Herbst, Charlene@Waterboards

From: Mr. Jeff Fleming <jefflem@dairydesigners.com>
Sent: Friday, July 20, 2012 3:42 PM
To: Herbst, Charlene@Waterboards; Davis, Daniel@Waterboards; Corral, Gilberto@Waterboards; Walsh, Sean@Waterboards
Cc: David Avila; Skelton Chris
Subject: Fwd: Directive 4, Cleanup and Abatement Order R5-2012-0708
Attachments: 4206irrgwtr12-199-114.pdf; 4206irrgwtr12-199-113.pdf; 12199114 NH4N NO3N TDS.pdf; 12199114 Total Coliform Ecoli.pdf; 12199113 Total Coliform Ecoli.pdf; 12199113 NH4N NO3N TDS.pdf; Henry Tosta Dairy- MWs.jpg

These are the lab results for monitoring well samples taken Monday, 16 July 2012. Note these are at the Henry Tosta Dairy. Monitor well 1 is southernmost, MW2 is in the middle, near the settling pond, and MW3 is northernmost. A locator map is included. Depth and depth to water readings will be included in a following email.

Jeff Fleming

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A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER: 12-199-114 CLIENT: 4206-D

SUBMITTED BY: JEFF FLEMING

SEND TO: WESTERN DAIRY DESIGN ASSOC, INC
316 WEST F STREET, SUITE 100
OAKDALE, CA 95361

GROWER: 053-13

DATE OF REPORT: 07/19/12

IRRIGATION WATER ANALYSIS REPORT

Sample ID	Lab Number	Sodium Na meq/L	Calcium Ca meq/L	Magnesium Mg meq/L	Carbonate CO_3 meq/L	Bicarbonate HCO_3 meq/L	Chloride Cl meq/L	Conductivity E.C. dS/m	pH	Copper Cu ppm	Iron Fe ppm	Manganese Mn ppm	Zinc Zn ppm
MW-1	61701	46.14	32.09	30.67	0.00	7.90	86.46	12.66	7.3				
MW-3	61702	35.48	29.34	13.82	0.00	11.34	36.49	7.82	7.3				

Sample ID	Phosphorus P ppm	Potassium K ppm	Nitrate NO_3 ppm	Sulfate SO_4 ppm	Boron B ppm	Dissolved Solids ppm	Adjusted S.A.R.	Langelier Saturation Index
MW-1	0.12	20.8	7	1013	1.67	6668	10.52	
MW-3	0.02	5.3	6	1617	5.68	5192	11.36	

NOTES:

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

Mike Buttress, CPAg
A & L WESTERN LABORATORIES, INC.

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OAKDALE, CA 95361

Project ID: 053-13

Submitted by: Jeff Fleming

Date Received: 07/17/2012
Date Reported: 07/19/2012

WATER ANALYSIS REPORT

Analyte:	Ammonia Nitrogen	Nitrate Nitrogen	T.D.S.
Detection Limit:	0.05 mg/L	0.5 mg/L	10 mg/L
Method Detection:	SM 4500-NH_3 H	SM 4500-NH_3 B	SM 2540 C

Lab Number:	Sample Id:	Ammonia Nitrogen mg/L	Nitrate Nitrogen mg/L	T.D.S. Mg/L
61701	MW-1	1.3	1.6	10329
61702	MW-3	0.4	1.4	5460

BDL-INDICATED THE LEVEL FOUND IS BELOW THE ESTABLISHED DETECTION LIMIT FOR THAT ANALYTE.

A & L Western Agricultural Laboratories

Robert Butterfield
Laboratory Director

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1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080

Report No: 12-199-113

Account No: 4206-D

Send To: WESTERN DAIRY DESIGN
316 W. F STREET, SUITE 100
OAKDALE, CA 95361

Project: 053-13

Submitted by: Jeff Fleming

Date Received: 07/17/2012
Date Reported: 07/19/2012

PATHOGEN ANALYSIS REPORT

Lab Number:	Sample ID:	Total Coliform MPN/100 ml	E.coli MPN/100 mL
61700	MW-2 7/16 6:04	>200.5	<1.0

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REPORT NUMBER: 12-199-113 CLIENT: 4206-D

SUBMITTED BY: JEFF FLEMING

SEND TO: WESTERN DAIRY DESIGN ASSOC, INC
316 WEST F STREET, SUITE 100
OAKDALE, CA 95361

GROWER: 053-13

DATE OF REPORT: 07/19/12

IRRIGATION WATER ANALYSIS REPORT

Sample ID	Lab Number	Sodium Na meq/L	Calcium Ca meq/L	Magnesium Mg meq/L	Carbonate CO_3 meq/L	Bicarbonate HCO_3 meq/L	Chloride Cl meq/L	Conductivity E.C. dS/m	pH	Copper Cu ppm	Iron Fe ppm	Manganese Mn ppm	Zinc Zn ppm
MW-2	61700	72.53	26.40	44.65	0.00	20.00	91.48	16.62	7.4				

Sample ID	Phosphorus P ppm	Potassium K ppm	Nitrate NO_3 ppm	Sulfate SO_4 ppm	Boron B ppm	Dissolved Solids ppm	Adjusted S.A.R.	Langelier Saturation Index
MW-2	0.63	28.4	679	2223	9.66	10145	14.75	

NOTES:

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Mike Buttress, CPAg
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Submitted by: Jeff Fleming

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PATHOGEN ANALYSIS REPORT

Lab Number:	Sample ID:	Total Coliform MPN/100 ml	E.coli MPN/100 mL
61701	MW-1 7/16 3:29	>200.5	<1.0
61702	MW-3 7/16 4:00	165.2	<1.0

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Submitted by: Jeff Fleming

Date Received: 07/17/2012
Date Reported: 07/19/2012

WATER ANALYSIS REPORT

Analyte:	Ammonia Nitrogen	Nitrate Nitrogen	T.D.S.
Detection Limit:	0.05 mg/L	2.5 mg/L	10 mg/L
Method Detection:	SM 4500-NH_3 H	SM 4500-NH_3 B	SM 2540 C

Lab Number:	Sample Id:	Ammonia Nitrogen mg/L	Nitrate Nitrogen mg/L	T.D.S. mg/L
61700	MW-2	0.6	153	14296

BDL-INDICATED THE LEVEL FOUND IS BELOW THE ESTABLISHED DETECTION LIMIT FOR THAT ANALYTE.

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Herbst, Charlene@Waterboards

From: Mr. Jeff Fleming <jefflem@dairydesigners.com>
Sent: Friday, July 20, 2012 4:25 PM
To: Herbst, Charlene@Waterboards; Davis, Daniel@Waterboards; Corral, Gilberto@Waterboards; Walsh, Sean@Waterboards
Cc: David Avila; Skelton Chris
Subject: Sounding Data - Directive 4, Cleanup and Abatement Order R5-2012-0708
Attachments: B 2012-7-16 Well Purge Data MW1, MW2, MW3.pdf

Here is well sounding data taken 16 July, 2012 for the 3 monitoring wells at Henry Tosta Dairy. Includes depth to water, total depth, water column height, all to the nearest hundredth of a foot, and field readings of temperature, conductivity, ORP, and pH.

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Date: 7/16/2012 Well Purge Data Well Designated MW3

15:40 DTW = 7.6 TD = 19.79 Water Column Height = TD-DTW= 12.19
One well volume = 2.072 Three well volumes = 6.217 Pumping rate = approx. 1 gal/min
15:49 Started well pumping
16:01 Stopped well pumping

Gallons pumped = approx. 12 Gallons

	Temperature (°C)	Conductivity (µS/cm)	ORP	pH	Notes
15:56	22	1908	-75	7.1	
15:58	20.4	1923	-54	7.0	
16:00	20.2	1931	-52	7.0	

Well Elevation: Meters ?? Feet #VALUE! Water Table Elevation: Feet #VALUE!

°C... degrees Celsius
µS/cm... microSiemens per centimeter
ORP... Oxidation Reduction Potential

Date: 7/16/2012 Well Purge Data Well Designated MW2

11:52 DTW = 6.93 TD = 23.29 Water Column Height = TD-DTW= 16.36
One well volume = 2.781 Three well volumes = 8.344 Pumping rate = approx. 1.0 gal/min
N/A Started well pumping
N/A Stopped well pumping

Gallons pumped = approx. 0 Gallons

	Temperature (°C)	Conductivity (µS/cm)	ORP	pH	Notes
18:00	22.8	538	169	7	
18:02	22.9	534	108	6.9	
18:04	23.3	524	110	6.9	

Well Elevation: Meters ?? Feet #VALUE! Water Table Elevation: Feet #VALUE!

°C... degrees Celsius
µS/cm... microSiemens per centimeter
ORP... Oxidation Reduction Potential

Date: 7/16/2012 Well Purge Data Well Designated MW1

14:42 DTW = 5.33 TD = 20.01 Water Column Height = TD-DTW= 14.68
One well volume = 2.496 Three well volumes = 7.487 Pumping rate = approx. 1.0 gal/min
15:11 Started well pumping
15:30 Stopped well pumping

Gallons pumped = approx. 19 Gallons

	Temperature (°C)	Conductivity (µS/cm)	ORP	pH	Notes
15:19	25.3	1460	234	6.9	
15:24	24.4	1616	211	7	
15:29	23	1929	234	7.2	

Well Elevation: Meters ?? Feet #VALUE! Water Table Elevation: Feet #VALUE!

°C... degrees Celsius
µS/cm... microSiemens per centimeter
ORP... Oxidation Reduction Potential