



Reference: 011095.150

June 27, 2014

Ms. Lisa Bernard
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

Subject: Comments on Draft NPDES Permit, Foster Dairy Farms, Inc. dba Humboldt Creamery, Fernbridge Facility; Order No. R1-2014-0026; NPDES Permit No. CA0005584; EPA I.D. No. 1B80185OHUM

Dear Ms. Bernard:

SHN Consulting Engineers & Geologists, Inc., acting on behalf of Foster Dairy Farms, Inc. dba Humboldt Creamery (FDF/HC), submits the following comments with regard to the draft NPDES permit for the Humboldt Creamery Fernbridge facility located in Fernbridge, California. These comments specifically address the draft of Order No. R1-2014-0026 and include reference to specific draft permit sections and page numbers where applicable.

During the last five years of the previous National Pollutant Discharge Elimination System (NPDES) permit cycle, FDF/HC has strived to meet permit requirements. They have completed several special studies, made significant changes in their cleaning and filtering chemicals, installed a global positioning tracking device on the traveling irrigation system, and improved the aeration and settling ponds. Moving forward with the new National Pollutant Discharge Elimination System (NPDES) permit cycle, FDF/HC mutually seeks a new permit that adequately protects the waterways of the Eel River basin and does not pose a risk to the waters of the state; and furthermore, would recognize the unique components of the groundwater system, taking into consideration elements that are naturally occurring. To this measure, FDF/HC seeks a permit that does not jeopardize compliance upon issuance, when various studies performed do not conclude that process wastewater discharge pose a risk to the waters of the state; and requests North Coast Regional Quality Control Board's (RWQCB) staff cooperation in resolving the important issues set forth below.

Comments on Draft NPDES Permit for Humboldt Creamery

1. Comment: BOD₅ Maximum Daily Land Discharge Specification

a. NPDES Permit (page 7)

Table 5 in Section IV.B.1 of the permit includes a new maximum daily land discharge specification of 100 lbs/acre/day for biological oxygen demand (BOD₅). The fact sheet located in Section F.IV.F.3.a (page F-22) does not give a rationale for introducing this additional land discharge specification. Please provide a rationale for this new land discharge specification.

The draft permit requires that the facility's effluent at LND-001 be limited to a TDS concentration of 450 mg/L, which is based on agricultural water quality goals used to protect agricultural water supply. However, the land disposal evaluation and TDS special studies conducted at the site indicate that this level is not necessary to protect waters of the state: the process water from the Humboldt Creamery facility is not causing salinity issues in the soil, and is largely contributing beneficial mineral salts to the irrigated area.

The state's secondary maximum contaminant levels (MCLs) include constituent levels not to be exceeded in drinking water supplied to the public by community water systems. The state's secondary MCLs of TDS are recommended to be limited to 500 mg/L with an upper limit of 1,000 mg/L and a short term limit of 1,500 mg/L. The discharger requests that the final effluent limitation for TDS be changed to 1,000 mg/L, which is the upper limit of the state's secondary MCL for TDS.

3. Comment: Manganese Land Discharge Specification

a. NPDES Permit (page 7)

Table 5 in Section IV.B.1 of the permit includes a discharge specification of 0.20 mg/L for manganese. This discharge specification is retained from the previous NPDES permit issued for the facility in 2009.

Historical laboratory analytical results from Humboldt Creamery's source wells, however, indicate manganese concentrations that range from 0.87 to 1.50 mg/L (Figure 1), which are well above the proposed discharge limit. Historical discharge concentrations of manganese are similar in range and magnitude to the source well concentrations. Historical source well laboratory analytical data is included in Attachment 1.

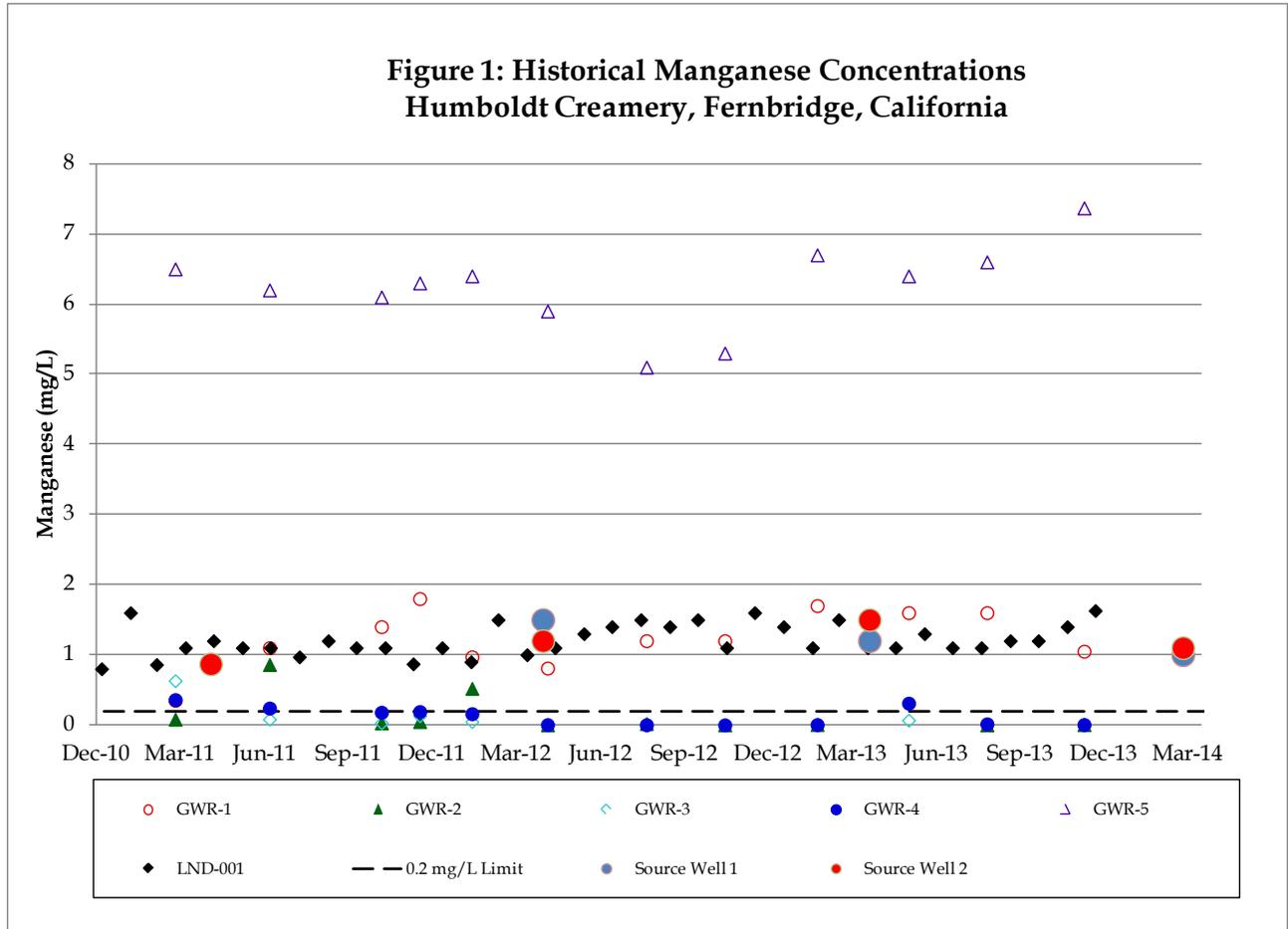
Historical laboratory analytical results from groundwater monitoring wells GWR-1 and GWR-5, which are background wells that are not irrigated as part of Humboldt Creamery's land application system, also show elevated manganese concentrations in the upper aquifer underlying the irrigation fields (Figure 1). The manganese concentrations from these two wells ranged from 0.35 to 7.37 mg/L during the previous NPDES permit cycle.

According to the Manual of Good Practice for Land Application of Food Processing/Rinse Water, in cases where the natural background concentration of a given constituent exceeds an applicable water quality objective, the background concentration must not be exceeded (Brown and Caldwell, 2007). The water quality objectives do not require dischargers to meet standards that constitute higher quality than background concentrations.

The fact sheet located in Section F.IV.F.3.a (page F-24) states that the manganese effluent limitation in the draft permit is required because groundwater monitoring "does not indicate uniform concentrations of manganese throughout the upper aquifer." Background conditions, identified at both source wells (in the lower aquifer) and at GWR-1 and GWR-5 (in the upper aquifer), all show manganese concentrations well above the draft NPDES permit effluent limitation. Natural

variation throughout any aquifer is an expected, normal condition. As such, monitoring wells GWR-1 and GWR-5 should be used to establish background, naturally occurring conditions in the upper aquifer.

The discharger requests the removal of the final effluent limitation for manganese, or, if it is retained, that it be changed to the maximum historical source well background concentration of 1.50 mg/L.



4. Comment: Ammonia Nitrogen Land Discharge Specification

a. NPDES Permit (page 7)

Table 5 in Section IV.B.1 of the permit includes a discharge specification of 1.5 mg/L for ammonia nitrogen. The fact sheet located in Section F.IV.G.3 (page F-24) does not provide a rationale for retaining this land discharge specification, which was requested to be removed in the report of waste discharge (ROWD; SHN, 2013b).

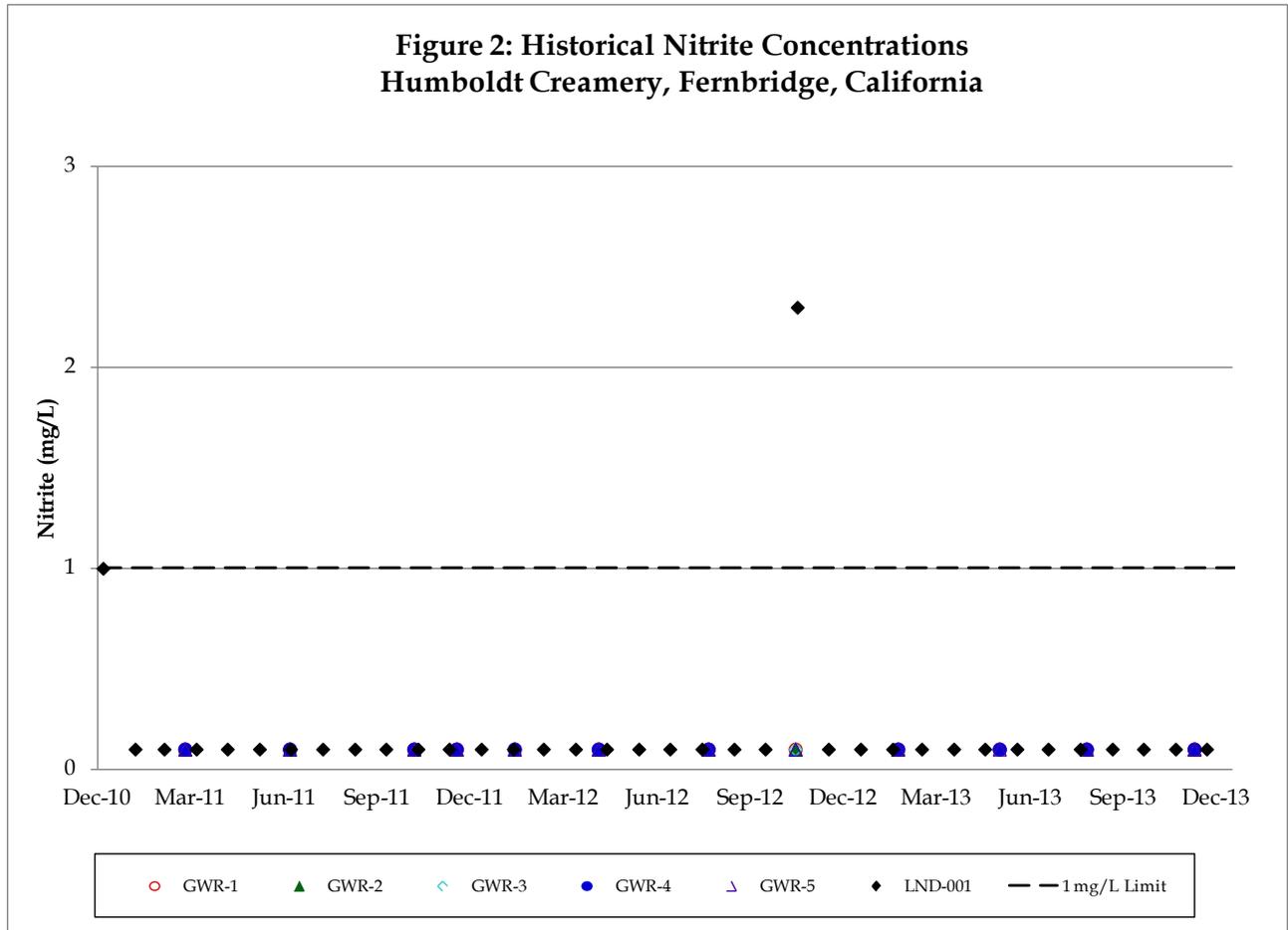
Since the implementation of the original NPDES permit for the Humboldt Creamery facility in 2009, the effluent standard of 1.5 mg/L for ammonia nitrogen has never been violated. Furthermore, reasonable potential analysis demonstrates that the maximum effluent concentration (MEC) is less than the most stringent applicable water quality criterion (C), and the maximum background concentration (B) is not greater than the most stringent applicable water quality criterion (C). Therefore, Ammonia nitrogen does not pose a reasonable potential to degrade waters of the state, and an effluent limitation is not required. The discharger requests the removal of the effluent limitation for ammonia nitrogen.

5. Comment: Nitrite Land Discharge Specification

a. NPDES Permit (page 7)

Table 5 in Section IV.B.1 of the permit includes a discharge specification of 1.0 mg/L for nitrite which is retained from the previous NPDES permit for the site. Historical laboratory analytical results from Humboldt Creamery's land discharge location (LND-001) show a single violation of this limit from January 2011 to February 2014. The single nitrite effluent limitation exceedance of 2.3 mg/L, which occurred in November 2012, means that the MEC for the site is greater than the proposed effluent limit concentration (C) of 1.0 mg/L. Thus, according to RWQCB reasonable potential analysis, the site poses a reasonable potential to degrade waters of the state.

However, the historical data demonstrates that the land application of the facility's process water does not pose a risk to waters of the state. The single land discharge exceedance shows that Humboldt Creamery has a 98% compliance rate with nitrite final effluent limitations (Figure 2). Nitrite was also detected only twice since January 2011, (most recently in November of 2012) and was not detected in any groundwater monitoring well during the same time period.



The discharger requests the removal of the final effluent limitation for nitrite, or, if it is retained, that the monitoring frequency for nitrite be changed to quarterly monitoring instead of monthly monitoring.

6. Comment: Nitrate Land Discharge Specification

a. NPDES Permit (page 7)

Table 5 in Section IV.B.1 of the permit includes a discharge specification of 10 mg/L for nitrate which is retained from the previous NPDES permit for the site. The fact sheet located in Section F.IV.G.3 (page F-24) does not give a rationale for retaining this land discharge specification, which was requested to be removed in the ROWD (SHN, 2013b).

Historical laboratory analytical results from Humboldt Creamery’s land discharge location (LND-001) show no violations of this limit from October 2011 to February 2014. The discharger requests the removal of the effluent limitation for nitrate.

Ms. Lisa Bernard

Comments on Draft NPDES Permit for Foster Dairy Farms, Inc. dba Humboldt Creamery

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7. Comment: Editorial Comments on NPDES Permit

a. NPDES Permit (page 1)

The front page incorrectly references the NPDES permit number as 1B801850SON. This should be revised to the correct NPDES No. 1B801850HUM.

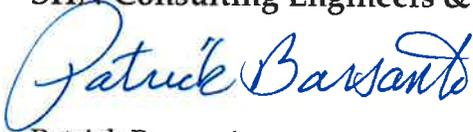
b. NPDES Permit (page F-5)

Fact sheet Table F-2 has the effluent limits for nitrite and nitrate switched. The effluent limits in Table F-2 should be revised to the correct values.

Thank you for this opportunity to provide comments on the draft NPDES permit for the Humboldt Creamery facility. If you have any questions regarding the comments presented herein, please call me or Nathan Sanger at 707-441-8855.

Sincerely,

SHN Consulting Engineers & Geologists, Inc.



Patrick Barsanti
Project Manager

PNB/NPS:dla

Attachments: 1. Historical Source Well Data
c. w/attach: Mike Callihan, Humboldt Creamery

References Cited

Brown and Caldwell. (March 14, 2007). Manual of Good Practice for Land Application of Food Processing/Rinse Water. Davis, CA:Brown and Caldwell.

SHN Consulting Engineers & Geologists, Inc. (September 29, 2011). Land Disposal Evaluation, Humboldt Creamery, WDR Order No. R1-2008-0020. Eureka, CA:SHN.

---. (2013a). Compliance with Sodium and Total Dissolved Solids Final Effluent Limitations at LND-001, WDR Order No. R1-2008-0020, May 13, 2013. Eureka, CA:SHN.

---. (2013b). Report of Waste Discharge, Humboldt Creamery, WDR Order No. R1-2008-0020, September 2, 2013. Eureka, CA:SHN.

Attachment 1

Historical Source Well Data

2014 well water

Date: 21-Mar-2014
WorkOrder: 1403073

ANALYTICAL REPORT

Client Sample ID: Well #1 (@ Office)
Lab ID: 1403073-01B

Received: 3/5/2014
Collected: 3/5/2014 12:00

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Hardness	140		10	mg/L CaCO ₃	1.0	3/10/2014	3/14/2014

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		20	µg/L	1.0	3/10/2014	3/12/2014
Calcium	19,000		20	µg/L	1.0	3/10/2014	3/12/2014
Iron	1,500		15	µg/L	1.0	3/10/2014	3/12/2014
Magnesium	22,000		20	µg/L	1.0	3/10/2014	3/12/2014
Manganese	1,000		1.0	µg/L	1.0	3/10/2014	3/12/2014
Potassium	1,800		10	µg/L	1.0	3/10/2014	3/12/2014
Sodium	11,000		20	µg/L	1.0	3/10/2014	3/12/2014

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Antimony	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Arsenic	ND		2.0	µg/L	1.0	3/10/2014	3/10/2014
Barium	57		1.0	µg/L	1.0	3/10/2014	3/10/2014
Beryllium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Cadmium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Chromium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Copper	4.5		1.0	µg/L	1.0	3/10/2014	3/10/2014
Lead	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Nickel	2.0		1.0	µg/L	1.0	3/10/2014	3/10/2014
Selenium	ND		5.0	µg/L	1.0	3/10/2014	3/10/2014
Silver	ND		2.0	µg/L	1.0	3/10/2014	3/10/2014
Thallium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Zinc	25		5.0	µg/L	1.0	3/10/2014	3/10/2014

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	3/7/2014	3/7/2014

Client Sample ID: Well #1 (@ Office)
Lab ID: 1403073-01C

Received: 3/5/2014
Collected: 3/5/2014 12:00

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Alkalinity	130		10	mg/L CaCO ₃	1.0		3/10/2014

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Date: 21-Mar-2014
WorkOrder: 1403074

ANALYTICAL REPORT

Client Sample ID: Well #2 (Behind Shop)
Lab ID: 1403074-01B

Received: 3/5/2014
Collected: 3/5/2014 12:00

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Hardness	170		1.0	mg/L CaCO3	1.0	3/10/2014	3/14/2014

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		20	µg/L	1.0	3/10/2014	3/12/2014
Calcium	24,000		20	µg/L	1.0	3/10/2014	3/12/2014
Iron	140		15	µg/L	1.0	3/10/2014	3/12/2014
Magnesium	27,000		20	µg/L	1.0	3/10/2014	3/12/2014
→ Manganese	<u>1,100</u>		10	µg/L	1.0	3/10/2014	3/12/2014
Potassium	1,800		10	µg/L	1.0	3/10/2014	3/12/2014
Sodium	13,000		20	µg/L	1.0	3/10/2014	3/12/2014

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Antimony	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Arsenic	ND		2.0	µg/L	1.0	3/10/2014	3/10/2014
Barium	61		1.0	µg/L	1.0	3/10/2014	3/10/2014
Beryllium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Cadmium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Chromium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Copper	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Lead	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Nickel	1.4		1.0	µg/L	1.0	3/10/2014	3/10/2014
Selenium	ND		5.0	µg/L	1.0	3/10/2014	3/10/2014
Silver	ND		2.0	µg/L	1.0	3/10/2014	3/10/2014
Thallium	ND		1.0	µg/L	1.0	3/10/2014	3/10/2014
Zinc	ND		5.0	µg/L	1.0	3/10/2014	3/10/2014

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	3/7/2014	3/7/2014

Client Sample ID: Well #2 (Behind Shop)
Lab ID: 1403074-01C

Received: 3/5/2014
Collected: 3/5/2014 12:00

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Alkalinity	160		1.0	mg/L CaCO3	1.0		3/10/2014

2012 well water

Date: 03-May-2012

ANALYTICAL REPORT

WorkOrder: 1204298

Client Sample ID: Well #1 (@ office)

Received: 4/18/2012

Lab ID: 1204298-01A

Collected: 4/18/2012 0:00

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Hardness	180		1.0	mg/L CaCO3	1.0	4/27/2012	4/30/2012

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Calcium	23,000		50	µg/L	1.0	4/27/2012	4/30/2012
Iron	2,800		15	µg/L	1.0	4/27/2012	4/30/2012
Magnesium	26,000		50	µg/L	1.0	4/27/2012	4/30/2012
→ Manganese	1,500		1.0	µg/L	1.0	4/27/2012	4/30/2012
Potassium	ND		2,000	µg/L	1.0	4/27/2012	4/30/2012
Sodium	13,000		100	µg/L	1.0	4/27/2012	4/30/2012

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1998)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	24		5.0	µg/L	1.0	4/27/2012	5/2/2012
Antimony	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Arsenic	ND		2.0	µg/L	1.0	4/27/2012	5/2/2012
Barium	76		1.0	µg/L	1.0	4/27/2012	5/2/2012
Beryllium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Cadmium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Chromium	1.3		1.0	µg/L	1.0	4/27/2012	5/2/2012
Copper	1.4		1.0	µg/L	1.0	4/27/2012	5/2/2012
Lead	6.4		1.0	µg/L	1.0	4/27/2012	5/2/2012
Nickel	2.4		1.0	µg/L	1.0	4/27/2012	5/2/2012
Selenium	ND		5.0	µg/L	1.0	4/27/2012	5/2/2012
Silver	ND		2.0	µg/L	1.0	4/27/2012	5/2/2012
Thallium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Zinc	740		5.0	µg/L	1.0	4/27/2012	5/2/2012

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	4/20/2012	4/23/2012

Client Sample ID: Well #1 (@ office)

Received: 4/18/2012

Lab ID: 1204298-01B

Collected: 4/18/2012 0:00

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Alkalinity	170		1.0	mg/L CaCO3	1.0		4/23/2012

Date: 03-May-2012
WorkOrder: 1204299

ANALYTICAL REPORT

Client Sample ID: Well #2 (Behind Shop)
Lab ID: 1204299-01A

Received: 4/18/2012
Collected: 4/18/2012 0:00

Test Name: Hardness

Reference: Std. Meth. 20th Ed. 2340 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Hardness	140		1.0	mg/L CaCO3	1.0	4/27/2012	4/30/2012

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Calcium	20,000		50	µg/L	1.0	4/27/2012	4/30/2012
Iron	56		15	µg/L	1.0	4/27/2012	4/30/2012
Magnesium	22,000		50	µg/L	1.0	4/27/2012	4/30/2012
→ Manganese	1,200		1.0	µg/L	1.0	4/27/2012	4/30/2012
Potassium	ND		2,000	µg/L	1.0	4/27/2012	4/30/2012
Sodium	13,000		100	µg/L	1.0	4/27/2012	4/30/2012

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1998)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	19		5.0	µg/L	1.0	4/27/2012	5/2/2012
Antimony	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Arsenic	ND		2.0	µg/L	1.0	4/27/2012	5/2/2012
Barium	61		1.0	µg/L	1.0	4/27/2012	5/2/2012
Beryllium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Cadmium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Chromium	1.6		1.0	µg/L	1.0	4/27/2012	5/2/2012
Copper	11		1.0	µg/L	1.0	4/27/2012	5/2/2012
Lead	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Nickel	4.0		1.0	µg/L	1.0	4/27/2012	5/2/2012
Selenium	ND		5.0	µg/L	1.0	4/27/2012	5/2/2012
Silver	ND		2.0	µg/L	1.0	4/27/2012	5/2/2012
Thallium	ND		1.0	µg/L	1.0	4/27/2012	5/2/2012
Zinc	ND		5.0	µg/L	1.0	4/27/2012	5/2/2012

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	4/20/2012	4/23/2012

Client Sample ID: Well #2 (Behind Shop)
Lab ID: 1204299-01B

Received: 4/18/2012
Collected: 4/18/2012 0:00

Test Name: Alkalinity

Reference: Std. Meth. 20th Ed. 2320 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Alkalinity	150		1.0	mg/L CaCO3	1.0		4/23/2012



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 120313

Attention: JOANN Comalli
 Results & Invoice to: FFD d.b.a. Humboldt Creamery
 Address: 572 Hwy 1, Fortuna, CA 95351
 Phone: 707-752-6182
 Copies of Report to: SHN attn. Pat Barsanti / Rose Patenaude
812 W. Wabash Ave. Eureka, CA 95501
 Sampler (Sign & Print): _____

PROJECT INFORMATION
 Project Number: _____
 Project Name: NPDES Land Discharge Waste Water
 Purchase Order Number: _____

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	Well Water (Blue)	<u>3/7/12</u>		<u>WW</u>
	Discharge Pond (Yellow)	<u>I</u>		<u>WW</u>
	<u>→ LND-001 effluent monitoring point</u>			

ANALYSIS	CONTAINER PRESERVATIVE			
	1	1	1	1
BOD				none
Nitrate Nitrogen				none
Nitrite Nitrogen				none
Total Dissolved Solids				none
Ammonia				H2SO4
Aluminum				none
MANGANESE				none
Sodium				none
Conductivity				

TAT: STD (2-3 Wk) Other:
 PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:
 State Forms
 Geotracker SWAMP Other EDD:
 Final Report PDF FAX By: _____

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl;
 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;
 6—500 ml BG; 7—1 L BG; 8—40 ml VOA;
 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar;
 12—8 oz glass jar; 13—brass tube; 14—other
 PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄;
 d—Na₂S₂O₃; e—NaOH; f—C₂H₃O₂Cl; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
1.4°C / on ice

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<u>Pat Barsanti</u>	<u>3-7-12 0940</u>	<u>RJ</u>	<u>3/7/12 1018</u>

SAMPLE DISPOSAL
 NCL Disposal of Non-Contaminated
 Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
 SHIPPED VIA: UPS Fed-Ex Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW = Waste Water; S = Soil; O = Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

CLIENT: Foster Farms Dairy dba Humboldt Creamer
Work Order: 1203113
Project: NPDES Land Discharge Waste Water

QC SUMMARY REPORT
BOD Organic Standard

Sample ID: org std	Batch ID: R69764	Test Code: BODW	Units: mg/L	Analysis Date: 3/7/2012	Prep Date:						
Client ID:	Run ID: WC_120307H	SeqNo: 1014960									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	161.7	2.0	198	0	81.7%	85	115	0			S

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



**NORTH COAST
LABORATORIES LTD.**

March 20, 2012

Foster Farms Dairy dba Humboldt Creamery
572 Highway 1
Fortuna, CA 95540

Order No.: 1203113
Invoice No.: 102067
PO No.:
ELAP No.1247-Expires July 2012

Attn: JoAnn Comalli

RE: NPDES Land Discharge Waste Water

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	Well Water
01B	Well Water
01C	Well Water
02A	Discharge pond LND-001 Effluent Monitoring Point
02B	Discharge pond LND-001 Effluent Monitoring Point
02C	Discharge pond LND-001 Effluent Monitoring Point

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
Flag = Explanation in Case Narrative
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd.

Date: 20-Mar-2012

CLIENT: Foster Farms Dairy dba Humboldt Creamer
Project: NPDES Land Discharge Waste Water
Lab Order: 1203113

CASE NARRATIVE

BOD:

The Organic Standard was 3.33% below the acceptance limit.

Sodium:

The matrix spike recoveries were not evaluated due to the large amount of analyte in the sample.

Aluminum:

The matrix spike duplicate (MSD) recovery for Sample Discharge pond LND-001 Effluent Monitoring Point was 2.0% below the lower acceptance limit.

Date: 20-Mar-2012
WorkOrder: 1203113

ANALYTICAL REPORT

Client Sample ID: Well Water
Lab ID: 1203113-01A

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		3/7/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		3/7/2012

Test Name: Biochemical Oxygen Demand

Reference: Std. Meth. 20th Ed. 5210 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Biochemical Oxygen Demand	ND		2.0	mg/L	1.0		3/7/2012

Test Name: Conductivity

Reference: Std. Meth. 20th Ed. 2510 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Conductivity	350		1.0	µS/cm	1.0		3/8/2012

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Total Dissolved Solids	210		10	mg/L	1.0		3/12/2012

Client Sample ID: Well Water
Lab ID: 1203113-01B

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: Ammonia Nitrogen without distillation

Reference: Std. Meth. 20th Ed. 4500-NH3 D

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Ammonia Nitrogen	0.28		0.10	mg/L	1.0		3/7/2012

Client Sample ID: Well Water
Lab ID: 1203113-01C

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		100	µg/L	1.0	3/12/2012	3/19/2012
Manganese	1,200		2.0	µg/L	1.0	3/12/2012	3/19/2012
Sodium	13,000		250	µg/L	1.0	3/12/2012	3/19/2012



Date: 20-Mar-2012
WorkOrder: 1203113

ANALYTICAL REPORT

Client Sample ID: Discharge pond LND-001 Effluent Monitoring Point
Lab ID: 1203113-02A

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		3/7/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		3/7/2012

Test Name: Biochemical Oxygen Demand

Reference: Std. Meth. 20th Ed. 5210 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Biochemical Oxygen Demand	900		2.0	mg/L	1.0		3/7/2012

Test Name: Conductivity

Reference: Std. Meth. 20th Ed. 2510 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Conductivity	1,400		1.0	µS/cm	1.0		3/8/2012

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Total Dissolved Solids	830		10	mg/L	1.0		3/12/2012

Client Sample ID: Discharge pond LND-001 Effluent Monitoring Point
Lab ID: 1203113-02B

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: Ammonia Nitrogen without distillation

Reference: Std. Meth. 20th Ed. 4500-NH3 D

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Ammonia Nitrogen	ND		0.10	mg/L	1.0		3/7/2012

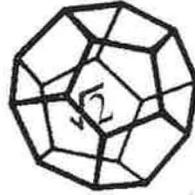
Client Sample ID: Discharge pond LND-001 Effluent Monitoring Point
Lab ID: 1203113-02C

Received: 3/7/2012
Collected: 3/7/2012 00:00

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	1,400		100	µg/L	1.0	3/12/2012	3/19/2012
Manganese	1,500		2.0	µg/L	1.0	3/12/2012	3/19/2012
Sodium	280,000		1,200	µg/L	5.0	3/12/2012	3/19/2012



**NORTH COAST
LABORATORIES LTD.**

February 24, 2012

Foster Farms Dairy dba Humboldt Creamery
572 Highway 1
Fortuna, CA 95540

Order No.: 1202240
Invoice No.: 101716
PO No.:
ELAP No.1247-Expires July 2012

Attn: JoAnn Comalli

RE: NPDES Land Discharge Waste Water

SAMPLE IDENTIFICATION

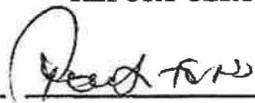
Fraction	Client Sample Description
01A	Well Water
01B	Well Water
01C	Well Water
02A	Discharge Pond
02B	Discharge Pond
02C	Discharge Pond

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
Flag = Explanation in Case Narrative
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY



Laboratory Supervisor(s)



QA Unit



Jesse G. Chaney, Jr.
Laboratory Director

Date: 24-Feb-2012
WorkOrder: 1202240

ANALYTICAL REPORT

Client Sample ID: Well Water
Lab ID: 1202240-01A

Received: 2/15/2012
Collected: 2/15/2012 09:40

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		2/16/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		2/16/2012

Test Name: Biochemical Oxygen Demand

Reference: Std. Meth. 20th Ed. 5210 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Biochemical Oxygen Demand	ND		2.0	mg/L	1.0		2/15/2012

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Total Dissolved Solids	220		10	mg/L	1.0		2/20/2012

Client Sample ID: Well Water
Lab ID: 1202240-01B

Received: 2/15/2012
Collected: 2/15/2012 09:40

Test Name: Ammonia Nitrogen without distillation

Reference: Std. Meth. 20th Ed. 4500-NH3 D

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Ammonia Nitrogen	0.28		0.10	mg/L	1.0		2/16/2012

Client Sample ID: Well Water
Lab ID: 1202240-01C

Received: 2/15/2012
Collected: 2/15/2012 09:40

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		100	µg/L	1.0	2/17/2012	2/21/2012
Manganese	1,200		2.0	µg/L	1.0	2/17/2012	2/21/2012
Sodium	13,000		250	µg/L	1.0	2/17/2012	2/21/2012

Client Sample ID: Discharge Pond
Lab ID: 1202240-02A

Received: 2/15/2012
Collected: 2/15/2012 09:40

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		2/16/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		2/16/2012



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. _____ of _____

1201275

LABORATORY NUMBER: _____

Attention: Chris Voehl (EHS Manager)

Results & Invoice to: FFD d.b.a. Humboldt Creamery

Address: 572 Hwy 1, Fortuna, CA 95351

Phone: 707-752-6182

Copies of Report to: SHN attn. Pat Barsanti

812 W. Wabash Ave. Eureka, CA 95501

Sampler (Sign & Print): _____

PROJECT INFORMATION

Project Number: _____

Project Name: NPDES Land Discharge Waste Water

Purchase Order Number: _____

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	Well Water (Blue)	1-18-12	0920	WW
	Discharge Pond (Yellow)	↓	↓	WW

ANALYSIS	CONTAINER PRESERVATIVE							
	1	1	1	1	2	3	3	3
BOD	none	none	none	none	H2SO4	none	none	none
Nitrate Nitrogen	none	none	none	none	H2SO4	none	none	none
Nitrite Nitrogen	none	none	none	none	H2SO4	none	none	none
Total Dissolved Solids	none	none	none	none	H2SO4	none	none	none
Ammonia	none	none	none	none	H2SO4	none	none	none
Aluminum	none	none	none	none	H2SO4	none	none	none
MANGANESE	none	none	none	none	H2SO4	none	none	none
Sodium	none	none	none	none	H2SO4	none	none	none

TAT: STD (2-3 Wk) Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

REPORTING REQUIREMENTS:

State Forms

Geotracker SWAMP Other EDD:

Final Report PDF FAX By: _____

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄; d—Na₂S₂O₅; e—NaOH; f—C₂H₃O₂Cl; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

1.4°C on ice

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<u>Karl Crandall Sr</u>	1-18-12 0920	<u>Pat Barsanti</u>	1/18/12 1025

SAMPLE DISPOSAL

NCL Disposal of Non-Contaminated

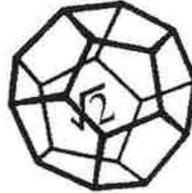
Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA _____

SHIPPED VIA: UPS Fed-Ex Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT



**NORTH COAST
LABORATORIES LTD.**

January 27, 2012

Foster Farms Dairy dba Humboldt Creamery
572 Highway 1
Fortuna, CA 95540

Order No.: 1201275
Invoice No.: 101230
PO No.:
ELAP No.1247-Expires July 2012

Attn: JoAnn Comalli

RE: NPDES Land Discharge Waste Water

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	Well Water
01B	Well Water
01C	Well Water
02A	Discharge Pond
02B	Discharge Pond
02C	Discharge Pond

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
Flag = Explanation in Case Narrative
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

Date: 30-Jan-2012
WorkOrder: 1201275

ANALYTICAL REPORT

Client Sample ID: Well Water
Lab ID: 1201275-01A

Received: 1/18/2012
Collected: 1/18/2012 9:20

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/19/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		1/19/2012

Test Name: Biochemical Oxygen Demand

Reference: Std. Meth. 20th Ed. 5210 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Biochemical Oxygen Demand	ND		2.0	mg/L	1.0		1/18/2012

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Total Dissolved Solids	230		10	mg/L	1.0		1/23/2012

Client Sample ID: Well Water
Lab ID: 1201275-01B

Received: 1/18/2012
Collected: 1/18/2012 9:20

Test Name: Ammonia Nitrogen without distillation

Reference: Std. Meth. 20th Ed. 4500-NH3 D

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Ammonia Nitrogen	0.42		0.10	mg/L	1.0		1/26/2012

Client Sample ID: Well Water
Lab ID: 1201275-01C

Received: 1/18/2012
Collected: 1/18/2012 9:20

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		100	µg/L	1.0	1/23/2012	1/24/2012
Manganese	1,200		2.0	µg/L	1.0	1/23/2012	1/24/2012
Sodium	14,000		250	µg/L	1.0	1/23/2012	1/24/2012

Client Sample ID: Discharge Pond
Lab ID: 1201275-02A

Received: 1/18/2012
Collected: 1/18/2012 9:20

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		1/19/2012
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		1/19/2012



**NORTH COAST
LABORATORIES LTD.**

October 24, 2011

Foster Dairy Farms dba Humboldt Creamery
572 Highway 1
Fortuna, CA 95540

Order No.: 1110295
Invoice No.: 99529
PO No.:
ELAP No.1247-Expires July 2012

Attn: JoAnn Comalli

RE:

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	Well
01B	Well
01C	Well
02A	Pond ISCO
02B	Pond ISCO
02C	Pond ISCO

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
Flag = Explanation in Case Narrative
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

Date: 24-Oct-2011
WorkOrder: 1110295

ANALYTICAL REPORT

Client Sample ID: Well
Lab ID: 1110295-01A

Received: 10/12/2011
Collected: 10/12/2011 10:30

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		10/12/2011
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		10/12/2011

Test Name: Biochemical Oxygen Demand

Reference: Std. Meth. 20th Ed. 5210 B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Biochemical Oxygen Demand	ND		2.0	mg/L	1.0		10/14/2011

Test Name: Total Dissolved Solids

Reference: Std. Meth. 20th Ed. 2540 C

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Total Dissolved Solids	200		10	mg/L	1.0		10/18/2011

Client Sample ID: Well
Lab ID: 1110295-01B

Received: 10/12/2011
Collected: 10/12/2011 10:30

Test Name: Ammonia Nitrogen without distillation

Reference: Std. Meth. 20th Ed. 4500-NH3 D

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Ammonia Nitrogen	0.26		0.10	mg/L	1.0		10/13/2011

Client Sample ID: Well
Lab ID: 1110295-01C

Received: 10/12/2011
Collected: 10/12/2011 10:30

Test Name: ICAP Metals

Reference: EPA 200.7 Rev 4.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Aluminum	ND		100	µg/L	1.0	10/18/2011	10/20/2011
Manganese	1,200		2.0	µg/L	1.0	10/18/2011	10/20/2011
Sodium	13,000		250	µg/L	1.0	10/18/2011	10/20/2011

Client Sample ID: Pond ISCO
Lab ID: 1110295-02A

Received: 10/12/2011
Collected: 10/12/2011 10:30

Test Name: Anions by Ion Chromatography

Reference: EPA 300.0 Rev 2.1 (1993)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Nitrate (as Nitrogen)	ND		0.10	mg/L	1.0		10/12/2011
Nitrite (as Nitrogen)	ND		0.10	mg/L	1.0		10/12/2011