time

*** Albert Mendes Dairy**

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BC LABORATORIES INC. COOLER RECEIPT FORM page 1 of 1
Submission #: 19-38493

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:
Intact: Yes No Intact: Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/12/2008
Temperature: (A) 0.9 °C (C) 0.4 °C Analyst Initials: GNL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / Box / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / Box / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 50608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
Box EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
Box / 16oz / 32oz AMBER										
Box / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
Sample Numbering Completed By: GNL Date/Time: 11/12/2008 Rev 21 05/23/2016
A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938493-01	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 15:24
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW3s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938493-02	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 14:59
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW4s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938493-03	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 15:49
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW5s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938493-04	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Albert Mendes Dairy	Sampling Date:	11/12/2019 14:34
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MEN-MW7s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938493-01	Client Sample Name: Albert Mendes Dairy, MEN-MW3s, 11/12/2019 3:24:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.29	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 23:53		CMM	IC2	10	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 16:00	11/22/19 11:12		MC1	SC-2	1	B062871

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938493-02	Client Sample Name: Albert Mendes Dairy, MEN-MW4s, 11/12/2019 2:59:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.21	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/14/19 00:13		CMM	IC2	10	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 16:00	11/22/19 11:14		MC1	SC-2	1	B062871

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500 First Street
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Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938493-03	Client Sample Name: Albert Mendes Dairy, MEN-MW5s, 11/12/2019 3:49:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	63	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19	16:19	MRC	IC2	5	B062077
2	SM-2540C	11/15/19 16:00	11/15/19	16:00	CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 16:00	11/22/19	11:16	MC1	SC-2	1	B062871

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Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938493-04	Client Sample Name: Albert Mendes Dairy, MEN-MW7s, 11/12/2019 2:34:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	82	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.20	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 16:40		MRC	IC2	5	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 16:00	11/22/19 11:17		MC1	SC-2	1	B062871

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Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062077						
Nitrate as N	B062077-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062313						
Total Dissolved Solids @ 180 C	B062313-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062871						
Ammonia as N	B062871-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062077										
Nitrate as N	B062077-BS1	LCS	4.9350	5.0000	mg/L	98.7		90 - 110		
QC Batch ID: B062313										
Total Dissolved Solids @ 180 C	B062313-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: B062871										
Ammonia as N	B062871-BS1	LCS	2.0345	2.0000	mg/L	102		90 - 110		

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Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062077		Used client sample: N								
Nitrate as N	DUP	1938495-01	2.1020	2.0640		mg/L	1.8		10	
	MS	1938495-01	2.1020	7.0414	5.0505	mg/L		97.8		80 - 120
	MSD	1938495-01	2.1020	7.0879	5.0505	mg/L	0.7	98.7	10	80 - 120
QC Batch ID: B062313		Used client sample: Y - Description: MEN-MW3s, 11/12/2019 15:24								
Total Dissolved Solids @ 180 C	DUP	1938493-01	2330.0	2300.0		mg/L	1.3		10	
QC Batch ID: B062871		Used client sample: N								
Ammonia as N	DUP	1939521-01	ND	ND		mg/L			10	
	MS	1939521-01	ND	2.4071	2.2222	mg/L		108		90 - 110
	MSD	1939521-01	ND	2.4242	2.2222	mg/L	0.7	109	10	90 - 110

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Woodland, CA 95695

Reported: 12/02/2019 17:17
Project: Dairy Representative Monitoring Program
Project Number: Albert Mendes Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 11/25/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Anchor J. Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938494

Invoice ID: B363218

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938494

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to: Reduced Constituent Sillie Luthardt and Seilmann		Analysis Requested	
Name: Luthardt and Seilmann Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Augermann		Project: Dairy Representative Monitoring Program Site: Anchor J. Dairy 40 2/19 November Sampling Name: <i>Net Tech Stee High</i> Global ID - GADAIRY00002	
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids		CHLOR DISTRIBUTION SUB OUT	
Lab # 1 2 3 4 5 6 7 8 9 10 11 12	Strike out non-sampled wells ANC-MW1 ANC-MW2 ANC-MW3 ANC-MW4 ANC-MW5s, ANC-MW5d ANC-MW6s, ANC-MW6d ANC-MW7s, ANC-MW7d Field Duplicate	Date Sampled 11/2-19 1332 1300 1228 1405 1423 1157 1129	Matrix b-w / / / / / / / / / /
Time Sampled 1332 1300 1228 1405 1423 1157 1129		Date & Time 11/2/19 16:35 11/2/19 2200	
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthardt and Seilmann Consulting Engineers via email: lsev@lscs.com, rlryson@lscs.com, pdl@lscs.com 4) Send invoices to Jeanette Lovette (jlovette@lscs.com).		Received By: <i>[Signature]</i> Received By: <i>[Signature]</i> Received By: <i>[Signature]</i>	
(A) = Analysis (C) = Container (P) = Preservative		Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-38494

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/12/2000

Temperature: (A) 0.9 °C / (C) 0.4 °C Analyst Init: EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 501/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUBMA CANISTER										

Comments: _____ Date/Time: 11/12/2000 Rev 21 05/23/2016

Sample Numbering Completed By: GSB

A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938494-01	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 13:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW1	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-02	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 13:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW2	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-03	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 12:28
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW3	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-04	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 14:05
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW4	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-05	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 14:23
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-06	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 11:57
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938494-07	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Anchor J. Dairy	Sampling Date: 11/12/2019 11:29
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANC-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater

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500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-01	Client Sample Name: Anchor J. Dairy, ANC-MW1, 11/12/2019 1:32:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.7	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19 17:42		MRC	IC2	1	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:26		MC1	SC-2	1	B062872

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500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-02	Client Sample Name: Anchor J. Dairy, ANC-MW2, 11/12/2019 1:00:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.32	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19	19:45	MRC	IC2	5	B062078
2	SM-2540C	11/15/19 16:00	11/15/19	16:00	CAD	MANUAL	10	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19	11:30	MC1	SC-2	1	B062872

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Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-03	Client Sample Name: Anchor J. Dairy, ANC-MW3, 11/12/2019 12:28:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	550	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/14/19 00:34		CMM	IC2	5	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	3.333	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:32		MC1	SC-2	1	B062872

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Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-04	Client Sample Name: Anchor J. Dairy, ANC-MW4, 11/12/2019 2:05:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	700	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.16	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19 20:06		MRC	IC2	2	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	5	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:32		MC1	SC-2	1	B062872

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-05	Client Sample Name: Anchor J. Dairy, ANC-MW5s, 11/12/2019 2:23:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.9	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.18	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19 20:47	CMM	IC2	1	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	10	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:33	MC1	SC-2	1	B062872

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-06	Client Sample Name: Anchor J. Dairy, ANC-MW6s, 11/12/2019 11:57:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	66	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.21	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19 21:08		CMM	IC2	5	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:34		MC1	SC-2	1	B062872

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938494-07	Client Sample Name: Anchor J. Dairy, ANC-MW7s, 11/12/2019 11:29:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	29	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.23	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 14:00	11/13/19 21:28		CMM	IC2	2	B062078
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	5	B062314
3	EPA-350.1	11/21/19 16:00	11/22/19 11:35		MC1	SC-2	1	B062872

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Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062078						
Nitrate as N	B062078-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062314						
Total Dissolved Solids @ 180 C	B062314-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062872						
Ammonia as N	B062872-BLK1	ND	mg/L	0.20	0.067	

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Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062078										
Nitrate as N	B062078-BS1	LCS	4.9540	5.0000	mg/L	99.1		90 - 110		
QC Batch ID: B062314										
Total Dissolved Solids @ 180 C	B062314-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B062872										
Ammonia as N	B062872-BS1	LCS	2.0317	2.0000	mg/L	102		90 - 110		

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Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062078		Used client sample: Y - Description: ANC-MW1, 11/12/2019 13:32								
Nitrate as N	DUP	1938494-01	1.7270	1.7030		mg/L	1.4		10	
	MS	1938494-01	1.7270	6.6939	5.0505	mg/L		98.3		80 - 120
	MSD	1938494-01	1.7270	6.6929	5.0505	mg/L	0.0	98.3	10	80 - 120
QC Batch ID: B062314		Used client sample: Y - Description: ANC-MW1, 11/12/2019 13:32								
Total Dissolved Solids @ 180 C	DUP	1938494-01	1380.0	1340.0		mg/L	2.9		10	
QC Batch ID: B062872		Used client sample: Y - Description: ANC-MW1, 11/12/2019 13:32								
Ammonia as N	DUP	1938494-01	0.12780	0.10900		mg/L	15.9		10	J,A02
	MS	1938494-01	0.12780	4.6202	4.4444	mg/L		101		90 - 110
	MSD	1938494-01	0.12780	4.7381	4.4444	mg/L	2.5	104	10	90 - 110

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500 First Street
Woodland, CA 95695

Reported: 11/25/2019 21:45
Project: Dairy Representative Monitoring Program
Project Number: Anchor J. Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 11/26/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Bettencourt & Marson Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1938298
Invoice ID: B363308

Enclosed are the results of analyses for samples received by the laboratory on 11/11/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938298

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Name: Luhdorff and Scalamanini		Project: Dairy Representative Monitoring Program			
Address: 500 First Street		Site: Bettencourt & Marson Dairy			
City: Woodland		Samplers Name: DetTech Ashley Pittman			
State: 95695		Global ID - GADAIRY00003			
Altn: Trill Angermann		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl/Pb Unpreserved
1	BET-MW1s, XXXXXXXXXX	11/19	9:45	GW	x
2	BET-MW2s, XXXXXXXXXX		9:27		x
3	BET-MW3s, XXXXXXXXXX		9:09		x
4	BET-MW4s, XXXXXXXXXX		10:11		x
5	BET-MW5s, XXXXXXXXXX		10:42		x
6	BET-MW6s, XXXXXXXXXX		11:07		x
7	BET-MW7s, XXXXXXXXXX		11:53		x
8	BET-MW8s, XXXXXXXXXX		11:27		x
9	Field Duplicate 5				x
10					
11					
12					

CHK BY DISTRIBUTION
GW MW SUB OUT

SHORT PLANNING TIME
Cr-B NO2 OP SS
DO O2 B7.1 MBAS COT

Relinquished by: (Signature) <i>Ashley Pittman</i>	Date & Time 11/19/11 16:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/19/11 22:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/19/11 22:00

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalamanini Consulting Engineers via email: llavagnino@lisce.com, rlryson@lisce.com, pdhallival@lisce.com, jlovelis@lisce.com
 4) Send invoices to Jeannette Lovelis (jlovelis@lisce.com).

(A)= Analysis (C)= Container (P)= Preservative



Submission #: 19-38298 Page 1 of 1

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
--	--	--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/11 2200 Analyst Init: GMM/KMM Temperature: (A) 1.2 °C / (C) 0.7 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/508/5080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801504										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Sample Numbering Completed By: GMM Date/Time: 11/11 2220 Rev 21 05/23/2016 A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938298-01	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 09:45
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-02	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 09:27
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-03	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 09:09
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-04	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 10:11
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-05	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 10:42
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-06	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 11:07
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938298-07	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date: 11/11/2019 11:53
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	BET-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938298-08	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date:	11/11/2019 11:27
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BET-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938298-09	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Bettencourt & Marson Dairy	Sampling Date:	11/11/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate 5	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater

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500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-01	Client Sample Name: Bettencourt & Marson Dairy, BET-MW1s, 11/11/2019 9:45:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	440	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 04:36		SAV	IC2	10	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	2	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:39		JMH	SC-2	1	B062694

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-02	Client Sample Name: Bettencourt & Marson Dairy, BET-MW2s, 11/11/2019 9:27:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.18	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 11:40		SAV	IC2	10	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:45		JMH	SC-2	1	B062694

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-03	Client Sample Name: Bettencourt & Marson Dairy, BET-MW3s, 11/11/2019 9:09:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2200	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.25	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 12:00		SAV	IC2	10	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:46		JMH	SC-2	1	B062694

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-04	Client Sample Name: Bettencourt & Marson Dairy, BET-MW4s, 11/11/2019 10:11:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.18	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 06:39		SAV	IC2	5	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:46		JMH	SC-2	1	B062694

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-05	Client Sample Name: Bettencourt & Marson Dairy, BET-MW5s, 11/11/2019 10:42:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	580	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 07:00		SAV	IC2	5	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	3.333	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:48		JMH	SC-2	1	B062694

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-06	Client Sample Name: Bettencourt & Marson Dairy, BET-MW6s, 11/11/2019 11:07:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	530	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 12:21		SAV	IC2	5	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	2	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:48		JMH	SC-2	1	B062694

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-07	Client Sample Name: Bettencourt & Marson Dairy, BET-MW7s, 11/11/2019 11:53:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	520	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 08:22		SAV	IC2	2	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	2	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:50		JMH	SC-2	1	B062694

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-08	Client Sample Name: Bettencourt & Marson Dairy, BET-MW8s, 11/11/2019 11:27:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	460	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 08:55		SAV	IC2	5	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	2	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:50		JMH	SC-2	1	B062694

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938298-09	Client Sample Name: Bettencourt & Marson Dairy, Field Duplicate 5, 11/11/2019 12:00:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	460	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 09:16		SAV	IC2	5	B061893
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	2	B062165
3	EPA-350.1	11/20/19 10:30	11/21/19 16:51		JMH	SC-2	1	B062694

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B061893						
Nitrate as N	B061893-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062165						
Total Dissolved Solids @ 180 C	B062165-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062694						
Ammonia as N	B062694-BLK1	ND	mg/L	0.20	0.067	

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B061893										
Nitrate as N	B061893-BS1	LCS	5.0980	5.0000	mg/L	102		90 - 110		
QC Batch ID: B062165										
Total Dissolved Solids @ 180 C	B062165-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B062694										
Ammonia as N	B062694-BS1	LCS	2.0775	2.0000	mg/L	104		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B061893		Used client sample: Y - Description: BET-MW1s, 11/11/2019 09:45								
Nitrate as N	DUP	1938298-01	35.870	35.200		mg/L	1.9		10	
	MS	1938298-01	35.870	88.111	50.505	mg/L		103		80 - 120
	MSD	1938298-01	35.870	89.444	50.505	mg/L	1.5	106	10	80 - 120
QC Batch ID: B062165		Used client sample: Y - Description: BET-MW2s, 11/11/2019 09:27								
Total Dissolved Solids @ 180 C	DUP	1938298-02	1950.0	1990.0		mg/L	2.0		10	
QC Batch ID: B062694		Used client sample: Y - Description: BET-MW1s, 11/11/2019 09:45								
Ammonia as N	DUP	1938298-01	0.11480	0.12550		mg/L	8.9		10	J
	MS	1938298-01	0.11480	2.6569	2.2222	mg/L		114		90 - 110 Q03
	MSD	1938298-01	0.11480	2.7424	2.2222	mg/L	3.2	118	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Bettencourt & Marson Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Diepersloot Ranch

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939163

Invoice ID: B364143

Enclosed are the results of analyses for samples received by the laboratory on 11/18/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1939163

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Analysis Requested			
Report to: Reduced Constituent Suite Project: Daily Representative Monitoring Program Site: Diepersloot Ranch Samplers Name: Antonio Del-Tech Global ID - WDR100039237			
From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95685 Attn: Tili Angermann			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled
- 1	DIE-MW1	11/18/19	1358
- 2	DIE-MW2		1321
- 3	DIE-MW3		1349
- 4	DIE-MW4		1417
- 5	Field Duplicate #1		
6			
7			
8			
9			
10			
11			
12			
		Matrix	CK/Pc Unpreserved
			x
			x
			x
			x
			x
SHORT HOLDING TIME <input checked="" type="checkbox"/> Cl ⁻ <input checked="" type="checkbox"/> NO ₂ <input checked="" type="checkbox"/> OP <input checked="" type="checkbox"/> SS <input checked="" type="checkbox"/> DO <input checked="" type="checkbox"/> Cl ₂ <input checked="" type="checkbox"/> BOD <input checked="" type="checkbox"/> MBAS <input checked="" type="checkbox"/> COT CHILLY DISTRIBUTION <input checked="" type="checkbox"/> CHL <input checked="" type="checkbox"/> INK <input type="checkbox"/> SLUR OUT <input type="checkbox"/>			
Relinquished by: (Signature) <i>[Signature]</i>		Date & Time 11/18/19 0800	
Relinquished by: (Signature) <i>[Signature]</i>		Date & Time 11/18/19 20:00	
Relinquished by: (Signature) <i>[Signature]</i>		Date & Time 11/18/19 22:30	
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lscce.com, bryson@lscce.com, pthallwal@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com). (A)= Analysis (C)= Containor (P)= Preservative			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1939163

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chests Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/8/19 22:30

Temperature: (A) 13 °C / (C) 0.7 °C Analyst Init: Sum

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 5040/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015/4										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 11-18-19 2315 Rev 21 05/23/2016

Actual / Corrected _____

IS:\WPDoc\Ward\Ref\cd\LAB\DOC\FORMS\SAMREC\rev 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1939163-01	COC Number:	---	Receive Date:	11/18/2019 22:30
	Project Number:	Diepersloot Ranch	Sampling Date:	11/18/2019 13:58
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DIE-MW1	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1939163-02	COC Number:	---	Receive Date:	11/18/2019 22:30
	Project Number:	Diepersloot Ranch	Sampling Date:	11/18/2019 13:21
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DIE-MW2	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1939163-03	COC Number:	---	Receive Date:	11/18/2019 22:30
	Project Number:	Diepersloot Ranch	Sampling Date:	11/18/2019 13:49
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DIE-MW3	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1939163-04	COC Number:	---	Receive Date:	11/18/2019 22:30
	Project Number:	Diepersloot Ranch	Sampling Date:	11/18/2019 14:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DIE-MW4	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater
1939163-05	COC Number:	---	Receive Date:	11/18/2019 22:30
	Project Number:	Diepersloot Ranch	Sampling Date:	11/18/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #1	Lab Matrix:	Water
	Sampled By:	Antonio Morales of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939163-01	Client Sample Name: Diepersloot Ranch, DIE-MW1, 11/18/2019 1:58:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	97	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/19/19 14:00	11/19/19 16:50		MRC	IC5	10	B062606
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:23		JMH	SC-1	1	B063685

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939163-02	Client Sample Name: Diepersloot Ranch, DIE-MW2, 11/18/2019 1:21:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	660	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.077	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/19/19 14:00	11/19/19 17:08		MRC	IC5	1	B062606
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	3.333	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:24		JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939163-03	Client Sample Name: Diepersloot Ranch, DIE-MW3, 11/18/2019 1:49:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	970	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/19/19 14:00	11/19/19 20:51		MRC	IC5	5	B062606
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:26		JMH	SC-1	1	B063685

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939163-04	Client Sample Name: Diepersloot Ranch, DIE-MW4, 11/18/2019 2:17:00PM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	810	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/19/19 14:00	11/19/19 21:09		MRC	IC5	2	B062606
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:28		JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939163-05	Client Sample Name: Diepersloot Ranch, Field Duplicate #1, 11/18/2019 12:00:00AM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	29	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	680	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/19/19 14:00	11/19/19 18:37		CMM	IC5	2	B062606
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:28		JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062606						
Nitrate as N	B062606-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062807						
Total Dissolved Solids @ 180 C	B062807-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063685						
Ammonia as N	B063685-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062606										
Nitrate as N	B062606-BS1	LCS	4.8630	5.0000	mg/L	97.3		90 - 110		
QC Batch ID: B062807										
Total Dissolved Solids @ 180 C	B062807-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B063685										
Ammonia as N	B063685-BS1	LCS	2.0726	2.0000	mg/L	104		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062606		Used client sample: N								
Nitrate as N	DUP	939165-01RE'	2.7620	2.7700		mg/L	0.3		10	
	MS	939165-01RE'	2.7620	7.8222	5.0505	mg/L		100		80 - 120
	MSD	939165-01RE'	2.7620	7.8273	5.0505	mg/L	0.1	100	10	80 - 120
QC Batch ID: B062807		Used client sample: Y - Description: DIE-MW1, 11/18/2019 13:58								
Total Dissolved Solids @ 180 C	DUP	1939163-01	1320.0	1305.0		mg/L	1.1		10	
QC Batch ID: B063685		Used client sample: N								
Ammonia as N	DUP	1939489-01	0.087800	0.079400		mg/L	10.0		10	J
	MS	1939489-01	0.087800	2.4353	2.2222	mg/L		106		90 - 110
	MSD	1939489-01	0.087800	2.3852	2.2222	mg/L	2.1	103	10	90 - 110

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:12
Project: Dairy Representative Monitoring Program
Project Number: Diepersloot Ranch
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 11/26/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Durrer Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938297

Invoice ID: B363307

Enclosed are the results of analyses for samples received by the laboratory on 11/11/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938297

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
19-38297 Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Durrer Dairy 40 2019 November Samplers Name: <i>Bob Lee Steg Light</i> Global ID - WDR100038159							
Name:	Luhdorff and Scalmani	From Filtered Sample:					
Address:	500 First Street	Ammonia-N, NO3-N, Total Dissolved Solids					
City:	Woodland						
State:	CA						
Attn:	Till Angermann						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pb Unpreserved	CHK BY	DISTRIBUTION
1	DUR-MW1	11-11-19	11:25	GLW	x	<i>GLR</i>	
2	DUR-MW2		11:42		x		
3	DUR-MW3		10:25		x		
4	DUR-MW4		10:55		x		
5	DUR-MW6		9:09		x		
6	DUR-MW7		9:38		x		
7	DUR-MW8		12:14		x		
8	DUR-MW9		12:33		x		
9	DUR-MW10s, DUR-MW10		10:03	SS	x		
10	Field Duplicate				x		
11							
12							
13							

Comments:

1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: lavagnino@lscce.com, rbryson@lscce.com, pthalwal@lscce.com, jlovelis@lscce.com
 4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

** DUR-MW I Sample time 11:25*

Received By: *[Signature]* Date & Time: 11/11/19 16:30
 Received by: *[Signature]* Date & Time: 11/19 22:00
 Received By: *[Signature]* Date & Time:

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38297

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes/No.

All samples received? Yes/No. All samples containers intact? Yes/No. Description(s) match COC? Yes/No.

COC Received: YES/NO. Emissivity: 0.95. Container: PE. Thermometer ID: 208. Date/Time: 11/11 2200. Temperature: (A) 1.4 °C / (C) 0.8 °C. Analyst Init: GMM/KMM.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT PE UNPRES, QT INORGANIC CHEMICAL METALS, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, PT TOTAL ORGANIC CARBON, PT CHEMICAL OXYGEN DEMAND, PIA PHENOLICS, QT EPA 1664, PT ODOR, RADIOLOGICAL, BACTERIOLOGICAL, QT EPA 503/608/8080, QT EPA 515.1/8150, QT EPA 525, QT EPA 525 TRAVEL BLANK, 40ml EPA 547, 40ml EPA 531.1, Box EPA 548, QT EPA 549, QT EPA 8015M, QT EPA 8270, Box / 16oz / 32oz AMBER, Box / 16oz / 32oz JAR, SOIL SLEEVE, PCB VIAL, PLASTIC BAG, TEDLAR BAG, FERROUS IRON, ENCORE, SMART KIT, SUMMA CANISTER.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 11/11 2215. Rev 21 05/23/2016 [Barcode]



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938297-01	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 11:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW1	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-02	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 11:42
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW2	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-03	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 10:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW3	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-04	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 10:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW4	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-05	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 09:09
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW6	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-06	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 09:38
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW7	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938297-07	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date: 11/11/2019 12:14
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	DUR-MW8	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938297-08	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date:	11/11/2019 12:33
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUR-MW9	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938297-09	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Durrer Dairy	Sampling Date:	11/11/2019 10:03
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	DUR-MW10s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-01	Client Sample Name: Durrer Dairy, DUR-MW1, 11/11/2019 11:25:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 06:40		SAV	IC8	10	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 14:47		JMH	SC-2	1	B062692

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-02	Client Sample Name: Durrer Dairy, DUR-MW2, 11/11/2019 11:42:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	50	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 10:26	SAV	IC8	2	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00	CAD	MANUAL	10	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 15:42	JMH	SC-2	25	B062692

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500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-03	Client Sample Name: Durrer Dairy, DUR-MW3, 11/11/2019 10:25:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	110	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 11:48		SAV	IC8	10	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 14:48		JMH	SC-2	1	B062692

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500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-04	Client Sample Name: Durrer Dairy, DUR-MW4, 11/11/2019 10:55:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	81	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 07:21		SAV	IC8	10	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	20	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 15:44		JMH	SC-2	25	B062692

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-05	Client Sample Name: Durrer Dairy, DUR-MW6, 11/11/2019 9:09:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.22	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 07:41		SAV	IC8	10	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	10	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 16:34		JMH	SC-2	1	B062692

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-06	Client Sample Name: Durrer Dairy, DUR-MW7, 11/11/2019 9:38:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	79	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	84	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 08:43		SAV	IC8	10	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	20	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 15:46		JMH	SC-2	25	B062692

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-07	Client Sample Name: Durrer Dairy, DUR-MW8, 11/11/2019 12:14:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	26	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	770	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	2.1	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 09:04		SAV	IC8	5	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	3.333	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 16:35		JMH	SC-2	1	B062692

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-08	Client Sample Name: Durrer Dairy, DUR-MW9, 11/11/2019 12:33:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	650	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 09:24		SAV	IC8	1	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	3.333	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 16:36		JMH	SC-2	1	B062692

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938297-09	Client Sample Name: Durrer Dairy, DUR-MW10s, 11/11/2019 10:03:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	4400	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	2.1	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 09:45		SAV	IC8	1	B061895
2	SM-2540C	11/14/19 16:00	11/14/19 16:00		CAD	MANUAL	20	B062164
3	EPA-350.1	11/20/19 09:00	11/21/19 16:37		JMH	SC-2	1	B062692

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B061895						
Nitrate as N	B061895-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062164						
Total Dissolved Solids @ 180 C	B062164-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062692						
Ammonia as N	B062692-BLK1	ND	mg/L	0.20	0.067	

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B061895										
Nitrate as N	B061895-BS1	LCS	4.9720	5.0000	mg/L	99.4		90 - 110		
QC Batch ID: B062164										
Total Dissolved Solids @ 180 C	B062164-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B062692										
Ammonia as N	B062692-BS1	LCS	2.1061	2.0000	mg/L	105		90 - 110		

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab
QC Batch ID: B061895		Used client sample: Y - Description: DUR-MW2, 11/11/2019 11:42									
Nitrate as N	DUP	938297-02RE	22.654	22.556		mg/L	0.4		10		
	MS	938297-02RE	22.654	32.800	10.101	mg/L		100		80 - 120	
	MSD	938297-02RE	22.654	32.988	10.101	mg/L	0.6	102	10	80 - 120	
QC Batch ID: B062164		Used client sample: Y - Description: DUR-MW1, 11/11/2019 11:25									
Total Dissolved Solids @ 180 C	DUP	1938297-01	1510.0	1550.0		mg/L	2.6		10		
QC Batch ID: B062692		Used client sample: N									
Ammonia as N	DUP	1938550-03	ND	ND		mg/L			10		
	MS	1938550-03	ND	ND	2.2222	mg/L		2.8		90 - 110	Q03
	MSD	1938550-03	ND	ND	2.2222	mg/L	16.3	2.4	10	90 - 110	Q03

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Durrer Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #1

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938676

Invoice ID: B363785

Enclosed are the results of analyses for samples received by the laboratory on 11/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938676

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody				
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested				
<p>19-38676 Report to: Reduced Constituent Suite</p> <p>Name: Luhdorff and Scalmanini</p> <p>Address: 500 First Street</p> <p>City: Woodland</p> <p>State: 95695</p> <p>CA</p> <p>Attn: Till Angermann</p> <p>Project: Dairy Representative Monitoring Program</p> <p>Site: Frank J. Gomes Dairy #1</p> <p>Samplers Name: Antonio / Del-Tech</p> <p>Global ID - GADAIRY00004</p>						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved	From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids
1	FG1-MW1s, FG1-MW1d	11/13/19	12:27	GW	x	x
2	FG1-MW2s, FG1-MW2d		13:07		x	x
3	FG1-MW3s, FG1-MW3d		13:49		x	x
4	FG1-MW4s, FG1-MW4d		13:27		x	x
5	FG1-MW5s, FG1-MW5d		10:12		x	x
6	FG1-MW6s, FG1-MW6d		10:45		x	x
7	FG1-MW7s, FG1-MW7d		11:07		x	x
8	FG1-MW8s, FG1-MW8d		11:27		x	x
9	FG1-MW9s, FG1-MW9d		11:59		x	x
10	Field Duplicate				x	x
11						
12						
13						

SHKRY DISTRIBUTION
 GJK MA 11/13/19

SHORT HOLDING TIME
 Cr+5 NO2 OP SS
 DO C2 BOD MBAS COT

Relinquished by: (Signature) <i>Antonio J. March</i>	Date & Time 11/13/19 17:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/13/19 22:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/13/19 22:00

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lisce.com, rbryson@lisce.com, pthalliw@lisce.com, jlovelis@lisce.com
- Send invoices to Jeanette Lovelis (jlovelis@lisce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-38676

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time 11/13 2200
 Temperature: (A) 0.7 °C / (C) 0.1 °C Analyst Init EUR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GSL Date/Time: 11/13 2246
 A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938676-01	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 12:27
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	FG1-MW1d	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	1938676-02	COC Number:	---
Project Number:		Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 13:07
Sampling Location:		---	Sample Depth: ---
Sampling Point:		FG1-MW2d	Lab Matrix: Water
Sampled By:		Del Tech of DTO	Sample Type: Groundwater
<hr/>			
1938676-03		COC Number:	---
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 12:49
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	FG1-MW3d	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	1938676-04	COC Number:	---
Project Number:		Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 13:27
Sampling Location:		---	Sample Depth: ---
Sampling Point:		FG1-MW4s	Lab Matrix: Water
Sampled By:		Del Tech of DTO	Sample Type: Groundwater
<hr/>			
1938676-05		COC Number:	---
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 10:12
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	FG1-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	1938676-06	COC Number:	---
Project Number:		Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 10:45
Sampling Location:		---	Sample Depth: ---
Sampling Point:		FG1-MW6d	Lab Matrix: Water
Sampled By:		Del Tech of DTO	Sample Type: Groundwater
<hr/>			
1938676-07		COC Number:	---
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date: 11/13/2019 11:07
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	FG1-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938676-08	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date:	11/13/2019 11:27
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG1-MW8s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938676-09	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Frank J. Gomes Dairy #1	Sampling Date:	11/13/2019 11:59
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG1-MW9d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-01	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW1d, 11/13/2019 12:27:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	9.6	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 13:22	SAV	IC8	1	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	10	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 11:24	JMH2	SC-1	5	B063228

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-02	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW2d, 11/13/2019 1:07:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	42	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 14:44	SAV	IC8	5	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	5	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:38	JMH2	SC-1	1	B063228

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-03	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW3d, 11/13/2019 12:49:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.9	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 15:04	SAV	IC8	1	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	5	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:43	JMH2	SC-1	1	B063228

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-04	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW4s, 11/13/2019 1:27:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 15:25		CMM	IC8	10	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00		CAD	MANUAL	10	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:45		JMH2	SC-1	1	B063228

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-05	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW5s, 11/13/2019 10:12:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	27	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 15:45	CMM	IC8	2	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	5	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:47	JMH2	SC-1	1	B063228

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-06	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW6d, 11/13/2019 10:45:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 16:47	CMM	IC8	2	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	5	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:47	JMH2	SC-1	1	B063228

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-07	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW7s, 11/13/2019 11:07:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	56	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	750	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 17:07	CMM	IC8	5	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	3.333	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:49	JMH2	SC-1	1	B063228

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-08	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW8s, 11/13/2019 11:27:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 17:28	MRC	IC8	2	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	5	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:49	JMH2	SC-1	1	B063228

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938676-09	Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW9d, 11/13/2019 11:59:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.80	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	260	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 11:00	11/14/19 17:48		MRC	IC8	1	B062202
2	SM-2540C	11/19/19 13:00	11/19/19 13:00		CAD	MANUAL	2	B062559
3	EPA-350.1	11/26/19 14:15	11/27/19 10:50		JMH2	SC-1	1	B063228

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062202						
Nitrate as N	B062202-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062559						
Total Dissolved Solids @ 180 C	B062559-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063228						
Ammonia as N	B063228-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062202										
Nitrate as N	B062202-BS1	LCS	5.0490	5.0000	mg/L	101		90 - 110		
QC Batch ID: B062559										
Total Dissolved Solids @ 180 C	B062559-BS1	LCS	630.00	586.00	mg/L	108		90 - 110		
QC Batch ID: B063228										
Ammonia as N	B063228-BS1	LCS	1.9359	2.0000	mg/L	96.8		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062202		Used client sample: Y - Description: FG1-MW1d, 11/13/2019 12:27								
Nitrate as N	DUP	1938676-01	ND	ND		mg/L			10	
	MS	1938676-01	ND	5.6556	5.0505	mg/L		112		80 - 120
	MSD	1938676-01	ND	5.6798	5.0505	mg/L	0.4	112	10	80 - 120
QC Batch ID: B062559		Used client sample: Y - Description: FG1-MW1d, 11/13/2019 12:27								
Total Dissolved Solids @ 180 C	DUP	1938676-01	1140.0	1120.0		mg/L	1.8		10	
QC Batch ID: B063228		Used client sample: Y - Description: FG1-MW2d, 11/13/2019 13:07								
Ammonia as N	DUP	1938676-02	0.19370	0.19440		mg/L	0.4		10	J
	MS	1938676-02	0.19370	2.5203	2.2222	mg/L		105		90 - 110
	MSD	1938676-02	0.19370	2.6666	2.2222	mg/L	5.6	111	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #1
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Bear Creek

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938679

Invoice ID: B363795

Enclosed are the results of analyses for samples received by the laboratory on 11/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938679

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
19-38679 Report to:				Analysis Requested			
Name: Luhdorff and Scalmanini				4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Address: 500 First Street				From Filtered Sample:			
City: Woodland				Ammonia-N, NO3-N, Total Dissolved Solids			
State: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Gallo Cattle Company Bear Creek							
Samplers Name: Del Tech Ashley Putnam							
Global ID - GADAIRY00005							
Reduced Constituent Suite							
Date Sampled				Time Sampled			
Strike out non-sampled wells				Matrix			
Qt Pe Unpreserved							
1	BEA-MW1dd	11-13-2019	10:30	GW	x		
2	BEA-MW2dd		9:08		x		
3	BEA-MW3d		9:58		x		
4	BEA-MW4d		9:34		x		
5							
6							
7							
8							
9							
10							
11							
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lsce.com, rbryson@lsce.com, pdhelliwal@lsce.com, jlovelis@lsce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).				Relinquished by: (Signature) Ashley Putnam 11/13/19 16:36 Relinquished by: (Signature) [Signature] Relinquished by: (Signature) [Signature]			
(A)= Analysis (C)= ContAINER (P)= Preservative				Received By: [Signature] Date & Time 11/13/19 16:36 Received by: [Signature] Date & Time 11/13/19 2200 Received By: [Signature] Date & Time			

DISTRIBUTION
SUB OUT

SHORT HOLDING TIME
Cr⁶ NO₂ NO₃ OP SS
DO Cl₂ BOD MBAS COT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1938679

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers. None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COG? Yes, No.

COC Received: YES, NO. Emissivity: 0.95. Container: PE. Thermometer ID: 208. Date/Time: 11/13 2200. Temperature: (A) 2.6 °C, (C) 20 °C. Analyst Init: EUR.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 11/13 2249 Rev 21 05/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938679-01	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	11/13/2019 10:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW1dd	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938679-02	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	11/13/2019 09:08
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW2dd	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938679-03	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	11/13/2019 09:58
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW3d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
1938679-04	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Bear Creek	Sampling Date:	11/13/2019 09:34
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	BEA-MW4d	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938679-01	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW1dd, 11/13/2019 10:30:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	640	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	18	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 03:28		SAV	IC8	1	B062205
2	SM-2540C	11/18/19 15:00	11/18/19 15:00		CAD	MANUAL	5	B062412
3	EPA-350.1	11/27/19 08:45	11/27/19 13:56		JMH2	SC-1	5	B063307

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Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938679-02	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW2dd, 11/13/2019 9:08:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	400	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 04:51		SAV	IC8	1	B062205
2	SM-2540C	11/18/19 15:00	11/18/19 15:00		CAD	MANUAL	3.333	B062412
3	EPA-350.1	11/27/19 08:45	11/27/19 13:06		JMH2	SC-1	1	B063307

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Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938679-03	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW3d, 11/13/2019 9:58:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	140	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.087	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 05:11		SAV	IC8	10	B062205
2	SM-2540C	11/18/19 15:00	11/18/19 15:00		CAD	MANUAL	10	B062412
3	EPA-350.1	11/27/19 08:45	11/27/19 13:08		JMH2	SC-1	1	B063307

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Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938679-04	Client Sample Name: Gallo Cattle Company Bear Creek, BEA-MW4d, 11/13/2019 9:34:00AM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	730	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 05:32		SAV	IC8	1	B062205
2	SM-2540C	11/18/19 15:00	11/18/19 15:00		CAD	MANUAL	5	B062412
3	EPA-350.1	11/27/19 08:45	11/27/19 13:08		JMH2	SC-1	1	B063307

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062205						
Nitrate as N	B062205-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062412						
Total Dissolved Solids @ 180 C	B062412-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063307						
Ammonia as N	B063307-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
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Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062205										
Nitrate as N	B062205-BS1	LCS	5.3550	5.0000	mg/L	107		90 - 110		
QC Batch ID: B062412										
Total Dissolved Solids @ 180 C	B062412-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: B063307										
Ammonia as N	B063307-BS1	LCS	2.0934	2.0000	mg/L	105		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062205		Used client sample: Y - Description: BEA-MW1dd, 11/13/2019 10:30								
Nitrate as N	DUP	1938679-01	ND	ND		mg/L			10	
	MS	1938679-01	ND	5.2091	5.0505	mg/L		103		80 - 120
	MSD	1938679-01	ND	5.2172	5.0505	mg/L	0.2	103	10	80 - 120
QC Batch ID: B062412		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938667-03	1540.0	1520.0		mg/L	1.3		10	
QC Batch ID: B063307		Used client sample: N								
Ammonia as N	DUP	1938858-01	ND	ND		mg/L			10	
	MS	1938858-01	ND	2.2958	2.2222	mg/L		103		90 - 110
	MSD	1938858-01	ND	2.4914	2.2222	mg/L	8.2	112	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 17:43
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/02/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Cottonwood
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1938680
Invoice ID: B363548

Enclosed are the results of analyses for samples received by the laboratory on 11/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938680

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Lufthoff and Scalmanini		Reduced Constituent Suite			
Address: 500 First Street		Project: Daily Representative Monitoring Program			
City: Woodland		Gallo Cattle Company Cottonwood			
State: 95695		Samplers Name: <u>DelTech Ashley Putnam</u>			
Attn: Till Angermann		Global ID - GADARY0006			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Ps Unpreserved
1	COT-MW1, COT-MW1d <u>dry</u>				x
2	COT-MW2 <u>dry</u>				x
3	COT-MW3 <u>dry</u>				x
4	COT-MW4 <u>dry</u>				x
5	COT-MW5 <u>dry</u>				x
6	COT-MW6 <u>dry</u>				x
7	COT-MW7 <u>dry</u>				x
8	COT-MW8 <u>dry</u>				x
9	COT-MW9 -1	11/13/19	14:49	GW	x
10	COT-MW10 -2		14:20		x
11	COT-MW11 , COT-MW11d -3		12:30		x
12	COT-MW12 , COT-MW12d -4		13:20		x
13	COT-MW13 , COT-MW13d -5		13:39		x
14	COT-MW14 , COT-MW14d -6		11:57		x
15					
16					
17					
18					

From Filtered Sample:	
Ammonia-N, NO3-N,	
Total Dissolved Solids	

Received By:	<u>DelTech Ashley Putnam</u>	Date & Time:	11/13/19 16:36
Received by:	<u>DelTech Ashley Putnam</u>	Date & Time:	11/13/19 22:00
Received by:		Date & Time:	

Relinquished by: (Signature)	<u>DelTech Ashley Putnam</u>	11-13-19/1636
Relinquished by: (Signature)	<u>DelTech Ashley Putnam</u>	
Relinquished by: (Signature)	<u>DelTech Ashley Putnam</u>	

SHORT HOLDING TIME	
Cr ⁶	
NO ₂	
DO	
Cl ₂	
BOD	
MBAS	
COT	

Comments:
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
2) Lab reports shall identify sampled wells exactly as shown on this CoC.
3) Send lab reports to Lufthoff and Scalmanini Consulting Engineers via email: llvegnino@lscce.com, rbysore@lscce.com, putnam@lscce.com
4) Send invoices to Jeanelle Lovelace (jlovela@lscce.com).

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38680

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/13 2200

Temperature: (A) 2.6 °C / (C) 2.0 °C Analyst Init: EUR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSB Date/Time: 11/13 2249

A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938680-01	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 14:49
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW9	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
	<hr/>			
1938680-02	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 14:20
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW10	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
	<hr/>			
1938680-03	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 12:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW11d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
	<hr/>			
1938680-04	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 13:20
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW12d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
	<hr/>			
1938680-05	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 13:39
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW13d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
	<hr/>			
1938680-06	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Gallo Cattle Company Cottonwood	Sampling Date:	11/13/2019 11:57
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	COT-MW14d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-01	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW9, 11/13/2019 2:49:00PM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.087	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 05:52		SAV	IC8	5	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00		CAD	MANUAL	5	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:21		JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-02	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW10, 11/13/2019 2:20:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	14	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.094	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 06:54	SAV	IC8	1	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00	CAD	MANUAL	5	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:27	JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-03	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW11d, 11/13/2019 12:30:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.66	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	310	mg/L	20	10	SM-2540C	ND	A07	2
Ammonia as N	0.080	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 07:14		SAV	IC8	1	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00		CAD	MANUAL	2	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:27		JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-04	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW12d, 11/13/2019 1:20:00PM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	82	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.077	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 07:35	SAV	IC8	5	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00	CAD	MANUAL	5	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:28	JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-05	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW13d, 11/13/2019 1:39:00PM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	990	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 07:55		SAV	IC8	5	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00		CAD	MANUAL	5	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:29		JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938680-06	Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW14d, 11/13/2019 11:57:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	90	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 08:16		SAV	IC8	5	B062205
2	SM-2540C	11/20/19 14:00	11/20/19 14:00		CAD	MANUAL	10	B062667
3	EPA-350.1	11/20/19 10:30	11/21/19 13:30		JMH2	SC-2	1	B062693

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062205						
Nitrate as N	B062205-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062667						
Total Dissolved Solids @ 180 C	B062667-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062693						
Ammonia as N	B062693-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062205										
Nitrate as N	B062205-BS1	LCS	5.3550	5.0000	mg/L	107		90 - 110		
QC Batch ID: B062667										
Total Dissolved Solids @ 180 C	B062667-BS1	LCS	605.00	586.00	mg/L	103		90 - 110		
QC Batch ID: B062693										
Ammonia as N	B062693-BS1	LCS	2.0821	2.0000	mg/L	104		90 - 110		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062205		Used client sample: N								
Nitrate as N	DUP	1938679-01	ND	ND		mg/L			10	
	MS	1938679-01	ND	5.2091	5.0505	mg/L		103		80 - 120
	MSD	1938679-01	ND	5.2172	5.0505	mg/L	0.2	103	10	80 - 120
QC Batch ID: B062667		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938669-01	1690.0	1700.0		mg/L	0.6		10	
QC Batch ID: B062693		Used client sample: Y - Description: COT-MW9, 11/13/2019 14:49								
Ammonia as N	DUP	1938680-01	0.087300	0.079700		mg/L	9.1		10	J
	MS	1938680-01	0.087300	2.4694	2.2222	mg/L		107		90 - 110
	MSD	1938680-01	0.087300	2.4822	2.2222	mg/L	0.5	108	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/02/2019 13:15
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Cottonwood
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Santa Rita

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938883

Invoice ID: B364171

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938883

Samples were filtered through a 0.45 micron filter prior to analysis.



19-38883

BC Laboratories, Inc.		Chain of Custody					
4100 Atlas CL Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
Report to: Reduced Constituent Suite							
Name: Luhdorff and Scalmanini	Project: Daily Representative Monitoring Program	From Filtered Sample:					
Address: 500 First Street	Site: Gallo Cattle Company Santa Rita	Ammonia-N, NO3-N, Total Dissolved Solids					
City: Woodland	Samplers Name: <i>Debra Ashley Putnam</i>						
State: 95695	Global ID - GADAIRY00007						
Attn: Till Angermann							
Lab #	Strike out / Sampled wells	Date Sampled	Time Sampled	Matrix	GI/Pe Unpreserved	Relinquished by: (Signature)	Date & Time
1	San-MW1d -1	11-14-2019	14:00	6W	x	<i>Debra Ashley Putnam</i>	11/14/19 17:10
2	SAN-MW2s, SAN-MW2d				x		
3	SAN-MW3s, SAN-MW3d				x		
4	San-MW4d -2	11-14-2019	15:05	6W	x		
5	San-MW5d -3		14:26		x		
6	San-MW6d -4		12:53		x		
7	San-MW7d -5		13:23		x		
8	San-MW8d -6		13:42		x		
9					x		
10							
11							
12							

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: llavagnino@lisco.com, rbryson@lisco.com, pdhathwa@lisco.com, jlovells@lisco.com
 4) Send invoices to Jeanette Lovells (jlovells@lisco.com).

Relinquished by: (Signature) *Debra Ashley Putnam* 11/14/19 17:10
 Relinquished by: (Signature) *Debra Ashley Putnam*
 Relinquished by: (Signature) *Debra Ashley Putnam*

Received by: *Debra Ashley Putnam* 11/14/19 17:10
 Received by: *Debra Ashley Putnam*
 Received by: *Debra Ashley Putnam* 11/14/19 22:30

CHK BY: *Debra Ashley Putnam* DISTRIBUTION: SUB OUT:

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1938883

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.95. Container: PE. Thermometer ID: 208. Date/Time: 11/4/22 3:30. Analyst Init: ENK. Temperature: (A) 2.4 °C / (C) 1.8 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Sample numbers 1-6 are marked with 'A'.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 11-14-19 2:15 Rev 21 05/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	
1938883-01	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 14:06
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW1d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
1938883-02	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 15:05
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW4d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
1938883-03	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 14:26
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW5d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
1938883-04	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 12:53
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW6d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
1938883-05	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 13:23
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW7d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater
1938883-06	COC Number:	---	11/14/2019 22:30	
	Project Number:	Gallo Cattle Company Santa Rita	Sampling Date:	11/14/2019 13:42
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	SAN-MW8d	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-01	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW1d, 11/14/2019 2:06:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.072	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 17:09	SAV	IC1	2	B062431
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	10	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:11	JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-02	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW4d, 11/14/2019 3:05:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 17:51	SAV	IC1	5	B062431
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	5	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:11	JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-03	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW5d, 11/14/2019 2:26:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 17:30		SAV	IC1	5	B062431
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	5	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:13		JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-04	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW6d, 11/14/2019 12:53:00PM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	41	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.093	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 14:21	SAV	IC1	5	B062431
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	5	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:13	JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-05	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW7d, 11/14/2019 1:23:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 16:27		SAV	IC1	2	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	5	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:15		JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938883-06	Client Sample Name: Gallo Cattle Company Santa Rita, SAN-MW8d, 11/14/2019 1:42:00PM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	910	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 16:48	SAV	IC1	2	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	5	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 13:15	JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062430						
Nitrate as N	B062430-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062431						
Nitrate as N	B062431-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062690						
Total Dissolved Solids @ 180 C	B062690-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063389						
Ammonia as N	B063389-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B063391						
Ammonia as N	B063391-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062430										
Nitrate as N	B062430-BS1	LCS	4.5830	5.0000	mg/L	91.7		90 - 110		
QC Batch ID: B062431										
Nitrate as N	B062431-BS1	LCS	4.8080	5.0000	mg/L	96.2		90 - 110		
QC Batch ID: B062690										
Total Dissolved Solids @ 180 C	B062690-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B063389										
Ammonia as N	B063389-BS1	LCS	1.9924	2.0000	mg/L	99.6		90 - 110		
QC Batch ID: B063391										
Ammonia as N	B063391-BS1	LCS	1.9887	2.0000	mg/L	99.4		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B062430		Used client sample: N								
Nitrate as N	DUP	938881-02RE	48.500	48.720		mg/L	0.5		10	
	MS	938881-02RE	48.500	75.136	25.253	mg/L		105		80 - 120
	MSD	938881-02RE	48.500	74.934	25.253	mg/L	0.3	105	10	80 - 120
QC Batch ID: B062431		Used client sample: N								
Nitrate as N	DUP	1938879-01	41.215	40.685		mg/L	1.3		10	
	MS	1938879-01	41.215	66.359	25.253	mg/L		99.6		80 - 120
	MSD	1938879-01	41.215	65.823	25.253	mg/L	0.8	97.4	10	80 - 120
QC Batch ID: B062690		Used client sample: Y - Description: SAN-MW1d, 11/14/2019 14:06								
Total Dissolved Solids @ 180 C	DUP	1938883-01	1380.0	1360.0		mg/L	1.5		10	
QC Batch ID: B063389		Used client sample: N								
Ammonia as N	DUP	1938882-01	0.12600	0.12520		mg/L	0.6		10	J
	MS	1938882-01	0.12600	2.5943	2.2222	mg/L		111		90 - 110 Q03
	MSD	1938882-01	0.12600	2.5073	2.2222	mg/L	3.4	107	10	90 - 110
QC Batch ID: B063391		Used client sample: Y - Description: SAN-MW8d, 11/14/2019 13:42								
Ammonia as N	DUP	1938883-06	0.10770	0.10320		mg/L	4.3		10	J
	MS	1938883-06	0.10770	2.5438	2.2222	mg/L		110		90 - 110
	MSD	1938883-06	0.10770	2.5066	2.2222	mg/L	1.5	108	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 19:04
Project: Dairy Representative Monitoring Program
Project Number: Gallo Cattle Company Santa Rita
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.



Date of Report: 11/26/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Genasci Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938296

Invoice ID: B363278

Enclosed are the results of analyses for samples received by the laboratory on 11/11/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry).....	8
1938296-03 - GEN-MW9	
Water Analysis (General Chemistry).....	9
1938296-04 - GEN-MW10	
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1938296-05 - GEN-MW11s	
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Case Narratives

Case Narrative for Work Order 1938296

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody		
Report to:		Analysis Requested				
Name: Lulendorf and Scalimanni		Reduced Constituent Suite				
Address: 500 First Street		Project: Dairy Representative Monitoring Program				
City: Woodland		Site: Genasi Dairy 492019 November				
State: 95695		Samplers Name: Det Teak / Stacy Light				
City: T III Angermann		Global ID - WDR100037667				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pe Unpreserved	From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids
1	GEN-MW1				X	
2	GEN-MW2	11-11-19	1550	G-W	X	
3	GEN-MW3				X	
4	GEN-MW5				X	
5	GEN-MW6				X	
6	GEN-MW7				X	
7	GEN-MW8	11-11-19	1525	G-W	X	
8	GEN-MW9	11-11-19	1350	G-W	X	
9	GEN-MW10	11-11-19	1430	G-W	X	
10	GEN-MW11s, GEN-MW11d-5	11-11-19	1414	G-W	X	
11	GEN-MW12s, GEN-MW12d-6	11-11-19	1458	G-W	X	
12	Field-Duplicate				X	
13						
14						
15						

CHK BY: WVA DISTRIBUTION
 SUB OUT:

SHORT HOLDING TIME
 Cr+6 NO₂ (NO₃) OP SS
 DO Cl₂ BOD MBAS COT

Received By: <u>[Signature]</u>	Date & Time: <u>11/11/19 16:30</u>
Received By: <u>[Signature]</u>	Date & Time: <u>11/11/19 22:00</u>
Received By: <u>[Signature]</u>	Date & Time: <u>[Blank]</u>

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lulendorf and Scalimanni Consulting Engineers via email: llavagnino@lsce.com, roryson@lsce.com, pthallival@lsce.com, jlovelis@lsce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).

(A) = Analysis (C) = Container (P) = Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1
Submission #: 19-38296

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service
SHIPPING CONTAINER: Ice Chest, None, Box, Other
FREE LIQUID: YES, NO, W/S

Refrigerant: Ice, Blue Ice, None, Other

Custody Seals: Ice Chest, Containers, None

All samples received? All samples containers intact? Description(s) match COC?

COC Received: YES, NO
Emissivity: 0.95, Container: PE, Thermometer ID: 208, Date/Time: 11/11 2200
Temperature: (A) 1.4 °C / (C) 0.8 °C, Analyst Init: GMM

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc.

Comments: Sample Numbering Completed By: GMM Date/Time: 11/11 2215 Rev 21 05/23/2016



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938296-01	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 15:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW2	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			
1938296-02	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 15:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW8	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			
1938296-03	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 13:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW9	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			
1938296-04	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 14:36
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW10	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			
1938296-05	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 14:14
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW11s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			
1938296-06	COC Number:	---	Receive Date:	11/11/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/11/2019 14:58
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW12s	Lab Matrix:	Water
	Sampled By:	Del Tech of DTO	Sample Type:	Groundwater
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-01	Client Sample Name: Genasci Dairy, GEN-MW2, 11/11/2019 3:50:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.23	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 01:26		SAV	IC1	5	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	10	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 13:05		JMH2	SC-2	1	B062691

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-02	Client Sample Name: Genasci Dairy, GEN-MW8, 11/11/2019 3:25:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	89	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	90	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 02:50		SAV	IC1	5	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	20	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 14:08		JMH2	SC-2	25	B062691

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-03	Client Sample Name: Genasci Dairy, GEN-MW9, 11/11/2019 1:50:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.25	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 03:11		SAV	IC1	5	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	5	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 13:10		JMH2	SC-2	1	B062691

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-04	Client Sample Name: Genasci Dairy, GEN-MW10, 11/11/2019 2:36:00PM, Del Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	72	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.20	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 03:32		SAV	IC1	5	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	10	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 13:13		JMH2	SC-2	1	B062691

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-05	Client Sample Name: Genasci Dairy, GEN-MW11s, 11/11/2019 2:14:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	790	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.30	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 03:53		SAV	IC1	10	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	3.333	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 13:14		JMH2	SC-2	1	B062691

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938296-06	Client Sample Name: Genasci Dairy, GEN-MW12s, 11/11/2019 2:58:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	47	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	900	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/11/19 22:00	11/12/19 04:56		SAV	IC1	5	B061896
2	SM-2540C	11/14/19 15:00	11/14/19 15:00		CAD	MANUAL	5	B062163
3	EPA-350.1	11/20/19 09:00	11/21/19 13:14		JMH2	SC-2	1	B062691

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Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B061896						
Nitrate as N	B061896-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062163						
Total Dissolved Solids @ 180 C	B062163-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062691						
Ammonia as N	B062691-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B061896										
Nitrate as N	B061896-BS1	LCS	5.1340	5.0000	mg/L	103		90 - 110		
QC Batch ID: B062163										
Total Dissolved Solids @ 180 C	B062163-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B062691										
Ammonia as N	B062691-BS1	LCS	2.0485	2.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B061896		Used client sample: Y - Description: GEN-MW2, 11/11/2019 15:50								
Nitrate as N	DUP	1938296-01	54.360	54.105		mg/L	0.5		10	
	MS	1938296-01	54.360	79.500	25.253	mg/L		99.6		80 - 120
	MSD	1938296-01	54.360	79.566	25.253	mg/L	0.1	99.8	10	80 - 120
QC Batch ID: B062163		Used client sample: Y - Description: GEN-MW2, 11/11/2019 15:50								
Total Dissolved Solids @ 180 C	DUP	1938296-01	1500.0	1480.0		mg/L	1.3		10	
QC Batch ID: B062691		Used client sample: Y - Description: GEN-MW2, 11/11/2019 15:50								
Ammonia as N	DUP	1938296-01	0.23160	0.22010		mg/L	5.1		10	
	MS	1938296-01	0.23160	2.7891	2.2222	mg/L		115		90 - 110 Q03
	MSD	1938296-01	0.23160	2.6424	2.2222	mg/L	5.4	108	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 11/26/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Genasci Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938495

Invoice ID: B363279

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938495

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			Analysis Requested		
Name: Luidorff and Scalmanini			From Filtered Sample:		
Address: 500 First Street			Ammonia-N, NO3-N, Total Dissolved Solids		
City: Woodland					
State: 96695					
CA					
Attn: Till Angermann					
Project: Dairy Representative Monitoring Program					
Site: Genesol Dairy					
Sample Name: 7-10-2019 November					
Global ID: WDR100037667					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl/Pc Unpreserved
1	GEN-MW1 -1	11-12-19	9:28	GW	X
2	GEN-MW2 -2	11-12-19	9:55	GW	X
3	GEN-MW3 -3	11-12-19	9:00	GW	X
4	GEN-MW4 -4	11-12-19	8:25	GW	X
5	GEN-MW5 -5	11-12-19	8:42	GW	X
6	GEN-MW6				X
7	GEN-MW7				X
8	GEN-MW8				X
9	GEN-MW9				X
10	GEN-MW10				X
11	GEN-MW11S, GEN-MW11D				X
12	GEN-MW12S, GEN-MW12D				X
13	Field Duplicate				X
14					X
15					X

CHK BY: huf DISTRIBUTION: PAR SUB OUT:

SHORT STOPPING TIME: NO DO: 612 1500 MEAS: COI

Received By: [Signature] Date & Time: 11/12/19 16:35
 Received by: [Signature] Date & Time: 11/12/19 22:00
 Relinquished by: [Signature] Relinquished by: [Signature]
 Relinquished by: [Signature]

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38495

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/12 2200

Temperature: (A) 0.9 °C / (C) 0.4 °C Analyst Initials: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/038/3030										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 5270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSH Date/Time: 11/12 2220 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938495-01	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/12/2019 09:28
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW1	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938495-02	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/12/2019 09:55
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW3	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938495-03	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/12/2019 09:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW5	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938495-04	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/12/2019 08:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW6	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater
1938495-05	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Genasci Dairy	Sampling Date:	11/12/2019 08:42
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	GEN-MW7	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938495-01	Client Sample Name: Genasci Dairy, GEN-MW1, 11/12/2019 9:28:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.1	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1900	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	8.3	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 12:12	SAV	IC2	1	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 08:30	11/21/19 14:10	JMH2	SC-2	5	B062771

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938495-02	Client Sample Name: Genasci Dairy, GEN-MW3, 11/12/2019 9:55:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	210	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4400	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.74	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 15:00	11/14/19 09:42		SAV	IC8	20	B063130
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	20	B062313
3	EPA-350.1	11/21/19 08:30	11/21/19 13:43		JMH2	SC-2	1	B062771

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938495-03	Client Sample Name: Genasci Dairy, GEN-MW5, 11/12/2019 9:00:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.18	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 13:55		SAV	IC2	10	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	10	B062313
3	EPA-350.1	11/21/19 08:30	11/21/19 13:45		JMH2	SC-2	1	B062771

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Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938495-04	Client Sample Name: Genasci Dairy, GEN-MW6, 11/12/2019 8:25:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	96	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 14:15	SAV	IC2	10	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00	CAD	MANUAL	5	B062313
3	EPA-350.1	11/21/19 08:30	11/21/19 13:46	JMH2	SC-2	1	B062771

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Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938495-05	Client Sample Name: Genasci Dairy, GEN-MW7, 11/12/2019 8:42:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	25	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	670	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.094	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/13/19 10:00	11/13/19 14:36		SAV	IC2	5	B062077
2	SM-2540C	11/15/19 16:00	11/15/19 16:00		CAD	MANUAL	3.333	B062313
3	EPA-350.1	11/21/19 08:30	11/21/19 13:38		JMH2	SC-2	1	B062771

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Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062077						
Nitrate as N	B062077-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062313						
Total Dissolved Solids @ 180 C	B062313-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062771						
Ammonia as N	B062771-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B063130						
Nitrate as N	B063130-BLK1	ND	mg/L	0.10	0.025	

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Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062077										
Nitrate as N	B062077-BS1	LCS	4.9350	5.0000	mg/L	98.7		90 - 110		
QC Batch ID: B062313										
Total Dissolved Solids @ 180 C	B062313-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: B062771										
Ammonia as N	B062771-BS1	LCS	2.0554	2.0000	mg/L	103		90 - 110		
QC Batch ID: B063130										
Nitrate as N	B063130-BS1	LCS	5.3550	5.0000	mg/L	107		90 - 110		

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500 First Street
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Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab
QC Batch ID: B062077		Used client sample: Y - Description: GEN-MW1, 11/12/2019 09:28									
Nitrate as N	DUP	1938495-01	2.1020	2.0640		mg/L	1.8		10		
	MS	1938495-01	2.1020	7.0414	5.0505	mg/L		97.8		80 - 120	
	MSD	1938495-01	2.1020	7.0879	5.0505	mg/L	0.7	98.7	10	80 - 120	
QC Batch ID: B062313		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1938493-01	2330.0	2300.0		mg/L	1.3		10		
QC Batch ID: B062771		Used client sample: Y - Description: GEN-MW7, 11/12/2019 08:42									
Ammonia as N	DUP	1938495-05	0.093500	0.088900		mg/L	5.0		10		J
	MS	1938495-05	0.093500	2.6119	2.2222	mg/L		113		90 - 110	Q03
	MSD	1938495-05	0.093500	2.5839	2.2222	mg/L	1.1	112	10	90 - 110	Q03
QC Batch ID: B063130		Used client sample: N									
Nitrate as N	DUP	938679-01RE'	ND	ND		mg/L			10		
	MS	938679-01RE'	ND	5.2091	5.0505	mg/L		103		80 - 120	
	MSD	938679-01RE'	ND	5.2172	5.0505	mg/L	0.2	103	10	80 - 120	

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 13:48
Project: Dairy Representative Monitoring Program
Project Number: Genasci Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J. Troost Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1939164

Invoice ID: B364144

Enclosed are the results of analyses for samples received by the laboratory on 11/18/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry)

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Case Narratives

Case Narrative for Work Order 1939164

Samples were filtered through a 0.45 micron filter prior to analysis.



Chain of Custody		Analysis Requested				
BC Laboratories, Inc. 19-39164		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				
Report to: Reduced Constituent Suite						
Name: Luhdorff and Scalmanini		Project: Dairy Representative Monitoring Program				
Address: 500 First Street		Site: J. Troost Dairy				
City: Woodland		Samplers Name: Antonio Del-Tech				
State: 95695		Global ID - WDR100038424				
Attn: Till Angermann						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved	From Filtered Sample: Ammonia-N, NDS-N, Total Dissolved Solids
- 1	TRO-MW1	11/18/19	9:36	GW	x	x
- 2	TRO-MW2		10:26		x	x
- 3	TRO-MW3		11:41		x	x
- 4	Field Duplicate #2				x	x
5						
6						
7						
8						
9						
10						
11						
12						

SHORT HOLDING TIME

Cr⁺⁶ NO₂ (NO₃) OP SS

DO Cl₂ BPO MBAS GOT

CHK BY DISTRIBUTION

Sub OUT

Relinquished By: (Signature) <i>Antonio Del-Tech</i>	Date & Time 11/18/19 20:00
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/18/19 22:30
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 11/18/19 22:30

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: jlavagnino@isce.com, roryson@isce.com, pdhallival@isce.com, jlovelis@isce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@isce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-39164

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/8/19 22:38
 Temperature: (A) 1.3 °C / (C) 0.7 °C Analyst Initial: EMM

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EMM Date/Time: 11-18-19 23:15 Rev 21 05/23/2016
 A = Actual / C = Corrected (S:\WP\Doc\Word\Perf\CLAB\COCC\FORMS\SIEM\RECIV 21)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1939164-01	COC Number:	---	11/18/2019 22:30	11/18/2019 09:36	---	Water	Groundwater
	Project Number:	J. Troost Dairy					
	Sampling Location:	---					
	Sampling Point:	TRO-MW1					
	Sampled By:	Antonio Morales of DTO					
1939164-02	COC Number:	---	11/18/2019 22:30	11/18/2019 10:26	---	Water	Groundwater
	Project Number:	J. Troost Dairy					
	Sampling Location:	---					
	Sampling Point:	TRO-MW2					
	Sampled By:	Antonio Morales of DTO					
1939164-03	COC Number:	---	11/18/2019 22:30	11/18/2019 11:41	---	Water	Groundwater
	Project Number:	J. Troost Dairy					
	Sampling Location:	---					
	Sampling Point:	TRO-MW3					
	Sampled By:	Antonio Morales of DTO					
1939164-04	COC Number:	---	11/18/2019 22:30	11/18/2019 00:00	---	Water	Groundwater
	Project Number:	J. Troost Dairy					
	Sampling Location:	---					
	Sampling Point:	Field Duplicate #2					
	Sampled By:	Antonio Morales of DTO					

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939164-01	Client Sample Name: J. Troost Dairy, TRO-MW1, 11/18/2019 9:36:00AM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	560	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/18/19 22:00	11/19/19 10:23		SAV	IC5	2	B062598
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	3.333	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:30		JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939164-02	Client Sample Name: J. Troost Dairy, TRO-MW2, 11/18/2019 10:26:00AM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	90	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.084	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/18/19 22:00	11/19/19 05:33		SAV	IC5	5	B062598
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:30		JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939164-03	Client Sample Name: J. Troost Dairy, TRO-MW3, 11/18/2019 11:41:00AM, Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	43	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	770	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/18/19 22:00	11/19/19 10:41		SAV	IC5	5	B062598
2	SM-2540C	11/22/19 11:00	11/22/19 11:00		CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:31		JMH	SC-1	1	B063685

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1939164-04	Client Sample Name: J. Troost Dairy, Field Duplicate #2, 11/18/2019 12:00:00AM, Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	89	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.070	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/18/19 22:00	11/19/19 10:59	SAV	IC5	5	B062598
2	SM-2540C	11/22/19 11:00	11/22/19 11:00	CAD	MANUAL	5	B062807
3	EPA-350.1	12/04/19 11:15	12/05/19 09:32	JMH	SC-1	1	B063685

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062598						
Nitrate as N	B062598-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062807						
Total Dissolved Solids @ 180 C	B062807-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063685						
Ammonia as N	B063685-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062598										
Nitrate as N	B062598-BS1	LCS	5.2660	5.0000	mg/L	105		90 - 110		
QC Batch ID: B062807										
Total Dissolved Solids @ 180 C	B062807-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B063685										
Ammonia as N	B063685-BS1	LCS	2.0726	2.0000	mg/L	104		90 - 110		

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Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062598		Used client sample: N								
Nitrate as N	DUP	1939158-01	15.035	15.339		mg/L	2.0		10	
	MS	1939158-01	15.035	20.222	5.0505	mg/L		103		80 - 120
	MSD	1939158-01	15.035	20.308	5.0505	mg/L	0.4	104	10	80 - 120
QC Batch ID: B062807		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1939163-01	1320.0	1305.0		mg/L	1.1		10	
QC Batch ID: B063685		Used client sample: N								
Ammonia as N	DUP	1939489-01	0.087800	0.079400		mg/L	10.0		10	J
	MS	1939489-01	0.087800	2.4353	2.2222	mg/L		106		90 - 110
	MSD	1939489-01	0.087800	2.3852	2.2222	mg/L	2.1	103	10	90 - 110

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 17:19
Project: Dairy Representative Monitoring Program
Project Number: J. Troost Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: P & L Souza Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938498

Invoice ID: B363656

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938498

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luhdorff and Scalimantini		Reduced Constituent Suite		From Filtered Sample:	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids	
City: Woodland		Site: P & L Souza Dairy			
State: 95095		Samplers Name: Del-Tech/Cassandra Pagan			
Attn: Tili Angermann		Global ID - GADAIRY00008			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	PLS-MW1s, PLS-MW4d	11-17-19	1225	GW	x
2	PLS-MW2s, PLS-MW2d		1044		x
3	PLS-MW3s, PLS-MW3d		1309		x
4	PLS-MW4s, PLS-MW4d		1200		x
5	PLS-MW5s, PLS-MW5d		1245		x
6	PLS-MW6s, PLS-MW6d		1142		x
7	PLS-MW7s, PLS-MW7d		1114		x
8	Field Duplicate #1				x
9					
10					
11					
12					

CHK BY: MAI DISTRIBUTION

SUB OUT:

SHORT HOLDING TIME

C⁺S NO₂ MO OP SS

DO O₂ BOD MBAS-COT

Relinquished by: (Signature) <u>Cassandra Pagan</u>	Date & Time <u>11-12-19</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date & Time <u>11/19/19 16:35</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date & Time <u>11/19/19 22:07</u>

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalimantini Consulting Engineers via email: llavagnino@lsce.com, lryson@lsce.com, pdhalliwal@lsce.com, jlovelis@lsce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-38498

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/12/2008
 Temperature: (A) 1.8 °C / (C) 1.2 °C Analyst Initial: EWL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EWL Date/Time: 11/12/2008 Rev 21 05/23/2016

A = Actual / C = Corrected

IS:\WPDoc\Hard\Perfor\LAB_DOC\FORMS\SAMRECrv 200



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938498-01	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 12:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW1s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-02	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 10:44
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW2s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-03	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 13:09
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW3s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-04	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 12:06
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW4s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-05	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 12:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW5s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-06	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 11:42
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW6s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			
1938498-07	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 11:14
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	PLS-MW7s	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
	<hr/>			

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938498-08	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	P & L Souza Dairy	Sampling Date:	11/12/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate #1	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-01	Client Sample Name: P & L Souza Dairy, PLS-MW1s, 11/12/2019 12:25:00PM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	76	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.088	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 01:48		SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	10	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:07		JMH2	SC-1	1	B062973

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-02	Client Sample Name: P & L Souza Dairy, PLS-MW2s, 11/12/2019 10:44:00AM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	66	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.084	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 03:10	SAV	IC8	10	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:12	JMH2	SC-1	1	B062973

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-03	Client Sample Name: P & L Souza Dairy, PLS-MW3s, 11/12/2019 1:09:00PM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	58	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.081	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 03:30		SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	5	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:13		JMH2	SC-1	1	B062973

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-04	Client Sample Name: P & L Souza Dairy, PLS-MW4s, 11/12/2019 12:06:00PM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.15	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 14:17		SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	20	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:14		JMH2	SC-1	1	B062973

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-05	Client Sample Name: P & L Souza Dairy, PLS-MW5s, 11/12/2019 12:45:00PM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	78	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.078	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 04:11	SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	5	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:14	JMH2	SC-1	1	B062973

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-06	Client Sample Name: P & L Souza Dairy, PLS-MW6s, 11/12/2019 11:42:00AM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 05:13	SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:16	JMH2	SC-1	1	B062973

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-07	Client Sample Name: P & L Souza Dairy, PLS-MW7s, 11/12/2019 11:14:00AM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	81	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.23	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 05:33	SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:16	JMH2	SC-1	1	B062973

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938498-08	Client Sample Name: P & L Souza Dairy, Field Duplicate #1, 11/12/2019 12:00:00AM, Del Tech- Cassandra H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	76	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.071	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 05:54		SAV	IC8	5	B062080
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	10	B062316
3	EPA-350.1	11/22/19 16:15	11/25/19 15:18		JMH2	SC-1	1	B062973

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062080						
Nitrate as N	B062080-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062316						
Total Dissolved Solids @ 180 C	B062316-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062973						
Ammonia as N	B062973-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062080										
Nitrate as N	B062080-BS1	LCS	4.8180	5.0000	mg/L	96.4		90 - 110		
QC Batch ID: B062316										
Total Dissolved Solids @ 180 C	B062316-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B062973										
Ammonia as N	B062973-BS1	LCS	1.9781	2.0000	mg/L	98.9		90 - 110		

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062080		Used client sample: Y - Description: PLS-MW1s, 11/12/2019 12:25								
Nitrate as N	DUP	1938498-01	75.755	75.990		mg/L	0.3		10	
	MS	1938498-01	75.755	101.20	25.253	mg/L		101		80 - 120
	MSD	1938498-01	75.755	100.52	25.253	mg/L	0.7	98.1	10	80 - 120
QC Batch ID: B062316		Used client sample: Y - Description: PLS-MW1s, 11/12/2019 12:25								
Total Dissolved Solids @ 180 C	DUP	1938498-01	1360.0	1330.0		mg/L	2.2		10	
QC Batch ID: B062973		Used client sample: Y - Description: PLS-MW1s, 11/12/2019 12:25								
Ammonia as N	DUP	1938498-01	0.087700	0.14090		mg/L	46.5		10	J,A02
	MS	1938498-01	0.087700	2.4010	2.2222	mg/L		104		90 - 110
	MSD	1938498-01	0.087700	2.3433	2.2222	mg/L	2.4	102	10	90 - 110

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: P & L Souza Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 11/26/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Paul Caetano Dairy
BCL Project: Dairy Representative Monitoring Program
BCL Work Order: 1938299
Invoice ID: B363309

Enclosed are the results of analyses for samples received by the laboratory on 11/11/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938299

Samples were filtered through a 0.45 micron filter prior to analysis.



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1
 Submission #: 19-38299

SHIPPING INFORMATION
 Fed Ex UPS Ontrac Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest None Box
 Other (Specify) _____

FREE LIQUID
 YES NO
 W / S

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals: Ice Chest Containers None Comments:
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/11 2200
 Temperature: (A) 1.2 °C / (C) 0.7 °C Analyst Init: EJN/KMM

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/038/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: GJR Date/Time: 11/11 2220 Rev 21 05/23/2016
 A = Actual / C = Corrected

[S:\WPDoc\WordPerfect\LAB_DOC\FORMS\SISA\MREC1iv 20]

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938299-01	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 14:20
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-02	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 14:53
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-03	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 14:34
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-04	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 13:55
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-05	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 13:14
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-06	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 13:37
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	CAE-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938299-07	COC Number:	---	Receive Date: 11/11/2019 22:00
	Project Number:	Paul Caetano Dairy	Sampling Date: 11/11/2019 00:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	Field Duplicate 7	Lab Matrix: Water
	Sampled By:	Del Tech of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-01	Client Sample Name: Paul Caetano Dairy, CAE-MW1s, 11/11/2019 2:20:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.91	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	89	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 15:16	MRC	IC1	1	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30	CAD	MANUAL	10	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:47	JMH	SC-2	25	B062770

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-02	Client Sample Name: Paul Caetano Dairy, CAE-MW2s, 11/11/2019 2:53:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	600	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 12:07	SAV	IC1	2	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30	CAD	MANUAL	3.333	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:20	JMH	SC-2	1	B062770

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-03	Client Sample Name: Paul Caetano Dairy, CAE-MW3s, 11/11/2019 2:34:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.26	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 10:22		SAV	IC1	5	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30		CAD	MANUAL	10	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:21		JMH	SC-2	1	B062770

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-04	Client Sample Name: Paul Caetano Dairy, CAE-MW4s, 11/11/2019 1:55:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	210	mg/L	2.0	0.84	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.34	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 12:28		SAV	IC1	20	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30		CAD	MANUAL	10	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 16:59		JMH	SC-2	1	B062770

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-05	Client Sample Name: Paul Caetano Dairy, CAE-MW5s, 11/11/2019 1:14:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	80	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	980	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 12:49		SAV	IC1	5	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30		CAD	MANUAL	5	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:24		JMH	SC-2	1	B062770

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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-06	Client Sample Name: Paul Caetano Dairy, CAE-MW6s, 11/11/2019 1:37:00PM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 13:52		MRC	IC1	10	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30		CAD	MANUAL	5	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:26		JMH	SC-2	1	B062770

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938299-07	Client Sample Name: Paul Caetano Dairy, Field Duplicate 7, 11/11/2019 12:00:00AM, Del Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.20	0.084	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	580	mg/L	33	17	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 08:00	11/12/19 20:43		CMM	IC1	2	B061891
2	SM-2540C	11/13/19 15:30	11/13/19 15:30		CAD	MANUAL	3.333	B062026
3	EPA-350.1	11/21/19 08:30	11/21/19 15:26		JMH	SC-2	1	B062770

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B061891						
Nitrate as N	B061891-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062026						
Total Dissolved Solids @ 180 C	B062026-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062770						
Ammonia as N	B062770-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B061891										
Nitrate as N	B061891-BS1	LCS	5.3270	5.0000	mg/L	107		90 - 110		
QC Batch ID: B062026										
Total Dissolved Solids @ 180 C	B062026-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B062770										
Ammonia as N	B062770-BS1	LCS	2.1832	2.0000	mg/L	109		90 - 110		

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500 First Street
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Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
QC Batch ID: B061891		Used client sample: Y - Description: CAE-MW3s, 11/11/2019 14:34									
Nitrate as N	DUP	1938299-03	53.675	54.040		mg/L	0.7		10		
	MS	1938299-03	53.675	79.500	25.253	mg/L		102		80 - 120	
	MSD	1938299-03	53.675	79.399	25.253	mg/L	0.1	102	10	80 - 120	
QC Batch ID: B062026		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1938369-01	1995.0	2010.0		mg/L	0.7		10		
QC Batch ID: B062770		Used client sample: N									
Ammonia as N	DUP	1938547-03	0.19040	0.32010		mg/L	50.8		10		Q01
	MS	1938547-03	0.19040	2.7704	2.2222	mg/L		116		90 - 110	Q03
	MSD	1938547-03	0.19040	2.6509	2.2222	mg/L	4.4	111	10	90 - 110	Q03

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500 First Street
Woodland, CA 95695

Reported: 11/26/2019 16:25
Project: Dairy Representative Monitoring Program
Project Number: Paul Caetano Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q01 Sample precision is not within the control limits.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Robert Gioletti & Sons Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938496

Invoice ID: B363655

Enclosed are the results of analyses for samples received by the laboratory on 11/12/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938496

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name:		Reduced Constituent Suite		From Filtered Sample:	
19-38496 Luhdorff and Scalmanini		Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids	
Address: 500 First Street		Site: Robert Gioletti & Sons Dairy			
City: Woodland		Samplers Name: <u>DATECH ASHLEY PATRAM</u>			
State: 95685		Global ID - GADAIR00010			
Altn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	ROB-MW1s	11/22/19	11:17	GW	x
2	ROB-MW2s		10:53		x
3	ROB-MW3s		10:28		x
4	ROB-MW4s		10:11		x
5	ROB-MW5s		9:52		x
6	ROB-MW6s		2:30		x
7	ROB-MW7s		12:06		x
8	ROB-MW8s		11:43		x
9	ROB-MW9s				
10					
11					
12					

Relinquished by: (Signature) <u> Ashley Patram 11-22-19</u>	Received By: <u>ASE</u> Date & Time: 11/21/19 16:35
Relinquished by: (Signature) <u> Ashley Patram</u>	Received by: <u>Quinter</u> Date & Time: 11/21/19 22:00
Relinquished by: (Signature) <u> Ashley Patram</u>	Received By: _____ Date & Time: _____

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llevegnino@lsce.com, boyson@lsce.com, pahalilwal@lsce.com, jlovelis@lsce.com
- Send invoices to Jeanette Lovelis (jlovelis@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-38496

SHIPPING INFORMATION
Fed Ex [] UPS [] Ontrac [] Hand Delivery []
BC Lab Field Service [x] Other [] (Specify) _____

SHIPPING CONTAINER
Ice Chest [x] None [] Box []
Other [] (Specify) _____

FREE LIQUID
YES [] NO []
W / S

Refrigerant: Ice [x] Blue Ice [] None [] Other [] Comments:

Custody Seals Ice Chest [] Containers []
None [x] Comments:
Intact: Yes [] No [] Intact: Yes [] No []

All samples received? Yes [x] No [] All samples containers intact? Yes [x] No [] Description(s) match COC? Yes [x] No []

COC Received
YES [x] NO []

Emissivity: 0.95 Container: PE Thermometer ID: 208
Temperature: (A) 1.8 °C / (C) 1.2 °C

Date/Time 11/12 2200
Analyst Init ENL

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Sample numbers 1-8 are marked with 'A'.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 11/12 2225
A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938496-01	COC Number:	---	Receive Date: 11/12/2019 22:00
	Project Number:	Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 11:17
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1938496-02	COC Number:	---
Project Number:		Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 10:53
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW2s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1938496-03		COC Number:	---
	Project Number:	Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 10:28
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1938496-04	COC Number:	---
Project Number:		Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 10:11
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW4s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1938496-05		COC Number:	---
	Project Number:	Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 09:52
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		
	1938496-06	COC Number:	---
Project Number:		Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 12:30
Sampling Location:		---	Sample Depth: ---
Sampling Point:		ROB-MW6s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley of DTO	Sample Type: Groundwater
<hr/>			
1938496-07		COC Number:	---
	Project Number:	Robert Gioletti & Sons Dairy	Sampling Date: 11/12/2019 12:06
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ROB-MW7s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938496-08	COC Number:	---	Receive Date:	11/12/2019 22:00
	Project Number:	Robert Gioletti & Sons Dairy	Sampling Date:	11/12/2019 11:43
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	ROB-MW8s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-01	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW1s, 11/12/2019 11:17:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	40	mg/L	5.0	1.7	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 07:37	SAV	IC1	10	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:37	JMH2	SC-1	25	B062958

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-02	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW2s, 11/12/2019 10:53:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	140	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.097	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 07:59	SAV	IC1	10	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 14:56	JMH2	SC-1	1	B062958

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-03	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW3s, 11/12/2019 10:28:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	46	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 08:20	SAV	IC1	5	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 14:58	JMH2	SC-1	1	B062958

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Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-04	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW4s, 11/12/2019 10:11:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 08:41		SAV	IC1	5	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	5	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:00		JMH2	SC-1	1	B062958

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Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-05	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW5s, 11/12/2019 9:52:00AM, Del-Tech/Ashley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	84	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 09:44	SAV	IC1	5	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:00	JMH2	SC-1	1	B062958

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Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-06	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW6s, 11/12/2019 12:30:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.10	0.042	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	22	mg/L	1.0	0.34	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 06:13	SAV	IC1	1	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00	CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:39	JMH2	SC-1	5	B062958

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Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-07	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW7s, 11/12/2019 12:06:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	960	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 10:05		SAV	IC1	5	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	5	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:02		JMH2	SC-1	1	B062958

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938496-08	Client Sample Name: Robert Gioletti & Sons Dairy, ROB-MW8s, 11/12/2019 11:43:00AM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	80	mg/L	1.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/12/19 22:00	11/13/19 10:26		SAV	IC1	10	B062083
2	SM-2540C	11/15/19 17:00	11/15/19 17:00		CAD	MANUAL	10	B062315
3	EPA-350.1	11/22/19 14:30	11/25/19 15:03		JMH2	SC-1	1	B062958

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062083						
Nitrate as N	B062083-BLK1	ND	mg/L	0.10	0.042	
QC Batch ID: B062315						
Total Dissolved Solids @ 180 C	B062315-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062958						
Ammonia as N	B062958-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062083										
Nitrate as N	B062083-BS1	LCS	5.0120	5.0000	mg/L	100		90 - 110		
QC Batch ID: B062315										
Total Dissolved Solids @ 180 C	B062315-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B062958										
Ammonia as N	B062958-BS1	LCS	2.1641	2.0000	mg/L	108		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062083		Used client sample: Y - Description: ROB-MW6s, 11/12/2019 12:30								
Nitrate as N	DUP	1938496-06	16.069	16.069		mg/L	0		10	
	MS	1938496-06	16.069	21.274	5.0505	mg/L		103		80 - 120
	MSD	1938496-06	16.069	21.243	5.0505	mg/L	0.1	102	10	80 - 120
QC Batch ID: B062315		Used client sample: Y - Description: ROB-MW1s, 11/12/2019 11:17								
Total Dissolved Solids @ 180 C	DUP	1938496-01	2090.0	2070.0		mg/L	1.0		10	
QC Batch ID: B062958		Used client sample: N								
Ammonia as N	DUP	1939715-02	0.12010	0.22770		mg/L	61.9		10	A02
	MS	1939715-02	0.12010	2.4737	2.2222	mg/L		106		90 - 110
	MSD	1939715-02	0.12010	2.3844	2.2222	mg/L	3.7	102	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 10:37
Project: Dairy Representative Monitoring Program
Project Number: Robert Gioletti & Sons Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Woods Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938876

Invoice ID: B364051

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938876

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
19-38876		4100 Atlas Ct Bakersfield, CA 93308 (661) 327-4911					
Report to:		Analysis Requested					
Name: Luhdorff and Scalmanini		From Filtered Sample:					
Address: 500 First Street		Ammonia-N, NO3-N, Total Dissolved Solids					
City: Woodland							
State: 95695							
Attn: Tili Angermann							
Project: Daily Representative Monitoring Program							
Site: Woods Dairy							
Samplers Name: Det-Tech / Cassandra Hanson							
Global ID - WDR100039199							
Reduced Constituent Suite							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cr/Pb Unpreserved	Other	
- 1	WOO-MW1	11-14-19	1045	GW	x		
- 2	WOO-MW2	11-14-19	1111	JH	x		
- 3	WOO-MW3	11-14-19	1017		x		
4	Field-Duplicate				x		
5							
6							
7							
8							
9							
10							
11							
12							
Comments:		Relinquished by: (Signature) 11-14-19		Received By: [Signature] 11/14/19 15:50		Date & Time	
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.		Cassandra Hanson		Relinquished by: (Signature)		Date & Time	
2) Lab reports shall identify sampled wells exactly as shown on this CoC.				[Signature]		11/16/19 22:30	
3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llscv@lsc.com, rbyson@lsc.com, pulhavel@lsc.com, jlovelis@lsc.com				Relinquished by: (Signature)		Date & Time	
4) Send invoices to Jeanette Lovells (jlovelis@lsc.com).							

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938876-01	COC Number:	---	Receive Date:	11/14/2019 22:30
	Project Number:	Woods Dairy	Sampling Date:	11/14/2019 10:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW1	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
1938876-02	COC Number:	---	Receive Date:	11/14/2019 22:30
	Project Number:	Woods Dairy	Sampling Date:	11/14/2019 11:11
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW2	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater
1938876-03	COC Number:	---	Receive Date:	11/14/2019 22:30
	Project Number:	Woods Dairy	Sampling Date:	11/14/2019 10:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	WOO-MW3	Lab Matrix:	Water
	Sampled By:	Del Tech- Cassandra H of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938876-01	Client Sample Name: Woods Dairy, WOO-MW1, 11/14/2019 10:45:00AM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	960	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.095	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 09:11		MRC	IC2	5	B062310
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	5	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:13		JMH2	SC-1	1	B063376

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938876-02	Client Sample Name: Woods Dairy, WOO-MW2, 11/14/2019 11:11:00AM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	27	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	700	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.092	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 09:32		MRC	IC2	2	B062310
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	5	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:16		JMH2	SC-1	1	B063376

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938876-03	Client Sample Name: Woods Dairy, WOO-MW3, 11/14/2019 10:17:00AM, Del Tech- Cassandra H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	780	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 09:53		MRC	IC2	2	B062310
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	5	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:18		JMH2	SC-1	1	B063376

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062310						
Nitrate as N	B062310-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062647						
Total Dissolved Solids @ 180 C	B062647-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063376						
Ammonia as N	B063376-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062310										
Nitrate as N	B062310-BS1	LCS	5.1010	5.0000	mg/L	102		90 - 110		
QC Batch ID: B062647										
Total Dissolved Solids @ 180 C	B062647-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B063376										
Ammonia as N	B063376-BS1	LCS	1.8754	2.0000	mg/L	93.8		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062310		Used client sample: N								
Nitrate as N	DUP	1938880-06	9.7970	9.6900		mg/L	1.1		10	
	MS	1938880-06	9.7970	14.644	5.0505	mg/L		96.0		80 - 120
	MSD	1938880-06	9.7970	14.635	5.0505	mg/L	0.1	95.8	10	80 - 120
QC Batch ID: B062647		Used client sample: Y - Description: WOO-MW1, 11/14/2019 10:45								
Total Dissolved Solids @ 180 C	DUP	1938876-01	955.00	950.00		mg/L	0.5		10	
QC Batch ID: B063376		Used client sample: Y - Description: WOO-MW1, 11/14/2019 10:45								
Ammonia as N	DUP	1938876-01	0.095400	0.093900		mg/L	1.6		10	J
	MS	1938876-01	0.095400	2.5641	2.2222	mg/L		111		90 - 110 Q03
	MSD	1938876-01	0.095400	2.4771	2.2222	mg/L	3.5	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Woods Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Antone L. Gomes & Sons Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938878

Invoice ID: B364052

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938878

Samples were filtered through a 0.45 micron filter prior to analysis.



19-38878

BC Laboratories, Inc.

4100 Atlas Ct.
Bakersfield, CA 93308
(661) 327-4911

Chain of Custody

Report to:

Reduced Constituent Suite

Analysis Requested

Project: Dairy Representative Monitoring Program

Site: Antone L. Gomes & Sons Dairy
From Filtered Sample:
Ammonia-N, NO3-N,
Total Dissolved Solids

Sampler Name: Del Tech / Steezy Fight
Global ID - GADAIR000011

SHORT Cr# NO.	HOLDING TIME
NO.	OP
DO	BOD
Cl ₂	MBAS
	COT

CHK BY	DISTRIBUTION
BS	
	SUB OUT

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
- 1	ANT-MW1d	11/14/19	9:09	GW	x
- 2	ANT-MW2s, ANT-MW2d		9:32		x
- 3	ANT-MW3s, ANT-MW3d		10:21		x
- 4	ANT-MW4s, ANT-MW4d		10:57		x
- 5	ANT-MW5s, ANT-MW5d		8:35		x
- 6	ANT-MW6s, ANT-MW6d		10:47	WS	x
7	Field Duplicate				x
8					
9					
10					
11					
12					

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rbyson@lsc.com, pdhall@lsc.com, pdhall@lsc.com, jlovelis@lsc.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

Relinquished by: (Signature) *[Signature]* Date & Time 11/14/19

Received by: *[Signature]* Date & Time 11/14/19 17:30

Relinquished by: (Signature) *[Signature]* Date & Time 11/14/19 22:30

Received by: *[Signature]* Date & Time

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38878

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: VE Thermometer ID: 208 Date/Time: 11/4/22 30

Temperature: (A) 3.2 °C / (C) 2.6 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/616/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 11-4-22 2307 Rev 21 - 05/23/2016

A = Actual / C = Corrected

IS:WPCoolWoodPackedLAB 0503/081515ANRECrev 200



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938878-01	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 09:09
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW1d	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938878-02	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 09:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938878-03	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 10:21
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938878-04	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 09:57
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938878-05	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 08:35
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938878-06	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Antone L. Gomes & Sons Dairy	Sampling Date: 11/14/2019 10:47
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	ANT-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-01	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW1d, 11/14/2019 9:09:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	1.0	0.25	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 15:59		MRC	IC1	10	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	10	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:20		JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-02	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW2s, 11/14/2019 9:32:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.094	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 17:39		CMM	IC1	5	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	10	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:21		JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-03	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW3s, 11/14/2019 10:21:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	57	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.091	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/15/19 14:00	11/16/19 18:54	SAV	IC1	5	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00	CAD	MANUAL	10	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:22	JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-04	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW4s, 11/14/2019 9:57:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.090	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 18:21		CMM	IC1	2	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	10	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:23		JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-05	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW5s, 11/14/2019 8:35:00AM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/15/19 14:00	11/16/19 19:57	SAV	IC1	5	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00	CAD	MANUAL	10	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:23	JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938878-06	Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW6s, 11/14/2019 10:47:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.098	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 19:45		CMM	IC1	5	B062429
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	5	B062647
3	EPA-350.1	11/27/19 12:30	12/02/19 10:25		JMH2	SC-1	1	B063376

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062429						
Nitrate as N	B062429-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062647						
Total Dissolved Solids @ 180 C	B062647-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063376						
Ammonia as N	B063376-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062429										
Nitrate as N	B062429-BS1	LCS	4.5390	5.0000	mg/L	90.8		90 - 110		
QC Batch ID: B062647										
Total Dissolved Solids @ 180 C	B062647-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B063376										
Ammonia as N	B063376-BS1	LCS	1.8754	2.0000	mg/L	93.8		90 - 110		

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062429		Used client sample: Y - Description: ANT-MW1d, 11/14/2019 09:09								
Nitrate as N	DUP	1938878-01	52.010	51.270		mg/L	1.4		10	
	MS	1938878-01	52.010	98.828	50.505	mg/L		92.7		80 - 120
	MSD	1938878-01	52.010	98.202	50.505	mg/L	0.6	91.5	10	80 - 120
QC Batch ID: B062647		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938876-01	955.00	950.00		mg/L	0.5		10	
QC Batch ID: B063376		Used client sample: N								
Ammonia as N	DUP	1938876-01	0.095400	0.093900		mg/L	1.6		10	J
	MS	1938876-01	0.095400	2.5641	2.2222	mg/L		111		90 - 110 Q03
	MSD	1938876-01	0.095400	2.4771	2.2222	mg/L	3.5	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Correia Family Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938879

Invoice ID: B364053

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938879

Samples were filtered through a 0.45 micron filter prior to analysis.



19-38879

BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911							
Report to:				Analysis Requested			
Name: Luhdorff and Scalmanini				From Filtered Sample:			
Address: 500 First Street				Ammonia-N, NO3-N,			
City: Woodland				Total Dissolved Solids			
State: 95695							
City: Woodland							
State: CA							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Correia Family Dairy 40 2019 November							
Samplers Name: Del Tech / Stacy Fryk							
Global ID - GADAIRY00012							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved	Analysis Requested	Received By: Date & Time
-1	COR-MW1s, COR-MW2s	11-17-19	12:52	GW	x	SHORT HOLDING TIME Cr ⁶ NO ₂ OP SS DC Cl ₂ BOC MBAS COT	Received By: [Signature] 11/14/19 17:30
-2	COR-MW2s, COR-MW3s		13:11		x	CHK BY DISTRIBUTION [Signature]	Received By: [Signature] 11/14/19 22:30
-3	COR-MW3s, COR-MW4s		13:23		x		
-4	COR-MW4s, COR-MW5d		12:23		x		
-5	COR-MW5s, COR-MW5d		11:53		x		
-6	Field Duplicate #0		11:53		x		
7							
8							
9							
10							
11							
Comments:				Relinquished by: (Signature)			
1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.				[Signature] 11-14-19			
2) Lab reports shall identify sampled wells exactly as shown on this CoC.				Relinquished by: (Signature)			
3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lavagnino@lscce.com, rbryson@lscce.com, pthaiwal@lscce.com, jlovelis@lscce.com				[Signature]			
4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).				Relinquished by: (Signature)			
(A)= Analysis (C)= Container (P)= Preservative							

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page	1	Of	1
Submission #: <u>19-38879</u>							
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____				SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____							
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.95</u> Container: <u>PE</u> Thermometer ID: <u>208</u>		Date/Time: <u>11/4/22</u> <u>30</u>		Analyst Init: <u>ENR</u>	
		Temperature: (A) <u>3.2</u> °C / (C) <u>2.6</u> °C					

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 504/608/8280										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
Box EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
Box / 16oz / 32oz AMBER										
Box / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: ENR Date/Time: 11-4-22 2307
 A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938879-01	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 12:52
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	COR-MW1s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938879-02	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 13:11
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	COR-MW2s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938879-03	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 13:39
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	COR-MW3s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938879-04	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 12:23
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	COR-MW4s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938879-05	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 11:53
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	COR-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
1938879-06	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Correia Family Dairy	Sampling Date: 11/14/2019 00:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	Field Duplicate #6	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-01	Client Sample Name: Correia Family Dairy, COR-MW1s, 11/14/2019 12:52:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	41	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 12:30		SAV	IC1	5	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	20	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:29		JMH2	SC-1	1	B063378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-02	Client Sample Name: Correia Family Dairy, COR-MW2s, 11/14/2019 1:11:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.4	mg/L	0.10	0.025	EPA-300.0	ND	S05	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 14:42	SAV	IC1	1	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00	CAD	MANUAL	10	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:34	JMH2	SC-1	1	B063378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-03	Client Sample Name: Correia Family Dairy, COR-MW3s, 11/14/2019 1:39:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.7	mg/L	0.10	0.025	EPA-300.0	ND	S05	1
Total Dissolved Solids @ 180 C	1300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 15:45	SAV	IC1	1	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00	CAD	MANUAL	10	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:34	JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-04	Client Sample Name: Correia Family Dairy, COR-MW4s, 11/14/2019 12:23:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.1	mg/L	0.10	0.025	EPA-300.0	ND	S05	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 12:51	SAV	IC1	1	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00	CAD	MANUAL	10	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:36	JMH2	SC-1	1	B063378

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-05	Client Sample Name: Correia Family Dairy, COR-MW5s, 11/14/2019 11:53:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.8	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 11:48	SAV	IC1	1	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00	CAD	MANUAL	10	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:36	JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938879-06	Client Sample Name: Correia Family Dairy, Field Duplicate #6, 11/14/2019 12:00:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.8	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.19	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 18:33		SAV	IC1	2	B062431
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	10	B062670
3	EPA-350.1	11/27/19 12:30	12/02/19 10:38		JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062431						
Nitrate as N	B062431-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062670						
Total Dissolved Solids @ 180 C	B062670-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063378						
Ammonia as N	B063378-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062431										
Nitrate as N	B062431-BS1	LCS	4.8080	5.0000	mg/L	96.2		90 - 110		
QC Batch ID: B062670										
Total Dissolved Solids @ 180 C	B062670-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: B063378										
Ammonia as N	B063378-BS1	LCS	2.0580	2.0000	mg/L	103		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062431		Used client sample: Y - Description: COR-MW1s, 11/14/2019 12:52								
Nitrate as N	DUP	1938879-01	41.215	40.685		mg/L	1.3		10	
	MS	1938879-01	41.215	66.359	25.253	mg/L		99.6		80 - 120
	MSD	1938879-01	41.215	65.823	25.253	mg/L	0.8	97.4	10	80 - 120
QC Batch ID: B062670		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938805-01	905.00	920.00		mg/L	1.6		10	
QC Batch ID: B063378		Used client sample: Y - Description: COR-MW1s, 11/14/2019 12:52								
Ammonia as N	DUP	1938879-01	0.14160	0.14980		mg/L	5.6		10	J
	MS	1938879-01	0.14160	2.6543	2.2222	mg/L		113		90 - 110 Q03
	MSD	1938879-01	0.14160	2.5591	2.2222	mg/L	3.7	109	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:30
Project: Dairy Representative Monitoring Program
Project Number: Correia Family Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.

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Date of Report: 12/04/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #2

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938677

Invoice ID: B363928

Enclosed are the results of analyses for samples received by the laboratory on 11/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938677

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody		
1938677 Report to:				Analysis Requested		
Name: Lohdorff and Scalmanini		Reduced Constituent Suite				
Address: 500 First Street		Project: Dairy Representative Monitoring Program				
City: Woodland		Site: Frank J. Gomes Dairy #2				
State: 95695		Samplers Name: Antonia / Del-Tech				
Attn: Till Angermann		Global ID - GADAIR700013				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved	From Filtered Sample:
1	FG2-MW1s, FG2-MW1d	11/13/19	1512	GW	x	x
2	FG2-MW2s, FG2-MW2d	11/13/19	1427	I	x	x
3	FG2-MW3s, FG2-MW3d	11/13/19	1452	I	x	x
4	FG2-MW4s, FG2-MW4d	11/13/19	1534	I	x	x
5	FG2-MW5s, FG2-MW5d	11/13/19	1557	I	x	x
6	Field Duplicate					
7						
8						
9						
10						
11						
12						

DISTRIBUTION
 [Signature]

SHORT HOLDING TIME
 Cr⁶ NO₂ NO₃ OP SS
 DO Cl₂ BOD MRAS COT

Relinquished by: (Signature)	Antonio March	11/13/19 17:00	Received by: [Signature]	11/13/19 17:00
Relinquished by: (Signature)	[Signature]		Received by: [Signature]	
Relinquished by: (Signature)	[Signature]		Received by: [Signature]	11/13/19 22:00

Comments:
 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lisce.com, roryson@lisce.com, pthaitwal@lisce.com, jlovelis@lisce.com
 4) Send invoices to Jeannette Lovelis (jlovelis@lisce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1
Submission #: 19-38677

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service, Other (Specify)
SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify)
FREE LIQUID: YES, NO, W/S

Refrigerant: Ice, Blue Ice, None, Other, Comments:

Custody Seals: Ice Chest, Containers, None, Comments:

All samples received? Yes, No; All samples containers intact? Yes, No; Description(s) match COC? Yes, No

COC Received: YES, NO; Emissivity: 0.95; Container: PG; Thermometer ID: 208; Date/Time: 11/13/2006; Analyst Init: EIR; Temperature: (A) 0.7 °C / (C) 0.1 °C

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Handwritten 'A' marks are present in the first five columns of the first row.

Comments: Sample Numbering Completed By: GSR Date/Time: 11/13/2006 Rev 21 05/23/2016 A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	
1938677-01	COC Number:	---	11/13/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	11/13/2019 15:12
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW1s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type:	Groundwater
1938677-02	COC Number:	---	11/13/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	11/13/2019 14:27
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW2s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1938677-03	COC Number:	---	11/13/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	11/13/2019 14:52
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW3s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1938677-04	COC Number:	---	11/13/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	11/13/2019 15:34
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW4s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater
1938677-05	COC Number:	---	11/13/2019 22:00	
	Project Number:	Frank J. Gomes Dairy #2	Sampling Date:	11/13/2019 15:57
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	FG2-MW5s	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938677-01	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW1s, 11/13/2019 3:12:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.94	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	3100	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 17:00	11/14/19 18:50		CMM	IC8	1	B062203
2	SM-2540C	11/19/19 13:00	11/19/19 13:00		CAD	MANUAL	20	B062558
3	EPA-350.1	11/25/19 15:30	11/26/19 08:56		JMH2	SC-1	1	B063121

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938677-02	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW2s, 11/13/2019 2:27:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 17:00	11/14/19 20:53	CMM	IC8	1	B062203
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	10	B062558
3	EPA-350.1	11/25/19 15:30	11/26/19 08:58	JMH2	SC-1	1	B063121

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938677-03	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW3s, 11/13/2019 2:52:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.1	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	3500	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.097	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 17:00	11/14/19 21:14	CMM	IC8	1	B062203
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	20	B062558
3	EPA-350.1	11/25/19 15:30	11/26/19 09:00	JMH2	SC-1	1	B063121

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938677-04	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW4s, 11/13/2019 3:34:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/19 17:00	11/14/19 21:34	CMM	IC8	2	B062203
2	SM-2540C	11/19/19 13:00	11/19/19 13:00	CAD	MANUAL	10	B062558
3	EPA-350.1	11/25/19 15:30	11/26/19 09:00	JMH2	SC-1	1	B063121

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938677-05	Client Sample Name: Frank J. Gomes Dairy #2, FG2-MW5s, 11/13/2019 3:57:00PM, Del-Tech/Ashley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.5	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.083	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 17:00	11/14/19 21:55		CMM	IC8	1	B062203
2	SM-2540C	11/19/19 13:00	11/19/19 13:00		CAD	MANUAL	10	B062558
3	EPA-350.1	11/25/19 15:30	11/26/19 09:02		JMH2	SC-1	1	B063121

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500 First Street
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Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062203						
Nitrate as N	B062203-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062558						
Total Dissolved Solids @ 180 C	B062558-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063121						
Ammonia as N	B063121-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
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Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062203										
Nitrate as N	B062203-BS1	LCS	5.1270	5.0000	mg/L	103		90 - 110		
QC Batch ID: B062558										
Total Dissolved Solids @ 180 C	B062558-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: B063121										
Ammonia as N	B063121-BS1	LCS	1.9655	2.0000	mg/L	98.3		90 - 110		

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Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062203		Used client sample: Y - Description: FG2-MW1s, 11/13/2019 15:12								
Nitrate as N	DUP	1938677-01	0.93700	0.92400		mg/L	1.4		10	
	MS	1938677-01	0.93700	6.1242	5.0505	mg/L		103		80 - 120
	MSD	1938677-01	0.93700	6.1414	5.0505	mg/L	0.3	103	10	80 - 120
QC Batch ID: B062558		Used client sample: Y - Description: FG2-MW1s, 11/13/2019 15:12								
Total Dissolved Solids @ 180 C	DUP	1938677-01	3120.0	3140.0		mg/L	0.6		10	
QC Batch ID: B063121		Used client sample: N								
Ammonia as N	DUP	1938807-02	0.075600	ND		mg/L			10	
	MS	1938807-02	0.075600	2.5823	2.2222	mg/L		113		90 - 110 Q03
	MSD	1938807-02	0.075600	2.5443	2.2222	mg/L	1.5	111	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/04/2019 14:10
Project: Dairy Representative Monitoring Program
Project Number: Frank J. Gomes Dairy #2
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Godinho Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938884

Invoice ID: B364069

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938884

Samples were filtered through a 0.45 micron filter prior to analysis.



19-38884

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luthorff and Scalmanini		Reduced Constituent Suite			
Address: 500 First Street		Project: Dairy Representative Monitoring Program			
City: Woodland		Site: Godinho Dairy			
State: 95695		Samplers Name: Del-Tech Ashley Putnam			
Altitude: Till Angermann		Global ID - GADDAURY00014			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pp Unpreserved
-1	GOD-MW1s, MBAS	11-14-19	8:50	GW	x
-2	GOD-MW2s, MBAS		9:40		x
-3	GOD-MW3s, MBAS		9:24		x
-4	GOD-MW4s, MBAS		9:00		x
-5	GOD-MW5s, MBAS		11:14		x
-6	GOD-MW6s, MBAS		10:07		x
-7	GOD-MW7s, MBAS		10:41		x
-8	Field Duplicate 3				x
9					
10					
11					
12					

From Filtered Sample:	
Ammonia-N, NO3-N	
Total Dissolved Solids	

SHOR T HOLDING TIME	
Cr ⁶	NO
DO	CL
BOD	MBAS
COT	

CHRY	WA	DISTRIBUTION
Received By:	Sub	Date & Time
Received by:	Putnam	11/14/19 17:10
Received By:	Putnam	11/14/19 22:30

Relinquished by: (Signature) Ashley Putnam 11-14-19 / 17:10

Relinquished by: (Signature) [Signature]

Relinquished by: (Signature) [Signature]

Comments:

- 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
- 3) Send lab reports to Luthorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pdhalawa@lscce.com
- 4) Send invoices to Jeanette Lovell (jlovells@lscce.com)

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1938884

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/4/22 30
 Temperature: (A) 2.4 °C / (C) 1.8 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8170										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: ENR Date/Time: 11-14-19 CSIS Rev 21 05/23/2016
 A = Actual / C = Corrected

IS:\WP\Doc\Word\Public\LAB_DOC\5\FORMS\5AMREC Rev 201

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938884-01	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Godinho Dairy	Sampling Date: 11/14/2019 08:50
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
	<hr/>		
	1938884-02	COC Number:	---
Project Number:		Godinho Dairy	Sampling Date: 11/14/2019 09:46
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW2s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
<hr/>			
1938884-03		COC Number:	---
	Project Number:	Godinho Dairy	Sampling Date: 11/14/2019 09:24
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
	<hr/>		
	1938884-04	COC Number:	---
Project Number:		Godinho Dairy	Sampling Date: 11/14/2019 09:08
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW4s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
<hr/>			
1938884-05		COC Number:	---
	Project Number:	Godinho Dairy	Sampling Date: 11/14/2019 11:14
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
	<hr/>		
	1938884-06	COC Number:	---
Project Number:		Godinho Dairy	Sampling Date: 11/14/2019 10:07
Sampling Location:		---	Sample Depth: ---
Sampling Point:		GOD-MW6s	Lab Matrix: Water
Sampled By:		Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
<hr/>			
1938884-07		COC Number:	---
	Project Number:	Godinho Dairy	Sampling Date: 11/14/2019 10:41
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	GOD-MW7s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type: Groundwater
	<hr/>		

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938884-08	COC Number:	---	Receive Date:	11/14/2019 22:30
	Project Number:	Godinho Dairy	Sampling Date:	11/14/2019 00:00
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	Field Duplicate 3	Lab Matrix:	Water
	Sampled By:	Del-Tech/Ashley Putnam of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-01	Client Sample Name: Godinho Dairy, GOD-MW1s, 11/14/2019 8:50:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.088	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 15:40		CMM	IC8	1	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 12:22		JMH2	SC-1	1	B063391

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Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-02	Client Sample Name: Godinho Dairy, GOD-MW2s, 11/14/2019 9:46:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 16:21		CMM	IC8	2	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 12:24		JMH2	SC-1	1	B063391

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Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-03	Client Sample Name: Godinho Dairy, GOD-MW3s, 11/14/2019 9:24:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 16:41	CMM	IC8	2	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 12:24	JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-04	Client Sample Name: Godinho Dairy, GOD-MW4s, 11/14/2019 9:08:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	19	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/16/19 00:25		SAV	IC8	2	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	20	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 12:25		JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-05	Client Sample Name: Godinho Dairy, GOD-MW5s, 11/14/2019 11:14:00AM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	14	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1600	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.088	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 17:55		CMM	IC8	1	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:27		JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-06	Client Sample Name: Godinho Dairy, GOD-MW6s, 11/14/2019 10:07:00AM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 18:16		CMM	IC8	5	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:29		JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-07	Client Sample Name: Godinho Dairy, GOD-MW7s, 11/14/2019 10:41:00AM, Del-Tech/Ashley Putnam
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.7	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 18:36		CMM	IC8	1	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:29		JMH2	SC-1	1	B063391

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938884-08	Client Sample Name: Godinho Dairy, Field Duplicate 3, 11/14/2019 12:00:00AM, Del-Tech/Ashley Putnam
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.7	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2200	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 18:57		CMM	IC8	1	B062308
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062690
3	EPA-350.1	11/27/19 14:45	12/02/19 12:31		JMH2	SC-1	1	B063391

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062308						
Nitrate as N	B062308-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062689						
Total Dissolved Solids @ 180 C	B062689-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B062690						
Total Dissolved Solids @ 180 C	B062690-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063391						
Ammonia as N	B063391-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062308										
Nitrate as N	B062308-BS1	LCS	5.2150	5.0000	mg/L	104		90 - 110		
QC Batch ID: B062689										
Total Dissolved Solids @ 180 C	B062689-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B062690										
Total Dissolved Solids @ 180 C	B062690-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B063391										
Ammonia as N	B063391-BS1	LCS	1.9887	2.0000	mg/L	99.4		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B062308		Used client sample: Y - Description: GOD-MW1s, 11/14/2019 08:50								
Nitrate as N	DUP	1938884-01	11.942	11.911		mg/L	0.3		10	
	MS	1938884-01	11.942	17.049	5.0505	mg/L		101		80 - 120
	MSD	1938884-01	11.942	17.085	5.0505	mg/L	0.2	102	10	80 - 120
QC Batch ID: B062689		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938881-01	1850.0	1890.0		mg/L	2.1		10	
QC Batch ID: B062690		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1938883-01	1380.0	1360.0		mg/L	1.5		10	
QC Batch ID: B063391		Used client sample: N								
Ammonia as N	DUP	1938883-06	0.10770	0.10320		mg/L	4.3		10	J
	MS	1938883-06	0.10770	2.5438	2.2222	mg/L		110		90 - 110
	MSD	1938883-06	0.10770	2.5066	2.2222	mg/L	1.5	108	10	90 - 110

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Godinho Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: John Machado Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938881

Invoice ID: B364067

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938881

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:		Analysis Requested			
Name: Luhdorff and Scalmanini		From Filtered Sample:			
Address: 500 First Street		Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland					
State: 95696					
Attn: Till Angermann					
Project: Daily Representative Monitoring Program					
Site: John Machado Dairy					
Samplers Name: Antonio Morales Del-Tor					
Global ID - GADAIRY00015					
Reduced Constituent Suite					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl Pe Unpreserved
-1	MAC-MW1s, MAC-MW1d	11/14/19	1357	GW	x
-2	MAC-MW2s, MAC-MW2d		1357		x
-3	MAC-MW3s, MAC-MW3d		1141		x
-4	MAC-MW4s, MAC-MW4d		1208		x
-5	MAC-MW5s, MAC-MW5d		1230		x
-6	Field Duplicate #4				x
7					
8					
9					
10					
11					
12					

SHORT FILLING TIME

Cl⁻ NO₂ NO₃ OP SS

DO C₂ 300 MBAS COT

CHK BY DISTRIBUTION

GP INN I I I

SUB OUT

Received By: <i>[Signature]</i>	Date & Time: 11/14/19 17:30
Received By: <i>[Signature]</i>	Date & Time: 11/14/19 22:30
Received By: <i>[Signature]</i>	Date & Time: 11/14/19 22:30

Relinquished by: (Signature) *Antonio Morales Del-Tor* 11/14/19 17:30

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *[Signature]*

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lavagnino@lisce.com, rbryson@lisce.com, pohlival@lisce.com, jlovelis@lisce.com
 4) Send invoices to Jeanette Lovelis (jlovelis@lisce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38881

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>		Other <input type="checkbox"/> (Specify)		W / S
Ice Chest <input checked="" type="checkbox"/>		None <input type="checkbox"/> Box <input type="checkbox"/>		
		Other <input type="checkbox"/> (Specify)		

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/4/23 3:00
Temperature: (A) 4.5 °C / (C) 3.9 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 518/508/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLERVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Sample Numbering Completed By: ENR Date/Time: 11/4/23 2:13 Rev 21 05/23/2016

A = Actual / C = Corrected (RAWPDoc\Filed\Police\LAB_DOC\SPQRMS1\SAVREDev 20)



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1938881-01	COC Number:	---	11/14/2019 22:30	11/14/2019 12:57	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW1s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1938881-02	COC Number:	---	11/14/2019 22:30	11/14/2019 13:17	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW2s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1938881-03	COC Number:	---	11/14/2019 22:30	11/14/2019 11:41	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW3s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1938881-04	COC Number:	---	11/14/2019 22:30	11/14/2019 12:08	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW4s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1938881-05	COC Number:	---	11/14/2019 22:30	11/14/2019 12:36	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	MAC-MW5s					
	Sampled By:	Del-Tech/Ashley Light of DTO					
1938881-06	COC Number:	---	11/14/2019 22:30	11/14/2019 00:00	---	Water	Groundwater
	Project Number:	John Machado Dairy					
	Sampling Location:	---					
	Sampling Point:	Field Duplicate #4					
	Sampled By:	Del-Tech/Ashley Light of DTO					

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-01	Client Sample Name: John Machado Dairy, MAC-MW1s, 11/14/2019 12:57:00PM, Del-Tech/Ashley Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 13:12	SAV	IC1	2	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:51	JMH2	SC-1	1	B063388

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-02	Client Sample Name: John Machado Dairy, MAC-MW2s, 11/14/2019 1:17:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.10	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/18/19 10:08		SAV	IC1	5	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:53		JMH2	SC-1	1	B063388

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-03	Client Sample Name: John Machado Dairy, MAC-MW3s, 11/14/2019 11:41:00AM, Del-Tech/Ashley Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	43	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	7000	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 20:18		SAV	IC1	5	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	50	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:55		JMH2	SC-1	1	B063388

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-04	Client Sample Name: John Machado Dairy, MAC-MW4s, 11/14/2019 12:08:00PM, Del-Tech/Ashley Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.025	EPA-300.0	ND	S05	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 13:33		SAV	IC1	1	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	10	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:57		JMH2	SC-1	1	B063388

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-05	Client Sample Name: John Machado Dairy, MAC-MW5s, 11/14/2019 12:36:00PM, Del-Tech/Ashley Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.050	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.11	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/18/19 11:32	SAV	IC1	2	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00	CAD	MANUAL	20	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:57	JMH2	SC-1	1	B063388

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938881-06	Client Sample Name: John Machado Dairy, Field Duplicate #4, 11/14/2019 12:00:00AM, Del-Tech/Ashley Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.50	0.12	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	11000	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 18:12		SAV	IC1	5	B062430
2	SM-2540C	11/20/19 16:00	11/20/19 16:00		CAD	MANUAL	50	B062689
3	EPA-350.1	11/27/19 14:45	12/02/19 11:58		JMH2	SC-1	1	B063388

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062430						
Nitrate as N	B062430-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062689						
Total Dissolved Solids @ 180 C	B062689-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063388						
Ammonia as N	B063388-BLK1	ND	mg/L	0.20	0.067	

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062430										
Nitrate as N	B062430-BS1	LCS	4.5830	5.0000	mg/L	91.7		90 - 110		
QC Batch ID: B062689										
Total Dissolved Solids @ 180 C	B062689-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
QC Batch ID: B063388										
Ammonia as N	B063388-BS1	LCS	2.0192	2.0000	mg/L	101		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: B062430		Used client sample: Y - Description: MAC-MW2s, 11/14/2019 13:17									
Nitrate as N	DUP	938881-02RE	48.500	48.720		mg/L	0.5		10		
	MS	938881-02RE	48.500	75.136	25.253	mg/L		105		80 - 120	
	MSD	938881-02RE	48.500	74.934	25.253	mg/L	0.3	105	10	80 - 120	
QC Batch ID: B062689		Used client sample: Y - Description: MAC-MW1s, 11/14/2019 12:57									
Total Dissolved Solids @ 180 C	DUP	1938881-01	1850.0	1890.0		mg/L	2.1		10		
QC Batch ID: B063388		Used client sample: N									
Ammonia as N	DUP	1938880-05	0.16620	0.15350		mg/L	7.9		10		J
	MS	1938880-05	0.16620	2.7131	2.2222	mg/L		115		90 - 110	Q03
	MSD	1938880-05	0.16620	2.6478	2.2222	mg/L	2.4	112	10	90 - 110	Q03

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: John Machado Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Jose Nunes Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938882

Invoice ID: B364068

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Water Analysis (General Chemistry)

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Case Narratives

Case Narrative for Work Order 1938882

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 19-38882 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Chain of Custody			
Report to: Reduced Constituent Suite							
Name: Lohdorff and Scalmanini		Project: Dairy Representative Monitoring Program		From Filtered Sample:			
Address: 500 First Street		Site: Jose Nunes Dairy		Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland		State: CA					
State: 95695		Samplers Name: Antonio Del-Tech					
Attn: Tili Angermann		Global ID - GADAIRY00016					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved		
-1	NUN-MW1s, NUN-MW1d	11/14/19	9:52	GW	x		
-2	NUN-MW2s, NUN-MW2d		10:41		x		
-3	NUN-MW3s, NUN-MW3d		9:30		x		
-4	NUN-MW4s, NUN-MW4d		9:12		x		
-5	NUN-MW5s, NUN-MW5d		10:12		x		
-6	Field-Duplicate				x		
7							
8							
9							
10							
11							
12							

SHORI HOLDING TIME
 Cr⁶ NO₃ NO₂ OP SS
 DO Cl₂ BOD MBAS COT

-1K BY DISTRIBUTION
 (Signature)

Relinquished by: (Signature) Antonio Madal 11/14/19 17:30 Date & Time
 Relinquished by: (Signature) [Signature] 11/14/19 22:30 Date & Time
 Relinquished by: (Signature) [Signature] 11/14/19 22:30 Date & Time

Comments:
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lisce.com, rbyson@lisce.com, pdhalwal@lisce.com, jlovells@lisce.com
 4) Send invoices to Jeanette Lovells (jlovells@lisce.com).
 (A)= Analysis (C)= Contamer (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1938882

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/14/2230

Temperature: (A) 4.5 °C / (C) 3.9 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/018/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 11/14/19 2513 Rev 21 05/23/2016

A = Actual / C = Corrected

IS:\WP\Doc\Word\Perfec\LAB 50CS\CRM\S18A\REV 201



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938882-01	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Jose Nunes Dairy	Sampling Date: 11/14/2019 09:52
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type: Groundwater
1938882-02	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Jose Nunes Dairy	Sampling Date: 11/14/2019 10:41
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW2s	Lab Matrix: Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type: Groundwater
1938882-03	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Jose Nunes Dairy	Sampling Date: 11/14/2019 09:30
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type: Groundwater
1938882-04	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Jose Nunes Dairy	Sampling Date: 11/14/2019 09:12
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW4s	Lab Matrix: Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type: Groundwater
1938882-05	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Jose Nunes Dairy	Sampling Date: 11/14/2019 10:12
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	NUN-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Antonio Morales of DTO	Sample Type: Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938882-01	Client Sample Name: Jose Nunes Dairy, NUN-MW1s, 11/14/2019 9:52:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.5	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	4300	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 20:06		CMM	IC1	1	B062429
2	SM-2540C	11/21/19 13:30	11/21/19 13:30		CAD	MANUAL	20	B062785
3	EPA-350.1	11/27/19 14:45	12/02/19 12:02		JMH2	SC-1	1	B063389

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938882-02	Client Sample Name: Jose Nunes Dairy, NUN-MW2s, 11/14/2019 10:41:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.2	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 20:27		CMM	IC1	1	B062429
2	SM-2540C	11/21/19 13:30	11/21/19 13:30		CAD	MANUAL	10	B062785
3	EPA-350.1	11/27/19 14:45	12/02/19 12:07		JMH2	SC-1	1	B063389

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Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938882-03	Client Sample Name: Jose Nunes Dairy, NUN-MW3s, 11/14/2019 9:30:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.1	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5200	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 20:48		CMM	IC1	2	B062429
2	SM-2540C	11/21/19 13:30	11/21/19 13:30		CAD	MANUAL	50	B062785
3	EPA-350.1	11/27/19 14:45	12/02/19 12:08		JMH2	SC-1	1	B063389

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938882-04	Client Sample Name: Jose Nunes Dairy, NUN-MW4s, 11/14/2019 9:12:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	6200	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.16	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 14:00	11/15/19 21:09		CMM	IC1	1	B062429
2	SM-2540C	11/21/19 13:30	11/21/19 13:30		CAD	MANUAL	50	B062785
3	EPA-350.1	11/27/19 14:45	12/02/19 12:09		JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938882-05	Client Sample Name: Jose Nunes Dairy, NUN-MW5s, 11/14/2019 10:12:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.025	EPA-300.0	ND	S05	1
Total Dissolved Solids @ 180 C	6100	mg/L	500	250	SM-2540C	ND	A07	2
Ammonia as N	0.099	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/16/19 08:00	11/16/19 11:27	SAV	IC1	1	B062430
2	SM-2540C	11/21/19 13:30	11/21/19 13:30	CAD	MANUAL	50	B062785
3	EPA-350.1	11/27/19 14:45	12/02/19 12:09	JMH2	SC-1	1	B063389

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062429						
Nitrate as N	B062429-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062430						
Nitrate as N	B062430-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062785						
Total Dissolved Solids @ 180 C	B062785-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063389						
Ammonia as N	B063389-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062429										
Nitrate as N	B062429-BS1	LCS	4.5390	5.0000	mg/L	90.8		90 - 110		
QC Batch ID: B062430										
Nitrate as N	B062430-BS1	LCS	4.5830	5.0000	mg/L	91.7		90 - 110		
QC Batch ID: B062785										
Total Dissolved Solids @ 180 C	B062785-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: B063389										
Ammonia as N	B063389-BS1	LCS	1.9924	2.0000	mg/L	99.6		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: B062429		Used client sample: N								
Nitrate as N	DUP	1938878-01	52.010	51.270		mg/L	1.4		10	
	MS	1938878-01	52.010	98.828	50.505	mg/L		92.7		80 - 120
	MSD	1938878-01	52.010	98.202	50.505	mg/L	0.6	91.5	10	80 - 120
QC Batch ID: B062430		Used client sample: N								
Nitrate as N	DUP	938881-02RE'	48.500	48.720		mg/L	0.5		10	
	MS	938881-02RE'	48.500	75.136	25.253	mg/L		105		80 - 120
	MSD	938881-02RE'	48.500	74.934	25.253	mg/L	0.3	105	10	80 - 120
QC Batch ID: B062785		Used client sample: Y - Description: NUN-MW1s, 11/14/2019 09:52								
Total Dissolved Solids @ 180 C	DUP	1938882-01	4300.0	4240.0		mg/L	1.4		10	
QC Batch ID: B063389		Used client sample: Y - Description: NUN-MW1s, 11/14/2019 09:52								
Ammonia as N	DUP	1938882-01	0.12600	0.12520		mg/L	0.6		10	J
	MS	1938882-01	0.12600	2.5943	2.2222	mg/L		111		90 - 110 Q03
	MSD	1938882-01	0.12600	2.5073	2.2222	mg/L	3.4	107	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:44
Project: Dairy Representative Monitoring Program
Project Number: Jose Nunes Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Moonshine Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938678

Invoice ID: B363786

Enclosed are the results of analyses for samples received by the laboratory on 11/13/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938678

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Moonshine Dairy 402019 November Samplers Name: <i>Doc Tech / Stacy Sigh</i> Global ID - GADAIRY00017			
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Attn: Till Angermann		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Lab # 1 2 3 4 5 6 7 8 9 10 11 12	Strike out non-sampled wells MOO-MW1 MOO-MW2 MOO-MW3 MOO-MW4 MOO-MW5s, MOO-MW5d MOO-MW6s, MOO-MW6d MOO-MW7s, MOO-MW7d MOO-MW8s, MOO-MW8d Field Duplicate	Date Sampled 11/3/19 1429 1339 1239 1130 1308 1458 1518 1546	Time Sampled 1429 1339 1239 1130 1308 1458 1518 1546
Matrix GW		Chk By: <i>[Signature]</i> DISTRIBUTION SUB-G	
Matrix J58		SHORT HOLDING TIME Cr ⁶ NO ₃ NO ₂ OP SS DO Cl ₂ BOD MBAS COT	
Comments: 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: luvagnino@lsc.com, rbryson@lsc.com, pohnalwal@lsc.com, jlovelis@lsc.com 4) Send invoices to Jeannette Lovells (jlovelis@lsc.com).		Received By: <i>[Signature]</i> 11/13/19 16:36 Received By: <i>[Signature]</i> 11/13/19 22:00 Received By: <i>[Signature]</i>	
Relinquished by: (Signature) <i>[Signature]</i> 11-13-19 16:36 Relinquished by: (Signature) <i>[Signature]</i>		Relinquished by: (Signature) <i>[Signature]</i>	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1
Submission #: 19-38678

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____
SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____
FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____
Impact: Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO
Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/13 2200
Temperature: (A) 2.6 °C / (C) 2.0 °C Analyst Init: EJR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: 2 Bottle bags MOD-MWBS GS Date/Time: 11/13 2249
Sample Numbering Completed By: _____
A = Actual / C = Corrected



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938678-01	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 14:25
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW1	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-02	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 13:37
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW2	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-03	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 12:39
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW3	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-04	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 11:36
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW4	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-05	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 13:08
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW5s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-06	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 14:58
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW6s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		
1938678-07	COC Number:	---	Receive Date: 11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date: 11/13/2019 15:18
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MOO-MW7s	Lab Matrix: Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type: Groundwater
	<hr/>		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938678-08	COC Number:	---	Receive Date:	11/13/2019 22:00
	Project Number:	Moonshine Dairy	Sampling Date:	11/13/2019 15:46
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MOO-MW8d	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-01	Client Sample Name: Moonshine Dairy, MOO-MW1, 11/13/2019 2:25:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.75	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	1.9	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 15:56		CMM	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 10:59		JMH2	SC-1	1	B063229

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-02	Client Sample Name: Moonshine Dairy, MOO-MW2, 11/13/2019 1:37:00PM, Del Tech / Stacy Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 17:20		MRC	IC1	2	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 10:54		JMH2	SC-1	1	B063229

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-03	Client Sample Name: Moonshine Dairy, MOO-MW3, 11/13/2019 12:39:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.14	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 17:41		MRC	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:00		JMH2	SC-1	1	B063229

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-04	Client Sample Name: Moonshine Dairy, MOO-MW4, 11/13/2019 11:36:00AM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.1	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1500	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 18:02		MRC	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:01		JMH2	SC-1	1	B063229

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-05	Client Sample Name: Moonshine Dairy, MOO-MW5s, 11/13/2019 1:08:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	18	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1400	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 21:11		CMM	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:01		JMH2	SC-1	1	B063229

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500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-06	Client Sample Name: Moonshine Dairy, MOO-MW6s, 11/13/2019 2:58:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.8	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	0.071	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 19:26		CMM	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	5	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:03		JMH2	SC-1	1	B063229

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-07	Client Sample Name: Moonshine Dairy, MOO-MW7s, 11/13/2019 3:18:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	42	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 19:47		CMM	IC1	5	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	10	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:03		JMH2	SC-1	1	B063229

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938678-08	Client Sample Name: Moonshine Dairy, MOO-MW8d, 11/13/2019 3:46:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1200	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 14:00	11/14/19 20:08		CMM	IC1	1	B062204
2	SM-2540C	11/18/19 14:00	11/18/19 14:00		CAD	MANUAL	5	B062400
3	EPA-350.1	11/26/19 14:15	11/27/19 11:05		JMH2	SC-1	1	B063229

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062204						
Nitrate as N	B062204-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062400						
Total Dissolved Solids @ 180 C	B062400-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063229						
Ammonia as N	B063229-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062204										
Nitrate as N	B062204-BS1	LCS	5.2940	5.0000	mg/L	106		90 - 110		
QC Batch ID: B062400										
Total Dissolved Solids @ 180 C	B062400-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
QC Batch ID: B063229										
Ammonia as N	B063229-BS1	LCS	1.9818	2.0000	mg/L	99.1		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B062204		Used client sample: Y - Description: MOO-MW1, 11/13/2019 14:25								
Nitrate as N	DUP	1938678-01	0.74800	0.71900		mg/L	4.0		10	
	MS	1938678-01	0.74800	6.3919	5.0505	mg/L		112		80 - 120
	MSD	1938678-01	0.74800	6.3273	5.0505	mg/L	1.0	110	10	80 - 120
QC Batch ID: B062400		Used client sample: Y - Description: MOO-MW1, 11/13/2019 14:25								
Total Dissolved Solids @ 180 C	DUP	1938678-01	1440.0	1450.0		mg/L	0.7		10	
QC Batch ID: B063229		Used client sample: Y - Description: MOO-MW2, 11/13/2019 13:37								
Ammonia as N	DUP	1938678-02	0.12060	0.16310		mg/L	30.0		10	J,A02
	MS	1938678-02	0.12060	2.6186	2.2222	mg/L		112		90 - 110 Q03
	MSD	1938678-02	0.12060	2.5417	2.2222	mg/L	3.0	109	10	90 - 110

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 16:43
Project: Dairy Representative Monitoring Program
Project Number: Moonshine Dairy
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/03/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938877

Invoice ID: B363802

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938877

Samples were filtered through a 0.45 micron filter prior to analysis.



19-38877

BC Laboratories, Inc.		Chain of Custody																																																																													
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested																																																																													
Report to: Reduced Constituent Suite Project: Daily Representative Monitoring Program Site: Tony L. Lopus Dairy LP 49 2019 November Samples Name: <i>Bel Tech / Stacy Frost</i> Global ID - GADAIR700018		From Filtered Sample; Ammonia-N, NO3-N, Total Dissolved Solids																																																																													
Name: Lohdorff and Scalmani Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann	Date Sampled: 11-14-19 Time Sampled: 15:41 Matrix: <i>GW</i>	Date Sampled: 11-14-19 Time Sampled: 17:30 Matrix: <i>GW</i>	Date Sampled: 11-14-19 Time Sampled: 22:30 Matrix: <i>GW</i>																																																																												
<table border="1"> <thead> <tr> <th>Lab #</th> <th>Strike out non-sampled wells</th> <th>Date Sampled</th> <th>Time Sampled</th> <th>Matrix</th> <th>Q1 Pe Unpreserved</th> </tr> </thead> <tbody> <tr><td>1</td><td>TON-MW1s, TON-MW1d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>2</td><td>TON-MW2s, TON-MW2d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>3</td><td>TON-MW3s, TON-MW3d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>4</td><td>TON-MW4s, TON-MW4d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>5</td><td>TON-MW5s, TON-MW5d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>6</td><td>TON-MW6s, TON-MW6d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>7</td><td>TON-MW7s, TON-MW7d</td><td>11-14-19</td><td>15:41</td><td>GW</td><td>x</td></tr> <tr><td>8</td><td>TON-MW8s, TON-MW8d</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>9</td><td>Field Duplicate</td><td></td><td></td><td></td><td>x</td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td>x</td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td>x</td></tr> <tr><td>12</td><td></td><td></td><td></td><td></td><td>x</td></tr> </tbody> </table>	Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pe Unpreserved	1	TON-MW1s, TON-MW1d				x	2	TON-MW2s, TON-MW2d				x	3	TON-MW3s, TON-MW3d				x	4	TON-MW4s, TON-MW4d				x	5	TON-MW5s, TON-MW5d				x	6	TON-MW6s, TON-MW6d				x	7	TON-MW7s, TON-MW7d	11-14-19	15:41	GW	x	8	TON-MW8s, TON-MW8d				x	9	Field Duplicate				x	10					x	11					x	12					x	SHORT HOLDING TIME Ca ²⁺ NO ₃ ⁻ NO OP SS DO Cl ₂ BOD MBAS COI OTHER DISTRIBUTION <input checked="" type="checkbox"/> IN <input type="checkbox"/> OUT <input type="checkbox"/> SUB-OUT
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pe Unpreserved																																																																										
1	TON-MW1s, TON-MW1d				x																																																																										
2	TON-MW2s, TON-MW2d				x																																																																										
3	TON-MW3s, TON-MW3d				x																																																																										
4	TON-MW4s, TON-MW4d				x																																																																										
5	TON-MW5s, TON-MW5d				x																																																																										
6	TON-MW6s, TON-MW6d				x																																																																										
7	TON-MW7s, TON-MW7d	11-14-19	15:41	GW	x																																																																										
8	TON-MW8s, TON-MW8d				x																																																																										
9	Field Duplicate				x																																																																										
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Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lohdorff and Scalmani Consulting Engineers via email: llvsgrimo@lisco.com, lbryson@lisco.com, pthallival@lisco.com, jlovelis@lisco.com 4) Send invoices to Jeanette Lovelis (jlovelis@lisco.com). (A)= Analysis (C)= Container (P)= Preservative		Relinquished by: (Signature) <i>[Signature]</i> Date & Time 11/14/19 17:30 Relinquished by: (Signature) <i>[Signature]</i> Date & Time 11/14/19 22:30 Relinquished by: (Signature) <i>[Signature]</i> Date & Time																																																																													

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1938877

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/4/22/30

Temperature: (A) 3.2 °C / (C) 2.6 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/508/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 5270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENR Date/Time: 11-14-19 7:50 Rev. 21 - 05/23/2016

Actual / C = Corrected

IS:\WPDev\Wood\Projects\LAB_2019\03\215\ANRECIV 211



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1938877-01	COC Number:	---	Receive Date:	11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy	Sampling Date:	11/14/2019 15:41
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	TON-MW7s	Lab Matrix:	Water
	Sampled By:	Del Tech / Stacy Light of DTO	Sample Type:	Groundwater

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938877-01	Client Sample Name: Tony L. Lopes Dairy, TON-MW7s, 11/14/2019 3:41:00PM, Del Tech / Stacy Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.84	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	920	mg/L	50	25	SM-2540C	ND	A07	2
Ammonia as N	ND	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/15/19 10:00	11/15/19 19:17		CMM	IC8	1	B062308
2	SM-2540C	11/20/19 13:00	11/20/19 13:00		CAD	MANUAL	5	B062648
3	EPA-350.1	11/27/19 08:45	11/27/19 13:10		JMH2	SC-1	1	B063307

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062308						
Nitrate as N	B062308-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062648						
Total Dissolved Solids @ 180 C	B062648-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063307						
Ammonia as N	B063307-BLK1	ND	mg/L	0.20	0.067	

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062308										
Nitrate as N	B062308-BS1	LCS	5.2150	5.0000	mg/L	104		90 - 110		
QC Batch ID: B062648										
Total Dissolved Solids @ 180 C	B062648-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B063307										
Ammonia as N	B063307-BS1	LCS	2.0934	2.0000	mg/L	105		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: B062308		Used client sample: N								
Nitrate as N	DUP	1938884-01	11.942	11.911		mg/L	0.3		10	
	MS	1938884-01	11.942	17.049	5.0505	mg/L		101	80 - 120	
	MSD	1938884-01	11.942	17.085	5.0505	mg/L	0.2	102	10	80 - 120
QC Batch ID: B062648		Used client sample: Y - Description: TON-MW7s, 11/14/2019 15:41								
Total Dissolved Solids @ 180 C	DUP	1938877-01	925.00	925.00		mg/L	0		10	
QC Batch ID: B063307		Used client sample: N								
Ammonia as N	DUP	1938858-01	ND	ND		mg/L			10	
	MS	1938858-01	ND	2.2958	2.2222	mg/L		103	90 - 110	
	MSD	1938858-01	ND	2.4914	2.2222	mg/L	8.2	112	10	90 - 110 Q03

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/03/2019 20:24
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.



Date of Report: 12/05/2019

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1938880

Invoice ID: B364066

Enclosed are the results of analyses for samples received by the laboratory on 11/14/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Case Narratives

Case Narrative for Work Order 1938880

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc. 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			
Reduced Constituent Suite			
Project: Dairy Representative Monitoring Program			
Site: Tony L. Lopes Dairy LP 4/4/19			
Samplers Name: Antonio Del-Tech			
Global ID - GADAIRY00018			
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Lab # -1 -2 -3 -4 -5 -6 7 8 9 10 11 12	Strike out non-sampled wells TON-MW1s, TON-MW7d TON-MW2s, TON-MW2d TON-MW3s, TON-MW3d TON-MW4s, TON-MW4d TON-MW5s, TON-MW5d TON-MW6s, TON-MW6d TON-MW7s, TON-MW7d TON-MW8s, TON-MW8d Field Duplicate 19-38880	Date Sampled 11/14/19 1524 1432 1352 1411 1551 1617	Time Sampled 1500 1524 1432 1352 1411 1551 1617
	Matrix	bww 	Qt-Pe Unpreserved x x x x x x x x x x x
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, dbryson@lscce.com, pdhaliva@lscce.com, jlovelis@lscce.com 4) Send invoices to: Jeanette Lovell (jlovelis@lscce.com).		Analysis Requested (A) = Analysis (C) = Container (P) = Preservative	
Relinquished by: (Signature) <i>Antonio Del-Tech</i>		Relinquished by: (Signature) <i>Antonio Del-Tech</i>	
Relinquished by: (Signature) <i>Antonio Del-Tech</i>		Relinquished by: (Signature) <i>Antonio Del-Tech</i>	
Received By: <i>[Signature]</i> Date & Time: 11/14/19 17:30		Received By: <i>[Signature]</i> Date & Time: 11/14/19 17:30	
Received By: <i>[Signature]</i> Date & Time: 11/14/19 2:30		Received By: <i>[Signature]</i> Date & Time: 11/14/19 2:30	

SHORT HOLDING TIME
 NO₂ GP SS
 DO Cl₂ BOD MBAS GOT
 CHK BY: *[Signature]*
 DISTRIBUTION
 SUB OUT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-38880

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
--	--	--	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO
 Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time: 11/4/19 2230
 Temperature: (A) 4.5 °C / (C) 3.9 °C Analyst Init: ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/018/0080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: ENR Date/Time: 11-14-19 2313 Rev 21 06/23/2016
 A = Actual / C = Corrected

BC Lab Field Service (661) 327-1918



Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1938880-01	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 15:00
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW1s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-02	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 15:24
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW2s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-03	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 14:32
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW3s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-04	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 13:52
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW4s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-05	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 14:11
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW5s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-06	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 15:51
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW6s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		
1938880-07	COC Number:	---	Receive Date: 11/14/2019 22:30
	Project Number:	Tony L. Lopes Dairy LP	Sampling Date: 11/14/2019 16:17
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	TON-MW8s	Lab Matrix: Water
	Sampled By:	Del-Tech/Ashley Light of DTO	Sample Type: Groundwater
	<hr/>		
	<hr/>		

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500 First Street
Woodland, CA 95695

Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-01	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW1s, 11/14/2019 3:00:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	45	mg/L	2.0	0.67	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 06:26		MRC	IC2	5	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	10	B062671
3	EPA-350.1	11/27/19 12:30	12/02/19 11:11		JMH2	SC-1	10	B063378

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-02	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW2s, 11/14/2019 3:24:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2900	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	1.6	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 06:47		MRC	IC2	2	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	20	B062671
3	EPA-350.1	11/27/19 12:30	12/02/19 10:39		JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-03	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW3s, 11/14/2019 2:32:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.050	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.77	mg/L	0.20	0.067	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 16:12		MRC	IC2	2	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	10	B062671
3	EPA-350.1	11/27/19 12:30	12/02/19 10:41		JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-04	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW4s, 11/14/2019 1:52:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.13	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 07:28		MRC	IC2	5	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	10	B062671
3	EPA-350.1	11/27/19 12:30	12/02/19 10:43		JMH2	SC-1	1	B063378

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-05	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW5s, 11/14/2019 2:11:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	87	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.17	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 08:30	MRC	IC2	5	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00	CAD	MANUAL	10	B062671
3	EPA-350.1	11/27/19 14:45	12/02/19 11:46	JMH2	SC-1	1	B063388

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-06	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW6s, 11/14/2019 3:51:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.8	mg/L	0.10	0.025	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1800	mg/L	100	50	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 05:04		MRC	IC2	1	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	10	B062671
3	EPA-350.1	11/27/19 14:45	12/02/19 11:50		JMH2	SC-1	1	B063388

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

BCL Sample ID: 1938880-07	Client Sample Name: Tony L. Lopes Dairy LP, TON-MW8s, 11/14/2019 4:17:00PM, Del-Tech/Ashley Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	40	mg/L	0.50	0.12	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3700	mg/L	200	100	SM-2540C	ND	A07	2
Ammonia as N	0.12	mg/L	0.20	0.067	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/14/19 21:00	11/15/19 08:51		MRC	IC2	5	B062310
2	SM-2540C	11/20/19 15:00	11/20/19 15:00		CAD	MANUAL	20	B062671
3	EPA-350.1	11/27/19 14:45	12/02/19 11:51		JMH2	SC-1	1	B063388

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B062310						
Nitrate as N	B062310-BLK1	ND	mg/L	0.10	0.025	
QC Batch ID: B062671						
Total Dissolved Solids @ 180 C	B062671-BLK1	ND	mg/L	6.7	3.3	
QC Batch ID: B063378						
Ammonia as N	B063378-BLK1	ND	mg/L	0.20	0.067	
QC Batch ID: B063388						
Ammonia as N	B063388-BLK1	ND	mg/L	0.20	0.067	

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B062310										
Nitrate as N	B062310-BS1	LCS	5.1010	5.0000	mg/L	102		90 - 110		
QC Batch ID: B062671										
Total Dissolved Solids @ 180 C	B062671-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
QC Batch ID: B063378										
Ammonia as N	B063378-BS1	LCS	2.0580	2.0000	mg/L	103		90 - 110		
QC Batch ID: B063388										
Ammonia as N	B063388-BS1	LCS	2.0192	2.0000	mg/L	101		90 - 110		

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: B062310		Used client sample: Y - Description: TON-MW6s, 11/14/2019 15:51									
Nitrate as N	DUP	1938880-06	9.7970	9.6900		mg/L	1.1		10		
	MS	1938880-06	9.7970	14.644	5.0505	mg/L		96.0		80 - 120	
	MSD	1938880-06	9.7970	14.635	5.0505	mg/L	0.1	95.8	10	80 - 120	
QC Batch ID: B062671		Used client sample: Y - Description: TON-MW1s, 11/14/2019 15:00									
Total Dissolved Solids @ 180 C	DUP	1938880-01	1700.0	1730.0		mg/L	1.7		10		
QC Batch ID: B063378		Used client sample: N									
Ammonia as N	DUP	1938879-01	0.14160	0.14980		mg/L	5.6		10		J
	MS	1938879-01	0.14160	2.6543	2.2222	mg/L		113		90 - 110	Q03
	MSD	1938879-01	0.14160	2.5591	2.2222	mg/L	3.7	109	10	90 - 110	
QC Batch ID: B063388		Used client sample: Y - Description: TON-MW5s, 11/14/2019 14:11									
Ammonia as N	DUP	1938880-05	0.16620	0.15350		mg/L	7.9		10		J
	MS	1938880-05	0.16620	2.7131	2.2222	mg/L		115		90 - 110	Q03
	MSD	1938880-05	0.16620	2.6478	2.2222	mg/L	2.4	112	10	90 - 110	Q03

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Reported: 12/05/2019 11:37
Project: Dairy Representative Monitoring Program
Project Number: Tony L. Lopes Dairy LP
Project Manager: Till Angermann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.

