

Site Name: Big Island Dairy

File No.: HIU010287

### **EXHIBIT C**

# Hawaii Department of Health Clean Water Branch Enforcement Oversight Inspection Report

On May 17, 2018, the Department of Health (DOH), Clean Water Branch (CWB) (hereinafter, DOH-CWB) conducted an inspection of Big Island Dairy (Dairy) located at 39-3261 Hawaii Belt Road, Ookala, Hawaii 96720; TMK: (3) 9-0-020:080. The inspection was conducted as part of ongoing enforcement oversight of the Dairy as well as in response to two recent wastewater discharges into State waters. The discharges occurred at Alaialoa Gulch and Kaohaoha Gulch on May 6, 2018 and May 7, 2018 through May 9, 2018 respectively.

The first discharge occured on May 6, 2018 due to a failed pipe at the Dairy's main Wastewater Sump. The second discharge occured during a period of heavy rains that, in part, caused the Dairy's wastewater lagoons to reach full capacity between May 7, 2018 through May 9, 2018.

Observations made during the inspection as well as interviews with Site Representatives, support that the Dairy discharged a minumum of 10,000 gallons of raw wastewater to Alaialoa Gulch on May 6, 2018 and 2.1 million gallons of wastewater to Kaohaoha Gluch from Wastewater Lagoon #2 between May 7, 2018 and May 9, 2018.

This inspection report also documents information the DOH-CWB obtained during interviews with residents from the town of Ookala regarding the discharges that occurred in the first week of May 2018. This inspection report identifies observations and findings noted by the inspector. An annotated photograph log is included as part of this report and referenced as applicable.

#### Site Information

Site Address: 39-3261 Hawaii Belt Road, Ookala, Hawaii 96720

File Number: HIU010287

Receiving Water(s): Kaohaoha Gulch, Alaialoa Gulch, and Kaula Gulch

Inspection Information

Inspection Date: May 17, 2018 Weather: Mostly sunny; strong winds

Inspection Report Number: HA0296 Announced: No

TMK: (3) 9-0-020:080



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Inspection Team: Steven Chase, Matthew Kurano, and Neil Mukai of the DOH- CWB

Site Representative and Title: Steven Manning (General Manager; Big Island Dairy), Jake Mecham (Manager; Big Island Dairy)

### Background

TMK: (3) 9-0-020:080 (refer to Image 1 and Image 2) is an agricultural property located on the island of Hawaii, above the town of Ookala. The property has been in operation as a dairy farm since the early 2000's. Big Island Dairy (hereinafter, Dairy) is currently owned by Mr. Derek Whitesides and Mr. Steve Whitesides per an October 5, 2011 business registration with the State of Hawaii, Department of Commerce and Consumer Affairs. Since early 2018 the Dairy has been in the process of putting a new management team in place. The current management team is comprised of Jake Mecham (Manager; Big Island Dairy) and Steven Manning (General Manager; Big Island Dairy).

The size and scope of the Dairy was documented in a previous inspection (Inspection Report No. HA0289). As of May 17, 2018, the Dairy had approximately 1,400 milking cows and 3,000 total head of cattle. Site Representatives noted they were in the process of reducing herd size. The goal of this inspection was to follow-up on two discharges of wastewater occurring between May 6, 2018 and May 9,2018.

Prior to the inspection, interviews with community members from the town of Ookala were conducted.

#### **Interviews with Community Members**

On May 17, 2018 at approximately 9:35 AM, Matthew Kurano, Neil Mukai and I, Steven Chase (hereinafter, Inspection Team) arrived at the Post Office in Ookala. Community members from the town of Ookala had assembled to meet with the Inspection Team. In attendance was Amanda Steiner (Attorney, Terrel Marshall Law Group; representing the community of Ookala), John Furdico (Videographer; Terrel Marshall Law Group), Valerre Poindexter (Council Member, County of Hawaii), Golde Wallingford (community member), Howard West (community member), Michael Hester (community member), Genard Frazier (community member).

The following information was provided by town members during interviews held at the Post Office in the town of Ookala. The items recorded below are not a comprehensive list of items discussed or presented to the Inspection Team.

 M. Kurano opened the meeting by stating that the DOH-CWB was there to gather information regarding the two discharge events on May 6, 2018 and May 7, 2018 through May 9, 2018. M. Kurano asked community members to provide information one at a time to ensure accurate information was gathered.



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#### 2. Statements made by Ms. V. Poindexter.

- a. V. Poindexter began by explaining what she had witnessed on Sunday evening, May 6, 2018. V. Poindexter stated that on May 6, 2018, she received a call from Mr. Genard Frazier at approximately 6:45 PM. V. Poindexter stated that G. Frazier told her that Alaialoa Gulch is flowing heavily and smelled very bad.
- b. According to V. Poindexter, she met G. Frazier at Alaialoa Gulch (in Ookala Town) at approximately 7:25 PM. V. Poindexter stated that upon arrival to the meeting location, the gulch smelled strongly like manure and ammonia.
- c. V. Poindexter stated that she took a video of high flow in Alaialoa Gulch and narrates that it has a strong odor of manure. This video was previously provided to DOH-CWB on May 6, 2018 at 9:08 PM.
- d. V. Poindexter stated that after 20-30 minutes at Alaialoa Gulch, she and G. Frazier drove uphill to the entrance of the Dairy to confirm the water was coming from the Dairy. V. Poindexter stated she observed water with the same characteristics flowing through the Dairy property in Alaialoa Gulch.

### 3. Statements made by Mr. Gernard Frazier:

- a. G. Frazier corroborated statements made by V. Poindexter regarding observations made on May 6, 2018.
- b. G. Frazier added that on Monday, May 7, 2018, Alaialoa Gulch had high flows that were brown and odorous. However, the odor was less than the previous night. G. Frazier showed the Inspection Team photos that appeared to be consistent with this description dated May 7, 2018 at 4:17 PM.
- c. G. Frazier stated that on May 7, 2018, after making observations at Alaialoa Gulch, he drove over to Kaohaoha Gulch and stated that the odor was minimal, but the gulch was experiencing high flows with a frothy and foamy appearance.
- d. G. Frazier stated that on Friday, May 11, 2018, he looked at Alaialoa Gulch and Kaohaoha Gulch. He stated that at 8:45 AM Alaialoa Gulch was dry and not flowing. Kaohaoha Gulch had low flow in it and was flowing cleanly. He showed the Inspection Team two (2) photos that appeared to be consistent with the date, time and descriptions above.



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- 4. General comments by other community members.
  - a. There was general agreement among community members in attendance at the meeting that odors are the worst late at night between the hours of 2:00 AM and 4:00 AM on an intermittent basis and that mountain winds tend to exacerbate it.
- 5. The Inspection Team concluded interviews with community members at 11:15 AM. The Inspection Team was made aware that A. Steiner had a previous meeting scheduled to inspect the Dairy by court order following the community meeting. To avoid excessive overlap with A. Steiner's meeting at the Dairy, it was agreed the Inspection Team would not arrive at the Dairy until 1:00 PM.

### Notes based on the Opening Conference

The following notes were made either before, during, or after inspection of the Dairy. The majority of the notes below resulted from the meeting with J. Mecham and S. Manning prior to the inspection at the Dairy.

- 1. The Inspection Team arrived at the Dairy at approximately 1:00 PM and met with Jake Mecham. The Inspection Team presented their credentials and told J. Mecham that the inspection would be conducted as a follow-up to the two discharge events that occurred May 6, 2018 and from May 7, 2018 to May 9, 2018.
- J. Mecham escorted the Inspection Team to a conference room for the interview portion of the inspection where Steve Manning joined. The following information regarding the spill that occurred on May 6, 2018, was provided during the interview that was led by M. Kurano:
  - a. M. Kurano asked the Site Representatives to describe Discharge #1 that occurred on May 6, 2018 from the Wastewater Sump Pit (refer to, Image 2).
  - b. J. Mecham stated that the Dairy's Composter Operator discovered the discharge. J. Mecham stated that the Composter Operator showed up for his shift on May 6, 2018 at approximately 2:00 PM but did not notice whether there was a spill occurring as he drove passed the spill location towards the main office prior to beginning his shift.
  - c. J. Mecham stated that at approximately 2:30 PM, the Composter Operator began his daily duties near the Dairy's Wastewater Sump. At that time, the Compost Operator noticed that there was a break in a line at the Wastewater Sump Pit and a spill of wastewater was occurring. J. Mecham stated that the Compost Operator immediately shut off the pump that was connected to the broken line.



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d. J. Mecham said that after shutting the pump off the Compost Operator immediately called the onsite veterinarian who assessed the situation and called J. Mecham. Upon receiving photos of the discharge on his cell phone, J. Mecham stated that he drove to the Dairy and arrived at approximately 4:00 PM.

- e. J. Mecham stated that upon arrival at the Dairy, he immediately checked Alaialoa Gulch near the entrance to the Dairy and it was dry with no evidence of a flow.
- f. J. Mecham said he directed staff to begin cleaning up the area adjacent to the wastewater sump by scraping sludge and contaminated soil back into the wastewater sump. However, due to the nature of the area the discharge occurred, only a limited amount of the affected area was accessible for clean-up. Further, he stated that heavy rains began shortly after clean-up was initiated. J. Mecham stated that the rains washed the spilled wastewater into Alaialoa Gulch.
- g. J. Mecham said the Dairy used pump capacity specifications and calculated that around 10,000 gallons of raw wastewater was discharged from the wastewater sump between 2:00 PM when the Compost Operator arrived for his shift and 2:30 PM when the pump was shut off. J. Mecham noted that no staff were on duty prior to the arrival of the Compost Operator; per the standard Sunday work schedule. J. Mecham stated that the lack of staff present at the time made making an accurate estimation of the duration of the discharge difficult to determine.
- h. J. Mecham stated that ownership was informed of the extent of the discharge on that day. J. Mecham said a decision was made to call the DOH-CWB the following day to provide notice of the discharge. This decision was in part made because management believed no one would be available at the DOH-CWB to report it to. M. Kurano informed Site Representatives of proper reporting procedures for discharges to State waters.
- i. J. Mecham said he left the Dairy at approximately 5:10 PM as efforts to scrape wastewater and affected soils back in to the Wastewater Sump Pit had been completed to the best of the Dairy's ability and heavy rains had begun falling limiting any further action.
- 3. M. Kurano then asked the Site Representatives to describe Discharge #2 that took place between May 7, 2018 and May 9, 2018 of wastewater from Wastewater Lagoon #2 (refer to, Image 2).



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a. S. Manning orally provided rainfall totals from the rain gauge located at the Dairy. The rain gauge is emptied at each reading and the amounts listed are the totals for the period between readings. They were as follows:

| Date     | Time of Reading | Hours of Rain | Amount of Rain (inches)                  |
|----------|-----------------|---------------|--|
| 5/6/2018 | Morning         |               | 0  |
| 5/7/2018 | 7:00 AM         | ~ 24          | 4  |
| 5/7/2018 | 6:00 PM         | 11            | 4.5                                      |
| 5/8/2018 | 7:00 AM         | 13            | >5 (rain gauge max capacity of 5 inches) |
| 5/8/2018 | 5:00 PM         | 10            | 2.75                                     |
| 5/9/2018 | 6:00 AM         | 13            | 2  |
| Total    |                 | 71            | 18.25                                    |

- b. S. Manning stated that on Sunday, May 6, 2018 Wastewater Lagoon #2 had approximately 8" of freeboard but as explained by J. Mecham, heavy rains began on the evening of May 6, 2018.
- c. On Monday, May 7, 2018 at approximately 11:00 AM S. Manning noted that Wastewater Lagoon #2 was beginning to run out of freeboard and that a discharge was imminent given the weather condition.
- d. S. Manning said at approximately 3:15 PM on May 7, 2018 he directed Dairy staff to begin pumping wastewater from Wastewater Lagoon #2 in to Field 33 (refer to, Image 2) to best control the nature of the imminent discharge. Initial pumping units used were the incorporator pump, the agitator pump, and two (2) Driscoll pipes. S. Manning said a staff member informed him the wastewater had entered in to Kaohaoha Gulch at 4:10 PM. \*Of note, M. Kurano confirmed that the DOH-CWB was informed of the imminent discharge prior to the discharge occurring.
- e. S. Manning stated that he decided and instructed Dairy staff to pump water into Field 33 for two reasons. First it would allow some amount of filtration and infiltration before the wastewater was released to Kaohaoha Gulch. Second, it would allow the release to be metered and prevent an uncontrolled release from Wastewater Lagoon #2 overflowing via the earthen spillway.
- f. S. Manning said on the morning of Tuesday, May 8, 2018, one (1) Driscoll pipe was shut off while the incorporator pump, agitator pump and one (1) Driscoll pipe continued to discharge wastewater from Wastewater Lagoon #2 to Kaohaoha Gulch.



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- g. On Wednesday, May 9, 2018 at 6:00 AM S. Manning instructed Dairy staff to shut off all pumps and the discharge was ceased.
- h. Based on calculations provided to DOH-CWB by Steve Whitesides on May 16, 2018, the Dairy estimates that approximately 1.5 million gallons of rain water was added to Wastewater Lagoon #2 from the 18.25 inches of rain during the period from May 7, 2018 to May 9, 2018. Based on the manufacturer's published pump rate capacity, the Dairy pumped approximately 2.1 million gallons of wastewater from Wastewater Lagoon #2 in to Field 33 which subsequently drained to Kaohaoha Gulch.
- 4. M. Kurano then discussed that the DOH-CWB continues to be concerned about the Dairy's capacity to efficiently and quickly distribute wastewater during times of dry weather. M. Kurano inquired about incorporation efforts since Discharge #2 to draw down the wastewater lagoons. S. Manning stated that the incorporator has the capacity to incorporate 25,000 gallons per acre at 1 mile per hour and the pump runs at a constant rate of 700 gallons per minute. S. Manning provided the following information on the most recent incorporation activities:

| Date      | Hours of incorporation | Acres | Gallons per acre | Total gallons incorporated |
|-----------|------------------------|-------|------------------|----------------------------|
| 5/14/2018 | 5                      | 22    | 6,250            | 137,500                    |
| 5/15/2018 | 9                      | 43    | 6,250            | 270,062                    |
| 5/16/2018 | 7                      | 36    | 12,500           | 450,000                    |

- a. S. Manning continued to outline Best Management Practices (BMPs) the Dairy was developing to limit storm water from entering the wastewater lagoons. S. Manning stated that the Dairy is currently awaiting bids to build a cover for Wastewater Lagoon #2. Additionally, the Dairy is internally discussing obtaining a storage tank and an additional pump that would sit at the top of the property and allow wastewater to be distributed to the Upper Agricultural Fields (refer to, Image 2).
- b. S. Manning confirmed that the use of the honey wagon to distribute wastewater to the upper agriculture fields has been discontinued and that solids are distributed to fields once a week on a rotating schedule. S. Manning stated that fields that have solids land applied are not actively irrigated post application.
- 5. The opening conference portion of the inspection concluded at approximately 2:00 PM. The Inspection Team and J. Mecham departed the office together to conduct the field portion of the inspection. The field inspection focused on the following areas: Wastewater Sump Pit & Discharge #1 Location, Wastewater Lagoon #1 & #2, Discharge #2 Location (Field 33) and viewing of the incorporator in operation in the Lower Agricultural Fields.



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#### **Findings-Site Inspection**

The following findings were made either before, during, or after inspection of the Dairy. The findings are not a comprehensive list of all possible areas of non-compliance with Hawaii Water Pollution rules and regulations.

- 1. The Inspection Team and J. Mecham departed the office and drove to the Wastewater Sump Pit. Upon arriving, I could see the top layer of vegetation and soil had been removed adjacent and north of the wastewater sump (refer to, Photograph 2). J. Mecham explained this was a result of clean-up efforts and in preparation of a survey team coming to begin construction of a berm around the wastewater sump to provide a measure of secondary containment. I did not observe any wastewater outside of the wastewater sump pit.
  - a. Within the wastewater sump, I observed a recently installed new portion of orange piping. J. Mecham stated that the new piece of pipe was a replacement for where the original pipe had broken. The Dairy also installed a temporary splash guard as a BMP that would insure future releases would not discharge to ground in the event of another pipe failure (refer to, Photograph 1).
  - b. Based on the statements made by Dairy representatives, it is unclear as to the total volume of wastewater discharged from the wastewater sump. While a 30-minute spill time was estimated by the Dairy, it could not be verified. The Dairy reported a volume of 10,000 gallons was spilled from the Wastewater Sump on May 6, 2018.
- 2. The inspection then continued at the spillway for Wastewater Lagoon #2. Wastewater Lagoon #2 had approximately five (5) feet of freeboard (refer to, Photograph 3 &4). I did not observe evidence of a discharge or ground disturbance on or near the spillway (refer to, Photograph 5 & 6). J. Mecham stated that wastewater was not discharged over the spillway.
- 3. I asked J. Mecham to show the Inspection Team the location of Discharge #2 that occurred from May 7, 2018 to May 9, 2018. J. Mecham showed us the two pumps (agitator pump and incorporator pump) attached to tractors on the west end of Wastewater Lagoon #2 (refer to, Photographs 7 & 8). J. Mecham stated these pumps were used to pump wastewater from Wastewater Lagoon #2 to Field 33.
  - a. Based on a report by the Dairy dated May 16, 2018, 2.1 million gallons of wastewater was discharged from Wastewater Lagoon #2 to Kaohaoha Gulch. While the effluent in Wastewater Lagoon #2 may have been mixed with significant amounts of storm water, the effluent included the typical amount of Dairy wastewater generated daily.



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b. The Inspection Team and J. Mecham proceeded to the north side of Wastewater Lagoon #2. J. Mecham stated that wastewater was discharged from the top of the field and flowed via sheet flow to Kaohaoha Gulch (refer to, Photograph 9). At the time of the inspection I did not observe evidence of wastewater in Field 33 and did not observe any ongoing discharges.

- 4. The Inspection then continued by driving around the perimeter of Wastewater Lagoon #1. I could not see a clear demarcation between the banks and the lagoon due to a thick vegetation layer on the top of the lagoon (refer to, Photograph 10). J. Mecham explained that the lagoon was "full" and that wastewater passed through Wastewater Lagoon #1 to Wastewater Lagoon #2 via an overflow pipe. I asked when the last time maintenance had been completed on the lagoon. J. Mecham was not sure but stated it had been many years.
- 5. The Inspection Team and J. Mecham continued to the Lower Agricultural Fields to meet S. Manning and observe the incorporator in operation (refer to, Photograph 11). The Inspection Team was positioned at the most down gradient spot of the agricultural field. I did not observe runoff or wastewater discharge while the incorporator was in operation. Although there was no observed runoff from the field while the Incorporator was in operation, I did observe wastewater surfacing immediately after the incorporator had passed. However, I observed the surfacing wastewater to be absorbed immediately into the ground and not mobilize a significant distance from where it was incorporated (refer to, Photograph 12 & 13). I observed an appreciable disturbance to vegetation produced by the incorporator (refer to, Photograph 13).
- 6. The inspection concluded at approximately 3:15 PM. The Inspection Team and Site Representatives returned to the Dairy's main office to conduct a closing conference and discuss preliminary findings.
- 7. At the closing conference M. Kurano notified Site Representatives again that any discharge from the property of wastewater is a serious matter and the Dairy must notify the DOH-CWB or State Hospital immediately.
- 8. It was confirmed the first of the two wastewater discharges occurred on Sunday, May 6, 2018. The Dairy experienced a pipe failure at their wastewater sump (refer to, Image 2) causing a discharge of raw wastewater to Alaialoa Gulch. Initial reports from Site Representatives to DOH-CWB on May 7, 2018 indicated the volume was at least 10,000 gallons. The discharge was stopped on May 6, 2018, at approximately 2:30 PM. Due to the nature of the area where the discharge occurred, the Dairy could only recover a small amount of the spilled wastewater. Following the discharge, at approximately 5:00 PM the Dairy started to receive heavy rains washing the unrecovered wastewater down Alaialoa Gulch through the town of Ookala.



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9. It was also confirmed that the second wastewater discharge event started on Monday, May 7, 2018 and lasted until Wednesday, May 9, 2018. By mid-day Monday, May 7, 2018. The Dairy began to run out of capacity in their wastewater lagoons due in part, to 18.25 inches of rain experienced between Sunday May 6, 2018 and Wednesday May 9, 2018. The Dairy made the decision to begin pumping wastewater out of Wastewater Lagoon #2 to a field adjacent to the lagoon to prevent an uncontrolled release of wastewater from the earthen spillway (refer to, Image 2). The wastewater flowed from the dairy's fields to Kaohaoha Gulch. The Dairy began pumping water out of the Wastewater Lagoon #2 on Monday May 7, 2018 at approximately 3:15 PM and continued until Wednesday May 9, 2018 at 6:00 AM. The Dairy estimates that during this period they discharged approximately 2.1 million gallons of wastewater to Kaohaoha Gulch.

- 10. In discussing the contribution of storm water to the wastewater lagoons, it was discussed that storm water in the lagoons would continue to be a problem and the Dairy should strongly consider how to limit or cease storm water contributions to the wastewater lagoons. S. Manning stated that the Dairy was in the process of assessing potential solutions.
- 11. Further discussion of the Dairy's capacity and ability to distribute wastewater quickly on days when the weather is conducive to incorporation appeared to be a bottle neck in the wastewater disposal system. M. Kurano and I both recommended the Dairy consider obtaining another incorporator and pump to take full advantage of periods of weather where wastewater can be distributed and advantageously utilize the second Incorporator to distribute wastewater in the upper agricultural fields.
- 12. Site Representatives acknowledged the seriousness of the incidents that took place at the beginning on May 6, 2018 and May 7, 2018 through May 9, 2018 and showed a desire to find solutions to the problems presented. The closing conference concluded at approximately 4:00 PM and the Inspection Team departed the Dairy.

# **Enforcement Oversight Inspection Report Figure Log**

Site Name: Big Island Dairy

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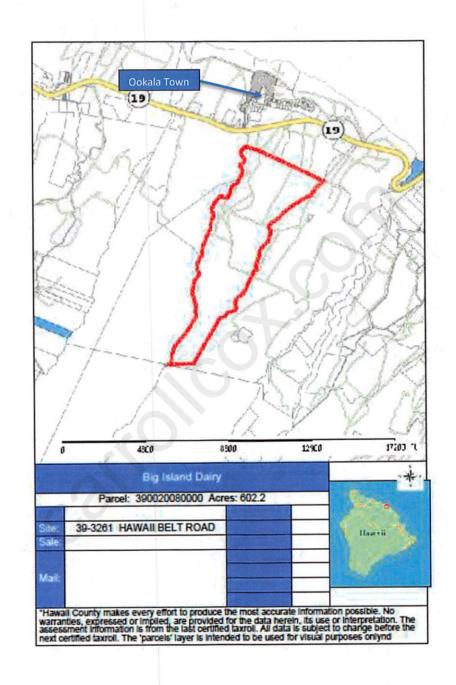


Image 1: Aerial view of Big Island Dairy TMK: (3) 9-0-020:080 (outlined in red) at 39-3261 Hawaii Belt Road Ookala, HI 96720. Imagery obtained from County of Hawaii Reaal Property Tax Office.

# **Enforcement Oversight Inspection Report Figure Log**

Site Name: Big Island Dairy File No.: HIU010287

Ookala Park United States Postal Service Kaohaoha Gulch Kula Gulch Alaialoa Gulch **Wastewater Sump** & Discharge #1 Lower Ag. Fields Location Field 33 & Discharge #2 Location Wastewater Lagoon #2 Big Island Dairy Wastewater Lagoon #1 'Alenaio Gulch

**Image 2:** Aerial view, from Google Earth, of Big Island Dairy and call outs for field areas, gulch locations, process areas, wastewater release location and Ookala Town.

Upper Ag. Fields

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#### Photograph 1.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, inside of the Wastewater Sump Pit. The break occurred where the orange and green hose pieces now meet. Yellow arrow points to temporary splash guard installed to prevent further discharge in the event of a future hose failure.



### Photograph 2.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing north, standing at the Wastewater Sump Pit of the area affected by the discharge on May 6, 2018. Affected soils had been removed. Red arrows points in direction of flow path to Alaialoa Gulch.

### Enforcement Oversight Inspection Report

**Photograph Log** 



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### Photograph 3.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing northwest, of Wastewater Lagoon #2 from the spillway. Approximately five (5) feet of freeboard existed at the time of inspection. Red arrow points to height marker of spillway.



#### Photograph 4.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View facing west of Wastewater Lagoon #2. Approximately five (5) feet of freeboard existed at the time of inspection. Exposed banks are visible on the left and right side of lagoon.

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Photograph 5.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View facing south of the spillway for Wastewater Lagoon #2. Red arrow shows potential flow path for spillway. No evidence a recent discharge was observed and no active discharge was occurring.



#### Photograph 6.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View facing east of the spillway for Wastewater Lagoon #2. Red arrow shows direction of potential flow path. No evidence of a recent discharge was present and no active discharges were occurring.

Hawaii Department of Health
Clean Water Branch
2827 Waimano Home Road, Room 225
Pearl City, HI 96782

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#### Photograph 7.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View facing east of the pumping unit used for incorporation. This tractor/pump was used during Discharge #2 to pump wastewater onto Field 33. This pump has a designed pumping capacity of 700 gallons per minute.



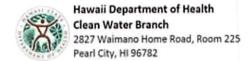
#### Photograph 8.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing east, of the agitator pump used to pump wastewater to Field 33 during Discharge #2. The aggitator pump is also used to mix Wastewater Lagoon #2 during incorporation activities.

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Photograph 9.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing northeast, of Field 33 where wastewater was pumped from Wastewater Lagoon #2 and subsquently flowed to Kaohaoha Gulch. Yellow arrow points to Kaohaoha Gulch location. Red arrow indicates approximate location of where wastewater was released.



Photograph 10.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing southeast, of Wastewater Lagoon #1, red line shows approximate location of lagoon banks along the north side of the pond.

Hawaii Department of Health
Clean Water Branch
2827 Waimano Home Road, Room 225
Pearl City, HI 96782

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#### Photograph 11.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing northeast, of incoproator in the Lower Agricultural Fields in operation. Notice tines (red arrows) are submerged in the soil and no wastewater is surface applied.

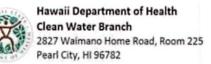


#### Photograph 12.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View of wastewater that surfaced after incorporation. Minimal amounts of wastewater appear to surface flow as a result of incorporation.



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Photograph 13.

Date Photograph Taken: May 17, 2018

By: Steven Chase

Description: View, facing northeast, of the Lower Agricultural Fields immediately after the incorporator had passed by. Signficant vegetation distrubance can be seen. The red arrow points to wastewater that is surfacing after incorporation but no surface flow of water was noted.



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### **Inspection Report Certification**

I certify that the attached photographs 1 through 13 described above were taken by the undersigned and are a true and accurate representation of what was observed on 5/17/2018 at Big Island Dairy, 39-3261 Hawaii Belt Road, HI 96720

I certify that the statements made in this inspection report are, to the best of my knowledge, a true and accurate representation of what was observed on 5/17/2018 at Big Island Dairy, 39-3261 Hawaii Belt Road, HI 96720

Steven Chase

**Environmental Health Specialist** 

Date