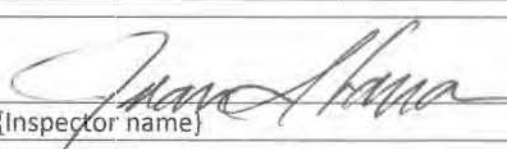
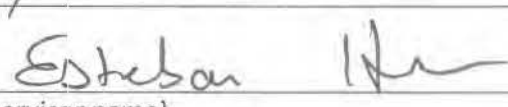


**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	06/27/2019		
Media:	Water		
Regulatory Program(s)	NPDES		
Company Name:	MX-7 Dairy		
Facility Name:	MX-7 Dairy		
Facility Physical Location:	250 County Road 105 (31.9285, -98.66176)		
(city, state, zip code)	Comanche, TX 76442		
Mailing address:	250 County Road 105		
(city, state, zip code)	Comanche, Texas 76442		
County/Parish:	Comanche County		
Facility Contact:	Wayne Moerman	Owner – Not Present	
	manureisgood@yahoo.com		
FRS Number:	N/A		
Identification/Permit Number:	TXG920625		
Media Number:	N/A		
NAICS:	112120		
SIC:	0241		
Personnel participating in inspection:			
Juan Ibarra	EPA Region-6 ECD-WA	Inspector	214-665-8493
Noel Courts	MX-7 Dairy Consultant	Lowther Consulting	325-829-5264
EPA Lead Inspector Signature/Date	 {Inspector name}		8/20/19 Date
Supervisor Signature/Date	 {Supervisor name}		8/20/19 Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspector, Juan Ibarra, arrived at the MX-7 Dairy at 0921 on 05/30/2019 for an unannounced inspection. I contacted the owner's office to request that the owner, Wayne Moerman, or his representative meet me at the dairy site to conduct a site inspection and records review. Neither the owner or his consultant, Noel Courts, were available to meet me at the site. Instead, Noel Courts gave me permission to conduct the site inspection and arranged to complete the records review portion of the inspection at a later date.

The records review was conducted with Noel Courts on 6/27/2019 at 0800 at the EPA Region 6 office located at 1201 Elm Street in Dallas, Texas. I presented my credentials to Mr. Courts as I informed him that this was an EPA inspection to determine the facility's compliance with the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation (CAFO) regulations stipulated in the facility's Texas Commission on Environmental Quality (TCEQ) CAFO General Permit. The scope of the inspection was a Compliance Evaluation Inspection. Following the opening conference, Mr. Courts provided the facility Nutrient Management Plan records which included documentation on rainfall, lagoon levels, lagoon certifications, soil and wastewater nutrient analyses, land application nutrient calculations, crop nutrient requirements, and manure solids information. Additionally, I reviewed the supporting information for the recent chronic rainfall events that caused the permitted discharges that were seen during the site inspection. A Closing Conference was held with Mr. Courts where I informed him of the facility's Areas of Concern.

FACILITY DESCRIPTION

MX-7 Dairy is a large CAFO that was permitted for 5600 cows of which 3800 could be milking cows. At the time of the inspection the facility was milking 3700 cows twice per day. The cows, which were kept in freestalls and open pens, were able to move freely between the pens and freestalls. The freestalls were flushed daily and the cattle pens were dry scraped on a weekly schedule. The facility had been permitted under the TCEQ CAFO General Permit which expired 7/20/2019.

The dairy had five retention control structures (RCSs) with a total certified capacity of 281.264 acre feet. The milking parlor and flushed freestalls discharged into a manure screen, followed by the four concrete settling basins and the earthen-lined settling pond, and thence into RCS 1. RCS 1 thence flowed into RCS 2, and thence into RCS 4 (in series). Cattle surface lots would runoff directly into RCS 1, 2 and 5, while the compost area was graded in such a way that it drained into RCS 5. Most irrigation occurred out of RCS 4, however, RCS 3 and 5 also had irrigation capability and could also send flow into RCS 4. All five of the RCSs had been certified for no hydrologic connection by a Texas Professional Engineer in the previous five years (performed in 2016) and had documentation of a liner test greater than 1×10^{-7} when constructed.

The dairy had three land management units (LMUs) totaling 158 acres in size and each was equipped with a center pivot. LMU A (62 acres), LMU B (33 acres), and LMU C (63 acres). While some of the facility's wastewater is given to a neighboring land owner, no manure solids are given away except for an occasional small quantity. Manure was being composted and stored on-site, and according to the consultant, is not land applied.

Section II - OBSERVATIONS

Wastewater Management and Retention Control Structures

During the inspection, I noted that there had been recent discharges out of RCSs 3, 4 and 5 as evidenced by manure wastewater found in the vicinity of these RCSs. As of the 4/20/2019 RCS weekly level readings, all of the lagoons had capacity to contain the 25-yr/24-hr rain event. However, the dairy received 8.2" of rain during the time period of 4/22-23/2019 causing the RCSs to begin discharging under the chronic rainfall provision of the TCEQ CAFO General Permit. The dairy had several permitted discharges of wastewater in April and May in addition to reported discharge to the TCEQ on the day of the inspection. The facility had irrigated wastewater from the RCSs to the LMUs in an attempt to stop the discharges. This discharge, however, was permitted since the dairy had experienced chronic rainfall during the months of April and May. I called the TCEQ to verify that the facility had made the required notifications and to ensure that the TCEQ verified whether or not the dairy had properly operated and maintained the RCSs prior to the permitted discharges. Discharges occurred from RCSs 3, 4 and 5. The discharges from RCS 3 and RCS 5 are documented within Appendix 1 Photolog, photos 1, 5 and 11.

Lagoon Embankment and Berm Maintenance

The berm on the northeast end of RCS 5 needed to be rebuilt to ensure that the cattle lot runoff going into RCS3 was contained within a berm that was designed, constructed and maintained to channel flows from the 25-yr/24-hr rain event. Photos 1 and 5 showed that the berm designed to channel storm water runoff flows from the cattle pens above RCS 3 was overtopped and discharged to the bar ditch located along County Road 105. This issue was noted during a previous EPA inspection at this dairy conducted on 6/20/2013. Additionally, the berm leading to RCS 1 and the berm around the compost area leading to RCS 5 needed to be evaluated and maintained to ensure capacity for the 25-yr/24-hr rainfall event. See the attached Photolog and Location of Significant Photos map. The east side of the lagoon embankment at RCS 5 had numerous trees growing along the embankment.

Mowing of Lagoon Embankments, Berms and Manure Screening Areas

Mowing was needed around all of the lagoon embankments, along the berm channeling runoff from the pens toward RCS 1, along the berm channeling runoff from the compost area toward RCS 5, around the manure screen, settling basins and settling pond. Evidence of the tall grass and vegetation can be found throughout the photolog.

Accumulated Manure Around the Manure Screen and Settling Basins

A large amount of manure spilled out onto the ground surrounding the solids screening and settling units. The area had poor housekeeping and needed to be cleaned up of manure and lot scrapings. This manure must be properly managed at the manure compost area.

Records Review

The Nutrient Management Plan records, including those records documenting rainfall and lagoon level readings prior to the recently experienced chronic rainfall and permitted lagoon discharges described above, were reviewed during a separate part of the inspection conducted on 6/27/2019. During the records review, I verified that the lagoons were properly designed and constructed, that they were recently certified, that the lagoon level records were maintained, and that the land application records were accurate. There was a discrepancy in the 2018 and 2019 nutrient calculations for the wastewater application. The consultant used the 2017 wastewater analysis value instead of the one for 2018. This did not create a violation, as the 2017 analysis value was greater than that for 2018. I did, however, inform Mr. Courts that a correction needed to be made to the land application records, and on the next annual report.

Additionally, the previous two years of LMU records showed that all the LMU soils had a P2O5 concentration below 200 ppm for 2017, and below 20 ppm for 2018. The consultant believed that the reduction in P2O5 was attributable to the dairy ceasing the practice of grazing cattle in these fields. Additionally, the land application records showed the amount of applied wastewater on a per-field and per-application basis. These records documented that the applications were being done at the crop's agronomic rate. Other records on wastewater transferred off-site, crop harvest, rainfall, site maps and maintenance were also being appropriately managed and recorded.

Section III – AREAS OF CONCERN

The following Areas of Concern were discussed with Mr. Courts during the closing conference:

1. The berm on the northeast end of RCS 5, at the far east end of the cattle pens, was not constructed or maintained to contain the 25-yr/24-hr rain event. This is a repeat concern addressed in the EPA inspection from 6/20/2013. This concern is addressed per the TCEQ General Permit No. TXG920000, Part III. A. 6.(c)(3) and Part V. D.
2. Although impacted by recent chronic rainfall, RCS 3, 4, and 5 had less than six inches of freeboard. Capacity for the 25-yr/24-hr rain event needed to be re-established as soon as possible per the TCEQ General Permit No. TXG920000, Part III. A. 10.(a)(1)
3. Mowing of tall grass and vegetation needed to be done around the RCSs, manure screen, settling basins and settling pond. Additionally, the berm leading to RCS 1 and the berm around the compost area leading to RCS 5 needed to be mowed and maintained to enable visual inspections of the RCS for unit conditions and capacity for the 25-yr/24-hr rainfall event per TCEQ General Permit No. TXG920000, Part III.A. 15.(a)(1) and Part V. D.
4. Trees must not be allowed to grow on the embankment of RCS 5 such that the roots would compromise the liner or embankment per the TCEQ General Permit No. TXG920000, Part III. A. 10.(f)(3).

5. Large amounts of manure spilled out from the solids screening and settling units. The area needed to be cleaned up of manure and accumulated lot scrapings and have it properly managed at the manure compost area.
6. Application of wastewater at agronomic rates must utilize the correct 2018 wastewater nutrient value, rather than the value from 2017.

Section IV – LIST OF APPENDICES

Appendix 1 – Photo Log - 12 photos taken 05/30/2019 and 1 aerial image of significant photo locations

Appendix 1

Photograph Log and Significant Photo Locations



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 1

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4684.JPG

Date of Photo: 05/30/2019

Time of Photo: 0924

Photographer: Juan Ibarra

Description: Looking north along the bar ditch where wastewater from RCS 5 had discharged due to recent chronic rainfall conditions. Wastewater was not seen leaving this area at the time of the inspection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 2

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4687.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking east at the dairy's manure composting area. Note the tractor which was actively working the windrows of manure compost and the steam that was coming from the piles. This large composting area was well bermed and contained within the watershed or RCS 5.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 3

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas

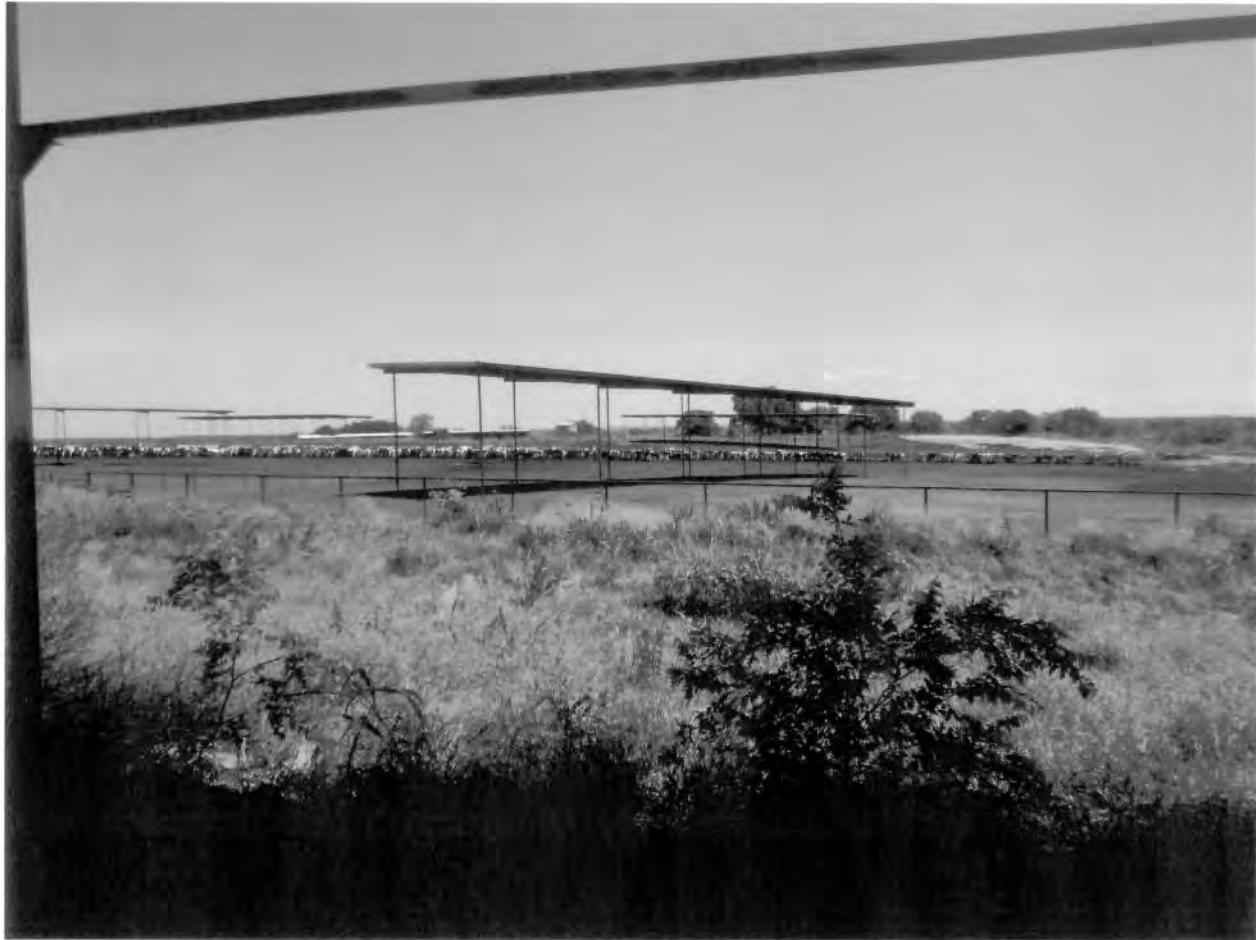


Photo File Name: DSCN4688.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking north at the dairy's cow pens located upslope of RCS 5.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 4

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4690.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking south at RCS 5 in the background. The foreground is part of the bermed channel that directed runoff into the RCS. Note the trees and brush on the RCS embankment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 5

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4691.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: The point (at the pool) at which the failed berm and/or the lagoon had discharged cow pen runoff into the bar ditch shown in photo 1. The discharge left the bermed area at the right of the pool. RCS 5 is not seen in this photo, but was located behind the inspector and to the left.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 6

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4693.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking west at RCS 5. The top of the pole marker indicated approximately 0.5' of freeboard which was confirmed during the site visit. The cattle pens were located upslope of the RCS and are seen in the background on the right side of the photo.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 7

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4696.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking west at the manure settling pond (foreground behind the feedlane) and RCS 1 and 2 (background). The manure screen shown in photo 8 was located to the right of this photo.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 8

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4697.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking west-southwest at the manure screen that served the freestalls and milking parlor.
Note the accumulation of manure and scrapings that needed to be moved to the composting area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 9

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4699.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking north at the berm which channeled cow lot runoff from the pens toward RCS 1 (not seen in the background). The berm could not be adequately assessed for weekly inspections due to the tall vegetation. The vegetation will prohibit proper berm inspection and maintenance to ensure that capacity existed for the 25-yr/24-hr rain event. Freestalls were located on the distant right side of the photo.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 10

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4700.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking north at composted windrows located within the compost area. The compost area was located within the watershed of RCS 3.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 11

Location: Wildcat Dairy, LLC		
City: Comanche	County: Comanche	State: Texas



Photo File Name: DSCN4701.JPG

Date of Photo: 05/30/2019

Photographer: Juan Ibarra

Description: Looking southeast at the discharge point of RCS 3 which received runoff from the compost area. The discharge point was located at the northwest corner of the RCS. No process wastewater discharge was seen leaving the property although the tall grass made it difficult to properly assess the lagoon's embankment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 12

Location: Wildcat Dairy, LLC

City: Comanche

County: Comanche

State: Texas



Photo File Name: DSCN4702.JPG

Date of Photo: 05/30/2019

Time of Photo:

Photographer: Juan Ibarra

Description: Looking south at the unmaintained berm which channels runoff toward RCS 3 (on the left side of the photo). This berm was located on the east side of the compost area. The berm had tall vegetation which prevented an evaluation of this control structure to determine if it could contain the runoff from the 25-yr/24-hr rainfall event.

Significant Photo Locations at MX7 Dairy

