



# INLAND EARTH SCIENCES

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September 15, 2015

Project 1408-010-007

Mr. Eric Winiecki  
EPA Project Coordinator  
U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

SUBJECT: **DOCKET NO. SDWA-10-2013-0080, Yakima Valley Dairies**  
August 2015 Monthly Progress Report

Dear Mr. Winiecki:

Please find attached the Yakima Valley Dairies Monthly Progress Report (MPR) for the period August 11 to September 10, 2015, submitted on behalf of: (1) Cow Palace, LLC; (2) D & A Dairy, LLC (also known as D&A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C., and George & Margaret, L.L.C; and (3) Liberty Dairy LLC and its associated dairy facility H&S Bosma Dairy. This Monthly Progress Report follows the new format provided you on September 10, 2015. As indicated in your e-mail, a Gantt Chart was not expected for this report, but will be developed for forthcoming (MPRs). If you have any questions or comments, please do not hesitate to call. Thank you.

Very Truly Yours,

INLAND EARTH SCIENCES CORPORATION

Kevin M. Freeman  
YVD Project Coordinator  
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Attachments:

Monthly Progress Report, August 11 to September 10, 2015

Copies:

Adam Dolsen, Cow Palace LLC  
Dan DeRuyter, George DeRuyter & Son Dairy LLC  
Henry Bosma, Liberty Dairy LLC  
Rene Fuentes, EPA  
Jennifer MacDonald, EPA  
Patrick W. Ryan, Perkins Coie LLP  
Brendan V. Monahan, Stokes Lawrence PS

**Yakima Valley Dairies**  
Administrative Order on Consent SDWA-10-2013-0080  
**Monthly Progress Report**  
**August 2015**  
*(Reporting Period August 11 to September 10, 2015)*  
Submitted September 15, 2015

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I. Major Accomplishments and Issues that Arose during August

- Submitted 2014 Pre-Plant Application Field Sampling Report on 8/13/2015
- Submitted 2014 Post-Harvest Application Field Sampling Report on 8/14/2015
- Submitted the Irrigation Water Management Field Capacity Soil Testing Reports on 8/19/2015
- Submitted revisions to the Dairy Facility Application Field Management Plans on 8/29/2015
- Submitted revised 2013 Post-Harvest Application Field Sampling Reports on 8/29/2015
- Submitted revisions to the Groundwater Monitoring Quality Assurance Project Plan on 8/30/2015
- Submitted April, May, June and July Monthly Progress Reports on August 30, 2015
- Held Technical Meeting Teleconference with EPA on August 31, 2015 to discuss Lagoon Work Plans and Outstanding/Late Deliverables
- Discussed damage and need for abandonment/replacement of well YVD-14 with EPA on 8/31/2015
- Submitted Revised Third Quarter 2013 Quarterly Groundwater Monitoring Data Report on 9/4/2015
- Submitted Revised Fourth Quarter 2013 Quarterly Groundwater Monitoring Data Report on 9/4/2015
- Submitted Revised First Quarter 2014 Quarterly Groundwater Monitoring Data Report on 9/4/2015
- Submitted Revised Second Quarter 2014 Quarterly Groundwater Monitoring Data Report on 9/4/2015
- Submitted Second Quarter 2015 Groundwater Monitoring Data Validation Report on 9/4/2015
- Submitted revised Lagoon Work Plans on 9/8/2015

II. Description of All other Actions which have been taken to Comply with the Consent Order during August

- Informed EPA of upcoming Third Quarter 2015 groundwater sampling event
- Informed EPA of irregular (varied and sporadic) sample collection for 2015 Post-Harvest Application Field soil samples due to drier and hotter than normal conditions this year.

III. Work Planned for the next 60 Days

*(Provide a complete list of all deliverables and relevant dates over the next 60 days and their **current** due dates (if any), planned start or end of sampling dates, planned start/end dates of other field work, etc.)*

<b><i>Deliverable Name or Event</i></b>	<b><i>Date of Most Recent EPA Comment Letter (if any)</i></b>	<b><i>Current Due Date (if any) Established by Consent Order or EPA</i></b>	<b><i>Estimated Start or End Date (if there is no Due Date)</i></b>	<b><i>On Track to meet Due Date, or start or end date? (yes/no, if no explain in item IV.)</i></b>
Initiation of 2015 Post-Harvest Application Filed Soil Sampling			September - October	
Collection of 2015 Post-Harvest Solid and Liquid Manure Samples			September	
Collection of Third Quarter 2015 Groundwater Samples			September 21 – 25	
Submission of Revised 2013 Annual Report	8/25/2015	9/22/2015		On Track
Submission of Draft 2014 Annual Report		3/12/2015		No
Submission of Draft Third Quarter 2014 Quarterly Groundwater Monitoring Data Report		3/20/2015		No
Submission of Draft Fourth Quarter 2014 Quarterly Groundwater Monitoring Data Report		2/28/2015		No
Submission of Draft First Quarter 2015 Quarterly Groundwater Monitoring Data Report		5/31/2015		No
Submission of revalidated analytical data for Fourth Quarter 2013, First Quarter 2014, and Second Quarter 2014 quarterly groundwater monitoring events		9/30/2015		On-Track
Submission of Draft Second Quarter 2014 Quarterly Groundwater Monitoring Data Report		10/5/2015 (30 days after receipt of validated analytical data)		On Track
Submission of 2015 Pre-Plant Dairy Application Field Sampling Report		6/30/2015	10/25/2015 (30 days after receipt of validated data)	No

<b><i>Deliverable Name or Event</i></b>	<b><i>Date of Most Recent EPA Comment Letter (if any)</i></b>	<b><i>Current Due Date (if any) Established by Consent Order or EPA</i></b>	<b><i>Estimated Start or End Date (if there is no Due Date)</i></b>	<b><i>On Track to meet Due Date, or start or end date? (yes/no, if no explain in item IV.)</i></b>
Respond to EPA Letter 86 - Groundwater Monitoring Well YVD-14	9/14/2015	10/14/2015	9/15/2015	
Respond to EPA Letter 85 - Second Quarter 2014 Quarterly Groundwater Monitoring Data Report	9/10/2015	9/30/2015		No

IV. Description of All Problems Encountered, any Anticipated Problems, Actual or Anticipated Delays, and Solutions Developed and Implemented to Address Any Actual or Anticipated Problems or Delays

*(Include a list of all late deliverables and describe planned/implemented actions to expedite their completion. Identify any deadlines that were missed during the previous month. For each item in Section III that is identified as not being on track for timely completion, elaborate on how the problem is/will be addressed).*

- Submission of Draft 2014 Annual Report – Report to be submitted by September 14, 2015.
- Submission of Draft Third Quarter 2014 Quarterly Groundwater Monitoring Data Report – Report to be submitted by September 15, 2015.
- Submission of Draft Fourth Quarter 2014 Quarterly Groundwater Monitoring Data Report – Report to be submitted by September 21, 2015. Figures in final production. Report undergoing QC.
- Submission of Draft First Quarter 2015 Quarterly Groundwater Monitoring Data Report – Report to be submitted by October 5, 2015. Figures and tables in production.
- 2015 Pre-Plant Dairy Application Field Sampling Report – The Data Validation Report has not been received from Haley and Aldrich (HAI) and is not expected until September 25, 2015. Inland Earth Sciences (IES) and HAI are continuing to work with SoilTest Labs to streamline/accelerate the production of laboratory quality control data associated with the Application Field Soil Samples. This will accelerate our ability to complete the associated Data Validation Reports in a timely fashion. Based on current laboratory procedures, Quality Control data is not generated for the project until all field soil samples are analyzed. This means that QC data is not available until the end of the sampling event; given harvest schedules, sampling of the fields in total can take up to one month to complete. Additionally, SoilTest QC reports are not automated and require some hand-entry and verification by HAI personnel, increasing the time required for data validation.

- Respond to EPA Letter 85 - Second Quarter 2014 Quarterly Groundwater Monitoring Data Report – IES expects receipt of the revalidated Fourth Quarter 2013, First Quarter 2014, and Second Quarter 2014 groundwater analytical data from HAI on September 30, 2015. Based on comments in EPA Letter 85, IES proposes to use the re-validated data to generate new Piper and Stiff plots for all three quarters in question and compare to the information currently presented in the revised reports submitted on September 4, 2015. Stiff and Piper plots for these reports were produced by ARCADIS via the Waterloo Hydrogeologic (formerly Schlumberger) AquaChem water quality data analysis and reporting software. The database used to produce the Piper and Stiff plots resides within the ARCADIS-licensed version of the AquaChem program. Following the change in data validation contractors, the data used to produce these earlier versions of the Piper and Stiff plots are not available. However, with the exception of the Second Quarter 2014 version of the plots, previous plots were checked for errors and accepted as correct. IES in conjunction with HAI will use Geochemists' Workbench to produce Stiff and Piper plots for these (and future) quarterly groundwater monitoring reports. If changes are notices or errors discovered between the sets of plots, corrected figures will be issues and a discussion/explanation of the errors provided.

V. List of Completed Consent Order Work

*(Most of the first table in the current format of the monthly reports can be placed here, and updated as appropriate).*

<b>PROVISION OF WATER (III.D.)</b>		
Residential Well Sampling QAPP (III.D.2.)	04/26/2013	APPROVED
Residential Well Sampling Report	12/20/2013	APPROVED
<b>GROUNDWATER MONITORING (III.E.)</b>		
Groundwater Monitoring QAPP (III.E.1.)	06/21/2013	APPROVED; Revised GWM QAPP submitted to EPA on 9/4/2015.
Groundwater Monitoring Well Installation Report (III.E.2.)	10/06/2014	APPROVED
Data Usability Report (III.A.3.e.(1))		
Third Quarter 2014	3/09/2014	APPROVED
Fourth Quarter 2014	5/21/2015	APPROVED with comments
First Quarter 2015	5/21/2015	APPROVED with comments
Quarterly Groundwater Monitoring Data Report (III.E.3.)		

<b>IMMEDIATE SOURCE CONTROL ACTIONS (III.F.)</b>		
Dairy Facility Application Field Management Plan(s) (III.F.1.)	11/18/2013	APPROVED; Revised DFAFMPs submitted to EPA on 9/4/2015
Irrigation Water Management Plan(s) (III.F.2.)	08/15/2014	APPROVED
Lagoon Review Report(s) (III.F.6.)	08/22/2013	APPROVED
Lagoon Evaluation Plan (III.F.6).		
Lagoon Work Plan(s) (III.F.6)		
<b>REPORTING (III.K.)</b>		
Monthly Progress Reports (III.K.1.)	15 <sup>th</sup> of the Month	
Annual Reports (III.K.2.)		

*[Attach an updated GANTT Chart showing deliverables due dates, sampling start/end dates, construction start/end dates, field work start/end dates, etc.]*