

**NPDES Wastewater Section**  
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**MEMORANDUM**

To: File

From: AltEn, LLC, Mead Nebraska

Date: July 31, 2019 (12:00 pm – 4:36 pm)

RE: Inspection – Mark Pomajzl, Jason Windhorst, Jason Holsten, Hillary Stoll

NDEQID: 84069

Program ID: NE0137634, NER910444

Weather: Cloudy, 84 °F

**Opening Conference**

We arrived at the facility at 10:00 am and asked to speak to Mr. Scott Tingelhoff (Plant Manager). Mr. Tingelhoff was not onsite. Mr. Ken Pederson (Production Manager) greeted us. We provided our credentials and explained that we were going to conduct an industrial storm water (ISW) inspection for the facility and potentially sample ISW outfalls. Mr. Pederson began the facility tour and contacted Mr. Scott Tingelhoff, who arrived later.

**Observation Area 1 (OA1), Map 1**

OA1 is the area southwest of the Administration building that is used to store pallets of starch (Photos 1, 2). I asked Mr. Pederson about how much starch is onsite. He did not know this information. There are torn and leaking bags of starch exposed to precipitation. Evidence of starch transport is observed in the employee parking lot (Photo 3). I asked Mr. Pederson of the best management practices (BMPs) used for this area. Mr. Pederson was not aware of the BMP used in this location.



### **Observation Area 2 (AO2), Map 2**

OA2 is the wet cake load out area. Mr. Tinglehoff arrived at this observation area and was present for the remainder of the investigation. Wet cake is conveyed to the covered collection area then trucked and stockpiled in the northwest corner of the facility. The haul road adjacent to this area is used to haul wet cake by AltEn, and, material from the Mead Cattle Company feed mill. Track out of wet cake is observed along the haul road from the area north leading to the storage area (Photos 4, 5). I explained to Mr. Pederson that the wet cake residue could contain pesticides and should be addressed within the Storm Water Pollution Prevention Plan (SWPPP). Mr. Pederson acknowledged my concern. There is starch on the grass area west of the wet cake load out area (Photo 6). Upon questioning, Mr. Pederson stated that they are mixing broken bags or unusable starch with wet cake prior to loading onto trucks and for storage. Mr. Holsten expressed concern that this starch could be considered waste and to consult with the Nebraska Department of Agriculture (NDA). Mr. Tinglehoff claimed that starch has nutrient value. Mr. Holsten questioned fertilizer value of wet cake mixed with starch.

### **Observation Area 3 (OA3), Map 2**

OA3 is the area west of the south digester. The facility receives tanker trailer loads of starch to be used in the fermentation process. According to Mr. Pederson, the facility uses starch because it is easy to use and store. There is spilled starch in the area (Photo 7). Bags of starch, labeled 'industrial', are stored in the paved area southeast of the unloading area (Photos 8, 9). The DEPARTMENT identified this area during the October 2018 sampling inspection and requested the area cleaned up. Comparing photos from October 2018, the area appears to have more material stored in this location. It appears that the bags stored on the north side of the area have been moved to the south side of this area (Photo 10). I informed Mr. Pederson that the area is not being managed in accordance to the SWPPP. Mr. Pederson disagreed and felt that it has improved since the previous inspection. Drainage patterns from past rain events indicate storm water exposure to loose and spilled starch, and flow toward the west property boundary (Photo 9, 10, 11,).

### **Observation Area 4 (OA4), Map 2**

OA4 is between the grain receiving area and process building, located northwest of the starch-unloading pad. Condensate is discharging from the top of the process building and encountering spilled treated corn on the ground. Mr. Pederson stated that storage bins are problematic and leak, but the area is cleaned daily. The condensate drains to a concrete flume east of the wet cake storage building (Photos 12, 13). The condensate and drainage from OA2 converge north of the wet cake load out building. The discharge is opaque, milky and viscous at this point. The material has continuous flow to a drainage



area (Photo 14). Next to the drainage area, the wet cake conveyer is leaking, creating a pile that is exposed to precipitation (Photo 15).

#### **Observation Area 5 (OA5), Map 2**

The drainage described in OA4 discharges to a swale southeast of the process building and grain receiving building. The swale exhibits strained vegetation and evidence of flow. The system discharges to a road ditch, which is a potential storm water outfall (Photos 16, 17,). This outfall is not currently in the facility SWPPP.

#### **Observation Area 6 (OA6), Map 1, and Map 2**

OA6 is the drainage area that includes the east side of the NR building and the west side of the digesters. The area drains to the road ditch, which is a potential outfall depicted on Map 1 (Photo 18). The area has algae, filamentous bacteria and flows east to observation area 7.

#### **Observation Area 7 (OA7), Map 1 and Map 2**

OA7 is the culmination of OA5 and OA6. The collection site is non-storm water runoff from the cooling water tower. We collected samples for benchmark requirements in accordance with Subsector C5. Industrial Organic Chemicals in the facility SWPPP. The collection site is approximately 2 foot upstream from the main current, and is a brown greenish color, which contains filamentous bacteria (Photo 55). According to the ISW permit, the facility samples for total suspended solids, chemical oxygen demand and ammonia. Next, we collected and analyzed the same parameters from the outfall 001 as described in the facility SWPPP. The storm water current is faster, clear, and cold (Map 3-labelled current outfall 001, (Photo 57). All samples were collected and preserved according to DEPARTMENT standard sampling procedures. We then placed on ice for transport, and delivered to the State of Nebraska HHS Lab for analysis.

#### **Observation Area 8 (OA8), Map 2**

OA8 is near the digesters and includes the wastewater influent tank and emergency lagoon (Photo 19). The lagoon has recently been lowered to comply with Title 123 freeboard requirements. The influent tank is located west of the emergency lagoon. Previous overflows have caused white staining on the side of the tank (Photo 21). Mr. Pederson stated the tank has not operated since 2016. There is green colored water on the southeast side of the influent tank structure. The water has dark organic material with thick algae. Mr. Pederson stated the water is from mostly rain but some is from transferring water from the emergency lagoon to the three process lagoons (Photo 22).

### **Observation Area 9 (OA9), Map 2**

OA8 area depicted above is near the effluent and influent tank. In this area, we observed water flow. We followed the stream north to the cooling water tower. We identified several problems in this area, including a surging manhole cover, leaking pipes and leaking hypochlorite tote (Photos 23, 24, 25, 26, 27). Water discharging from the south portion of the cooling water tower is opaque and contains filamentous bacterial growth. The discharge flows south from the cooling water tower, meandering through the facility and exiting the west side. The cooling tower is also leaking along its west baffles and discharging where it joins the towers south discharge (Photo 28, 29). A constant flow of water is discharging from the northeast corner of the water tower. The flow is coming from the main piping system, causing large amounts of algae and filamentous bacterial growth (Photo 30). The Cooling water discharge on the north and west side of the water tower, has algae material, and smells of hypochlorite (Photo 31). The flow continues south, near the digesters. There is algae growth and filamentous bacteria in this area, which combines with the south cooling water discharge to a single stream that discharges on the west side near the digesters (Observation Area (OA10), Photos, 32, 33). Mr. Tingelhoff stated that the problem started in June and they plan of fixing it during plant shut down the week of August 12.

### **Observation Area 11 (OA11), Map 2**

OA11 is along the north access road. In this area, there is additional starch stored on the north side of the facility along the north access road. Torn bags and spilled starch are observed (Photos 34, 35, 36). There are no BMPs in place to control these leaks. Loose starch is observed west of the distillation area (Photo 37). Previous inspections noted totes of beer and pop that the facility wished to use as an ethanol ingredient, but the Department did not approve its use. According to the October 2018 inspection report, the Department requested that beer and pop not be introduced into the wastewater system due to possible overloading, in which the facility agreed. During this inspection we did not observe beer and pop totes. I asked Mr. Pederson if the totes were onsite or if someone removed them. Mr. Pederson stated the totes were introduced into the lagoon system. When I asked Mr. Tingelhoff about the totes, he stated that the Department granted approval for ethanol production and they were used for the process. Mr. Pederson corrected Mr. Tingelhoff by informing him that beer and pop was introduced into the system. Mr. Tingelhoff stated he was unaware of this. I reminded Mr. Tingelhoff of our past conversations regarding the introduction of beer/pop and that slug loads could cause a system upset. Mr. Tingelhoff acknowledged the conversation.



### **Observation Area 12 (OA12), Map 1**

OA12 is the process lagoon area. There are three lagoons, which are located on the northeast side of the facility. The south lagoon is being drawn down for liner repairs by land application and appears to be around three feet lower than the previous inspection (Photo 38). The facility improved vegetation control by mowing and spraying, which the Department requested in 2018. (Photo 39). Mr. Tingelhoff stated they have the ability to land apply on properties north, east and west of the facility. On the southeast corner of the northeast lagoon, the facility is operating a river screen, which removes solids prior to irrigation. Filtered water is sprayed back into the lagoon. There is a white precipitate observed on the lagoon liners below the water hose (Photos 40, 41, 42, 43). There is a pivot operating north of the northwest lagoon, according to Mr. Tingelhoff, this is not from the lagoon system today (Photo 46). Mr. Tingelhoff explained the farmer can switch from the lagoon system to well water depending on the farmer's needs. Mr. Tingelhoff also explained that the facility cannot irrigate lagoon water while corn is tasseling and pollinating. Drawing down the lagoons exposed several sections of liner in the northeast lagoon. Exposed liner is also documented on the northwest and northeast lagoons (Photos 44, 45). Mr. Tingelhoff believes the south lagoon could be fixed by the end of August, depending on weather and contractor availability.

### **Observation Area 14 (OA14), Map 1**

OA14 is the wet cake storage area is west of the lagoon system, more specifically the northwest corner of the northeast lagoon (Photos 47, 48). The facility installed a storm water detention basin for runoff from the wet cake storage area. Liquid is observed inside the detention basin and according to Mr. Tingelhoff has never overflowed. This area is a potential storm water outfall, which is not described in the SWPPP (Photo 48).

### **Observation Area 15 (OA15), Map 1**

OA15 is farther south along the southwest corner of the northwest lagoon. The berm begins at OA14, continues along the side of the northwest lagoon and breached at the southwest corner (Photo 49). Wet cake is stored without a constructed berm along the haul road (Photo 50). Storm water flows to an open area southeast with no visible constructed berm (Photo 51).

### **Observation Area 16 (OA16), Map 1**

OA16 is on the northwest corner of the south lagoon. In this area, there is a valve control system and air relief vent. The air relief vent is damaged and has discharged thin stillage to the ground. There is a crack on the riser pipe, which could have been recently leaking due to observed green material. The area appears to be recently cleaned. (Photo 52). Across the southeast lagoon, looking west, the wet cake

storage drains east along the valley to the west side of the southeast lagoon (Photos, 53, 54). This area combines at the southeast corner of the property. Due to the drainage pattern, this is a potential storm water outfall (Map 1, green, yellow dashed line).

### **Observation Area 17 (OA17), Map 1**

OA17 is on the southwest corner of the south wet cake storage area. In this area, water is pooled with no containment. This area shows signs of vehicle track out based on tire tracks observed in this area. (Photo 58).

### **Final Conference and Exit Summary**

Following the facility tour and sampling, we met with Mr. Tingelhoff and Mr. Pederson to discuss the findings of the inspection and provide the exit summary. We explained that the scope of the inspection is to determine the validity of the current storm water outfalls and compliance. I expressed concern about the starch unloading area, cooling water tower, lack of wet cake storage and housekeeping. I stated the Department requested in past inspections the area be cleared and maintained in accordance with the SWPPP. Mr. Tingelhoff stated he felt that the area was better and that the Department never specifically stated that they had to do the work but should do the work. Mr. Tingelhoff eventually agreed to clean the starch pads in four to eight weeks. We requested that the facility provide us updates on the progress. Mr. Holsten stated that AltEn must consult with the Department prior to mixing starch with wet cake and asked what their plans are when they run out of storage. Mr. Tingelhoff, during discussion, stated that AltEn will be able to land apply by using the Federal Seed Act or the Fertilizers Act, but will haul to a landfill prior to that approval. We asked about lagoon repairs and the time line for being completed, and if they have an additional engineer. During discussion, Mr. Tingelhoff stated that the facility will not obtain an additional engineering firm but will have the Department staff watch construction. The south lagoon should be completed by the end of August. We explained that the cooling tower needs to be fixed and that we observed filamentous bacteria along the flow path. Mr. Tingelhoff again stated parts are ordered and repairs will take place during plant shut down, August 12, 2019.

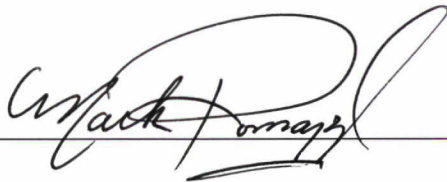
Mr. Windhorst stated that the current outfalls do not accurately capture pollutants exiting the facility. He continued to explain the areas southeast of the digesters capture discharges on the south property and should be sampled there. The current sampling location is over a mile away and does not accurately depict the pollutants exiting the facility boundary. The next potential outfall is the northeast corner of the northwest lagoon (Map 1, Point 14). This area captures potential runoff from the north storage pile



and berm. The last potential outfall is along the southwest corner of the south lagoon, the area captures drainage from the south wet cake storage area and north portion of the production facility.

We then finished discussion and provided the exit summary form. The concerns noted on the summary are the following: Starch bags broken/spilled on the south and west sides of the facility, cooling water tower leaking causing filamentous bacteria growth, spilled seed corn along storage bins, housekeeping, mismanaged wet cake storage, and incorrect ISW sampling locations. Mr. Tingelhoff provided a timeline of 4 to 8 weeks to have the starch areas cleared and maintained. Mr. Tingelhoff signed the form and we provided the facility a copy.

Signature:



Date:

8-29-19

**Attachments:** Photographs, Site Maps

## Photographs

**NOTE: not all pictures taken are included in this memo, observation points indicate a point where a picture was taken.**



Photo 1

Inspection Report

Observation Area: 1

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Bags of starch stored on the north side of the facility exposed to precipitation for an undetermined time period. Some of the bags have burst, torn, and spilled onto the ground where precipitation has transported starch into drainage areas onsite. Evidence of starch transport is evident in the employee parking area north of the office building.





Photo 2

Inspection Report

Observation Area: 1

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: The east edge of the primary starch storage area shows visual evidence of the material migrating via precipitation into drainage areas.





Photo 3

Inspection Report

Observation Area: 1

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: East

Description: The photo taken at the southeast edge of the primary starch storage area. Starch is comingled with sediment and discharging to the employee parking lot.





Photo 4

Inspection Report

Observation Area: 2

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: The structure pictured in the photo is the wet cake load out area for the facility. The solids are conveyed to the collection area where it is loaded onto trucks and transported to the wet cake storage areas northwest portion of the facility. Wet cake observed tracked out for several feet onto the haul road. The haul road crosses internal roads within the facility that are used by traffic entering and exiting the facility.



Photo 5

Inspection Report

Observation Area: 2

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Northeast

Description: The photo depicts the west edge of the wet cake loading area with the Mead Cattle mill in the background. The road is observed being used frequently by trucks loading material from the mill and tracking through the wet cake on the road on its way to the feed lot area of Mead Cattle.





Photo 6

Inspection Report

Observation Area: 2

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southwest

Description: The grass area to the west of the wet cake load out structure evidence of starch was present in several areas. Upon questioning, Mr. Pederson with AltEn, he said that they were mixing some of the unusable starch with the wet cake prior to hauling it to the storage area. He said they break up the starch and mix it on the concrete pad before loading it onto the trucks.





Photo 7

Inspection Report

Observation Area: 3

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: In this area, the facility receives loads of starch to be used in the fermentation process. The facility primarily uses starch based upon the ease of use and storage. The receiving area appeared to have problems with housekeeping based upon evidence of corn starch found around the area used to unload the product. This area has a similar problem to the bagged storage area, where precipitation appears to have transported starch from the unloading area to the adjacent drainage area.





Photo 8

Inspection Report

Observation Area: 3

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: South of the NR System building where bags of starch are found continued to be stored. This area was requested to be cleaned up on the October 2018 sampling site visit. Based upon photo 9, there appears to be more material stored in this area. The bags that were stored to the north of this photo location has had material removed, but appears that it may have been moved to the south side of the concrete pad as illustrated above.





Photo 9

Inspection Report

Observation Area: 3

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Same area as photo 8 showing damaged bags of starch and starch on the ground. Precipitation events show that the migration of material away from storage area is not maintained or prevented. The majority of this area has starch present on the ground and is evident in the vegetated area adjacent to the starch bags.





**Photo 10**

**Inspection Report**

**Observation Area: 3**

**Date Taken: July 31, 2019**

**Photographer: Mark Pomajzl**

**Facility Name/ Project Name: AltEn, LLC**

**Facility IIS number / Project identifier: NER910444, IIS: 84069**

**Direction Facing: East**

**Description:** This area had in 2018, bags of starch that were requested to be cleaned up. The bags have been removed, but not the material that had leaked from the starch bags. Drainage patterns from the area depicted in photo 8 (to the right of this photo) are visible with evidence of starch transport in the direction of the facilities west property line.





Photo 11

Inspection Report

Observation Area: 3

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: Area depicted in photos 8-11. Loose starch is present across this concrete paved area.





Photo 12

Inspection Report

Observation Area: 4

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: East

Description: Area between the grain receiving building and the process building. Condensate appears to be discharging from the process building, but is in contact with treated seed corn. The condensate is then drained via flume to a collection area adjacent to the wet cake load out structure.





Photo 13

Inspection Report

Observation Area: 4

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southwest

Description: Flume between the process building, grain receiving, and wet cake load out. According to AltEn staff, this area is problematic in regards to grain spillage and requires daily cleanup.





Photo 14

Inspection Report

Observation Area: 4

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Confluence of drainage from the area depicted in photos 13 & 14, and north of the wet cake load out building. The runoff is viscous in appearance with a slight sheen and opaque. This material is discharged to the west edge of the facility property's west edge. It is unknown what the volume of discharge is from this area, but appears to be several gallons daily if flow remains constant without precipitation.





Photo 15

Inspection Report

Observation Area: 4

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Wet cake overflow from conveyance system adjacent to the wet cake load out building. This area is adjacent to the west of the area depicted in photo 15 and has potential to enter the flow discharge.





Photo 16

Inspection Report

Observation Area: 5

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Northwest

Description: Swale to the southeast of the grain receiving area and process building. There are two additional pipe conveyances for storm water/non-storm water buried in this area, which discharge to a common outfall location adjacent to an access drive southeast of the NR System building.





Photo 17

Inspection Report

Observation Area: 5

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: Outside of the facility grounds where the swale pictured in photo 17 and a buried pipe discharge to the ditch outside the fence on the south edge of facility grounds. The vegetation is said to have been sprayed recently causing the brown vegetation. Water discharged at this point from the pipe is dark colored and slightly cloudy with a slight sheen. Discharges in this ditch are comingled with discharge from an unknown source from Mead Cattle.





Photo 18

Inspection Report

Observation Area: 6

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Facing upstream along the south edge of the facility grounds showing non-storm water discharges from AltEn & Mead Cattle Company. There is significant discharge from both facilities that are not originated from storm water, which allow substantial algal growth in the ditch. At the outfall upstream from this photo





Photo 19  
Inspection Report  
Observation Area: 7  
Date Taken: July 31, 2019  
Photographer: Mark Pomajzl  
Facility Name/ Project Name: AltEn, LLC  
Facility IIS number / Project identifier: NER910444, IIS: 84069  
Direction Facing: East  
Description: Over flow lagoon adjacent to the south digester.





Photo 20

Inspection Report

Observation Area: 7

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: This area is directly south of the south digester and adjacent to the overflow lagoon. This corner is also a potential outfall location for storm water discharge. At the time of the inspection, there is no discharge from precipitation, but there is visible evidence of discharge based on drainage patterns visible on the ground surface.





Photo 21

Inspection Report

Observation Area: 7

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: Looking at the south side of the Influent tank. There is white staining that appears to have originated from an overflow in the past from the port on top. The area adjacent to the right/south (photo 23) appears to be remnants of a previous overflow event.





Photo 22

Inspection Report

Observation Area: 7

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southwest

Description: Low area adjacent to the Influent tank structure. The material in the ponded is full of dark organic material with thick algal growth along the edges.





Photo 23

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Opaque discharge from the south side of the cooling tower. The water discharging is foaming and showed evidence of filamentous bacteria along the discharge path. This discharge stream follows a path from the south side of the cooling tower through the facility west of the digesters to the facility's west boundary.





Photo 24

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West/down

Description: Looking down into the south edge of the cooling tower baffles. The cooling water is discharging from the base of the tower where it joins another area where discharge is taking place at the southeast corner of the cooling tower.





Photo 25

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Looking at what appears to be a return line from the cooling tower to the make-up water tank. The cooling water is surging from the pipe to the ground around the tank. Thick bacterial and algal growth is visible over much this area. A tote of Hypochlorite solution is also stored in the area unprotected.



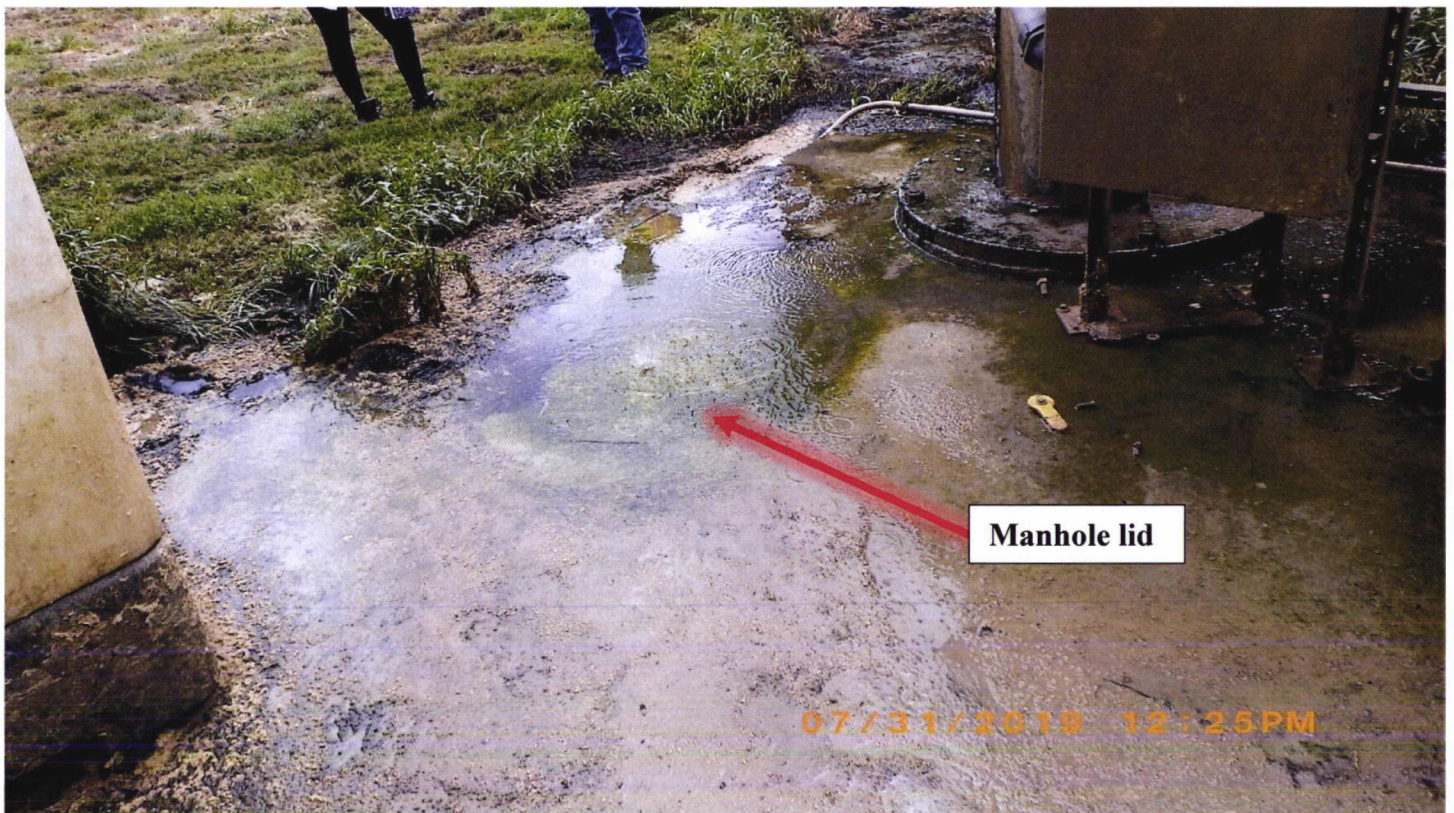


Photo 26

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: Looking at the area depicted in photo 26 from a different angle showing the electrical control boxes adjacent to surging pipe behind them. The red arrow shows the location of the manhole lid where water is ejecting out of when the water is surging. The hypochlorite solution tote is to the left of the manhole.





Photo 27

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Northeast

Description: Looking at the northwest corner of the pump area for the cooling tower. Cooling water is actively discharging from the pumps and make-up water tank structure. The grounds around the tank area is saturated and covered with thick bacterial and algal growth. Based upon visual assessment, the degree of saturation and organic growth in this area indicate that the discharge may have been taking place for a substantial amount of time.





Photo 28

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Down

Description: Saturated ground near the cooling tower showing filamentous bacteria growth in a portion of the discharge.





Photo 29

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Cooling water discharge on the north side of the cooling tower. The water discharged is opaque and had an odor of hypochlorite. The discharge on this side of the structure appears to be several gallons a minute and discharges on the ground where it flows through the plant to the west boundary ditch. This is the source of the cloudy opaque water observed in photo 19.





Photo 30

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: This area is adjacent to the cooling tower to the west and is where several of the smaller discharges from the north side of the cooling tower combine before draining to the west boundary of the facility. This area has substantial white filamentous bacteria visible in photo.





Photo 31

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: This is the same area as photo 31, but further southwest. The close up shows the degree of bacterial growth in the discharge.





Photo 32

Inspection Report

Observation Area: 8

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West/down

Description: The same discharge from the north side of the cooling tower depicted in photo's 30-32. This is approximately 160' east of the discharge to the southwest of the north digester. The filamentous bacteria is present at this location growing on the pavement.





Photo 33

Inspection Report

Observation Area: 9

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: In this area the discharges from the north and south side of the cooling tower converge into one discharge stream prior to discharging at the west boundary of the facility. This is between the GCS building and the AD area building noted on the SWPPP map.





Photo 34  
Inspection Report  
Observation Area: 10  
Date Taken: July 31, 2019  
Photographer: Mark Pomajzl  
Facility Name/ Project Name: AltEn, LLC  
Facility IIS number / Project identifier: NER910444, IIS: 84069  
Direction Facing: East  
Description: Starch stored along the north access road.





Photo 35

Inspection Report

Observation Area: 10

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: Contaminated ground surface adjacent to north starch storage area.





Photo 36

Inspection Report

Observation Area: 10

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: Starch observed on the ground west of the distillation area.





Photo 37

Inspection Report

Observation Area: 10

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Starch bags leaking on north drive north of the distillation area.





Photo 38

Inspection Report

Observation Area: 11

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: The lagoon berm between the north and south lagoons on the east side of the lagoon area. The lagoon is being drawn down for liner repair. The lagoon appeared to be more than 3' lower from the last site visit.





Photo 39

Inspection Report

Observation Area: 11

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: The east edge of the southeast lagoon where most of the vegetation is removed from the 2018 request. It appeared that AltEn is also actively spraying to control the weeds along the lagoons.



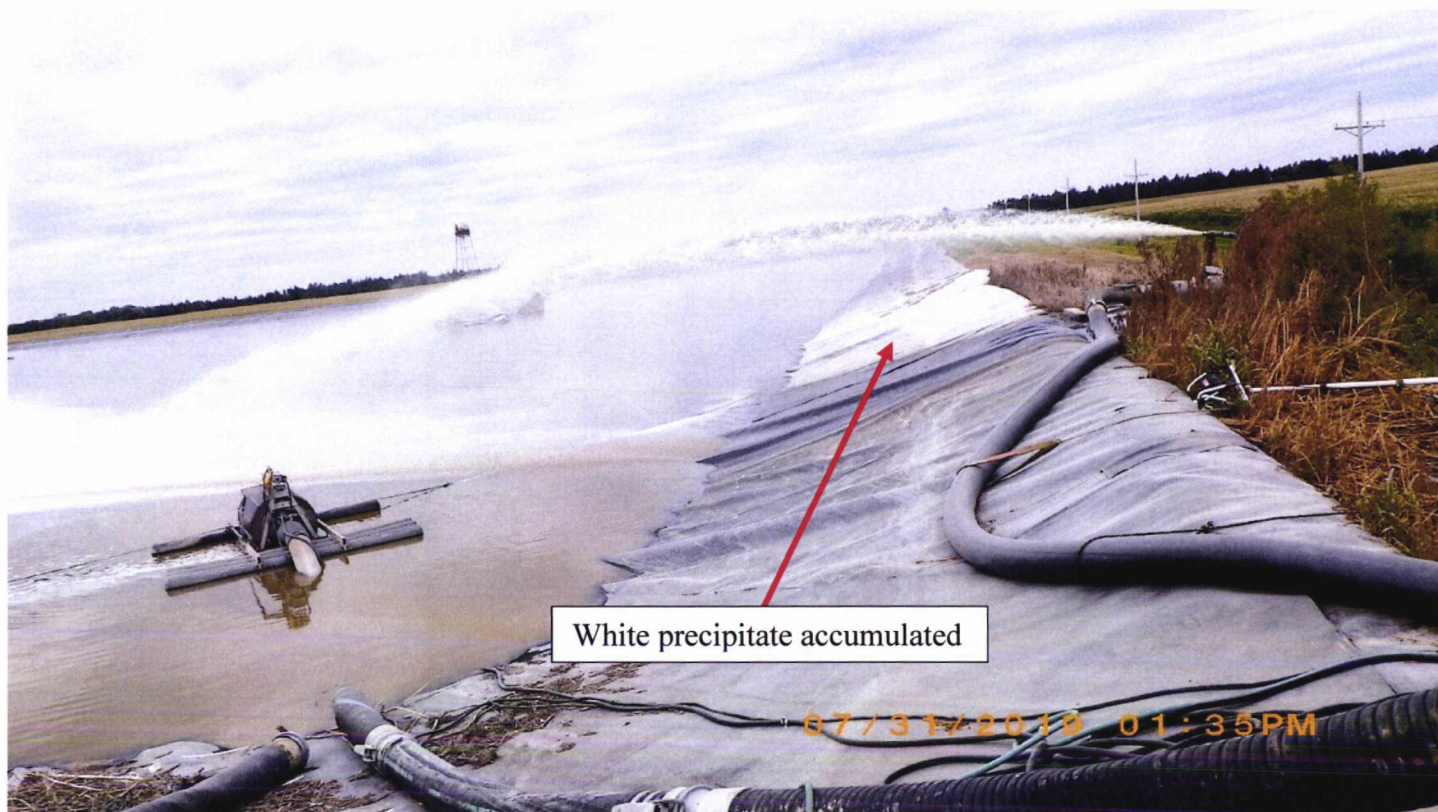


Photo 40

Inspection Report

Observation Area: 11

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: At the southeast corner of the northeast lagoon where the facility stated they are removing solids from the wastewater via rotary drum prior to land applying. The water is sprayed back into the lagoon where it atomizes partially and is carried offsite by the wind. Downwind of the spray white precipitate is observed on the liner and vegetation adjacent to the liner. The odor from this is observed from county road 10 (wind direction is from the East).





Photo 41  
Inspection Report  
Observation Area: 11  
Date Taken: July 31, 2019  
Photographer: Mark Pomajzl  
Facility Name/ Project Name: AltEn, LLC  
Facility IIS number / Project identifier: NER910444, IIS: 84069  
Direction Facing: West  
Description: Same as photo 41 showing the degree of foaming from the operation.





Photo 42

Inspection Report

Observation Area: 11

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North/down

Description: Pump connection for the operation depicted in photos 41-42. Some leaking is observed at the pipe connections.





Photo 43

Inspection Report

Observation Area: 11

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southwest

Description: Same as photos 41-43. Rotary screen is shown in the right portion of the photo.





Photo 44

Inspection Report

Observation Area: 12

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southeast

Description: Vantage point shows several section of the liner of the northeast lagoon at the surface with the screening operation in the background.





Photo 45

Inspection Report

Observation Area: 12

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Southwest

Description: Looking across the northwest lagoon showing a failed section of the liner pushed up to the surface.  
Green Cycle Solutions is visible in the background.





Photo 46

Inspection Report

Observation Area: 12

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: Northwest

Description: Pivot adjacent to the northwest lagoon. AltEn stated that they were not current irrigating from their lagoons. They stated that they had very recently irrigated from the lagoons in order to draw down the east lagoons.





Photo 47

Inspection Report

Observation Area: 13

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West/southwest

Description: From the northwest corner of the northwest lagoon looking at the detention pond for runoff from the wet cake storage area. A small berm contains the liquid according to AltEn. This is an area that qualifies as a potential storm water outfall.





Photo 48  
Inspection Report  
Observation Area: 13  
Date Taken: July 31, 2019  
Photographer: Mark Pomajzl  
Facility Name/ Project Name: AltEn, LLC  
Facility IIS number / Project identifier: NER910444, IIS: 84069  
Direction Facing: West  
Description: Wet cake storage west of the northwest lagoon.





Photo 49

Inspection Report

Observation Area: 14

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Looking at the wet containment berm at the southwest corner of the northwest lagoon. The wet cake detention berm has breached and could discharge at the area between the wet cake detention pond and the northwest lagoon. This area is noted and conveyed to AltEn while at this location.





Photo 50

Inspection Report

Observation Area: 14

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: Haul road on the south edge of the wet cake storage area where no berm has been constructed. This area is south of the northwest lagoon.





Photo 51

Inspection Report

Observation Area: 15

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: This area is where most of the runoff from the wet cake storage without berm containment flows to.  
This is the west edge of the southeast lagoon.



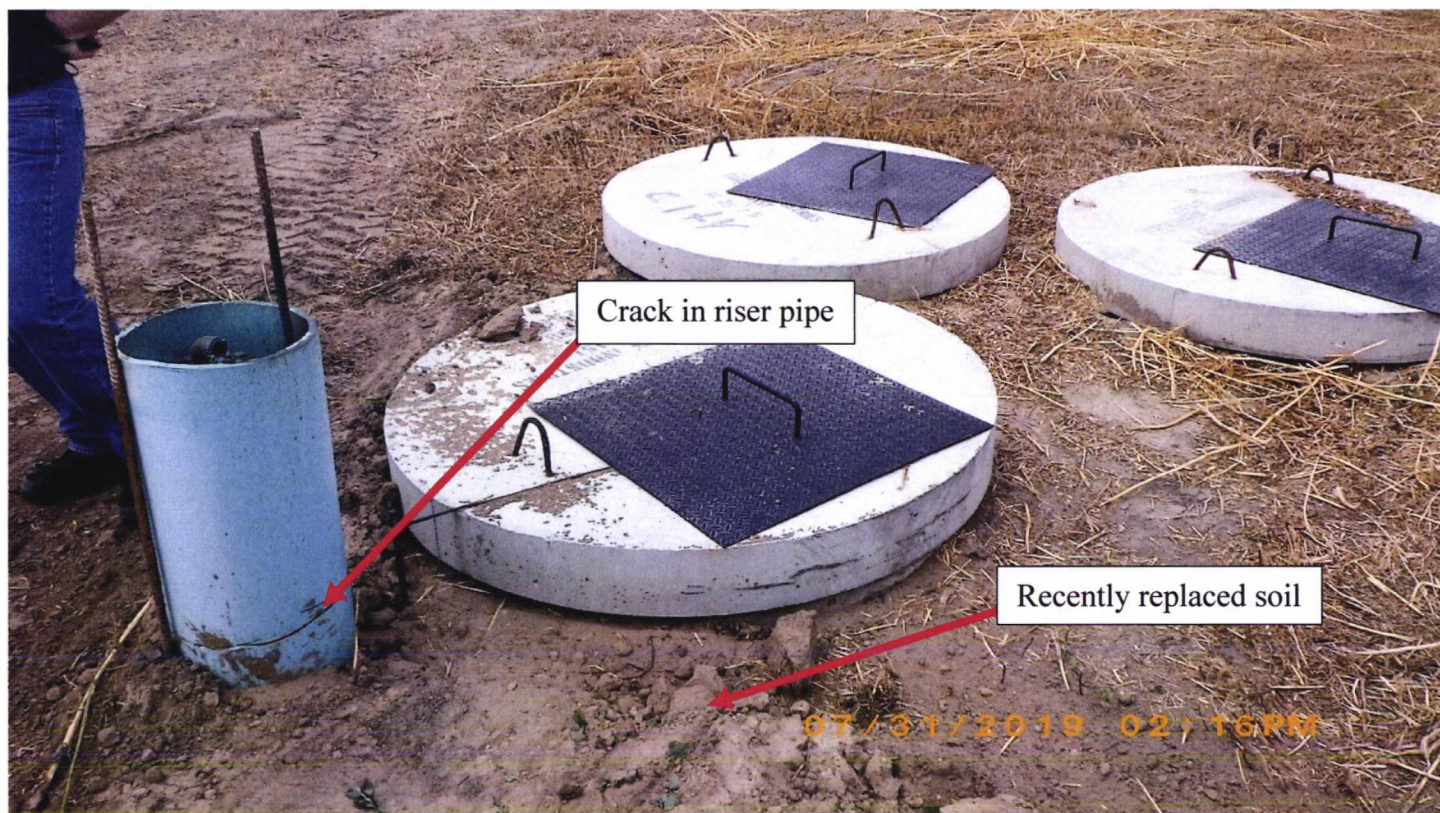


Photo 52

Inspection Report

Observation Area: 15

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North/down

Description: Looking at the air relief vent (inside green pipe) and the valve control system for the three lagoon. The riser pipe for the air relief vent is damaged and appears to be a source of thin stillage leaking to the ground prior to entering the lagoon system. A large crack is visible near the bottom of the green pipe and the ground to the south had been recently replaced from potential cleanup. Upon stepping on the fresh soil, green liquid is observed mixed with soil.





Photo 53

Inspection Report

Observation Area: 15

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Drainage way to the east from the west cake storage area flowing to the southwest corner of the southeast lagoon. The distressed vegetation indicates that there is constant drainage for the wet cake storage area.





Photo 54

Inspection Report

Observation Area: 15

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: West

Description: Drainage from wet cake area at the base of the berm for the southeast lagoon.





Photo 55

Inspection Report

Observation Area: 6

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: North

Description: Non-storm water runoff being collected from an outfall that is receiving runoff from the cooling tower discharge. The water is being sampled for the benchmark requirements for the facility and is being sampled approximately 2' upstream from the main current.





Photo 56

Inspection Report

Observation Area: Offsite at GPS Coordinates **41.18621, -96.46403**

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Description: This is the location that AltEn samples for what their SWPPP calls Outfall 001. The flow and water quality are very different from what is encountered at the facility. The flow at this location appears to be swift, clear and cold in contrast to the flow depicted in photo 56.





Photo 57

Inspection Report

Observation Area: 16

Date Taken: July 31, 2019

Photographer: Mark Pomajzl

Facility Name/ Project Name: AltEn, LLC

Facility IIS number / Project identifier: NER910444, IIS: 84069

Direction Facing: South

Description: Looking at the west edge of the wet cake storage area showing no containment for runoff. It is evident that vehicle traffic has tracked through the ponded runoff based upon the ruts observed in this location.



# AltEn LLC Inspection Map 1



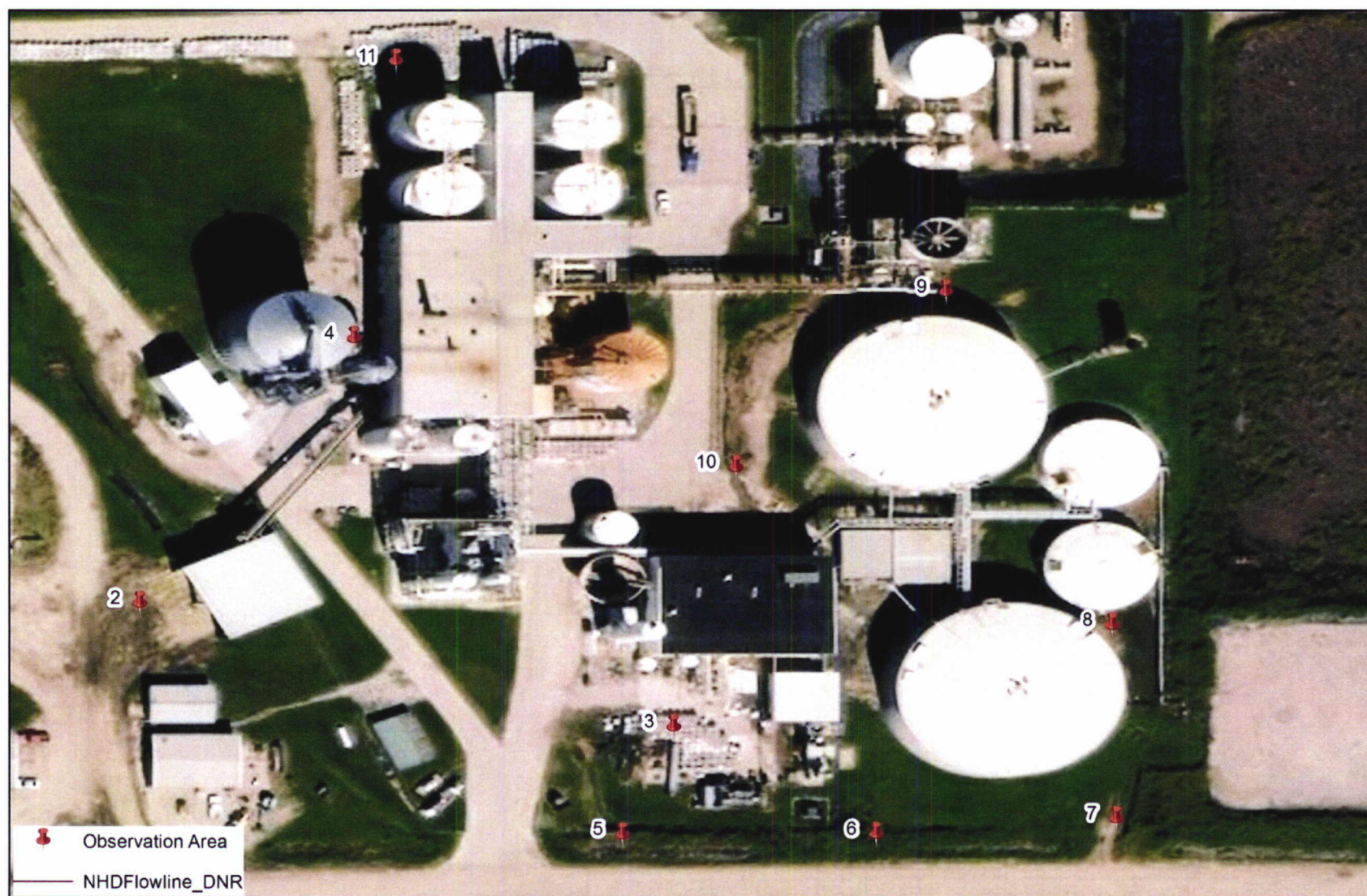
Address: 11344 County Road 10, Mead NE  
NDEQ ID: 84069  
Program ID: NE0137634 / NER910444

0 250 500 1,000 1,500 Feet

**NEBRASKA**  
DEPT. OF ENVIRONMENTAL QUALITY



# AltEn LLC Inspection Map 2



Address: 11344 County Road 10, Mead NE  
NDEQ ID: 84069  
Program ID: NE0137634 / NER910444

0 50 100 200 300 400 Feet

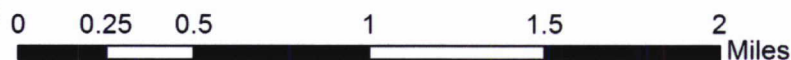
NEBRASKA  
DEPT. OF ENVIRONMENTAL QUALITY



# AltEn LLC Inspection Map 3



Address: 11344 County Road 10, Mead NE  
 NDEQ ID: 84069  
 Program ID: NE0137634 / NER910444



**NEBRASKA**  
 DEPT. OF ENVIRONMENTAL QUALITY



# NEBRASKA

DEPT. OF ENVIRONMENTAL QUALITY

## Inspection Exit Summary

NER910444

NDEQ ID: 84669 NDEQ Program ID: NE0137634 NDEQ Notification #: \_\_\_\_\_

Facility/Operation Name: ATKEN

Address \_\_\_\_\_

City/Town: MEAD, County SAUNDERS, State of Nebraska.

Owner/Occupant/Operator Inspection Contact(s): SCOTT Tinglehoff

Inspector Phone No E-Mail address

Mark Pomaizl 402-471-2936 Mark.Pomaizl@nebraska.gov

Jason Windhorst 402-471-4205 Jason.Windhorst@nebraska.gov

Mailing Address: Department of Environmental Quality, PO Box 98922, Lincoln, Nebraska 68509-8922

Inspection Date: 7-31-19 Start Time: 12:00pm End Time: 4:36pm

☐ No concerns observed

☐ Further agency discussion needed

☒ Concerns observed:

- STARCH BAGS Broken-SPILLED on South, west side of Facility.
- Cooling water tower leaking, around East side. Causing passive discharge of Solids mixing with dust from process.
- Bilgewater Ratchet noted along the South side of the Facility.
- Lagoons have Damage (Ongoing) \* Sample Taken
- Corn and the grain Bin \* Possible issue with sample locations
- Housekeeping: \* Myster Discharge From Digestor
- WetCoke Not Contained, near the Lagoons (West side)

☒ Actions to be performed immediately or as soon as reasonably practical:

- Clear away the Starch Area
- Correct / fix STARCH BAGS as required in the SWPPP.
- Fix Cooling Tower Immediately. \* Time Line 4 to 8 weeks.
- Keep up to date w/ Lagoon repairs. to STARCH BAGS,
- Keep Housekeeping Up to date. \* Contain.
- Immediately Contain WetCoke.
- Sample Point's Jason Windhorst.
- We will keep you informed w/ Sample Results.

Please notify the Inspector when the above actions are completed.

The Department will provide a final inspection report to you usually within 45 days of the inspection. The final inspection report will contain a complete list of any alleged violations. This inspection exit summary does not preclude any other legal action by the Nebraska Department of Environmental Quality and your prompt attention to the documented concerns will be considered in assessment of your voluntary compliance. This summary was left

with: SCOTT Tinglehoff. Please contact the Inspector if you have any questions concerning this inspection exit summary.

Mark Pomaizl  
Inspector Signature

Signing this document is not an admission of liability by the facility.

Scott Tinglehoff  
Inspection Contact Signature

revised 12/11/15