UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO ATTENTION OF
ECW-15J

VIA ELECTRONIC MAIL
Mark Flegenheimer, CEO
Michigan Sugar Company
122 Uptown Drive, Suite 300
Bay City, Michigan 48708
mark.flegenheimer@michigansugar.com

Re: EPA Inspection Report – Michigan Sugar Company Piling Grounds

Dear Mr. Flegenheimer:

Please find enclosed the report generated as a result of the inspection conducted by the U.S. Environmental Protection Agency on March 23, 2022, at the Michigan Sugar Company Remote Piling Grounds of Albee, Augres, Blumfield, Breckenridge and Hope/Midland in Michigan. The purpose of the inspection was to evaluate and document compliance of the Remote Piling Grounds with the requirements of the Clean Water Act.

If you have any questions or concerns regarding this letter or report, please contact Andi Hodaj of my staff at (312) 353-4645 or, via email at hodaj.andi@epa.gov.

Sincerely,

MOLLY SMITH
Digitally signed by MOLLY SMITH
Date: 2022.05.19 16:34:01 -05'00'

Molly Smith, Chief
Section 1
Water Enforcement and Compliance Assurance Branch

Enclosure

Cc (via email): Eric Rupprecht, Michigan Sugar Company
Kristine Corneillie, Barr Engineering
Charles Bauer, EGLE
Nadia Hamade, Michigan AG
Kristin Furrie, DOJ
Charles Mikalian, EPA

CLEAN WATER ACT COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:	Compliance Evaluation Sampling Inspection
Facilities:	Michigan Sugar Company – Piling Grounds of Albee, Blumfield, Breckenridge, Au Gres and Hope/Midland
Date of Inspection:	March 23, 2022
EPA Representatives:	Andi Hodaj, Environmental Engineer Joan Rogers, Environmental Scientist
State Representatives:	None
Facility Representatives:	Kristine Corneillie, Senior Environmental Engineer
Report Prepared by:	Andi Hodaj, Environmental Engineer hodaj.andi@epa.gov, 312-353-4645

Inspector Signature: ANDI HODAJ Digitally signed by ANDI HODAJ Date: 2022.05.17 14:05:43 -05'00'

Approver Title: Molly Smith, Section Supervisor, Section 1, Water Enforcement and Compliance Assurance Branch

Approval Signature: MOLLY SMITH Digitally signed by MOLLY SMITH Date: 2022.05.19 16:33:27 -05'00'

All photos for this inspection were taken by Joan Rogers and Andi Hodaj, using an Olympus Tough TG-4 and a RICOH WG-4 camera (respectively). All times referenced in this inspection report are in Eastern Daylight Time (EDT). Time stamps in the photos taken with the RICOH WG-4 camera are in Central Daylight Time (CDT).

Facility Background

The purpose of this report is to describe, evaluate and document the Michigan Sugar Company (MSC) piling grounds' compliance with the Clean Water Act (CWA) at its Au Gres, Hope/Midland, Breckenridge, Albee and Blumfield locations in Michigan on March 23, 2022. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

MSC is a corporation which products include granulated sugar, dried beet pulp and pressed pulp, (used for farm-raised animal and pet foods), molasses and other byproducts, and sugarbeet lime (used as a soil additive). MSC is a growers'-owned coop with approximately 1,000 member owners growing sugar beets on over 160,000 acres of land in 20 Michigan counties and Ontario, Canada. It has 900 year-round employees and 1,000 seasonal workers during peak processing season. Combined, its processing plants can slice 22,000 tons per day of beets and can produce over one billion pounds of sugar per year. MSC corporate offices are located in Bay City, Michigan.

The company operates 4 processing facilities, where sugar beet plants are processed, and 10 piling grounds, which are areas where sugar beets, coming from the farms, are stored until they can be transported to the processing facilities. The 4 processing facilities operate each under a National Pollutant Discharge Elimination System (NPDES) permit, while the 10 piling grounds do not have NPDES permits. The company uses the piling grounds to store sugar beets from the time that the beets are harvested until the time the beets can be processed at the processing facility, usually from late September to late March, depending on weather conditions. The sugar beets are transported to the piling grounds by farmer owned trucks and stacked in piles.

On December 11, 2017, EPA issued a CWA Section 308 Information Request to MSC requesting documents related to their processing plants and sugar beet piling grounds. EPA received the requested documents over several months in 2018. Included in the response were information about the piling grounds that included the name and address of each piling ground, maps and/or aerial photos of the piling grounds with stormflow direction, the type of piles in each piling ground, type of runoff control system in place, and a description of the receiving water of stormwater from the piling grounds.

Based on the response provided, the ten MSC piling grounds are located around the Saginaw Bay, Michigan area (see map in Figure 1). All of the piling grounds are gravel lots and most have catch basins with piping that discharge the collected water from the piling ground to ditches, streams, or tributaries to streams. Some of the piling grounds also have runoff into the ditches, streams, or tributaries. With the assistance of personnel from the Michigan Department of Environment, Great Lakes and Energy (EGLE), EPA visited nine of the piling grounds in October 2018. At that time, EPA captured GPS coordinates of all the outlet pipes and swale

locations. EPA also identified receiving ditches, streams and tributaries, and created maps for the sampling teams to use to take the samples and document the waterways.

On April 12, 2019, EPA conducted a compliance evaluation inspection at the ten piling grounds that included sampling of runoff from the remote piling grounds and documenting the receiving waters. The inspection report, dated June 18, 2019, was sent to MSC on June 19, 2019.

This report describes the proceedings and findings of the inspections conducted at five of the piling grounds: Albee, Blumfield, Breckenridge, Au Gres, and Hope/Midland piling grounds.

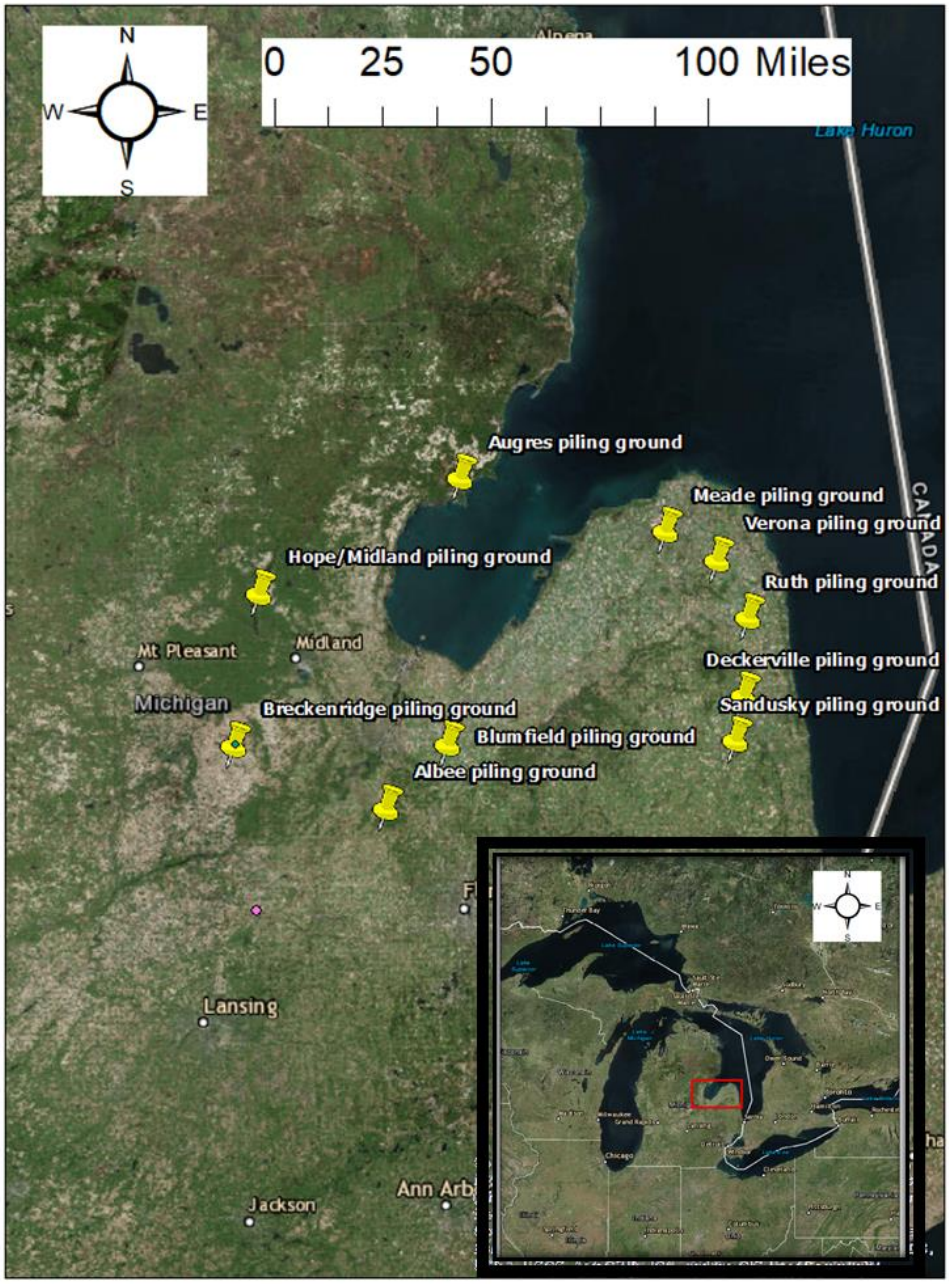

Figure 1.Map showing the locations of the Michigan Sugar Co. piling grounds.

Objective
The main objective of this inspection was to sample any observed discharges from the piling grounds.

Site visit
On March 23, 2022, Andi Hodaj and Joan Rogers (collectively, EPA) met with Kristine Corneillie (Senior Environmental Engineer at Barr Engineering and MSC representative) at the Albee Piling Ground, located at 11393 Albee Road, Burt, Michigan. EPA showed credentials and explained to the MSC representative the proceedings of the inspection, which would include collecting grab samples of any surface runoff water or outlet pipes discharging from the sugar beet piling grounds into adjacent surface waters, documenting the sampling time and location and taking photographs of the discharge points and of any sugar beet piles on site. In addition, the sampling team used a YSI sonde to take measurements of Dissolved Oxygen (DO). EPA documented and photographed the outfall location and the receiving water body on each piling ground.

The report is split in six parts where five parts describe the proceedings for each piling ground and the sixth part provides the results from the sampling.

EPA prepared the field blank, named "B01" at 7:20 A.M., consisting of a bottle for BOD, TDS and TSS analysis and another for nutrient analysis. EPA preserved the bottle for nutrient analysis with sulfuric acid, and put both bottles in a cooler with ice immediately.

1. Albee piling ground

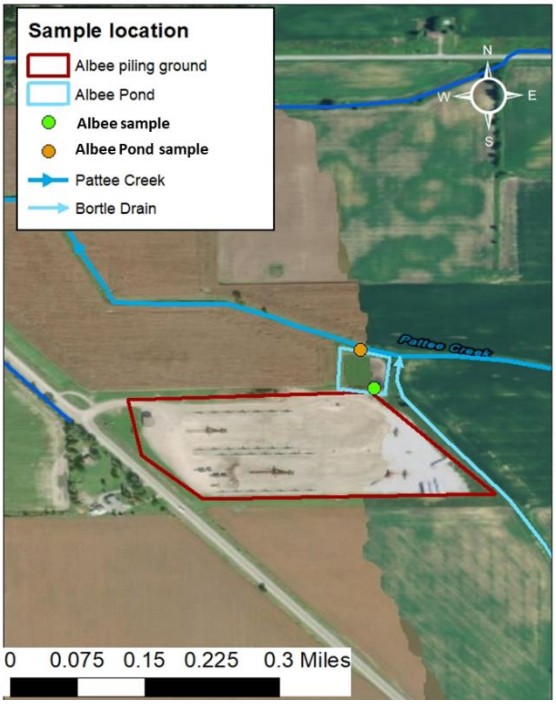

Figure 2. Aerial image of Albee piling ground, the location where the samples were taken, the pond on site and the receiving waters.

EPA arrived at the Albee Piling Ground at 8:11 A.M. The temperature was 37°F and it was very windy. It had rained the night before. The Albee piling ground is approximately 21.5 acres and has three rows of catch basins that direct surface runoff to a stormwater pond at the northeast corner of the piling ground. The pond has an inlet pipe (from the piling ground catch basins, photos 6 – 8) and an outlet pipe that discharges into Pattee Creek to the north. The outlet pipe was under water at the time of the inspection. Pattee Creek flows approximately 6.3 miles northwest to Misteguay Creek which in turn flows for 0.15 miles into the Flint River. The Flint River is a Water of the United States. EPA observed beet piles at the time of the inspection. We took samples "Albee" from the inlet pipe to the pond and "Albee Pond" from the northwest side of the pond where it discharges via gravity to Pattee Creek, at 8:29 A.M. and 8:42 A.M., respectively. Nutrient samples were preserved with sulfuric and both bottles were placed on ice in a cooler immediately.

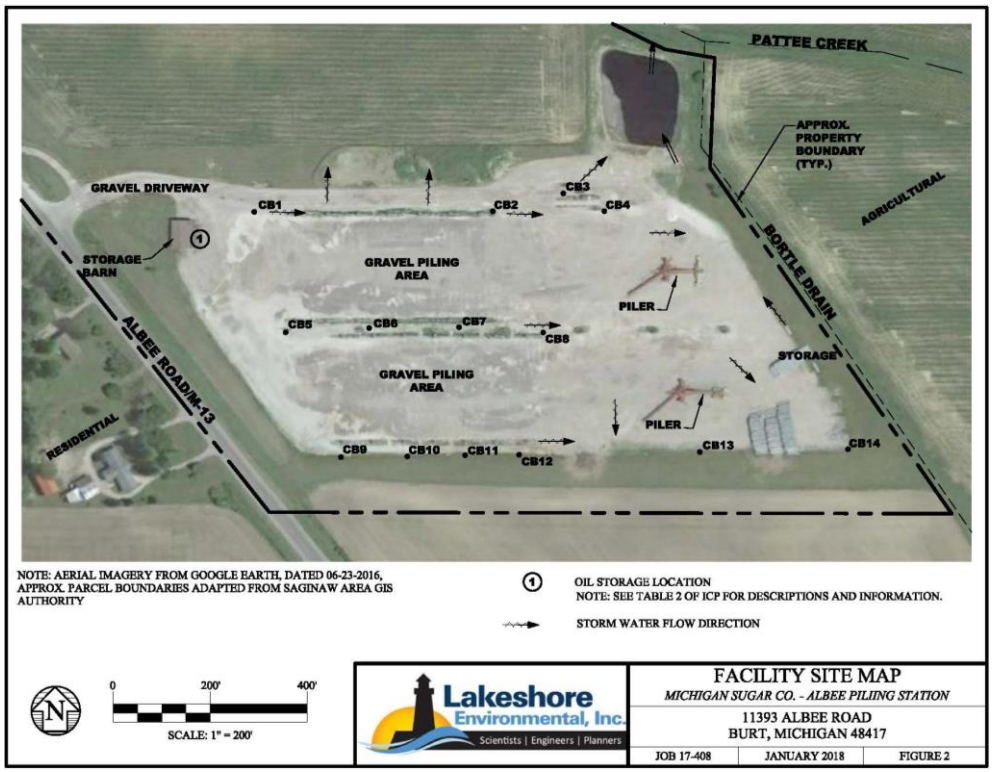

Figure 3: Aerial image of the Albee piling ground provided to EPA by MSC in response to the December 11, 2017 information request. The aerial image shows the catch basins on site and the stormwater flow direction.

1: P3230078
Description: The pond at the Albee Piling Ground. The pipe from the piling ground is under water.
Location: Albee Piling Ground.
Camera Direction: Southwest
Date/Time: March 23, 2022/8:23 A.M.

2: P3230079
Description: Looking upstream in Pattee Creek.

Location: Albee Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/8:24 A.M.

3: P3230080
Description: Looking downstream in Pattee Creek.
Location: Albee Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/8:24 A.M.

4: P3230081
Description: Looking upstream at Bortle Drain.

Location: Albee Piling Ground.
Camera Direction: South
Date/Time: March 23, 2022/8:25 A.M.

5: P3230082
Description: Looking downstream at Bortle Drain.
Location: Albee Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/8:25 A.M.

6: P3230083

Description: EPA took sample named “Albee” from the pipe that discharges stormwater from the piling ground into the pond at 8:29 A.M. EPA noted that it took six seconds to fill a one liter bottle.
Location: Albee Piling Ground.
Camera Direction: West and down
Date/Time: March 23, 2022/8:26 A.M.

7: P3230084
Description: EPA split the samples with Michigan Sugar Company.
Location: Albee Piling Ground.
Camera Direction: West and down
Date/Time: March 23, 2022/8:31 A.M.

8: P3230085
Description: Note the plume into the pond from the pipe from the piling ground.
Location: Albee Piling Ground.
Camera Direction: East and down
Date/Time: March 23, 2022/8:33 A.M.

9: P3230086
Description: Note the plume into the pond from the pipe from the piling ground.
Location: Albee Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/8:33 A.M.

3: P3230087
Description: EPA also observed surface runoff from the piling ground to the pond.
Location: Albee Piling Ground.
Camera Direction: South
Date/Time: March 23, 2022/8:33 A.M.

4: P3230088
Description: EPA also observed surface runoff from the piling ground to the pond.
Location: Albee Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/8:33 A.M.

5: P3230089
Description: EPA also observed surface runoff from the piling ground to the pond.
Location: Albee Piling Ground.
Camera Direction: North and down
Date/Time: March 23, 2022/8:33 A.M.

6: P3230090
Description: EPA observed foam on the edge of the pond.
Location: Albee Piling Ground.
Camera Direction: South
Date/Time: March 23, 2022/8:39 A.M.

7: P3230091
Description: EPA observed foam on the edge of the pond.
Location: Albee Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/8:39 A.M.

8: P3230092
Description: A sample was taken from this location in the Albee pond. Sample was named "Albee Pond" and was taken at 8:42 A.M.
Location: Along the edge of the Albee Piling Ground pond at the northwest corner.
Camera Direction: Down
Date/Time: March 23, 2022/8:46 A.M.

9: P3230093

Description: Sample named “Albee Pond” was taken from the pond at the Albee Piling Ground at 8:42 A.M. The dissolved oxygen (DO) at the pipe to the pond was 38.6% and the DO in the pond was 14.8%
Location: Along the edge of the Albee Piling Ground pond at the northwest corner.
Camera Direction: Down
Date/Time: March 23, 2022/8:46 A.M.

10: P3230094
Description: EPA noted dead fish on the embankment to the west of the pond.
Location: Albee Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/8:51 A.M.

18: P3230095

Description: Sugar beets were still present at the Albee Piling Ground on the day of the inspection.
Location: Albee Piling Ground
Camera Direction: Southwest
Date/Time: March 23, 2022/9:10 A.M.

19: P3230096
Description: Precipitation that falls on the piling ground also falls on the piles of sugar beets.
Location: Albee Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/9:11 A.M.

11: P3230097
Description: Precipitation that falls on the piling ground also falls on the piles of sugar beets.
Location: Albee Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/9:11 A.M.

12: P3230098
Description: The entrance to the Albee Piling Ground.
Location: Albee Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/9:13 A.M.

13: P3230099
Description: The entrance to the Albee Piling Ground with the sign for the site.
Location: Albee Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/9:13 A.M.

2. Blumfield piling grounds

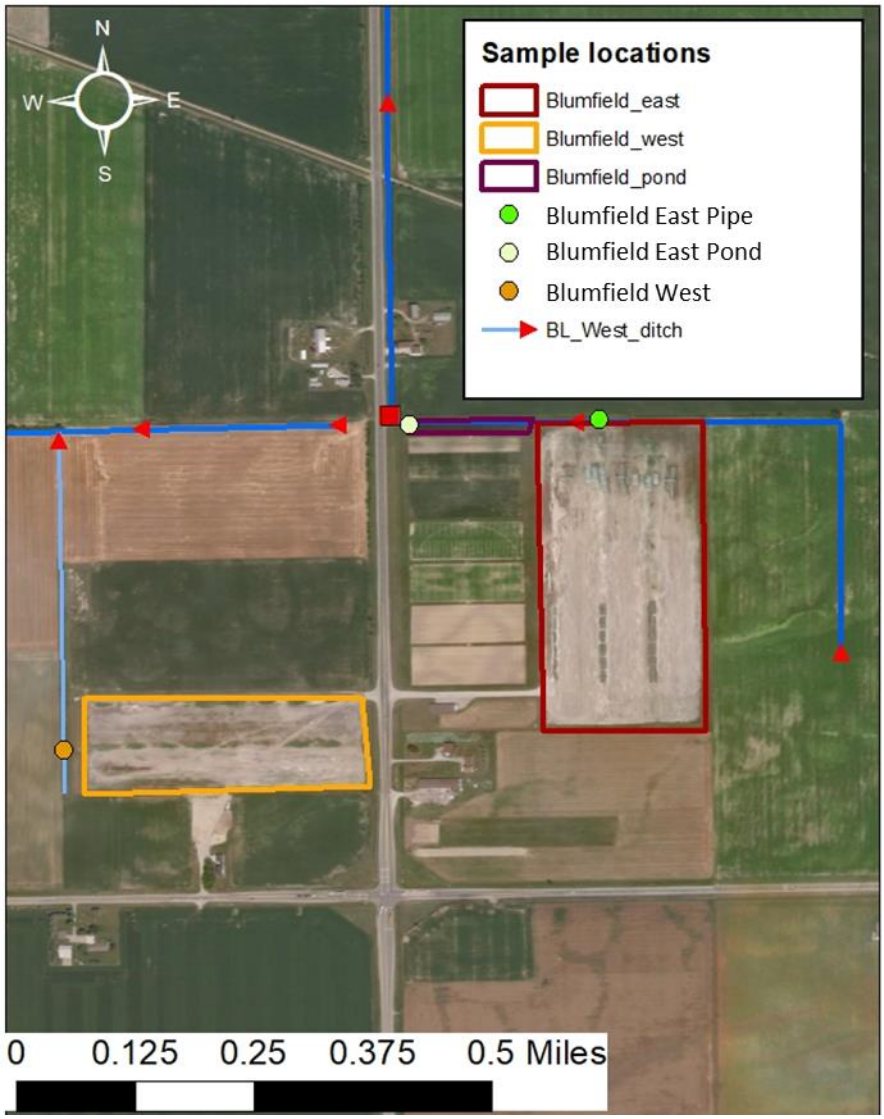

Figure 4. Aerial image of the Blumfield piling grounds (east and west), the location where the samples were taken, the pond on site and the location of the outlet pipe from the pond to the roadside ditch.

EPA arrived at the Blumfield piling grounds, located at 181 North Gera Road, Reese, Michigan, at 9:59 A.M. The Blumfield piling ground occupies two fields east and west of North Gera Road. The east piling ground is approximately 32 acres and has three rows of catch basins that direct surface runoff to a stormwater pond at the northwest corner of the piling ground. The pond has an outlet pipe that discharges into a tributary of the Cheboyganing Creek to the west of the pond. One row of the catch basins discharges into an adjacent ditch north of the piling ground. The ditch discharges into the aerated pond.

EPA observed beet piles on the Blumfield East piling ground, at the time of the inspection. EPA observed discharge from the outlet pipe of the piling ground into the adjacent ditch north of the piling ground and took sample “Blumfield East Pipe” at 10:21 A.M. from the pipe (photos 27 and 28). Because the outlet pipe from the pond to the North Gera Road ditch was submerged, EPA took sample “Blumfield East Pond” at 10:38 A.M. from the pond close to where the inlet

pipe from the pond to the North Gera Road ditch, as shown in photo 35. Sample was preserved immediately after they were taken.

The west piling ground is approximately 17 acres and has three rows of catch basins that collect and direct stormwater west to an adjacent to the piling ground ditch. EPA did not observe any sugar beet piles at the time of the inspection. EPA observed runoff flowing west into a catch basin that was conveying the runoff into the adjacent ditch to the west via a green PVC pipe. EPA took sample "Blumfield West" at 11:17 A.M. from the green PVC pipe. Sample was preserved immediately after it was taken.

EPA walked north along the ditch, from the discharge pipe at Blumfield West to where the ditch entered a pipe underground, approximately 1000 feet from the discharge point, as shown in photo 43. EPA walked further north to the start of another field ditch, approximately 1,700 feet from the discharge point, that flowed west. EPA did not observe any pipes flowing into this ditch from the direction of the piling ground.

14: P3230100
Description: Sugar beets were present at the Blumfield East Piling Ground on the day of the inspection.
Location: Blumfield East Piling Ground.
Camera Direction: Northeast
Date/Time: March 23, 2022/9:57 A.M.

15: P3230101
Description: EPA observed the surface flow to the catch basin. This catch basin is the last one before the flow goes to the pond.
Location: Blumfield East Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/10:19 A.M.

25: RIMG2487
Description: Pipe discharging runoff from the Blumfield East piling ground into an unnamed tributary north of the piling ground.
Location: North edge of the Blumfield East piling ground. 43.41427, -83.73474
Camera Direction: North
Date/Time: March 23, 2022/9:03

26: RIMG2488
Description: Pipe discharging into the North Gera Road ditch from the pond at Blumfield East. Pipe was partially under water at the time of inspection.
Location: Blumfield East piling ground. 43.41442, -83.73781
Camera Direction: Northwest
Date/Time: March 23, 2022/9:35

16: P3230102
Description: EPA took sample named “Blumfield East Pipe” from the pipe to the ditch on the north side of the site at 10:21 A.M. The DO level was 89.1%
Location: Blumfield East Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/10:22 A.M.

28: P3230103
Description: EPA took sample named “Blumfield East Pipe” from the pond where the pipe discharged flow at 10:21 A.M.
Location: Blumfield East Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/10:22 A.M.

29: P3230104
Description: EPA observed a plume from the pipe from the Blumfield East Piling Ground to the pond northwest of the site.
Location: Blumfield East Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/10:27 A.M.

30: P3230105
Description: The Blumfield East Piling Ground from the sample location.
Location: Blumfield East Piling Ground.
Camera Direction: South
Date/Time: March 23, 2022/10:28 A.M.

31: P3230106
Description: The aerator in the pond at Blumfield East Piling Ground.
Location: Blumfield East Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/10:36 A.M.

17: P3230107
Description: The pond at Blumfield East Piling Ground.
Location: Blumfield East Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/10:38 A.M.

18: P3230108
Description: The pond discharges to a roadside ditch. The pipe was under water on the day of the inspection.
Location: West side of the pond at Blumfield East Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/10:39 A.M.

19: P3230109
Description: At 10:38 A.M., EPA took sample named “Blumfield East Pond” from the pond at the Blumfield East Piling Ground near the pond’s discharge pipe on the west side. The DO level was 65%
Location: West side of the pond at Blumfield East Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/10:46 A.M.

20: P3230110
Description: “Blumfield East Pond” samples. Red circle shows the location of the pipe in the pond that takes water from pond to the roadside ditch.
Location: West side of the pond at Blumfield East Piling Ground.
Camera Direction: Southeast and down
Date/Time: March 23, 2022/10:47 A.M.

21: P3230111
Description: The Blumfield Piling Ground sign along Gera Road.
Location: Blumfield East Piling Ground.
Camera Direction: South
Date/Time: March 23, 2022/11:01 A.M.

37: RIMG2490
Description: Runoff flowing west at Blumfield West piling ground.
Location: Blumfield West piling ground. 43.4097, -83.74256
Camera Direction: East
Date/Time: March 23, 2022/11:04

38: RIMG2491
Description: Runoff flowing west and entering a catch basin at Blumfield West piling ground.
Location: Blumfield West piling ground. 43.4097, -83.74256
Camera Direction: West
Date/Time: March 23, 2022/11:04

39: P3230112
Description: EPA observed water going into the catch basin on the east side of the berm on the west side of the Blumfield West Piling Ground.
Location: Blumfield West Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/11:11 A.M.

40: P3230113
Description: Water flowing into the catch basin on the west end of the Blumfield West Piling Ground.
Location: Blumfield West Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/11:11 A.M.

41: P3230114
Description: EPA took sample named “Blumfield West” from the discharge from a pipe on the west side of the berm on the west side of the Blumfield West Piling Ground.
Location: Blumfield West Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/11:17 A.M.

42: P3230115
Description: The pipe from the Blumfield West Piling Ground goes through a berm to the west and discharges to a ditch.
Location: Blumfield West Piling Ground.
Camera Direction: West and down
Date/Time: March 23, 2022/11:17 A.M.

43: RIMG2495
Description: The unnamed tributary of Blumfield West, flows north and approximately 1000 feet, into a green PVC pipe.
Location: Approximately 100 feet north of the discharge from Blumfield West. 43.41237, -83.74292
Camera Direction: North
Date/Time: March 23, 2022/11:31

44: RIMG2496
Description: The start of a headwater stream, 1700 feet north of the discharge point from the Blumfield West piling ground. The headwater stream flows west.
Location: Approximately 1,700 feet north of the Blumfield West discharge point. 3.41443, -83.74314
Camera Direction: South
Date/Time: March 23, 2022/11:36

45: RIMG2497
Description: The start of a headwater stream, 1700 feet north of the discharge point from the Blumfield West piling ground. The headwater stream flows west.
Location: Approximately 1,700 feet north of the Blumfield West discharge point. 3.41443, -83.74314
Camera Direction: Southeast
Date/Time: March 23, 2022/11:37

46: RIMG2498
Description: The start of a headwater stream, 1700 feet north of the discharge point from the Blumfield West piling ground. The headwater stream flows west.
Location: Approximately 1,700 feet north of the Blumfield West discharge point. 3.41443, -83.74314
Camera Direction: Southeast
Date/Time: March 23, 2022/11:37

3. Breckenridge Piling Ground

Figure 5. Aerial image of the Breckenridge piling ground, the location where the samples were taken, the pond on site and the locations of the outlet pipes.

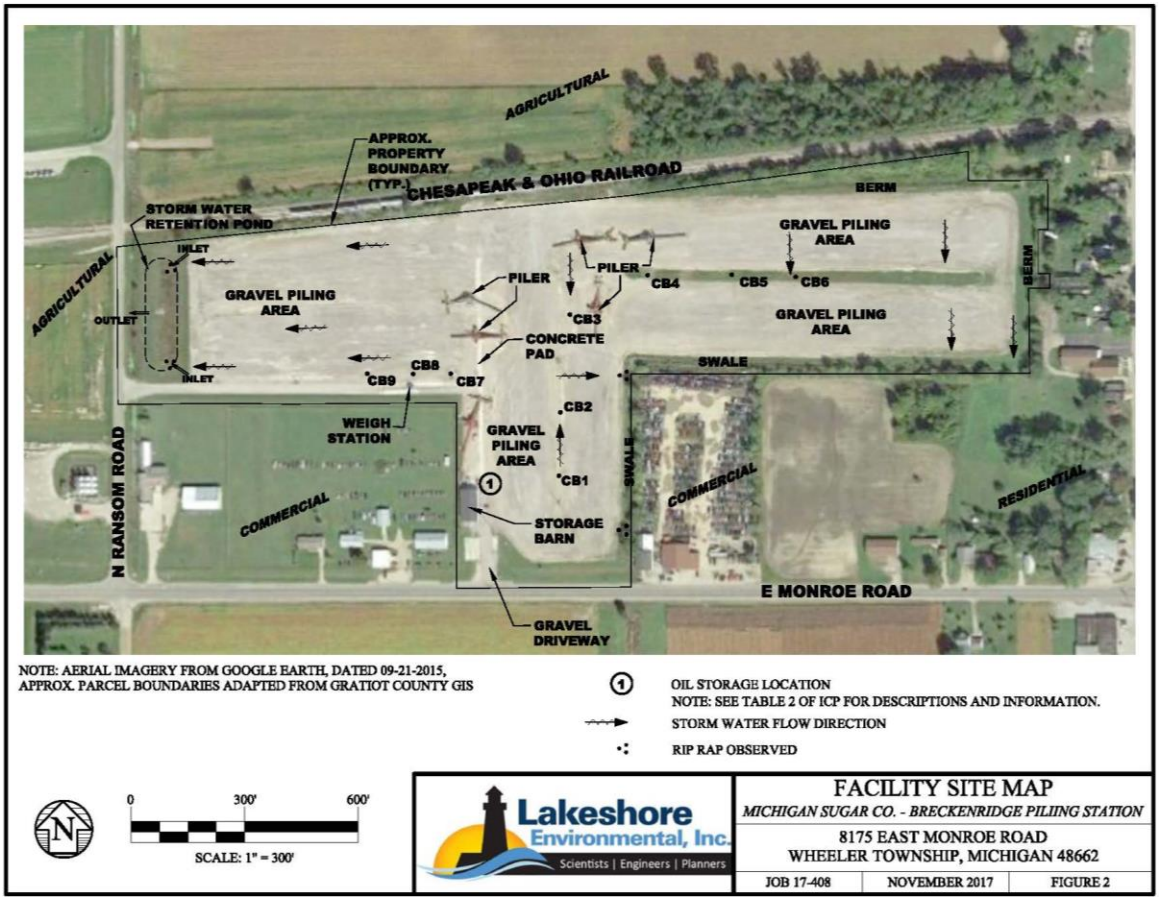

Figure 6: Aerial image of the Breckenridge piling ground provided to EPA by MSC in response to the December 11, 2017 information request. The aerial image shows the catch basins on site and the stormwater flow direction.

EPA arrived at the Breckenridge Piling Ground, at 1:27 P.M. The Breckenridge piling ground is located at 8175 East Monroe Road,Wheeler, Michigan and is approximately 39 acres, the largest of the piling grounds. The piling ground is shaped like a "T" with two "arms," the east "arm" and the west "arm," and a "stem" that goes to the south from the middle of the arms. EPA did not observe any sugar beet piles at the time of the inspection. However, there was scattered beet residue on the ground. EPA observed a storm water inlet structure at the northwest corner of the east arm (photos 60 – 64). From this structure, we observed piping that conveys flow to the south and into an unnamed stream south of East Monroe Road, that is a tributary to Beaver Creek (photos 78 and 79). EPA observed runoff from the piling ground entering the stormwater inlet structure and took sample "Breckenridge East/Monroe" at 1:37 P.M.from the runoff entering the structure (photos 48 – 64). The sample was immediately preserved.

EPA observed two rows of catch basins along the northern and southern edges of the west arm that convey flow from the east to the west and outlet into a stormwater retention pond. The pond was cleared of vegetation that EPA observed growing in the pond during its April 2019 inspection. The pond discharges west into the North Ransom Road ditch through two inlet structures within the pond shown in photos 66 – 69. The outlet pipe to the North Ransom Road

ditch was under water at the time of the inspection. EPA took sample “Breckenridge” from the one of the inlet structures in the pond at 2:07 P.M. The sample was immediately preserved.

47: P3230116
Description: The outlet from the pond is beneath the first inlet pipe in the rock structure (circled with a red circle).
Location: Breckenridge Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/1:26 P.M.
EPA walked east along the north side of the Breckenridge Piling Ground to the storm water structure.

48: P3230117
Description: EPA observed the surface flow from the piling ground to the storm water structure.
Location: Breckenridge Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/1:34 P.M.

49: P3230118
Description: EPA observed the surface flow from the piling ground to the storm water structure.
Location: Breckenridge Piling Ground.
Camera Direction: Northwest and down
Date/Time: March 23, 2022/1:34 P.M.

50: P3230119
Description: EPA observed the surface flow from the piling ground to the storm water structure.
Location: Breckenridge Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/1:34 P.M.

51: P3230120
Description: EPA observed the surface flow from the piling ground to the storm water structure.
Location: Breckenridge Piling Ground.
Camera Direction: Southwest and down
Date/Time: March 23, 2022/1:35 P.M.

53: P3230121
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/1:35 P.M.

54: P3230122
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: North and down
Date/Time: March 23, 2022/1:35 P.M.

55: P3230123
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/1:35 P.M.

56: P3230124
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/1:35 P.M.

57: P3230125
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/1:35 P.M.

58: P3230126
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: West and down
Date/Time: March 23, 2022/1:35 P.M.

59: P3230127
Description: EPA observed the surface flow was milky and there was a plume from the piling ground.
Location: Breckenridge Piling Ground.
Camera Direction: West and down
Date/Time: March 23, 2022/1:35 P.M.

60: P3230128
Description: The flow goes into the side of the storm water structure.
Location: North side of the Breckenridge Piling Ground.
Camera Direction: North and down
Date/Time: March 23, 2022/1:35 P.M.

61: P3230129
Description: EPA took sample named “Breckenridge East/Monroe” from the flow into the storm water structure on the north side of the piling ground at 1:37 P.M..
Location: North side of the Breckenridge Piling Ground.
Camera Direction: North and down
Date/Time: March 23, 2022/1:36 P.M.

62: P3230130
Description: The flow into the storm water structure. The DO was 69%
Location: North side of the Breckenridge Piling Ground.
Camera Direction: South and down
Date/Time: March 23, 2022/1:40 P.M.

63: P3230131
Description: EPA took sample named “Breckenridge East/Monroe” from the flow into the storm water structure on the north side of the piling ground at 1:37 P.M.
Location: North side of the Breckenridge Piling Ground.
Camera Direction: Southwest and down
Date/Time: March 23, 2022/1:40 P.M.

64: P3230132
Description: EPA took sample named “Breckenridge East/Monroe” from the flow into the storm water structure on the north side of the piling ground at 1:37 P.M.
Location: North side of the Breckenridge Piling Ground.
Camera Direction: Southwest and down
Date/Time: March 23, 2022/1:40 P.M.

65: P3230133
Description: The stone outlet structure from the Breckenridge Piling Ground pond is on the left hand side of the photo.
Location: South of the Breckenridge Piling Ground pond.
Camera Direction: North
Date/Time: March 23, 2022/1:54 P.M.

66: P3230134
Description: The stone outlet structure from the Breckenridge Piling Ground pond to the ditch along Ransom Road. The inlet pipe is in the inlet structure furthest from the camera.
Location: West side of the Breckenridge Piling Ground pond.
Camera Direction: East and down
Date/Time: March 23, 2022/1:56 P.M.

67: P3230135
Description: EPA noted where the outlet pipe to the ditch along Ransom Road was located. It was under water on the day of the inspection.
Location: West side of the Breckenridge Piling Ground pond.
Camera Direction: East and down
Date/Time: March 23, 2022/2:00 P.M.

68: P3230136
Description: EPA took sample named “Breckenridge” from the inlet structure at 2:07 P.M.
Location: Rock and metal inlet structure on the west side of the Breckenridge Piling Ground pond.
Camera Direction: Down
Date/Time: March 23, 2022/2:08 P.M.

69: P3230137
Description: EPA took sample named “Breckenridge” from the inlet structure at 2:07 P.M.
Location: Rock and metal inlet structure on the west side of the Breckenridge Piling Ground pond.
Camera Direction: Down
Date/Time: March 23, 2022/2:08 P.M.

70: P3230138
Description: The inlet pipe to the Breckenridge Piling Ground pond from the piling ground. Note the plume from the pipe.
Location: Breckenridge Piling Ground pond.
Camera Direction: Northwest
Date/Time: March 23, 2022/2:10 P.M.

71: P3230139
Description: The flow pathway in the ditch on the east side of Ransom Road. Flow goes south.
Location: East side of Ransom Road.
Camera Direction: Northeast
Date/Time: March 23, 2022/2:23 P.M.

72: P3230140
Description: Flow along the east side of Ransom Road goes to a culvert under Monroe Road.
Location: Norhteast corner of North Ransom Road and East Monroe Road.
Camera Direction: Southeast and down
Date/Time: March 23, 2022/2:23 P.M.

73: P3230141
Description: The flow in the ditch on the east side of Ransom road flows into a culvert under Monroe Road.
Location: Northeast corner of North Ransom Road and East Monroe Road.
Camera Direction: Southeast and down
Date/Time: March 23, 2022/2:23 P.M.

74: P3230142
Description: The flow in the ditch on the east side of Ransom road flows into a culvert under Monroe Road.
Location: Northeast corner of North Ransom Road and East Monroe Road.
Camera Direction: Southeast and down
Date/Time: March 23, 2022/2:24 P.M.

75: P3230143
Description: Manhole in the road is location of pipe under East Monroe Road.
Location: Southeast corner of North Ransom Road and East Monroe Road.
Camera Direction: Down
Date/Time: March 23, 2022/2:25 P.M.

76: P3230144
Description: Manhole in the road is location of pipe under East Monroe Road.
Location: Southeast corner of North Ransom Road and East Monroe Road.
Camera Direction: East
Date/Time: March 23, 2022/2:25 P.M.

77: P3230145
Description: Flow enters a ditch on the south side of Monroe Road from three pipes. EPA believes that the one on the right is from the flow from the culvert at the corner of Ransom Road and Monroe Road.
Location: South of Monroe Road east of Ransom Road.
Camera Direction: Northwest
Date/Time: March 23, 2022/2:30 P.M.

78: P3230146
Description: A third pipe (denoted with blue circle) is from the storm structure on the north side of the Breckenridge Piling Ground.
Location: South of Monroe Road east of Ransom Road.
Camera Direction: Northwest
Date/Time: March 23, 2022/2:30 P.M.

79: RIMG2506
Description: Discharge from the underground county drain that runs from north to south through the Breckenridge piling ground. It discharges into the unnamed tributary south of East Monroe road.
Location: Breckenridge piling ground. 43.407793, -84.444169
Camera Direction: North
Date/Time: March 23, 2022/13:30

4. Au Gres Piling Ground

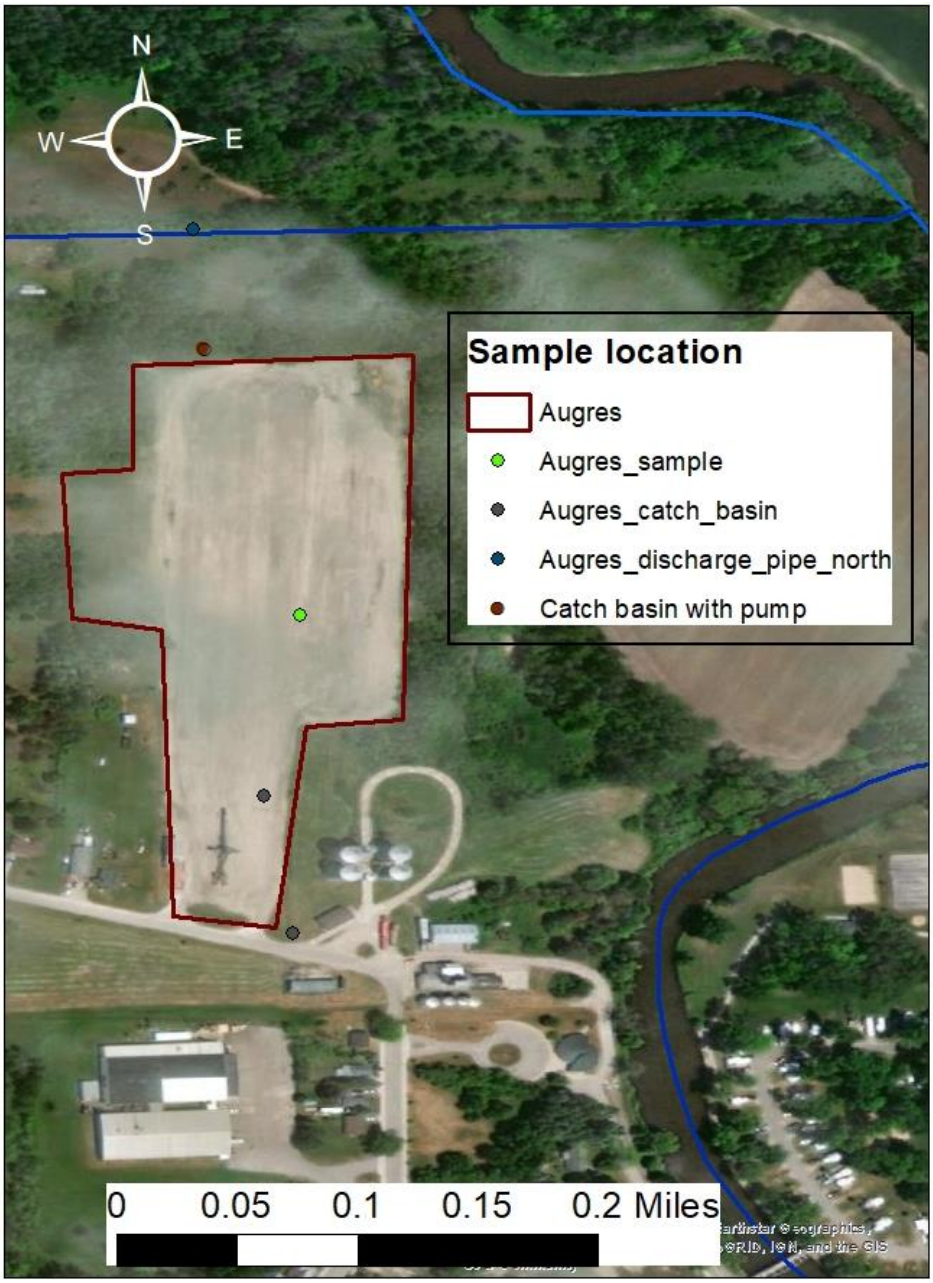

Figure 7. Aerial image of the Au Gres piling ground, the location where the sample was taken, catch basins on site and the locations of the outlet pipe.

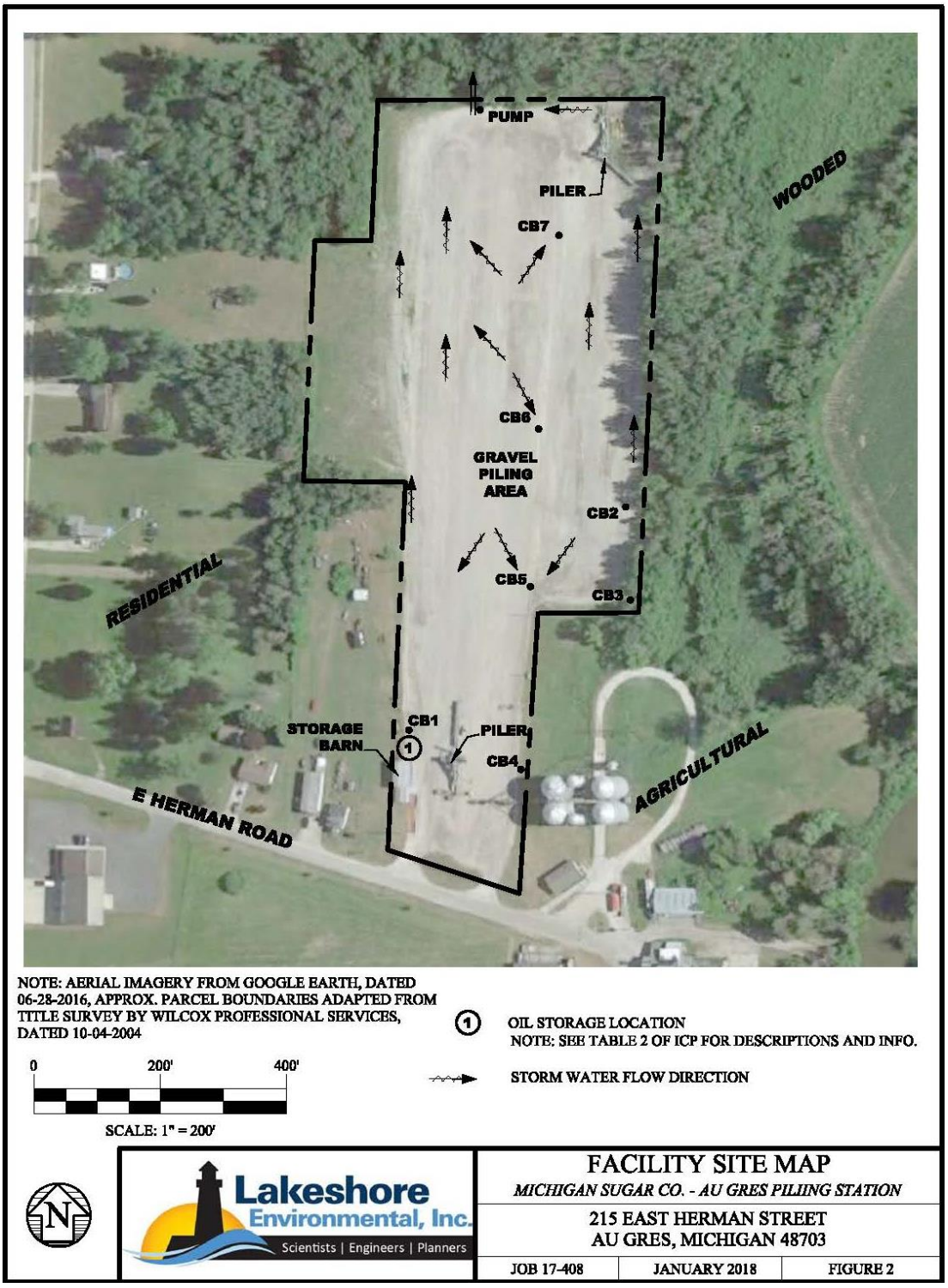

Figure 8: Aerial image of the Au Gres piling ground provided to EPA by MSC in response to the December 11, 2017 information request. The aerial image shows the catch basins on site and the stormwater flow direction.

EPA arrived at the Au Gres Piling Ground at 4:03 P.M. There were no sugar beets on the piling ground at the time of the inspection. The Au Gres piling ground is located at 215 East Herman,

Au Gres, Michigan and has a surface area of approximately 14.5 acres. According to the map in Figure 8 that was provided to EPA by MSC, two rows of underground catch basins on the east and west side of the piling ground, convey runoff to a catch basin near the northwest corner of the piling ground and from there, water is pumped into an unnamed tributary of the Au Gres River, just north of the piling ground and approximately 250 feet from it. During the inspection time, EPA observed that flow from catch basins was routed south instead. EPA observed runoff entering one of the catch basins (photos 83, 84) on the east side of the piling ground and took sample "Au Gres" at 4:29 P.M. EPA observed flow was routed south from the catch basin where the sample was taken, through two more catch basins, at the southern most tip of the property and from there flowing southeast.

EPA observed no flow from the pipe on the north side of the piling ground to the unnamed tributary of the Au Gres River.

80: P3230147
Description: Pipe from the piling ground to a ditch on the north side of the Au Gres Piling Ground.
Location: North side of the Au Gres Piling Ground.
Camera Direction: Northeast
Date/Time: March 23, 2022/4:08 P.M.

81: P3230148
Description: The ditch on the north side of the Au Gres Piling Ground.
Location: North side of the Au Gres Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/4:09 P.M.

82: P3230149
Description: The ditch on the north side of the Au Gres Piling Ground.
Location: North side of the Au Gres Piling Ground.
Camera Direction: Northeast
Date/Time: March 23, 2022/4:09 P.M.

83: P3230150
Description: EPA took the sample named “Au Gres” from the southernmost manhole on the Au Gres Piling Ground at 4:29 P.M.
Location: A manhole on the south side of the Au Gres Piling Ground.
Camera Direction: Northwest and down
Date/Time: March 23, 2022/4:34 P.M.

84: P3230151
Description: EPA took the sample named “Au Gres” from the southernmost manhole on the Au Gres Piling Ground at 4:29 P.M.
Location: A manhole on the south side of the Au Gres Piling Ground.
Camera Direction: Northwest
Date/Time: March 23, 2022/4:34 P.M.

85: P3230152
Description: Sugar beet piling equipment on the Au Gres Piling Ground.
Location: Au Gres Piling Ground.
Camera Direction: West
Date/Time: March 23, 2022/4:47 P.M.

86: P3230153
Description: The direction of flow in the manholes is to the south and to storm sewers off site.
Location: Southeast of the Au Gres Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/4:49 P.M.

87: P3230154
Description: Storm sewer just to the southeast of the Au Gres Piling Ground.
Location: Southeast of the Au Gres Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/4:51 P.M.

88: P3230155
Description: Au Gres Piling Ground sign.
Location: Au Gres Piling Ground.
Camera Direction: North
Date/Time: March 23, 2022/4:54 P.M.

5. Hope/Midland Piling Ground

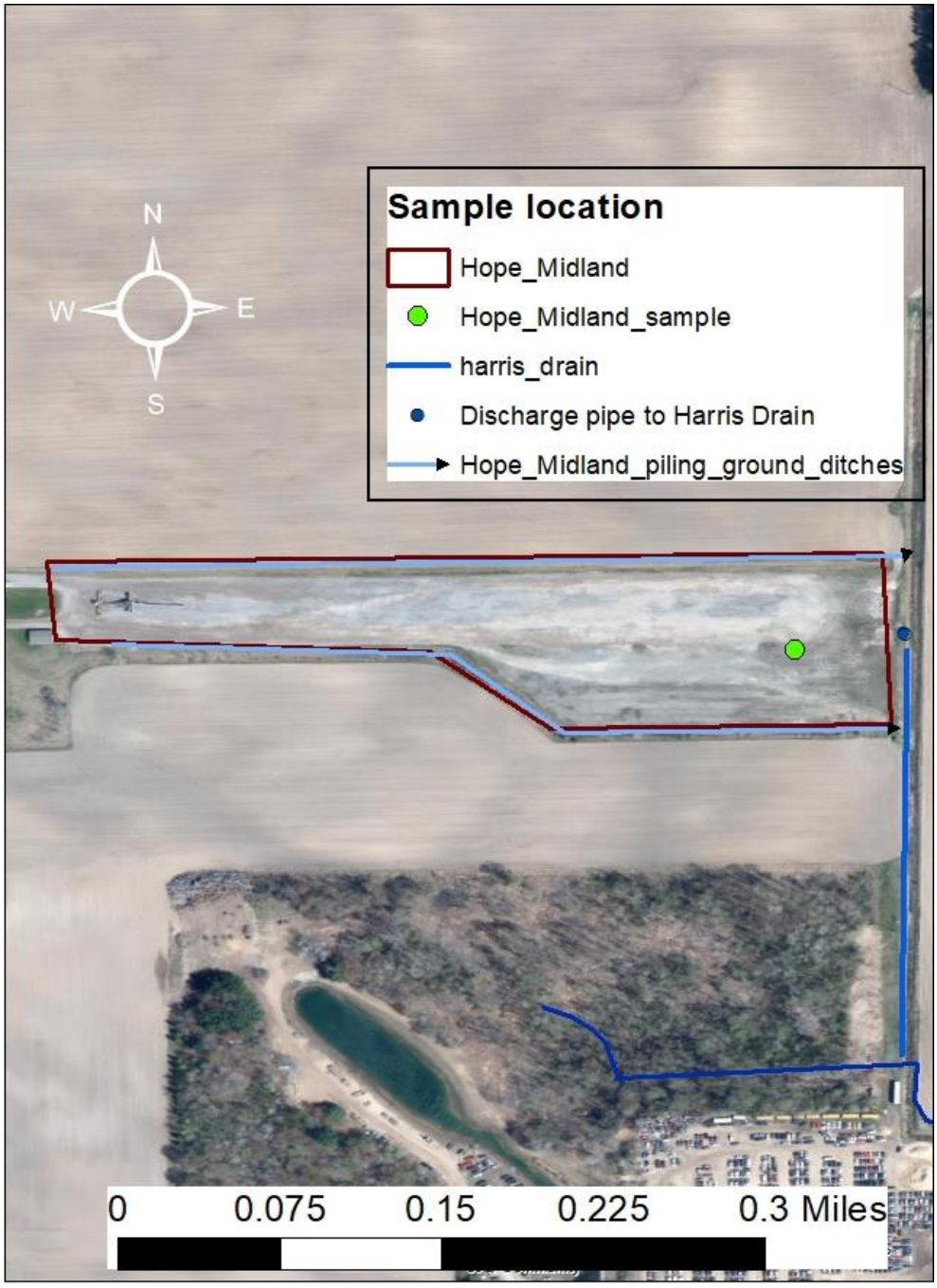

Figure 9. Aerial image of the Hope/Midland piling ground, the location where the sample was taken, catch basin on site and the locations of the outlet pipe.

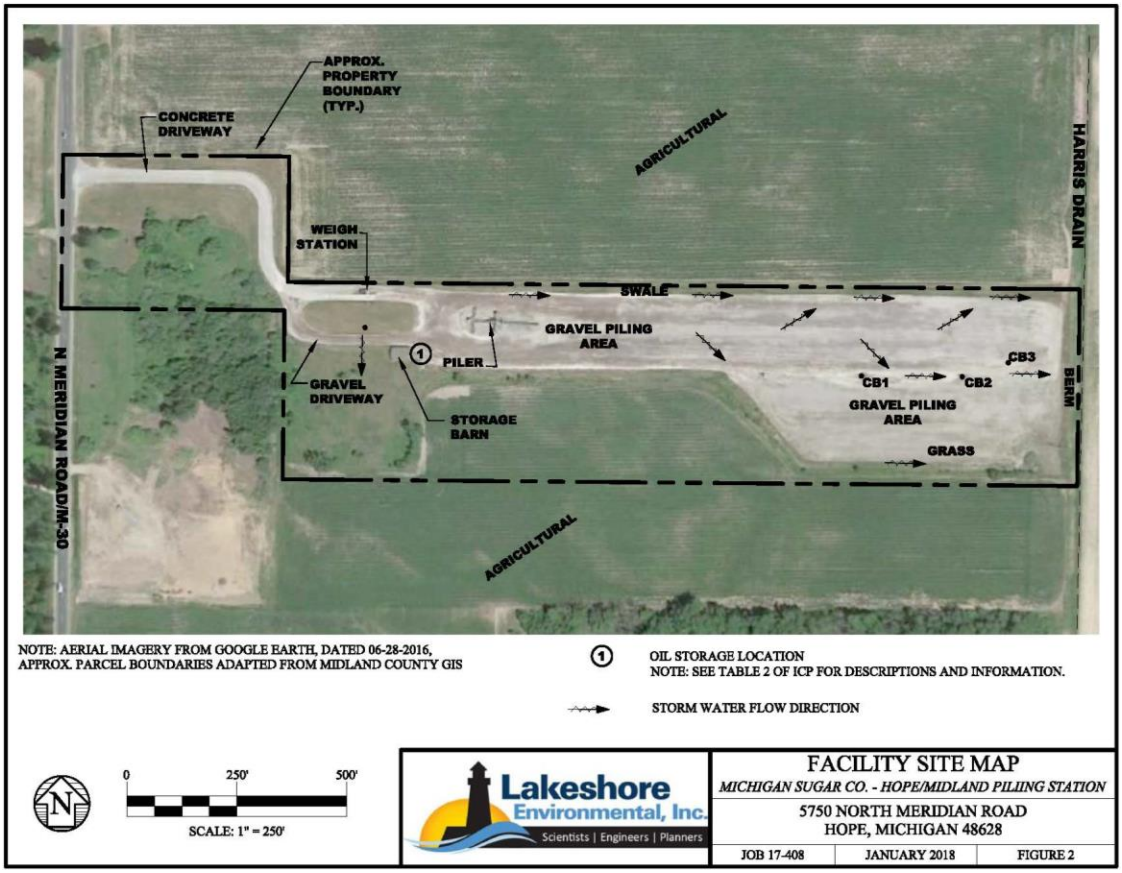

Figure 10: Aerial image of the Hope/Midland piling ground provided to EPA by MSC in response to the December 11, 2017 information request. The aerial image shows the catch basins on site and the stormwater flow direction.

EPA arrived at the Hope/Midland Piling Ground, located at 5750 N. Meridian, Hope, Michigan, at 6:00 P.M. EPA did not observe any sugar beet piles on the piling ground at the time of the inspection. The Hope/Midland piling ground is approximately 14 acres and drains to Harris Drain to the south through a row of underground catch basins and two adjacent (north and south of the piling ground) drainage ditches which also drain into Harris Drain.

The outlet pipe that conveyed water from the catch basins on site to Harris Drain where EPA took a sample from in April 2019, was under water at the time of this inspection (photos 89 and 90). EPA observed runoff flowing into a catch basin, approximately 200 feet west of the discharge pipe. EPA took sample "Hope/Midland" from inside the catch basin at 6:17 P.M. The sample was immediately preserved. The water in the catch basin flowed east towards Harris Drain.

89: P3230156
Description: The receiving waterway for the flow from the Hope/Midland Piling Ground. Red circle indicates the location of the discharge pipe under water.
Location: East side of the Hope/Midland Piling Ground.
Camera Direction: East and down
Date/Time: March 23, 2022/6:06 P.M.

90: RIMG2513
Description: Discharge pipe at the Hope/Midland piling ground was under water. Red circle indicates the location of the pipe.
Location: Hope/Midland piling ground. 43.7765, -84.3586
Camera Direction: Southeast
Date/Time: March 23, 2022

91: P3230157
Description: Looking west from the ditch on the east side of the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: West
Date/Time: March 23, 2022/6:06 P.M.

92: P3230158
Description: EPA took sample named “Hope/Midland” from the flow into a manhole on the south side of the site at 6:17 P.M. The DO level was 124%
Location: Hope/Midland Piling Ground.
Camera Direction: Down
Date/Time: March 23, 2022/6:24 P.M.

93: P3230159
Description: Looking from the manhole where samples were taken toward the ditch on the east side of the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: East
Date/Time: March 23, 2022/6:24 P.M.

94: P3230160
Description: Looking from the manhole where samples were taken toward west side of the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: West
Date/Time: March 23, 2022/6:24 P.M.

95: RIMG2515
Description: Catch basin at Hope/Midland piling ground that was receiving runoff and conveying it into the Harris Drain, east of the piling ground.
Location: Hope/Midland piling ground. 43.77644, -84.35935
Camera Direction: Southeast
Date/Time: March 23, 2022/18:10

96: P3230161
Description: EPA also observed surface runoff to a ditch on the south side of the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/6:31 P.M.

97: P3230162
Description: EPA also observed surface runoff to a ditch on the south side of the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: Southeast
Date/Time: March 23, 2022/6:31 P.M.

98: P3230163
Description: The sign for the Hope/Midland Piling Ground.
Location: Hope/Midland Piling Ground.
Camera Direction: Southwest
Date/Time: March 23, 2022/6:33 P.M.

EPA completed the inspection at 6:30 P.M. and drove to the EGLE Bay City office to collect the samples that were taken by Audrey Schwing and Julia Miller at the Sandusky, Deckerville, Ruth, Verona, and Meade Piling Grounds. EPA arrived at the EGLE office at 7:15 P.M., collected the samples and exited the EGLE office at 7:30 P.M.

6. Sample analysis and results

All the nutrient samples were preserved with sulfuric acid and kept on ice. The general chemistry samples were preserved on ice. All samples were hand delivered to the Region 5 Laboratory on March 24, 2022 at 11:20 A.M.

Tables below include sample information from the samples taken at the Michigan Sugar Company Albee, Blumfield, Breckenridge, Au Gres, and Hope/Midland Piling Grounds on March 23, 2022. Laboratory analysis reports are provided as an attachment to this report.

Sample Information

Name	Location	Date	Time	Collector	Color	Dissolved Oxygen	Photo #	Photographer	Method of Collection
B01	**From Distilled Water**	**03/23/22**	**7:20 A.M.**	**Joan Rogers**	**Clear, no odor**	**NA**	**No photo**	**NA**	**Grab**
Albee	**From the pipe discharging water from the piling ground into the pond**	**03/23/22**	**8:29 A.M.**	**Andi Hodaj**	**Milky and slightly brown**	**38.6%**	**P3230084**	**Joan Rogers**	**Grab**
Albee Pond	**From the pond water where the pond discharges to Pattee Creek**	**03/23/22**	**8:42 A.M.**	**Andi Hodaj**	**Slight milkiness**	**14.8%**	**P3230093**	**Joan Rogers**	**Grab**
Blumfield East Pipe	**From the pipe to the ditch on the north side of the site**	**03/23/22**	**10:21 A.M.**	**Andi Hodaj**	**Milky and brown**	**89.1%**	**P3230103**	**Joan Rogers**	**Grab**
Blumfield East Pond	**From the pond near the discharge pipe to the ditch along Gera Road**	**03/23/22**	**10:38 A.M.**	**Andi Hodaj**	**Clear**	**65.0%**	**P3230109**	**Joan Rogers**	**Grab**

Blumfield West	**From the pipe from the Blumfield West Piling Ground to a ditch on the west side**	**03/23/22**	**11:13 A.M.**	**Andi Hodaj**	**Clear**	**Did not take**	**P3230114**	**Joan Rogers**	**Grab**
Breckenridge East/Monroe	**From the flow going into the storm water structure on the north side of the site**	**03/23/22**	**1:37 P.M.**	**Andi Hodaj**	**Slightly milky**	**69.0%**	**P3230132**	**Joan Rogers**	**Grab**
Breckenridge	**From the inlet structure for the flow from the pond to the ditch on the east side of Ransom Road**	**03/23/22**	**2:07 P.M.**	**Andi Hodaj**	**Slightly milky**	**Did not take**	**P3230136**	**Joan Rogers**	**Grab**
Au Gres	**From the flow going into the furthest south manhole**	**03/23/22**	**4:29 P.M.**	**Andi Hodaj**	**Milky and slightly brown**	**118.0%**	**P3230150**	**Joan Rogers**	**Grab**
Hope/Midland	**From the flow going into the last manhole before the pipe discharges to the ditch**	**03/23/22**	**6:17 P.M.**	**Andi Hodaj**	**Slightly milky**	**124.0%**	**P3230158**	**Joan Rogers**	**Grab**

Sample Results

Name	BOD-5day mg/L	Phosphorus mg/L	Nitrate-Nitrite mg/L	Total Kjeldahl Nitrogen mg/L	Ammonia mg/L	Total Dissolved Solids (TDS) mg/L	Total Suspended Solids (TSS) mg/L
B01	8	U	U	U	U	32	U
Albee	69	13.1	1.64	66.3	2.73	4850	925
Albee Pond	41	2.02	0.18	10.9	0.55	1300	200
Blumfield East Pipe	470	5.68	0.15	31.6	1.32	3340	690
Blumfield East Pond	180	0.24	15.7	3.91	U	644	56
Blumfield West	9	0.2	0.08	1.34	U	184	32
Breckenridge East/Monroe	110	0.36	0.76	2.19	0.31	474	152
Breckenridge	75	3.37	9.57	5.73	2.29	476	147
Au Gres	9	0.6	0.21	1.57	U	142	514
Hope/Midland	2	0.78	U	1.05	U	114	71

List of Attachments:

1. Laboratory analysis reports