

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

Purpose: Compliance Evaluation and Stormwater Inspection

Facility: CountryMark Refining and Logistics, LLC (CountryMark)
1200 Refinery Road
Mt. Vernon, Indiana 47620

Date of Inspection: August 29, 2023

EPA Representatives:

Ray Cullen, Environmental Engineer
Water Enforcement and Compliance Assurance Branch (WECAB), Section 2
(312) 886-0538, cullen.raymond@epa.gov

Matt Schulte, Physical Scientist; WECAB, Section 1; (312) 886-2405, schulte.matthew@epa.gov

State Representative:

Jeremy Ferguson, Wastewater Inspector
Indiana Department of Environmental Management (IDEM)
(812) 582-0696; JFerguso@idem.IN.gov

Facility Representatives:

David Hertzling, Manager of Regulatory Compliance
(812) 838-8543; david.hertzling@countrymark.com

Tom Shaw, Director of Environmental and Regulatory Compliance
(812) 833-8173; tom.shaw@countrymark.com

Duwayne Johnson, Class D Wastewater Operator
(812) 598-6818; duwaynej@att.net

John Hargrove, North End Operations Supervisor

Report Prepared by: Ray Cullen

Inspector Signature: RAYMOND CULLEN
Ray Cullen

Digitally signed by RAYMOND CULLEN
Date: 2023.10.27 07:52:23 -05'00'

Approver Name and Title: Ryan J. Bahr, Section 2 Supervisor
WECAB

Approver Signature and Date: RYAN BAHR
Date: 2023.10.27 08:20:40 -05'00'

Digitally signed by RYAN BAHR
Date: 2023.10.27 08:20:40 -05'00'

Purpose of Inspection:

Matt Schulte and I, from EPA Region 5's WECAB, conducted an announced compliance evaluation and stormwater inspection of CountryMark's Mt. Vernon, Illinois site ("the Facility") to assess its compliance with the Clean Water Act (CWA) and applicable permits. I had notified Mr. Johnson about the inspection a day prior to our visit. The Facility operates under National Pollutant Discharge Elimination System (NPDES) Permit No. IN0002470 ("Permit"), which expires on March 31, 2027. The Permit authorizes CountryMark to discharge process wastewater, non-process wastewater, stormwater, and hydrostatic testing wastewater through Outfall 001 to the Ohio River and intermittent discharges from Retention Pond #3 through Outfall 002 to Mill Creek in compliance with requirements set forth therein. The Permit also authorizes CountryMark to discharge stormwater and hydrostatic testing wastewater through Outfalls 003-007 to Mill Creek.

This is the first time that EPA has conducted a CWA-NPDES inspection of the Facility in at least the last 10 years. IDEM most recently inspected it for the CWA on July 13, 2022 and conducts periodic inspections about every 2 years.

Arrival Time: 8:10 a.m.

Departure Time: 4:40 p.m.

- ☒ Credentials presented
- ☒ CBI protection assurances discussed

The following information was obtained verbally from the Facility representatives listed on the previous page unless otherwise noted. Messrs. Hertzing, Shaw, and Johnson were present throughout the entirety of the inspection, and Mr. Hargrove joined later that morning.

Facility Background/Process Description:

CountryMark, originally named Farm Bureau Oil until about 15 years ago, has been operating an oil refinery at the Facility since the late 1930s. Currently, it refines crude oil into mostly gasoline and diesel fuel and produces a small amount of propane; every 6 barrels of crude generates 3 barrels of gasoline, 2 barrels of diesel, and 1 barrel of heavy flux. It produces regular, midgrade, and premium gasoline, with octane ratings of 87, 87-90, and over 90, respectively. Most of the produced fuel is purchased by co-op members. As explained in more detail on its website, www.countrymark.com/countrymark/aboutus/cooperativesystem, CountryMark is owned by member co-ops who are owned by farmers or local agricultural producers. CountryMark supplies fuel to these co-ops, who then distribute it at retail fuel stations. CountryMark's profits are distributed to the co-ops via equity or cash refunds.

Typical throughput is approximately 38,000 barrels/day, which is near plant capacity, and was around 34,000 barrels/day at the time of the inspection. As an alternative to expanding the size of the Facility process, CountryMark has been investigating renewable energy sources. Currently, there are approximately 150 employees at the Facility, which operates 24 hours a day, 7 days a week with two 12-hour wastewater shifts per day. Production shutdowns occur

typically annually for 2-3 weeks, encompass about a quarter of the Facility at a time, and include non-invasive integrity testing of tanks and other equipment. The most recent shutdown ended the week prior to our inspection. In general, the Facility is on a 5-year maintenance schedule.

Eight to ten thousand barrels a day of sweet crude oil from the Illinois Basin and the Patoka Terminal in Marion County, Illinois is piped to the Facility, with the percentage from each dependent on pricing. Due to the observed drop in quality of the crude from the Illinois Basin, which covers southern Illinois, western Indiana, and western Kentucky, CountryMark may be getting more of it from Patoka in the future. CountryMark always tests the quality of the crude oil received in collection tanks, primarily the amount of sediment and water in the oil, before it is accepted at the Facility. If a test fails, the tank owner would attempt to resolve the issue (e.g., by removing water from the oil). The tank owners are also responsible for fixing leaks from their equipment.

At the Facility, the crude oil is heated in a series of heat exchangers before going to a preflash column and then a crude column (crude unit) for atmospheric distillation. Product streams from the crude unit include naphtha, which goes to a unifiner; kerosene and distillate (i.e., diesel fuel), which go to a distillate hydrotreater (DHT); and atmospheric gas oil and remaining crude oil, which go to a vacuum column. The unifiner splits light naphtha from heavy naphtha, with the former going through a Penex isomerization process and the latter going through a continuous catalytic reforming platformer to produce high-octane isomate and platformate gasoline, respectively. Product streams from the vacuum column include vacuum distillate, which goes to the DHT; light vacuum gas oil, which goes to storage; heavy vacuum gas oil, of which the majority goes to a fluid catalytic cracking unit (FCCU) and the remainder goes to storage with the light vacuum gas oil; and asphalt. The DHT reduces the sulfur content of the incoming streams to produce ultra-low-sulfur diesel. CountryMark sends the asphalt from the crude bottoms (or flux) of the vacuum column to GAF, a roofing manufacturing company located next door to the Facility. The FCCU uses catalysts to convert the heavy vacuum gas oil into high-octane gasoline. Streams from the FCCU include light cycle oil, which goes to the DHT; butylenes, which go to an alkylation unit; and slurry oil, which is sent out on barges. The alkylation unit combines the butylenes with purchased isobutane to produce high-octane gasoline. CountryMark blends the isomate, platformate, and alkylate gasolines to create regular, midgrade, and premium gasoline.

All water used in the process is pumped from the Ohio River, which is located a little over a mile south of the Facility, at a rate of 500-650 gallons per minute. There is a backup pump at the intake structure in case the primary one fails. A clarifier near the intake removes mud, solids, and other debris from the water. Around ten percent of this incoming river water is sent to fire ponds on the golf course located at the site. Ponds #2 and #3, described in more detail below, serve as backup fire ponds. The rest of the water is stored in two tanks that constantly remain full. Approximately 50 percent of the incoming water goes to the Facility's five cooling towers. Blowdown is continuously discharged from these closed-loop, simultaneously-operating towers. The remaining incoming water is used mainly as feed water for the Facility's three gas-fired boilers. There are also four smaller boilers used for heat extraction. All steam from the boilers goes to a common header to be used in the refining process. Condensed steam (i.e., process or sour water) goes to a flash drum/sour water tank with a weir that separates out hydrocarbons that

have a lower explosive limit before going to a stripper to remove ammonia and hydrogen sulfide. The sour water stripper receives sour water from the DHT and FCC units and, since 2010, low sulfur gas. CountryMark tests the stripped water for ammonia, and if the concentration is low enough, it is sent to a desalter; otherwise, it is recycled back to the sour water tank.

CountryMark has the option to send crude sour water to the stripper as well but stopped doing so around 10 years ago and just sends it directly to the desalter. CountryMark occasionally spot checks the ammonia concentration in the water throughout the Facility. It monitors the pH at the inlet and outlet of the desalter four times per shift, and if it is too low, it will add caustic directly to the desalter.

Wastewater Treatment

Stripped sour water, boiler and cooling tower blowdown, wastewater from condensate drains and process units, and stormwater (collectively, “wastewater”) goes to the wastewater treatment plant (WWTP). After first going through a grit chamber, the wastewater flow splits between a parallel series of two “upper” and two “lower” American Petroleum Institute (API) oil-water separators (four in total). If the lower APIs get full, the wastewater overflows into Pond #3. CountryMark does not intentionally divert the wastewater to the pond but would rather reverse the flow back toward the upper APIs if there is sufficient capacity. Each set of upper and lower APIs has the capacity to handle flow if the other set is taken down for cleaning, which occurs annually, or for replacement of seals or other repairs. At those times, the set to be cleaned is drained to the set that will continue operating. Phosphoric acid is added between the upper and lower APIs for pH control and as a food source for the biological treatment in the treatment system. Next, the wastewater flows to an equalization (EQ) basin with aeration. After that, it goes to a flash mixer where a coagulant (sulfuric acid) is automatically added and then to a slow mixer where an anionic polymer is added, where the dosages and chemistry for both depend on wastewater flowrate and system performance that is based on the concentration of total suspended solids (TSS) that CountryMark constantly monitors in the water coming from the next step in the treatment process, the dissolved air flotation (DAF) unit. Finally, after the DAF unit, the wastewater flows to aerated lagoons for solids settling, which consist of Pond #1 and Pond #2. It takes about 1 week for the wastewater to go from Pond #1 through Pond #2 to Outfall 001. CountryMark continuously pumps out Pond #2 so that it never overflows.

With regard to the sludge in the polishing ponds and the EQ basin, CountryMark dewateres it with rented dewatering boxes and sends it to Blackfoot Landfill in Winslow, Indiana as nonhazardous waste as soon as that process is complete, when necessary. Before the sludge leaves the site, CountryMark always samples it and uses Microbac Laboratories, Inc. (Microbac) to analyze the samples. Microbac provides CountryMark with sampling bottles already filled with preservative.

There is one on-duty WWTP operator per shift who conducts required wastewater grab sampling. CountryMark analyzes only for pH in-house. For all other required parameter testing, Microbac picks up samples from the Facility, which CountryMark stores in a cooler. Similar to the sludge sampling, Microbac provides CountryMark with the sampling bottles, which already contain preservative. CountryMark uses a flow-proportional composite sampler for Outfall 001 and does manual composite sampling for Outfall 002 (i.e., combining of grab samples). There is

a flow meter located at Outfall 001, and for Outfall 002, CountryMark manually calculates the flow using a rope and bucket.

Currently, CountryMark utilizes a Foxboro distributed control system for process and treatment system monitoring. Process control monitoring occurs at the sour water stripper, EQ basin, and polishing ponds. CountryMark has plans to add by the end of 2023 instrumentation for continuous monitoring and for chemical feed addition. It is also considering using consultants to sample and model the Facility's discharge to investigate ways to improve the WWTP system efficiency. In addition, CountryMark is continuously evaluating ways to reduce the amount of stormwater in the WWTP.

Before the inspection, I had summarized the exceedances at Outfall 001 from the WWTP since June 2020 using information gathered from EPA's Enforcement and Compliance History Online (ECHO) website. This included exceedances for biochemical oxygen demand (BOD₅), TSS, oil and grease, mercury, and sulfide, as shown in the table below:

Pollutant	Months that had a monthly average exceedance	Months that had a daily maximum exceedance
BOD ₅	2023: January 2022: November, December	2023: January 2022: November
TSS	2021: June 2020: May, June, July, November	2022: February, March 2021: May, June 2020: May, June, July, October, November
Oil and grease	None	2022: November
Mercury	2021: June	None
Sulfide	2020: August	2020: August

CountryMark explained that the BOD₅ and the oil and grease exceedances were caused by increased loading due to dredging of Pond #2. Additionally for BOD₅, extremely cold weather over the winter hindered biological treatment. There were also some hydraulic loading issues. The TSS exceedances ceased after IDEM increased the limits in the Permit due to CountryMark installing a submerged diffuser at Outfall 001. The mercury exceedance was caused by higher than anticipated loading due to CountryMark trying to avoid overflows at Outfall 002 from heavy rain. Finally, the sulfide exceedance was caused by Microbac outsourcing the analysis to a sister facility that had used a different method with a higher detection limit. Since then, CountryMark has occasionally performed split sampling and sends the samples to another laboratory to verify the accuracy of Microbac's results.

ECHO had also shown that CountryMark had overdue discharge monitoring reports for Outfall 001 for April 2020 through June 2021 for several parameters. CountryMark stated that it has never submitted a report late, to which I said I would follow up with the relevant people in WECAB to try to find out the cause of these alleged violations. After the inspection, WECAB Information Management Specialist James Coleman explained to me that these violations showed up in the Integrated Compliance Information System (ICIS), from which ECHO pulls its data, after Mr. Johnson had resubmitted the DMR values for the timeframe in question on

September 19, 2021. For ICIS and ECHO to not show these violations, IDEM would have had to manually correct all the data field that were affected.

I had also summarized the exceedances at Outfall 002 since June 2020. During this period, there were five months when CountryMark discharged through this outfall. Of these five months, CountryMark exceeded the daily maximum BOD₅ concentration limit in three of them (July and October 2020 and March 2023) and the daily maximum TSS concentration limit in four of them (June, July, August, and October 2020). CountryMark dredged Pond #3 to increase its capacity and regularly checks the water level within to prevent overflowing and discharging through Outfall 002. CountryMark assumes that there will be exceedances of BOD₅ and TSS if water is allowed to discharge through the outfall.

Stormwater

The Permit requires that CountryMark implement control measures and best management practices to minimize pollutants in stormwater discharges. Annually, CountryMark shall conduct a comprehensive site evaluation where it will review these control measures to determine if they need to be modified to meet effluent limits, confirm the accuracy of the potential pollutant sources described in the Facility's Stormwater Pollution Prevention Plan (SWPPP), and visually inspect areas with stormwater discharges associated with industrial activity for pollutants entering the sewer system. The Facility's current SWPPP (provided to me by Mr. Shaw after the inspection) also sets forth these requirements and includes the reports for the last few annual comprehensive site evaluations.

Even though most of the process equipment at the Facility is exposed to stormwater, these areas are curbed to prevent runoff from flowing to the stormwater outfalls; instead, accumulated stormwater in the process area drains directly to the WWTP. According to the SWPPP, there are approximately 50 above-ground storage tanks for crude and refined oil (for an approximate total storage capacity of 67 million gallons), all of which are enclosed within secondary containment structures with closed valves. CountryMark inspects the water collected in the diked areas throughout the site for oil, and if it is free of contamination, it will manually discharge the water to the associated stormwater outfall. If contamination is observed, CountryMark will either divert the water to Pond #3 or the WWTP. It sometimes uses a vacuum truck to remove the water. Similarly, there is a roll-curb around the loading/unloading rack. CountryMark will pump stormwater collected here to the WWTP and will use portable secondary containment structures at hose connection points to prevent spills from draining to the nearby Outfall 004. As mentioned above, there are seven stormwater outfalls (003-007) at the Facility. There are drainage ditches running through the site to which the outfalls discharge, all of which lead to Mill Creek at the south side of the site, which flows to the Ohio River. Regarding Outfalls 003-007, as mentioned earlier, the Permit allows CountryMark to discharge hydrostatic testing wastewater through them, with limits for certain parameters. CountryMark confirmed during the inspection that it has not discharged such wastewater at any of these outfalls in recent memory, at least for several years.

The Permit requires, and as repeated in the SWPPP, that quarterly, CountryMark shall inspect all potential sources of pollution, including process and material handling equipment, for

degradation or other issues and shall inspect its stormwater management measures and conveyances and revise its SWPPP as appropriate. It includes the last several reports for these quarterly inspections in an appendix to the SWPPP. As stated in the SWPPP and confirmed during the inspection, CountryMark has a preventative maintenance program where it proactively performs visual inspections monthly of areas where industrial materials or activities are exposed to stormwater, areas identified in the SWPPP as potential pollutant sources, areas where spills have occurred in the last 3 years, discharge points, and control measures used to comply with effluent limits.

The Permit requires that annually, CountryMark shall conduct a routine inspection when a stormwater discharge is occurring and shall observe the implemented control measures to ensure they are properly functioning. It shall observe the stormwater outfalls and conduct grab sampling once per year at each during a discharge. While ECHO shows that stormwater monitoring for Outfalls 003-007 occurred every December, CountryMark confirmed during the inspection that it did not necessarily conduct the annual monitoring in that month, but that it may have been done earlier in the year. CountryMark calculates the flow at these outfalls based on velocity and area size.

With further regard to sampling, for Outfall 002 in particular, CountryMark will conduct sampling every day that a discharge occurs. Outfall 002 receives discharge from Pond #3, which collects stormwater to prevent overloading the WWTP. CountryMark maintains the volume of water in the pond as low as it can to provide stormwater capacity and observes the level every shift. The Permit allows intermittent discharging of the pond during substantial rainfall through Outfall 002 to Mill Creek, but typically, CountryMark routes the pond water back through the WWTP to be discharged through Outfall 001. CountryMark uses a sludge judge a few times a year to measure the depth of sludge in the pond and dredges it as needed.

Facility Tour

We toured the Facility after lunch starting at approximately 1:30 p.m. in the on-site laboratory, where we saw logbooks that contain chain of custodies for all of the outfalls, pH readings for Outfalls 001 and 002, level readings for Pond #3, monthly data for oil and grease grab sampling, and stormwater quarterly visual assessments. We observed the pH monitoring probe and buffer solutions CountryMark uses (Photo 2, *see* Attachment 1). The buffer solutions next to the monitoring instrument were in unlabeled jars, which presumably CountryMark fills from nearby larger, labeled containers of solution. The labels on these larger containers showed that the buffer solutions were not expired at the time of the inspection.

After the laboratory, we went to a small building which houses the composite sampler for Outfall 001 (Photo 3). Microbac obtains the collected samples from here to take back to its laboratory. Inside the building is a digital display that shows continuous readings from an automatic pH sampling probe. CountryMark does not use these readings for required monitoring and reporting purposes; it takes a grab sample from this location and performs the Permit-required pH compliance analysis in the on-site laboratory.

Next, we toured part of the WWTP, starting at the grit chamber and the upper API separators (Photo 4). We saw where the cooling tower backwash enters the system and where CountryMark adds usually phosphoric acid between the upper and lower APIs, although at the time of the inspection it had been adding sulfuric acid instead (Photo 6). In this area were totes of cooling tower additives, including sodium hypochlorite and sulfuric acid, and another tank that was unlabeled (Photo 7).

We then saw where CountryMark adds zeolite to remove calcium from river water to make it ready for use in the Facility boilers and the storage tanks for the incoming river water (Photo 8). Then we saw the crude unit and desalter, which discharges to Tank 174 to be hauled away by truck (Photo 9). Another tank in this area, Tank 175, receives discharge from the lower APIs. Oil from Tanks 174 and 175 goes to Tank 176, and the water from those tanks goes to the grit chamber and eventually makes its way to the EQ basin (Photos 10 and 11). Countrymark pumps the water and oil in Tank 176 to a slop oil tank, and the water from this tank goes to the lower API separators.

We then went back to the WWTP to the lower APIs, noting the valves that drain to Pond #3, and continued down the wastewater treatment train, with the EQ basin coming next (Photo 12). We saw the flash sump that receives the sulfuric acid and polymer that CountryMark adds to the wastewater before the DAF unit in the WWTP (Photo 13), along with the totes of coagulant and polymer themselves (Photos 15 and 16). We noted that the DAF unit seemed to be operating properly (Photo 14), along with the rest of the treatment system. After a brief detour to see the nearby Pond #3 and associated Outfall 002, which was dry at the time (Photos 17-19), we saw the final part of the WWTP, aerated lagoon Pond #1 and Pond #2 (Photos 20 and 21).

We next observed the stormwater outfalls, starting at Outfall 004, which is adjacent to Outfall 002 and which is for the unnamed tributary that runs through the Facility. The trench to this outfall contained algae (Photos 23 and 24). We then proceeded to Outfalls 003, 006, 005, and 007, in that order (Photos 25-29). Outfalls 005 and 006 were dry. With regard to stormwater, the berms, dikes, and secondary containment throughout the site appeared to be well maintained, and we noted good housekeeping being employed.

Lastly, we drove to the Outfall 001 location but were not able to see the actual discharge because the effluent pipe is submerged in the Ohio River. In that area, we saw the clarifier for the incoming river water to the Facility (Photo 31). We finished the tour at 4:15 p.m.

Areas of Concern

We identified the following areas of concern after reviewing the information obtained during and after the inspection:

1. CountryMark explained that BOD₅ exceedances were caused partly by cold weather hindering biological treatment and by hydraulic loading issues. EPA is concerned that these exceedances may occur again.
2. There was an unlabeled tank in the cooling tower additives area. When notified of this, CountryMark stated that it would mark the tank later that day.

3. During the inspection, algae was present in the trench leading to Outfall 004.

Records Received

We received the following records during the inspection:

1. Facility water balance diagram;
2. Simplified process flow chart;
3. Process block flow diagram;
4. Picture of process area with major units labeled; and
5. Satellite view of the Facility with outfalls labeled.

Mr. Shaw emailed me the following additional requested records on September 12, 2023:

1. SWPPP (March 2023), with most recent comprehensive site compliance evaluation report (March 31, 2023), annual reports (April 9, 2021, March 29, 2022, March 31, 2023), and quarterly reports (December 14, 2022, March 8, 2023, May 4, 2023, July 12, 2023);
2. Outfall 001 pH monitoring results and calibration records (June 1-September 4, 2023);
3. Water balance diagram used for Permit renewal;
4. WWTP startup SOP;
5. WWTP shutdown SOP;
6. API wastewater pumping SOP;
7. Storm SOP; and
8. Intake water daily flowrates (May-July 2023).

Attachments

1. Photo log.

Attachment 1

Photo Log

CountryMark Refining and Logistics, LLC
Photo Log
EPA Inspection August 29, 2023
All photos taken by Ray Cullen, Environmental Engineer, EPA



1: IMG_0321

Description: Site map showing locations of process units
Location: On wall outside of Refinery Office/Laboratory building
Camera Direction: N/A
Date/Time: 8/29/23, 1:28 p.m.



2: IMG_0322

Description: 4.0, 7.0, and 10.0 buffers for pH monitoring probe calibration

Location: Laboratory

Camera Direction: N/A

Date/Time: 8/29/23, 1:45 p.m.



3: IMG_0323

Description: ISCO composite sampler for Outfall 001 showing 2.7 °C refrigeration temperature

Location: Small shed immediately east of Refinery Office/Laboratory building

Camera Direction: N/A

Date/Time: 8/29/23, 1:53 p.m.



4: IMG_0324

Description: Grit chamber in foreground, upper APIs in background

Location: Northeast side of process area

Camera Direction: North

Date/Time: 8/29/23, 2:08 p.m.



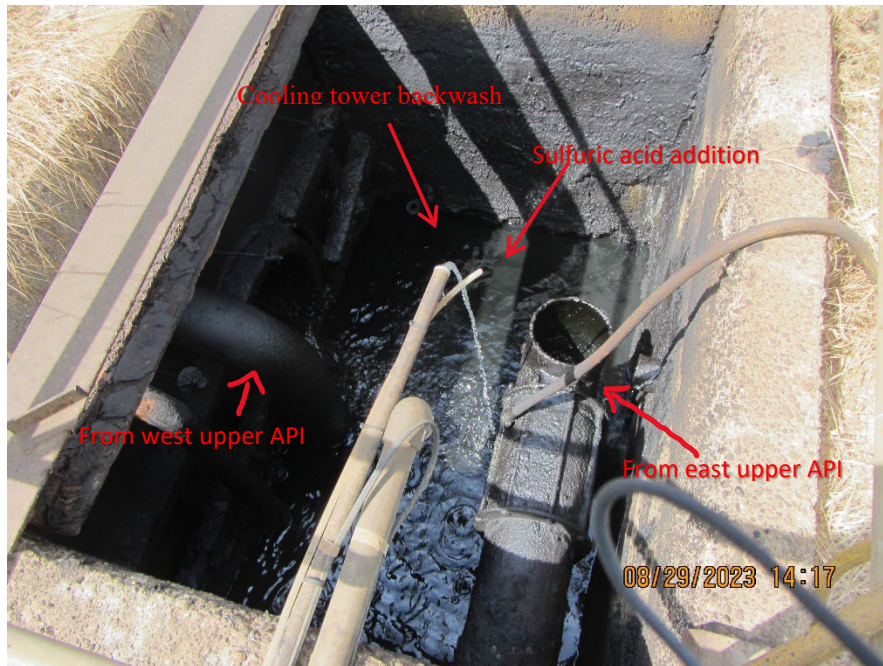
5: IMG_0325

Description: Drain north of the upper APIs that connects to lower APIs

Location: Northeast side of process area

Camera Direction: North

Date/Time: 8/29/23, 2:13 p.m.



6: IMG_0326

Description: Pit with discharge streams to lower APIs

Location: Northeast side of process area

Camera Direction: Down, north

Date/Time: 8/29/23, 2:17 p.m.



7: IMG_0327

Description: Totes of cooling water additives and phosphoric and sulfuric acid

Location: Northeast side of process area, north of upper APIs

Camera Direction: East

Date/Time: 8/29/23, 2:40 p.m.



8: IMG_0328

Description: Storage tanks for incoming river water

Location: Northwest of process area

Camera Direction: Southwest

Date/Time: 8/29/23, 2:32 p.m.



9: IMG_0329

Description: Desalter

Location: Process area, north side

Camera Direction: Southwest

Date/Time: 8/29/23, 2:37 p.m.



10: IMG_0330

Description: Tanks 174 and 175, which receive desalter and lower APIs discharge, respectively

Location: Process area, east side

Camera Direction: West

Date/Time: 8/29/23, 2:43 p.m.



11: IMG_0331

Description: Tank 176, which receives oil from Tanks 174 and 175

Location: Immediately north of Tank 175

Camera Direction: West

Date/Time: 8/29/23, 2:44 p.m.



12: IMG_0332

Description: EQ basin with hydrocarbons trapped in foreground

Location: EQ basin

Camera Direction: Southeast

Date/Time: 8/29/23, 2:56 p.m.



13: IMG_0333

Description: Flash sump with flocculants, polymer, and sulfuric acid

Location: West of EQ basin

Camera Direction: West

Date/Time: 8/29/23, 3:03 p.m.



14: IMG_0334
 Description: DAF unit
 Location: West of EQ basin
 Camera Direction: East
 Date/Time: 8/29/23, 3:04 p.m.



15: IMG_0335
 Description: Totes of coagulant (left) and polymer (right)
 Location: South of DAF unit
 Camera Direction: North
 Date/Time: 8/29/23, 3:09 p.m.



16: IMG_0336

Description: Drain outside of building with coagulant and polymer totes that goes to lower APIs

Location: South of DAF unit

Camera Direction: Northeast

Date/Time: 8/29/23, 3:12 p.m.



17: IMG_0337

Description: Pond #3 for stormwater retention and overflow from WWTP

Location: Pond #3, southeast side of the Facility

Camera Direction: North

Date/Time: 8/29/23, 3:18 p.m.



18: IMG_0338

Description: Signage for Outfall 002

Location: Outfall 002, south end of Pond #3

Camera Direction: South

Date/Time: 8/29/23, 3:18 p.m.



19: IMG_0339

Description: Outfall 002

Location: Outfall 002, south end of Pond #3

Camera Direction: West

Date/Time: 8/29/23, 3:19 p.m.



20: IMG_0340

Description: Aerated lagoon, Pond #1

Location: Southeast side of the Facility, east of Pond #3

Camera Direction: Northwest

Date/Time: 8/29/23, 3:24 p.m.



21: IMG_0341

Description: Aerated lagoon, Pond #2

Location: Southeast side of the Facility, south of Pond #1, east of Pond #3

Camera Direction: West

Date/Time: 8/29/23, 3:24 p.m.



22: IMG_0342

Description: Cofferdam before Outfall 004

Location: Northwest of Pond #2

Camera Direction: Northwest

Date/Time: 8/29/23, 3:27 p.m.



23: IMG_0343

Description: Outfall 004, with algae in trench

Location: Southeast of Pond #3

Camera Direction: Southeast

Date/Time: 8/29/23, 3:30 p.m.



24: IMG_0344

Description: Trench to Outfall 004

Location: Southeast of Pond #3

Camera Direction: Northwest

Date/Time: 8/29/23, 3:30 p.m.



25: IMG_0345

Description: Outfall 003

Location: Northwest of EQ basin

Camera Direction: Southeast

Date/Time: 8/29/23, 3:35 p.m.



26: IMG_0346
 Description: Outfall 006
 Location: Northwest side of the Facility
 Camera Direction: North
 Date/Time: 8/29/23, 3:40 p.m.



27: IMG_0347
 Description: Outfall 005
 Location: West side of the Facility
 Camera Direction: North
 Date/Time: 8/29/23, 3:42 p.m.



28: IMG_0348

Description: Outfall 007

Location: Southwest of process area

Camera Direction: West

Date/Time: 8/29/23, 3:48 p.m.



29: IMG_0349

Description: Outfall 007

Location: Southwest of process area

Camera Direction: East

Date/Time: 8/29/23, 3:48 p.m.



30: IMG_0350

Description: Signage for Outfall 001

Location: About 1 mile south of the Facility, near Ohio River

Camera Direction: North

Date/Time: 8/29/23, 3:58 p.m.



31: IMG_0351

Description: Clarifier for incoming river water to the Facility

Location: About 1 mile south of the Facility, near Ohio River

Camera Direction: South

Date/Time: 8/29/23, 4:03 p.m.