



**Artesia PTU LLC**  
703 East Main, Artesia, New Mexico 88210  
Tel: 575-748-3311  
Hollyfrontier.com

February 18, 2022

Ms. Leigh Barr  
Oil Conservation Division  
New Mexico Energy, Minerals & Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Groundwater Discharge Plan – Artesia PTU LLC, Permit Application for a Discharge Permit – Response to Notice of Administratively Incomplete Discharge Permit Renewal Application

Dear Ms. Barr:

Artesia PTU LLC (APTU), a subsidiary of HollyFrontier Corporation (HFC), submitted a Groundwater Discharge Plan as its application for a Discharge Permit for the Pre-treatment Unit (PTU) located at the HollyFrontier Navajo Refining LLC (Navajo) Artesia, New Mexico Refinery (the Refinery) on December 22, 2021. The Oil Conservation Division (OCD) provided comments on January 21, 2022. The attached revision to the Groundwater Discharge Plan constitutes APTU's formal response to the comments received.

A Response and Cross-Reference Table containing APTU's response to the comments received from the OCD, and the location of the revisions, is provided in Attachment 1.

Should you have questions or requests for additional information, please contact Danielle Vollman at (575) 746-0678 or [Danielle.Vollman@hollyfrontier.com](mailto:Danielle.Vollman@hollyfrontier.com). Thank you for your consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Blake Arrington', is written over a horizontal line.

Blake Arrington  
Vice President Renewables Operations  
Artesia PTU LLC

CC: Becca Crumpler, HollyFrontier Renewables  
Robert Boans, Artesia PTU LLC  
Danielle Vollman, Artesia PTU LLC  
Mike Holder, HFC

Attachment 1 – Response and Cross-Reference Table

**ATTACHMENT 1**  
**RESPONSE AND CROSS-REFERENCE TABLE**

**Response and Cross Reference Table**

<b>Comment Number</b>	<b>OCD Comment</b>	<b>APTU Response</b>	<b>Location of Revision/Information in Application</b>
1	20.6.2.3106(D)(4) NMAC requires a description of the flooding potential of the site. The application's regulatory cross-reference check (Page vii) indicates that flooding potential is discussed in Section 3.7. However, Section 3.7 does not address the flooding potential of the site. Is any part of the facility in a flood plain or has there been any historical flooding at this location?	<p>Section 3.7 has been updated to include a discussion of flooding potential.</p> <p>There has not been any historical flooding at the Facility. National Oceanic and Atmospheric Administration (NOAA) data was reviewed from 1981 to 2021. The average monthly precipitation was below 3 inches in the area the Facility is located. Federal floodplain maps also indicate that most of the city and the PTU have been effectively removed from the 100-year floodplain.</p>	Section 3.7
2	In Figure 2-1, identify all locations of the tanks listed in Table 4-1 (PTU Storage Tanks and Containers). This figure only shows the location for a select number of tanks.	<p>Figure 2-1 has been updated to show the locations of the tanks listed in Table 4-1.</p> <p>Table 4-1 has been modified to provide the correct list of tanks and their locations within the PTU Facility. Various tanks listed in the previous version of Table 4-1 have been added, removed, or modified to either correct typographical errors, to remove RDU tanks that were incorrectly included, or to reflect the current state of the PTU as it is still undergoing construction and planning (i.e., revising tank numbers to include newly numbered tanks).</p>	Figure 2-1, Table 4-1.

**Response and Cross Reference Table (cont.)**

<b>Comment Number</b>	<b>OCD Comment</b>	<b>APTU Response</b>	<b>Location of Revision/Information in Application</b>
3	In Section 4.1, “gas oi” is stated as being stored in rail cars. Did this section mean to state that gas and oil would be stored in rail cars? Additionally, in Table 4-1, address the footnote discrepancy. This table contains footnote 2 but only footnote 1 is defined.	Section 4.1 has been revised to say that “gas oil” is stored in rail cars. The gas oil stored in the rail cars is a highly viscous intermediate product of crude oil distillation that is used as feed in subsequent refining processes.  The typographical error in Table 4-1 has been corrected to only reference footnote 1.	Section 4.1, Table 4-1
4	Explain the treatment process of the wastewater treatment plant (WWTP) and include the average and maximum volumetric flowrates of wastewater treated through the WWTP.	The treatment process of the WWTP, and the average and maximum volumetric flowrates of wastewater treated through the WWTP is provided in Section 4.3.3. Briefly, the WWTP serves to remove free oils and to biologically treat wastewaters to meet discharge limits to the City of Artesia’s publicly-owned treatment works (POTW).	Section 4.3.3
5	Table 5-1 (Potential Pollutants and Discharge Points) states under Tank car staging that stormwater is designed to flow via Discharge Point 001 and 002. Describe these discharge points and show the location of these discharge points on a map.	A description of the discharge points is provided in Section 5.2. Discharge Points 001 and 002 are National Pollutant Discharge Elimination System (NPDES)-permitted discharge points that are both unnamed intermittent tributary systems.  The discharge points are located in the north east corner of the PTU site property boundary. The locations of the discharge points have been added to Figure 2-1.	Section 5.2, Figure 2-1
6	Provide the storage capacity of the stormwater retention pond. Also, is there an inspection checklist for the stormwater retention pond? Appendix 6-1 did not include an example inspection form.	The capacity of the retention pond located at the Facility is 6,607,000 gallons. An inspection checklist for the stormwater retention pond and other example Stormwater Routine Facility Inspection forms have been added to Appendix 6-1.	Section 3.7, Section 6.1, Appendix 6-1

**Response and Cross Reference Table (cont.)**

<b>Comment Number</b>	<b>OCD Comment</b>	<b>APTU Response</b>	<b>Location of Revision/Information in Application</b>
7	To avoid confusion, in Appendix 6-1, remove the example inspection forms not specific to Artesia PTU LLC. Some of the provided forms are specific to the “Artesia Refinery.”	Appendix 6-1 has been revised to remove the example inspection forms not specific to the PTU.	Appendix 6-1
8	Describe the Cooling Tower average and maximum throughput volumes and any spill/release concerns with this area.	<p>The Cooling Tower average and maximum throughput volumes and additional information about the concerns with spills/releases with the Cooling Tower are provided in detail in Section 4.3.7. The average and maximum flow of source water to the cooling towers is approximately 60 to 80 gpm, with the cooling tower blowdown flow estimated to be up to 30 gpm.</p> <p>The spill concerns are minimal within the cooling tower areas, and if cooling water was released, potential impacts to groundwater would be minimal as the cooling water is not in contact with process materials and is comprised of purchased city water and reverse osmosis permeate. Any spills will be investigated and remediated in accordance with OCD C-141 procedures. In addition, the property is sloped such that any spills will remain on-site and drain to the retention pond, although it is unlikely that a spill of such magnitude would occur.</p>	Section 4.3.7, Table of Contents

**Response and Cross Reference Table (cont.)**

<b>Comment Number</b>	<b>OCD Comment</b>	<b>APTU Response</b>	<b>Location of Revision/Information in Application</b>
9	<p>In Appendix 9-1, remove the reference to a “Permit Renewal.” This is an application for a new permit. Also remove the reference of GW-028 in the Spanish language notice version and ensure it contains all the information in the English language version. Lastly, revise the OCD contact to the following:</p> <p>Mr. Christopher Whitehead Oil Conservation Division New Mexico Energy, Minerals &amp; Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3441 <a href="mailto:OCD.DischargePermits@state.nm.us">OCD.DischargePermits@state.nm.us</a></p>	<p>The reference to a “Permit Renewal” has been revised to a “Permit Application” in the English and Spanish versions of the Public Notice. The reference to “GW-028” has been removed from the Spanish version of the Public Notice.</p> <p>The OCD contract has not been revised in both the English and Spanish versions of the Public Notice, as Mr. Christopher Whitehead has resigned.</p>	Appendix 9-1
NA	NA	The OGRID Number for the PTU has been added to the application in Section 2.1.	Section 2.1
NA	NA	The wetlands provided on Figure 3-1 have been revised, as the wetlands previously presented on Figure 3-1 were incorrect. The US Fish and Wildlife Services National Wetlands Inventory was reviewed to correct this error.	Figure 3-1

Note: OCD Comments are copied verbatim from the January 21, 2022, letter to HFNR from Ms. Leigh P. Barr at OCD.

**Acronyms:**

NMAC – New Mexico Administrative Code  
NOAA - National Oceanic and Atmospheric Administration  
NPDES – National Pollutant Discharge Elimination System

OCD – Oil Conservation Division  
POTW – Publicly-Owned Treatment Works  
PTU – Pre-Treatment Unit  
WWTP – Wastewater Treatment Plant

## **UPDATED GROUNDWATER DISCHARGE PLAN**

# Groundwater Discharge Plan

Prepared for



Artesia PTU LLC  
Artesia, New Mexico

Prepared by



505 East Huntland Dr., Suite 250  
Austin, Texas 78752

**December 22, 2021**



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**LIST OF ACRONYMS AND ABBREVIATIONS**

Amsl	Above Mean Sea Level
API	American Petroleum Institute
APTU	Artesia PTU LLC
ARDC	Artesia Renewable Diesel Company LLC
ASTs	Aboveground Storage Tanks
bbl	barrel
bgs	below ground surface
CAP	Corrective Action Program
CGWSLs	Critical Groundwater Screening Level
COC	Chemical of concern
DRO	Diesel range organics
EDB	1,2-dibromomethane
EQ	Equalization
FWGMWP	Facility Wide Groundwater Monitoring Workplan
Gpd	Gallons per day
Gpm	Gallons Per Minute
GRO	Gasoline range organics
HFC	HollyFrontier Corporation
mg/L	milligrams per liter
MTBE	Methyl Tert-Butyl Ether
Navajo	HollyFrontier Navajo Refining LLC
NM	New Mexico
NMAC	New Mexico Administrative Code
NMED	New Mexico Environmental Department
NMPM	New Mexico Principal Meridian
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NWGLDE	National Work Group of Leak Detection Evaluations
OCD	New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation District
O&G	Oil and Grease

**LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)**

PD	Probability of Detection
PF	Probability of False Alarm
POTW	Publicly Owned Treatment Works
PSH	Phase-Separated Hydrocarbons
PTU	Pre-Treatment Unit
RCRA	Resource Conservation and Recovery Act
RDU	Renewable Diesel Unit
SPCC Plan	Spill Prevention Control and Countermeasure Plan
SVOC	Semivolatile Organic Compounds
SWPPP	Stormwater Pollution Prevention Plan
TBA	tert-butyl alcohol
TDS	Total Dissolved Solids
The Navajo Refinery	Navajo Artesia, New Mexico Refinery
TPH	Total Petroleum Hydrocarbons
U.S. EPA	United States Environmental Protection Agency
USPS	United States Postal Service
VOC	Volatile Organic Compounds
WQCC	Water Quality Control Commission
WWTP	Wastewater Treatment Plant
40 CFR	Title 40 of the Code of Federal Regulations

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

**Cross-References of Groundwater Discharge Plan Contents to  
OCD Groundwater Discharge Application/Plan Format Guidelines**

<b>OCD Groundwater Discharge Application/Plan Format Guidelines</b>	<b>Location in Groundwater Discharge Plan</b>
Facility Description	Section 2, Figure 2-1
Site Characteristics	Section 3, Figure 3-1
Potential and Intentional Discharges	Section 4, Tables 4-1, and 4-2
Collection and Storage Systems	Section 5, Table 5-1
Inspection, Maintenance, and Reporting	Section 6, Appendix 6-1
Proposed Modifications	Section 7
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Public Notice	Section 9, Appendix 9-1
Additional Information	Section 10
Facility Closure Plan	Section 11
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Groundwater Discharge Plan  
 Artesia PTU LLC

December 22, 2021

### Regulatory Cross-References of Groundwater Discharge Plan Contents to New Mexico Administrative Code Requirements

Applicable New Mexico Administrative Code (NMAC) Section	Information Requirement	Location in Groundwater Discharge Plan
20.6.2.3106(D)(1)	Quantity, quality, and flow characteristics of the discharge	Sections 4.1, 4.3, and Tables 4-1 and 4-2
20.6.2.3106(D)(2)	Location of the discharge and of any bodies of water, watercourses, and ground water discharge sites within one miles of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring	Section 3.4, Figure 3-1
20.6.2.3106(D)(3)	Depth to and TDS concentration of groundwater most likely to be affected by discharge	Section 3.8
20.6.2.3106(D)(4)	Flooding potential of the site	Section 3.7
20.6.2.3106(D)(5)	Location and design of site and method to be available for sampling and for measurements or calculations of flow	Sections 3.8 and 4.4
20.6.2.3106(D)(6)	Depth and description of lithology	Section 3.5
20.6.2.3106(D)(7)	Information demonstrating that discharges will not be above standards	Sections 3.5 and 3.6
20.6.2.3107(A)(1)	The installation, use, and maintenance of effluent monitoring devices	Section 6
20.6.2.3107(A)(2)	The installation, use, and maintenance of effluent monitoring devices for the groundwater most likely to be affected by the discharge	Sections 3.8, 4.4, and 6.2
20.6.2.3107(A)(3)	Monitoring in the vadose zone	Section 3.8
20.6.2.3107(A)(4)	Continuation of monitoring after cessation of operations	Section 11
20.6.2.3107(A)(5)	Periodic submission to the secretary or results obtained pursuant to any monitoring requirements in the discharge permit and the methods used to obtain these results	Section 4.4

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

### Regulatory Cross-References of Groundwater Discharge Plan Contents to New Mexico Administrative Code Requirements (Cont.)

Applicable New Mexico Administrative Code (NMAC) Section	Information Requirement	Location in Discharge Permit GW-028 Renewal Application
20.6.2.3107(A)(7)	The discharger to retain for a period of at least five years any monitoring data required in the discharge permit	Section 3.8
20.6.2.3107(A)(8)	A system of monitoring and reporting to verify that the permit is achieving the expected results	Sections 3.8, 4.4, and 6.2
20.6.2.3107(A)(9)	Procedures for detecting failure of the discharge system	Section 6.1
20.6.2.3107(A)(10)	Contingency Plan to address failure of the discharge permit or system	Section 8
20.6.2.3107(A)(11)	Closure Plan	Section 11
20.6.2.3108(A)	Administrative Completeness and Public Notice	Section 9
20.6.2.3108(B)(1)	Providing specific notice to the general public for every 640 acres or less of a discharge site, a 2x3 feet poster will be posted for the public	Section 9.1
20.6.2.3108(B)(2)	Providing written notice of where discharge is located to all neighbors within 1/3 mile	Section 9.2
20.6.2.3108(B)(3)	Providing notice to owner if applicant is not owner	Section 9.3
20.6.2.3108(B)(4)	Publishing synopsis that is 3x4 inches in a newspaper of general circulation in the location of discharge	Section 9.4
20.6.2.3108(D)	Submit proof of public notice to the department after the public notice period	Section 9.5
20.6.2.3108(F)(1) - (F)(5)	Name and address of proposed discharger	Section 9.6, Appendix 9-1
20.6.2.3114	Fees	Section 1.3



## 1 INTRODUCTION

Artesia PTU LLC (APTU), a subsidiary of HollyFrontier Corporation (HFC), hereby submits this Groundwater Discharge Plan as its application for a Discharge Permit for the Pre-treatment Unit (PTU) located at the HollyFrontier Navajo Refining LLC (Navajo) Artesia, New Mexico (NM) Refinery (the Navajo Refinery) as a part of the renewable diesel generation process.<sup>1</sup> The addition of the PTU adjacent to the Refinery, along with the materials managed at the site, triggers the requirement for submittal of this Application to the New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division (OCD, Agency) pursuant to Section 20.6.2.3106(B) of the New Mexico Administrative Code (NMAC). While the PTU is located at the Navajo Refinery facility, in that it is situated within the contiguous land under Navajo's control, because it is outside the Refinery process area and is owned/operated by a separate HFC subsidiary, a separate Discharge Permit from that for the Navajo Refinery is being pursued.

### 1.1 APPLICATION CONTENTS AND STRUCTURE

This Application Discharge Plan was developed based on the requirements set forth in the following forms and regulations:

- 20.6.2.3106 NMAC – Application for Discharge Permits, Renewals, and Applications
- 20.6.2.3107 NMAC – Monitoring, Reporting, and Other Requirements
- 20.6.2.3108 NMAC – Public Notice and Participation
- 20.6.2.3109 NMAC – Secretary Approval, Disapproval, Modification, or Termination of Discharge Permits, and Requirements for Abatement Plans
- OCD Form (unnumbered): *Ground Water Discharge Application/Plan Format Guidelines* (Revised September 2021)
- OCD Guidance: *Discharge Plan Application and Guidance Document for Refineries, Natural Gas Plants, Well Pad Tank Batteries, Gas Compressor Stations, Crude Oil Pump Stations, and Oil and Gas Service Companies* (Revised September 2021)

A regulatory cross-reference table indicating the sections of the Application that provide information required by the regulations is provided in the Checklist for Administrative Completeness and Regulatory Cross Reference Tables included as part of the Table of Contents of this Application.

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<sup>1</sup>For ease of reference, this Groundwater Discharge Plan, which serves as APTU's application for a discharge permit, will be referred to hereafter as "the Application."

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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## **1.2 FILING AND PERMIT FEES**

In accordance with 20.6.2.3114(F) NMAC, APTU has submitted the applicable permit modification filing fee (\$100) under separate cover and understands that a permit fee of \$8,400 will be assessed upon approval of the Application.

## 2 FACILITY DESCRIPTION

The PTU is located at 190 S Freeman Avenue in the City of Artesia, Eddy County, New Mexico, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, New Mexico Principal Meridian (NMPM), Eddy County. The PTU occupies approximately 460 acres of land southeast of the intersection of Highway 285 and Highway 82. Figure 2-1 is an aerial map showing the location of the PTU, and other features required to be depicted in the Application, if applicable:

- location of fences
- pits
- berms
- tanks
- loading areas
- storage facilities
- disposal facilities
- processing facilities
- wastewater treatment facilities
- monitoring wells
- facility/property boundaries

### 2.1 FACILITY INFORMATION

Owner/Operator of Facility:	<u>Artesia PTU LLC</u>
Facility Name:	<u>Artesia, New Mexico Pre-treatment Unit</u>
Facility Address:	<u>190 S Freeman Avenue</u>
Mailing Address:	<u>P.O. Box 159</u>
City, State, and U.S. Zip Code:	<u>Artesia, New Mexico 88211-0159</u>
Facility Phone Number:	<u>575-703-0457</u>
Latitude:	<u>32.50298 ° N (decimal degrees)</u>
Longitude:	<u>-104.23384° W (decimal degrees)</u>
Facility OGRID Number:	<u>331119</u>
NAICS Code:	<u>325199</u>

**2.2 FACILITY CONTACT**

Primary Contact:	<u>Danielle Vollman, Environmental Specialist</u>
Work Phone:	<u>575-746-0678</u>
Email:	<u>Danielle.Vollman@HollyFrontier.com</u>

**2.3 FACILITY USE**

A 13,000 barrel-per-day (bbl/day) PTU is being constructed in the southern portion of the Navajo Refinery facility property, and will be operated by APTU, a subsidiary of HFC. The PTU will generate the feedstock for the newly constructed Renewable Diesel Unit (RDU) that is in the North Plant Process Area of the Navajo Refinery. This feedstock consists of nonpetroleum renewable resources such as plant and animal-based oils and fats, including soybean oil, corn oil, and beef tallow, that will be delivered to the PTU by rail. The PTU process is designed as a closed system, and generally includes a series of centrifuges where the raw oils and fats are degummed and bleached using non-petroleum-based chemicals/additives. The PTU is not expected to produce any waste streams that are proposed to be intentionally discharged.

The bulk of the feedstock will be piped from the PTU to the RDU through underground pipelines that cross East Main Street (US Highway No. 82). The primary end product produced in the RDU from this feedstock, referred to as R99, will be at least 99% renewable diesel, with a very small fraction ranging from 0.1% to 1% of ultra-low sulfur petroleum diesel blended with renewable diesel. This product is piped back to the PTU through underground pipelines to be held in tanks prior to rail loading for transport. Some processed feedstock from the PTU will be transported via rail to the Cheyenne Renewable Diesel Company (CRDC), also affiliated with HollyFrontier and located in Cheyenne, WY.

In addition, Navajo plans to use the PTU's rail spur to temporarily stage railcars as needed. The railcar staging area is located adjacent to the PTU to the south. The railcar staging area occupies approximately 27 acres of the 460-acre PTU property and will include cars containing feedstocks, renewable diesel, and asphalt, gas oil, and other hydrocarbons from the Navajo Refinery.

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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## FIGURES FOR FACILITY DESCRIPTION AND OWNERSHIP

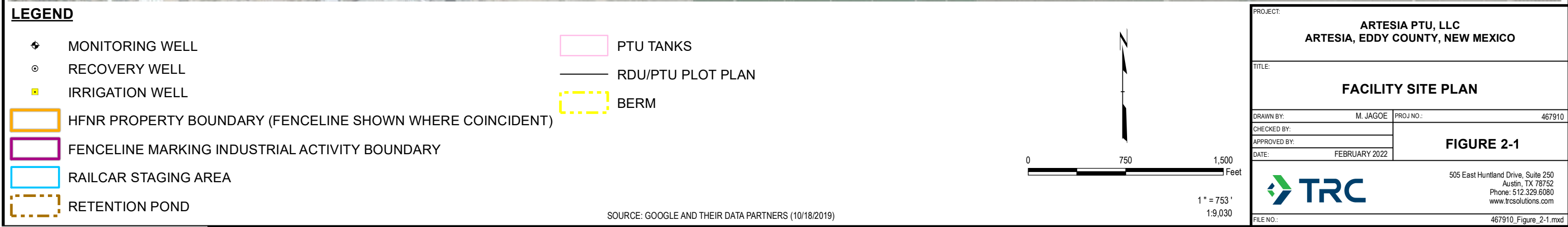
### Figures

2-1 Facility Site Plan

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Figures





### 3 SITE CHARACTERISTICS

The following sections provide available geologic and hydrogeologic information regarding the PTU and satisfies the Water Quality Control Commission (WQCC) regulations (20.6.2.3106(G) NMAC), which require that applications include and address “all of the information necessary” for evaluation of a new discharge permit, including information on geology and hydrology.

#### 3.1 RELEVANT INVESTIGATION AND DOCUMENTS

Extensive subsurface investigations have been completed for the Navajo Refinery and surrounding area, including the PTU area. The methods and results of the most recent and pertinent assessments are contained in the following reports, which were submitted to the OCD:

- *2020 Annual Groundwater Monitoring Report* (TRC, February 2021)
- *2021 Facility Wide Groundwater Monitoring Workplan* (TRC, June 2021) (“FWGMWP”)

#### 3.2 TOPOGRAPHY

The PTU is located within the property boundaries of the Navajo Refinery, on the east side of the City of Artesia (city) in the broad Pecos River Valley of Eastern New Mexico. The average elevation of the city is 3,380 feet above mean sea level (amsl). The plain on which the city is located slopes eastward at about 30 feet per mile.

The vegetation surrounding the city is typified by grasslands, desert vegetation, and irrigated farmlands, which include annual and permanent pastures. The areas north, south, and east of the Navajo Refinery are sparsely populated and used primarily for agricultural purposes. A majority of the land located east of the Navajo Refinery is cultivated as pecan orchards or used for other agricultural purposes.

#### 3.3 SURFICIAL SOILS

Surficial soil at the PTU is predominantly comprised of approximately 60 percent (%) Pima series and 40% Karro series. The Pima and Karro series both consist of deep, well drained soils that formed in alluvial settings. They are both calcareous and have slow to medium runoff.

#### 3.4 NEARBY WATER FEATURES

Figure 3-1 shows the locations of streams, springs or other watercourses, and water wells within one mile of the site. There are no locations of intentional ground water discharge from the PTU within one mile of the outside perimeter of the site. The existing groundwater monitoring wells around the PTU are shown in Figure 2 (Well Location Map) of the 2021 FWGMWP and Figure 2-1 of this Application.



### **3.5 GEOLOGY**

The City of Artesia is located on the northwest shelf of the Perian Basin. In this region, the deposits comprise of approximately 250 to 300 feet of Quaternary alluvium unconformably overlying approximately 2,000 feet of Permian clastic and carbonate rocks. These Permian deposits unconformably overlie Precambrian syenite, gneiss, and diabase crystalline rocks.

#### **3.5.1 Quaternary Alluvium**

The Quaternary alluvium in the PTU area is dominantly comprised of clays, silts, sand, and gravels deposited in the Pecos River Valley. These “valley fill” deposits extend in the north-south belt approximately 20 miles wide, generally west of the Pecos River. The thickness of the valley fill varies from a thin veneer on the western margins of the Pecos River valley to a maximum of 300 feet in depressions, one of which is located beneath the PTU. These depressions have resulted from dissolution of the underlying Permian carbonates and evaporites.

#### **3.5.2 Permian Artesian Group**

The Permian Artesian Group is comprised of the following five formations from shallowest to deepest: the Tansill, Yates, Seven Rivers, Queen and Grayburg Formations. The Tansill and Yates Formations outcrop at the surface east of the Pecos River and are not present in the vicinity of the PTU. The Seven Rivers Formation is present at an approximate depth of 300 feet in the area between the Pecos River and the PTU. However, the Seven Rivers Formation thins and pinches to the west and it is not evident based on boring logs that this formation has been encountered beneath the PTU process areas.

In the area of the PTU, the Queen and Grayburg Formations have been mapped as a single unit consisting of approximately 700 feet of interbedded dolomite and calcareous dolomite, gypsum, finegrained sandstone, carbonates, siltstone and mudstone. In locations where the Seven Rivers Formation is absent, the upper portion of the Queen Formation acts as a confining bed between the deep artesian aquifer and the valley fill aquifer.

#### **3.5.3 San Andres Formation**

The San Andres Formation lies beneath the Grayburg and Queen Formations and immediately above the Precambrian crystalline basement rocks. The San Andres Formation is greater than 700 feet thick and composed mainly of limestone and dolomite with irregular and erratic solution cavities ranging up to several feet in diameter. The upper portion of the formation is composed of oolitic dolomite with some anhydrite cement.

### **3.6 HYDROGEOLOGY**

The principal aquifers in the Artesia area are within the San Andres Formation and the valley fill alluvium. There are two distinct water-bearing zones within the valley fill alluvium in the vicinity of the PTU and are referred to as the “shallow saturated zone” and the “valley fill zone”. The deeper carbonate aquifer within the San Andreas Formation is referred to as the “deep artesian aquifer”. Significant alteration of potential contaminants due to sorption, precipitation, or



chemical reaction in the unsaturated zone, or expected reactions in the aquifer are not expected for the materials present at the PTU.

### **3.6.1 Shallow Saturated Zone**

The shallow saturated zone occurs in fractured caliche and interbedded sand and gravel channels at 10 to 30 feet below ground surface (bgs). Groundwater in this zone is under confined conditions for some or most of the year, with static water levels measured in groundwater monitoring wells 3 to 5 feet above the shallow saturated zone. The general direction of flow in this shallow saturated zone is to the east toward the Pecos River. Groundwater flow direction and gradient in the shallow saturated zone have remained generally consistent over time, as documented in previous annual groundwater monitoring reports.

Major sources of water in the shallow saturated zone are likely to be recharge from Eagle Creek and lawn watering runoff from the grass-covered urban park that occupies the Eagle Creek Channel immediately upstream of the PTU. The water in the shallow saturated zone is highly variable in quality, volume, areal extent, and saturated thickness. Groundwater samples are collected during semi-annual sampling events and are submitted for laboratory analysis by prescribed analytical methods in accordance with the FWGMWP (total dissolved solids [TDS] by Method 2540). Concentrations of TDS exceeding 4,000 milligrams per liter (mg/L) and sulfate exceeding 2,000 mg/L have been recorded in most of the wells located west and northwest (up-gradient) of the PTU, which significantly exceed the WQCC standards of 1,000 mg/L for TDS and 600 mg/L for sulfate.

Areas within the shallow saturated zone near the Navajo Refinery contain phase-separated hydrocarbon (PSH) and dissolved-phase hydrocarbon constituents, as reported in the *2020 Annual Groundwater Monitoring Report*. With a few exceptions, concentrations of dissolved-phase hydrocarbon constituents in the shallow saturated zone are stable within the historical range of concentrations.

### **3.6.2 Valley Fill Zone**

The valley fill zone underlies the shallow saturated zone and occurs in Quaternary alluvial deposits of sand, silt, clay and gravel. These sediments are about 300 feet thick near the PTU.

Irrigation and water production wells completed in the valley fill zone are typically screened across one to five water-producing intervals ranging in thickness of 20 to 170 feet, with a majority of the thicknesses being closer to 20 feet. Production intervals are non-continuous, consist principally of sand and gravel, and are separated by less permeable lenses of silt and clay of varying thickness. Based on logs of wells located to the north and east of the PTU, the thicknesses of silt and clay deposits range from 20 to 160 feet and are interspersed with thin zones of gravels in the upper 100 feet. Wells in the valley fill zone range from 40 to 60 feet bgs and the formation yields water containing TDS ranging from 1,500 to more than 7,000 mg/L.

Areas within the valley fill zone also contain dissolved-phase hydrocarbon constituents, as reported in the *2020 Annual Groundwater Monitoring Report*. With a few exceptions, concentrations of dissolved-phase hydrocarbon constituents in the valley fill zone are stable within the historical range of concentrations.

The valley fill zone and the underlying San Andres aquifer are hydraulically connected in some areas.

### **3.6.3 Deep Artesian Aquifer**

The deep artisan aquifer is closely related to the Permian San Andres Limestone and generally consists of one or more water-producing intervals of variable permeability located in the upper portion of the formation. However, in the Artesia area, the water-producing interval rises stratigraphically and includes the lower sections of the overlying Grayburg and Queen formations. Near the Navajo Refinery, the depth to the top of the water-producing interval is estimated to be about 440 feet bgs. The Seven Rivers formation and the other members of the Artesia Group are generally considered confining beds although some pumpage occurs locally from fractures and secondary porosity in the lower Grayburg and Queen members.

The deep artesian aquifer has been extensively developed for industrial, municipal, and agricultural use. TDS in this aquifer ranges from 500 mg/L to more than 5,000 mg/L depending on location. In the Artesia area, water from this aquifer is generally produced from depths ranging from 850 feet to 1,250 feet below ground surface. The aquifer recharges in the Sacramento Mountains to the west of Artesia. Extensive use of this aquifer in recent decades has lowered the potentiometric head in the aquifer in some locations from 50 to 80 feet bgs, although extensive rainfall in some years may bring the water levels in some wells close to ground surface.

## **3.7 SURFACE WATER DRAINAGE**

Surface drainage in the region is dominated by minor ephemeral creeks and arroyos that flow eastward to the Pecos River, located approximately three miles east of the city. From the PTU Facility, surface water flows through vegetated surface swales within the E. Main Street right-of-way, to an unnamed intermittent tributary system which eventually drains to the Pecos River. As described in its Stormwater Pollution Prevention Plan (SWPPP), the PTU is constructed such that all contact stormwater (i.e., that which contacts PTU operations such as feedstock processing and loading/unloading operations) is captured and routed to the facility's on-site wastewater treatment plant (WWTP). As described further below, non-contact stormwater from industrial areas at the PTU facility is routed to the northeast corner of the site where it is detained, inspected, and released via a National Pollutant Discharge Elimination System (NPDES) stormwater outfall. Non-contact stormwater from non-industrial areas of the site is routed to the eastern boundary of the site where it is allowed to discharge via ditches and swales east toward the Pecos River.

Natural surface drainage at the PTU is to the east. The PTU's land development design utilizes this natural slope with engineered drainage swales designed to move stormwater away from industrial areas and eventually lead to a large unlined stormwater retention pond located in the northeast corner of the PTU area, that also provides sufficient containment for the largest tank

at the PTU, as well as precipitation from a 24-hour, 25-year storm event (the capacity of the stormwater retention pond is 6,607,000 gallons). Manual sluice gates are located at various locations down-gradient of the drainage swales to allow for the controlled flow of stormwater within the area. Rail loading and unloading operations are conducted under cover and are generally not exposed to stormwater. The treatment process of animal fats and vegetable oils is also conducted under cover, within the PTU building. The PTU wastewater treatment plant (WWTP) is tied directly to the PTU building and will be used to treat spills or releases from within the PTU building.

Based on National Oceanic and Atmospheric Administration (NOAA) data from 1981 to 2021, there have not been historical flood events at the PTU location. Federal floodplain maps indicate that most of the city and the PTU have been effectively removed from the 100-year floodplain. Average monthly precipitation in the Refinery area is less than 3 inches.

### 3.8 GROUNDWATER

Routine groundwater monitoring of the shallow saturated zone relative to the PTU and the Navajo Refinery is currently conducted in accordance with the current FWGMWP. The groundwater monitoring and remediation program covers the area cross-gradient of the Navajo Refinery, which includes the PTU. The current groundwater monitoring program consists of synoptic gauging of all wells on a semi-annual basis and sampling select wells on a semi-annual, annual, or biennial basis. Groundwater samples are submitted to an independent commercial laboratory for analysis of chemicals of concern (COCs) as specified in the current FWGMWP, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), diesel range organics (DRO), gasoline range organics (GRO), total metals, dissolved metals (first semi-annual event only), cations, anions, nitrates/nitrites, cyanide, and/or TDS. Select groundwater samples will be analyzed for 1,4-dioxane, 1,2-dibromomethane (EDB), and tert-butyl alcohol (TBA). Laboratory analytical data reports and tabulated results of groundwater samples collected on a semi-annual, annual, or biennial basis are provided in the annual groundwater reports, with the most recent being Appendix C of the *2020 Annual Groundwater Monitoring Report* that was submitted to the OCD in February 2021. Groundwater monitoring data is maintained at the Refinery for a period of at least five years.

No measurable PSH was present in any wells located in the direct vicinity of the PTU during either 2020 semiannual event. Benzene and ethylbenzene concentrations increased from not detected above the method detections limits in April 2019 to 0.000205 J<sup>1</sup> mg/L and 0.00234 J mg/L respectively, in June 2020. However, 2020 results were less than the method detection limits during previous events and are at least an order of magnitude below their respective critical groundwater screening levels (CGWSLs). Additionally, iron exceeded the CGWSL in this well;

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<sup>1</sup> “J” indicates that the value being reported by the laboratory is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit.

iron concentrations in this well have historically exceeded the CGWSL and fluctuated. Maps of the COC screening level exceedances from the most recent first and second semi-annual sampling events are provided in the *2020 Annual Groundwater Monitoring Report*.

TDS were detected in the groundwater near the PTU at concentrations in exceedance of CGWSLs. The average TDS concentration is approximately 2,400 mg/L at a depth of approximately 10 to 30 feet bgs. A summary of the most recent TDS results in the groundwater analytical data is provided in Table 4C of the *2020 Annual Groundwater Monitoring Report*. Maps of the TDS critical groundwater screening level exceedances from the most recent first and second semi-annual sampling events are provided as Figures 26 and 27 of the *2020 Annual Groundwater Monitoring Report*. Note that the monitoring wells which include the PTU area are located in the Cross-Gradient and Field East of Navajo Refinery sections of the Ground Water Monitoring Report.

## FIGURES FOR SITE CHARACTERISTIC

### Figures

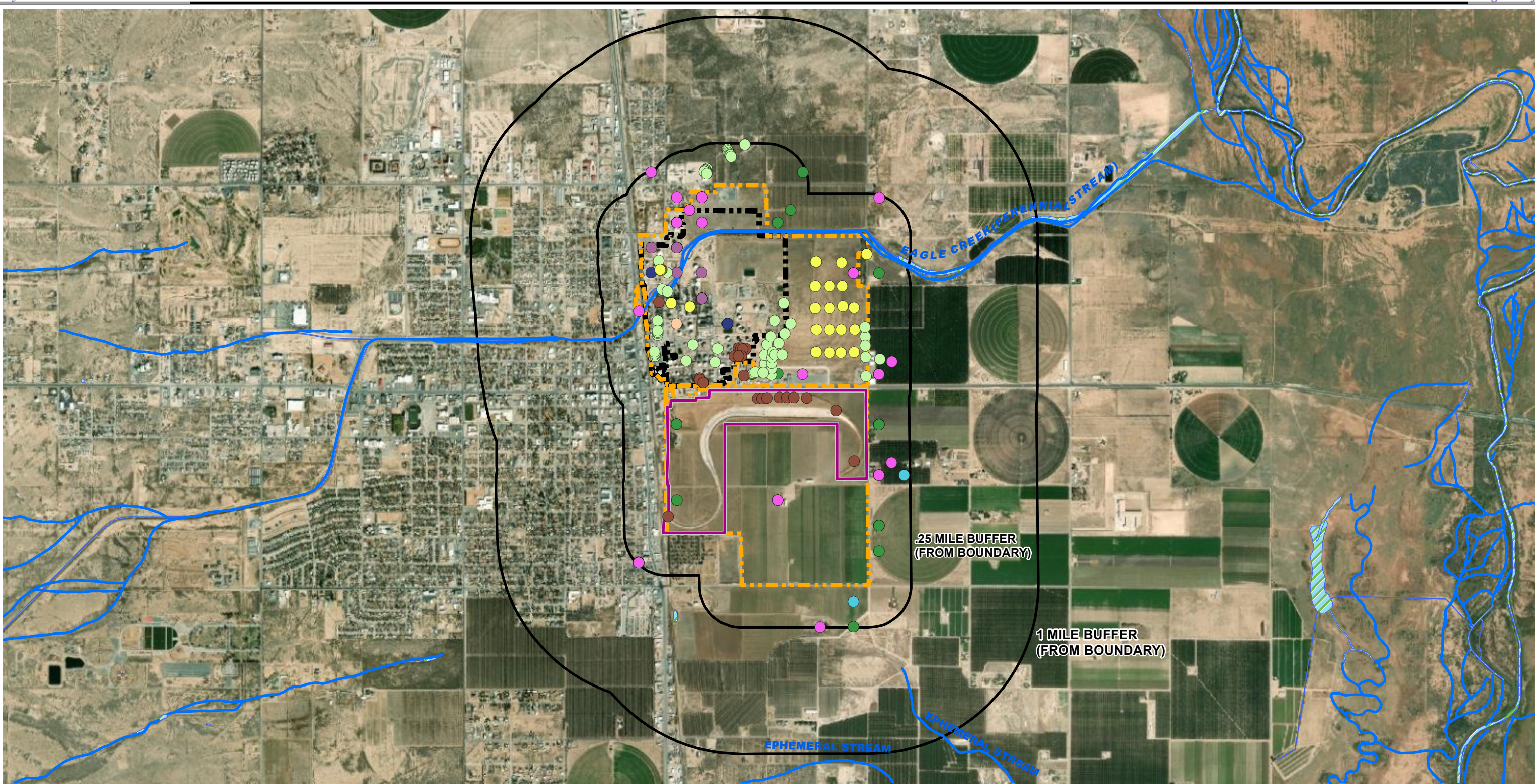
3-1 Facility Water Sources



TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)  
Map Rotation: 0

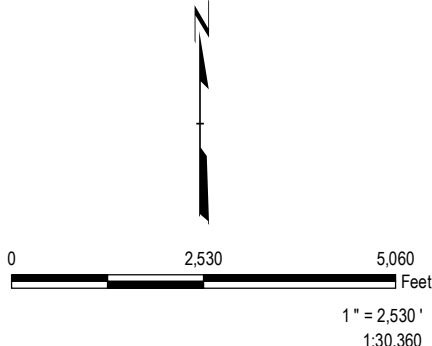
Plot Date: 2/18/2022 09:59:42 AM by MJAGOE -- LAYOUT: ANSI B(11"x17")  
Path: S:\1-PROJECTS\HOLLY ENERGY PARTNERS\Artesia\467910\467910\_Figure\_3-1.mxd




LEGEND

- WATER WELLS

  - DOMESTIC AND LIVESTOCK WELL
  - DOMESTIC (ONE HOUSEHOLD) WELL
  - EXPLORATION WELL
  - GEOTHERMAL BOREHOLE WELL
  - INDUSTRIAL WELL
  - IRRIGATION WELL
  - MUNICIPAL WELL
  - OBSERVATION WELL
  - POLLUTION CONTROL WELL
- STREAM
  - WETLANDS
  - FACILITY PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
  - REFINERY FENCELINE
  - FENCELINE MARKING INDUSTRIAL ACTIVITY BOUNDARY



PROJECT:		ARTESIA PTU, LLC ARTESIA, EDDY COUNTY, NEW MEXICO	
TITLE:			
FACILITY WATER SOURCES			
DRAWN BY: M. JAGOE		PROJ NO.: 467910	
CHECKED BY:		FIGURE 3-1	
APPROVED BY:			
DATE: FEBRUARY 2022			
		505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6080 www.trcsolutions.com	
FILE NO.:		467910_Figure_3-1.mxd	



## **4 POTENTIAL OR INTENTIONAL DISCHARGES**

This section of the Application addresses potential (unplanned) discharges to ensure that they do not adversely impact human health or the environment. There are no intentional (planned) discharges from the PTU at the time of the submittal of this Groundwater Discharge Plan in December 2021.

### **4.1 STORAGE AND COLLECTION SYSTEMS**

Materials stored at the PTU that may present a risk to human health or the environment if unintentionally discharged include tallow, distiller's corn oil, soybean oil, renewable diesel, bleaching earth, gums, caustics, citric acid lubricating and hydraulic oils (new and used), water system additives, contaminated process water, and contaminated stormwater. In addition, the Refinery may, at times, store rail cars containing asphalt, gas oil, and other petroleum hydrocarbons on the PTU rail spur. A detailed summary of materials stored in above ground storage tanks (ASTs) and other containers in the PTU, and information about the materials and containers, including if liquid or solid, type of container, estimated volume storage, primary and secondary containment, and whether lined or unlined containment, is provided as Table 4-1. The location of each tank can be found on Figure 2-1.

The PTU is subject to the oil pollution prevention regulations in Title 40 of the Code of Federal Regulations, Part 112 (40 CFR 112), which includes the development and implementation of a spill prevention, control, and countermeasures (SPCC) plan to both avert and respond to unintentional discharges of oil and oil-derived products. This includes the provision of adequate secondary containment to control an unintentional release and prevent it from migrating, as well as measures to remedy a release, should one occur. The PTU's current SPCC Plan is dated October 2021.

### **4.2 INTENTIONAL DISCHARGES**

There are no intentional discharges from the PTU. Any discharge at the PTU would be unintentional and could consist of any of the process materials listed in the section above or in Table 4-1. More information is provided in the next section.

### **4.3 POTENTIAL DISCHARGES**

#### **4.3.1 PTU Process Summary**

The 35 gallon per minute (gpm) PTU processes tallow, distiller's corn oil, and soybean oil to remove impurities to create usable feedstock for renewable diesel production. Although renewable diesel is not produced within the PTU, renewable diesel made within the north adjoining Artesia Renewable Diesel Company (ARDC) RDU is piped back to the PTU to be held in tanks prior to rail loading for transport off-site. Transfer of most oils within the PTU is conducted via overhead piping, in elevated pipe racks, with the exception of the underground piping used to circulate material between the PTU and the RDU.

There are three tank farm areas at the PTU, each of which is located within concrete containment. These tank farms are:

- PTU Tank Farm, which houses vegetable and/or animal oils in various stages of processing
- Raw Product Tank Farm, which houses distiller's corn oil, tallow, and soybean oil
- RD Tank Farm, which houses renewable diesel ready for transport off-site

The tank farms are shown on Figure 2-1.

#### 4.3.2 Typical Waste

Wastes generated and managed at the PTU are non-hazardous wastes presented in Table 4-1. The non-hazardous wastes listed may be present at the PTU at any time, though the type and quantity may vary due to the routine fluctuations in PTU operations.

#### 4.3.3 Wastewater

All process wastewater from the PTU is collected and routed to a PTU WWTP for treatment prior to discharge to the City of Artesia publicly owned treatment works (POTW). The WWTP is designed to serve the PTU Process Area and treat process water and potential releases from nonpetroleum oil-filled process equipment within this area. Contact stormwater from process areas at the PTU will also be captured and routed to the on-site WWTP. No other drainage water is anticipated to be treated within the PTU WWTP unless a spill or release has occurred elsewhere in the PTU that requires use of a vacuum-truck or similar method to dispose of the contaminated discharge water. Tanks that may contain nonpetroleum-based oily discharge water located within containment are shown in Table 4-1. The location of the WWTP is shown on Figure 2-1.

Wastewaters from the PTU process unit are pumped at an estimated average of 45 gpm from the PTU sump through heat exchangers then into one of two equalization (EQ) tanks. The EQ tanks allow for dampening of fluctuations in influent flow and loading so that the wastewater can be fed at a more consistent flow rate to the downstream treatment units. Diffused aeration in the EQ tanks provides mixing for the tank contents. Effluent from the EQ tanks is then routed to the Chemical Dissolved Air Flotation Unit (DAF) where the pH is adjusted and other water treatment chemicals (e.g., coagulants and flocculants) are added to aid in separation of oil and grease (O&G). Flocculated material floats to the surface of the DAF where it can then be skimmed off to the float chamber of the DAF. The float is collected and held in a storage tank for further treatment prior to disposal. The effluent from the Chemical DAF is then pumped to the Aeration Basin where activated sludge micro-organisms metabolize the remaining dissolved organic constituents. Nutrient nitrogen (urea) and phosphorus (phosphoric acid) are added to the feed to the Aeration Basin to promote micro-organism health and reproduction. The effluent from the Aeration Basin flows to the Secondary DAF where additional flocculant is added to enhance separation of activated sludge from the wastewater. Floated biomass in the Secondary DAF is primarily recycled to the Aeration Basin, with a portion wasted to the Sludge Holding Tank to maintain the required biomass inventory. Wasted biomass from the Secondary DAF is blended with the float from the Chemical DAF and dewatered using a decanter centrifuge to produce a solid sludge cake for disposal. The treated wastewater from the Secondary DAF is then pumped to a final wastewater holding tank where it combines with non-contact cooling tower blowdown. From the final holding tank, the treated wastewater is discharged to the POTW at a design flow of



up to 120 gpm (up to 90 gpm design maximum from the WWTP and up to 30 gpm from the cooling tower blowdown).

#### **4.3.4 Stormwater**

Rail loading and unloading operations, and the pre-treatment process for animal fats and vegetable oils are conducted under cover and are generally not exposed to stormwater. The PTU's land development design utilizes the natural slope with engineered drainage swales designed to move stormwater away from industrial areas and eventually lead to a large unlined stormwater retention pond located in the northeast corner of the PTU area. All drainage between the swales and retention pond is collected by manual sluice gates to ensure that no contaminated stormwater leaves the PTU. Stormwater will not accumulate within the retention pond for longer than 96 hours. Any accumulated water will be visually inspected for potential impacts. If stormwater is found to be contaminated, it will be removed via vacuum truck and treated in the PTU WWTP. Accumulated stormwater from diked areas within the PTU is also allowed to evaporate naturally, which is typically expedited by local arid conditions. Should uncontaminated stormwater accumulate quicker than the rate of evaporation, a pump may be used to remove uncontaminated stormwater into the north adjacent vegetated stormwater swale.

#### **4.3.5 Disposal**

Non-hazardous wastes are shipped off-site via truck to appropriately permitted and approved facilities. HollyFrontier maintains and conducts a program for review and approval of waste disposal transporters and vendors to ensure wastes are properly disposed.

#### **4.3.6 Rail Storage**

As mentioned above, feedstocks, renewable diesel, and petroleum hydrocarbons will be stored in the PTU railyard. Runoff from the railyard area is captured and managed as described above to ensure that no impacted stormwaters leave the site. The stormwater controls, as described in the site SWPPP, and the site Spill Prevention, Control & Countermeasures (SPCC) Plan provide description of the measures implemented to contain a release from the largest rail car as well as the 24-hour, 25-year storm.

#### **4.3.7 PTU Cooling Tower**

The PTU Cooling Tower uses fresh water and Reverse Osmosis (RO) permeate to remove heat from the PTU Facility. Average and maximum flow of source (i.e., make-up) water to the cooling towers will be dependent on cooling water cycles but is anticipated to be approximately 60 to 80 gpm. Cooling tower blowdown flow is estimated to be up to 30 gpm.

Spill concerns are minimal within the cooling tower areas. The cooling systems are closed loop recirculating systems. While cooling system treatment chemicals may be added for scaling, corrosion, and fouling control, chemicals will be managed and handled according to best management practices. If cooling water was released, potential impacts to groundwater would be minimal as the cooling water is not in contact with process materials. In accordance with 20.6.2.1203 NMAC, spills or releases of oil or other water contaminants will be reported using OCD Form C-141. Additionally, the facility is graded such that if spills occur, waters will flow

towards, and be captured in, the northeast stormwater retention pond where the spill can be managed so that there is no off-site release.

#### **4.4 GROUNDWATER MONITORING**

The current Facility Wide Ground Water Monitoring Program includes an extensive network of monitoring and/or recovery wells that consolidates activities relating to the Navajo Refinery's Resource Conservation and Recovery Act (RCRA) Permit and associated corrective action investigations and corrective measures. This monitoring program covers the Navajo Refinery including the area occupied by the PTU. In general, semi-annual (spring, fall) monitoring activities for wells currently encompass level-gauging (groundwater and PSH, where present) of monitoring and recovery wells and collection of groundwater samples from monitoring wells and select recovery and off-site agricultural irrigation wells. Section 3 (Site Characteristics) identifies figures featuring the locations of existing water wells and groundwater monitoring wells at the Navajo Refinery and the PTU. The Refinery gives prior notice to OCD (and to the New Mexico Environmental Department [NMED]) with respect to the semi-annual groundwater sampling events. Results of all monitoring and analysis activities are reported on an annual basis (in the *Annual Groundwater Monitoring Report*) to OCD and NMED.

##### **4.4.1 Sample Collection and Analysis**

Groundwater samples are submitted to an independent commercial laboratory for analysis of COCs as specified in the current *FWGMWP*, including VOCs, SVOCs, DRO, GRO, total metals, dissolved metals (first semi-annual event only), cations, anions, nitrates/nitrites, cyanide, and/or TDS. Select groundwater samples will be analyzed for 1,4-dioxane, EDB, and TBA. Laboratory analytical data reports and tabulated results of groundwater samples collected on a semi-annual, annual, or biennial basis are provided in the annual groundwater reports, with the most recent being Appendix C of the *2020 Annual Groundwater Monitoring Report* that was submitted to the OCD in February 2021.

##### **4.4.2 Groundwater Contamination**

The following COCs were detected in groundwater at concentrations in exceedance of their respective CGWSL:

- TPH, GRO, and DRO
- Select VOCs including target COCs benzene, toluene, ethylbenzene, xylenes, MTBE, and naphthalene
- Select total metals including target COC arsenic
- Water quality parameters chloride, fluoride, sulfate, TDS, and nitrate/nitrite

SVOCs were also detected in groundwater at concentrations in exceedance of their respective CGWSLs in samples collected from select North Refinery wells. Additional groundwater and remediation activity information is provided in the *2020 Annual Groundwater Monitoring Report*.

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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## TABLES FOR POTENTIAL OR INTENTIONAL DISCHARGES

### Tables

- 4-1 PTU Storage Tanks and Containers
- 4-2 Typical Wastes

**Table 4-1. PTU Storage Tanks and Containers**

<b>Tank Number</b>	<b>Tank Contents</b>	<b>Solid/ Liquid</b>	<b>Tank Capacity (Gallons)</b>	<b>Secondary Containment Type</b>	<b>Lined/Unlined Secondary Containment</b>
T-0901	Renewable Diesel	Liquid	3,617,880	Concrete Berm	Unlined
T-0902	Renewable Diesel	Liquid	3,617,880	Concrete Berm	Unlined
T-0903	Renewable Diesel	Liquid	3,617,880	Concrete Berm	Unlined
T-0906	Soybean Oil	Liquid	2,577,540	Concrete Berm	Unlined
T-0907	Soybean Oil	Liquid	2,577,540	Concrete Berm	Unlined
T-0908	Tallow	Liquid	691,320	Concrete Berm	Unlined
T-0909	Tallow	Liquid	691,320	Concrete Berm	Unlined
T-0910	Distillers Corn Oil	Liquid	780,360	Concrete Berm	Unlined
T-0911	Distillers Corn Oil	Liquid	780,360	Concrete Berm	Unlined
T-0915	Soybean Oil	Liquid	1,125,600	Concrete Berm	Unlined
T-0916	SBO/Tallow/DCO	Liquid	651,000	Concrete Berm	Unlined
T-0917	SBO/Tallow/DCO	Liquid	651,000	Concrete Berm	Unlined
T-0918	SBO/Tallow/DCO	Liquid	651,000	Concrete Berm	Unlined
T-0919	SBO/Tallow/DCO	Liquid	651,000	Concrete Berm	Unlined
T-0920	SBO/Tallow/DCO	Liquid	651,000	Concrete Berm	Unlined
T-0922	Caustic Tank	Liquid	7,000	Concrete Berm	Unlined
T-0923	Citric Acid Tank	Liquid	14,000	Concrete Berm	Unlined
T-0925	Gums Tank	Liquid	44,000	Concrete Berm	Unlined
T-0926	Gums Tank	Liquid	44,000	Concrete Berm	Unlined
T-0927	Gums Tank	Liquid	44,000	Concrete Berm	Unlined
T-0936	Gums Tank	Liquid	44,000	Concrete Berm	Unlined
V-93925A	Bleaching Earth Storage Tank	Liquid	35,927	Concrete Berm	Unlined
V-93925B	Bleaching Earth Storage Tank	Liquid	35,927	Concrete Berm	Unlined
V-93925C	Bleaching Earth Storage Tank	Liquid	35,927	Concrete Berm	Unlined
V-93926A	Filter Aid Storage Tank	Liquid	35,927	Concrete Berm	Unlined
V-93926B	Filter Aid Storage Tank	Liquid	35,927	Concrete Berm	Unlined
T-939	Corrosion Inhibitor Tank	Liquid	500	Concrete Berm	Unlined
T-938	Sulfuric Acid Tank	Liquid	1,000	Concrete Berm	Unlined
T-937	Bleach Tank	Liquid	1,000	Concrete Berm	Unlined

**Table 4-1. PTU Storage Tanks and Containers (cont.)**

<b>Tank Number</b>	<b>Tank Contents</b>	<b>Solid/ Liquid</b>	<b>Tank Capacity (Gallons)</b>	<b>Secondary Containment Type</b>	<b>Lined/Unlined Secondary Containment</b>
T-93105	Permeate Tank/Drum	Liquid	6,000	Concrete Berm	Unlined
T-94020	Aeration Basin	Liquid	363,600	Concrete Apron & Retention Pond	Unlined
T-94003A	Equalization Tank	Liquid	135,100	Concrete Apron & Retention Pond	Unlined
T-94003B	Equalization Tank	Liquid	135,100	Concrete Apron & Retention Pond	Unlined
T-94030	Float Tank	Liquid	18,500	Concrete Berm	Unlined
T-94033	Sludge Tank	Liquid	16,100	Concrete Berm	Unlined
T-94050	Effluent Water Tank	Liquid	46,000	Retention Pond	Unlined
T-94007	DAF Lift Tank	Liquid	1,000	WWTU Building & Sump	Unlined
T-94014	Polymer Mix Tank	Liquid	353	WWTU Building & Sump	Unlined
T-94021	DAF Lift Tank	Liquid	1,000	WWTU Building & Sump	Unlined
T-94025	Polymer Mix Tank	Liquid	353	WWTU Building & Sump	Unlined
N/A	Polymer Tote	Liquid	300	Containment platform inside WWTU building	Unlined
N/A	Polymer Tank	Liquid	500	Concrete Berm inside WWTU building	Unlined
N/A	Caustic Tank	Liquid	500	Concrete Berm inside WWTU building	Unlined
N/A	Coagulant Tank	Liquid	500	Concrete Berm inside WWTU building	Unlined

Table 4-1. PTU Storage Tanks and Containers (cont.)

Tank Number	Tank Contents	Solid/ Liquid	Tank Capacity (Gallons)	Secondary Containment Type	Lined/Unlined Secondary Containment
N/A	Phosphoric Acid Tank	Liquid	500	Concrete Berm inside WWTU building	Unlined
N/A	Urea Tank	Liquid	500	Concrete Berm inside WWTU building	Unlined
V-93935A	CIP Tank (Acid)	Liquid	793	PTU ISBL Building & Sump	Unlined
V-93935B	CIP Tank (Water)	Liquid	793	PTU ISBL Building & Sump	Unlined
V-93935C	CIP Tank (Caustic)	Liquid	793	PTU ISBL Building & Sump	Unlined
N/A	Transformer 1	Liquid	572	Concrete Berm	Unlined
N/A	Transformer 2	Liquid	572	Concrete Berm	Unlined
N/A	Transformer 3	Liquid	572	Concrete Berm	Unlined
N/A	Engine #1 Diesel Tank	Liquid	1,300	None (Mobile)	
N/A	Engine #2 Diesel Tank	Liquid	1,300	None (Mobile)	
N/A	Each Railcar (375 max on track)	Liquid	34,500	None (Mobile)	
Railcar	Gasoil <sup>1</sup>	Liquid	29,000	Earthen Berm	Unlined
Railcar	Zero-penetration asphalt <sup>1</sup>	Liquid	29,000	Earthen Berm	Unlined
Railcar	Petroleum Hydrocarbons <sup>1</sup>	Liquid	29,000	Earthen Berm	Unlined

<sup>1</sup>Navajo may utilize portions of the PTU rail spur for the temporary staging of railcars.

DAF = dissolved air flotation

DCO = distillers corn oil

ISBL =

N/A = not applicable

PTU = Pretreatment Unit

SBO = soybean oil

WWTU = Wastewater Treatment Unit

**Table 4-2. Typical Wastes**

<b>Waste Type/Name</b>	<b>Hazard</b>	<b>Location of Generation or Storage</b>	<b>Approximate Maximum Quantity (Lbs)</b>
PE Filter Cake	Non-Hazardous	PTU	6,384
Train 1 Filter Cake	Non-Hazardous	PTU	28,752
Train 2 Filter Cake	Non-Hazardous	PTU	34,824
Train 1 Gums	Non-Hazardous	PTU	187,200
Train 2 Gums	Non-Hazardous	PTU	148,584
WWTP Solids	Non-Hazardous	PTU	8,832

Lbs = pounds

PTU = pre-treatment unit

WWTP = wastewater treatment plant

## **5 COLLECTION AND STORAGE SYSTEMS**

### **5.1 POTENTIAL POLLUTANT SOURCES**

The areas where leaks/spills of potential pollutants associated with industrial activities at the PTU could occur, and the associated discharge points, are provided in Table 5-1.

### **5.2 TANK AND CHEMICAL STORAGE AREAS**

All bulk oil storage containers at the PTU are provided sufficient secondary containment. The design of the secondary containment areas located within the PTU will provide sufficient containment to hold the contents of the largest tank within each containment and provide sufficient freeboard to contain a 24-hour, 25-year storm event. Should a release overtop these containments, the PTU is designed to channel flow into a vegetated swale that leads to a retention pond located in the northeast corner of the PTU. This retention area also provides sufficient containment for the largest tank at the PTU as well as precipitation for a 24-hour, 25-year storm event. This additional containment will provide the PTU ample time to appropriately respond to a release to ensure a release will not leave the PTU area. A complete list of bulk oil storage containers and a detailed description of the secondary containment provided at the PTU is provided in the *Artesia Pre-Treatment Spill Prevention, Control, and Countermeasure Plan*, the *Spill Prevention, Control, and Countermeasure Plan for the Railcar Staging Area*, and in Table 4-1 of this Application.

Oil-filled operational equipment utilized as part of the PTU Process Area is located within concrete containment provided by concrete flooring and curbing. The floors are designed with concrete lined floor drains that drain to a sump that is linked directly to the PTU WWTP. The combined containment capacity of the flooring and sump within the PTU Process Area, sump, and WWTP exceeds the volume of the largest oil-filled process equipment. There is no oil-filled operational equipment located in the railcar staging area at the PTU.

Accumulated stormwater is managed at three containment areas within the PTU; the PTU tank containment, the raw product tank containment, or the renewable diesel tank containment. Each of the listed containment areas are designed to contain the largest capacity tank as well as a 25-year, 24-hour storm event. Uncontaminated stormwater that accumulates within these containment areas will primarily be allowed to evaporate naturally, which is typically expedited by the region's arid conditions. If there is evidence of contamination, drainage water will be removed via vacuum truck for treatment at the WWTP.

Mobile or portable oil storage tanks will be located at the PTU to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes, catchment basins, or portable secondary containment, is furnished for the largest single compartment or tank in that containment. Additionally, these tanks are located where they will not be subject to periodic flooding or washout.

The railcars containing feedstocks, renewable diesel gas oil, asphalt, and other petroleum hydrocarbons at the railcar staging area at the PTU are positioned or located to prevent spilled material from reaching navigable waters. The railcar staging area is also furnished with a secondary



means of containment; catchment basins are designed to sufficiently collect a potential release from the largest single railcar. Additionally, the rail line is elevated on a berm so railcars are located where they will not be subject to periodic flooding or washout. However, stormwater from the tank car staging area is designed to flow via the National Pollutant Discharge Elimination System (NPDES)-permitted Discharge Points 001 and 002. Discharge Points 001 and 002 are both unnamed intermittent tributary systems that eventually drain east to the Pecos River. The locations of the discharge points are provided on Figure 2-1.

### **5.3 BURIED PIPING**

Navajo and APTU have prepared a master list of underground piping at the plant, and leak detection testing of these lines is performed on a periodic basis to ensure structural integrity. Leak testing is performed in accordance with industry standards. If any line leaks are detected, corrective action including repair or replacement will be undertaken. When possible, underground piping will be replaced with aboveground piping.

Integrity testing of underground piping is conducted during modification, relocation, or replacement. Any buried piping that is exposed is carefully examined for deterioration and corrective action is taken as necessary.

The transfer/circulation of oil product to and from the PTU and the RDU, located on the Navajo Refinery, is connected through a series of underground pipelines that are encased in two 36-inch diameter steel pipes and enter/exit the Navajo Refinery from/to the PTU from a concrete vault located just north of East Main Street. A concrete sump along the bottom of the concrete vault is fitted with a pump so that excess stormwater or a potential release can be removed via vacuum truck as needed. The concrete vault is located within an earthen bermed containment area that is capable of preventing a release.

## TABLES FOR COLLECTION AND STORAGE SYSTEMS

### Tables

5-1 Potential Pollutants and Discharge Points

**Table 5-1. Potential Pollutants and Discharge Points**

<b>Industrial Activity</b>	<b>Associated Pollutants</b>	<b>Discharge Point</b>
Truck or tank car unloading/loading	Tallow, distiller's corn oil, soybean oil, renewable diesel, bleaching earth, filter cake, gums, caustics, wastewater treatment sludge, citric acid	Into one of the swales to the east of the PTU or the retention pond located at the northeast corner of the Facility – no direct discharge from the Facility
Transfer of raw materials, intermediates, final products, process additives, auxiliary system chemicals, and additives by pumps/piping or manual transfer (drums, totes, etc.)	Tallow; distiller's corn oil, soybean oil, renewable diesel, bleaching earth, gums, caustics; citric acid, lubricating and hydraulic oils (new and used), water system additives, process wastes	Into one of the swales to the east of the PTU or the retention pond located at the northeast corner of the Facility – no direct discharge from the Facility
Blending and mixing of various oils/fats and chemicals	Raw materials, intermediates, final products, waste products, contaminated process water, contaminated stormwater	Into process water sewers that are piped to PTU WWTP– no direct discharge from the Facility
Wastewater Treatment	Tallow; distiller's corn oil, soybean oil, renewable diesel, bleaching earth, gums, caustics, citric acid lubricating and hydraulic oils (new and used), water system additives, contaminated process water, contaminated stormwater	Conducted within the PTU WWTP secondary containment – no direct discharge from the Facility
Storage of material in tanks, drums, totes, and other containers	Tallow, distiller's corn oil, soybean oil, renewable diesel, bleaching earth, gums, caustics, citric acid, lubricating and hydraulic oils (new and used), water system additives, contaminated process water, contaminated stormwater	Into secondary containment or swales located to the east of the PTU or the retention pond located at the northeast corner of the Facility – no direct discharge from the Facility
Equipment and associated maintenance activities	Metals, oils (new and used), process wastes, contaminated stormwater	Into secondary containment or swales located to the east of the PTU or the retention pond located at the northeast corner of the Facility – no direct discharge from the Facility
Tank car staging	Asphalt, oils, and grease	Railcars temporarily staged within the south adjacent property are within containment provided by the PTU; however, stormwater is designed to flow via Discharge Point 001 and 002.
Vehicle Traffic	Dust, oil, and grease	Into secondary containment or swales located to the east of the PTU – no direct discharge from the Facility

## **6 INSPECTION, MAINTENANCE, AND REPORTING**

### **6.1 INSPECTION AND MAINTENANCE FOR LEAKS**

#### **PTU and Tanks**

Visual inspections (called walk-around inspections) are performed, at a minimum, once per day and can happen up to six times a day depending on the daily operations. These inspections cover all facets of PTU Facility operations including tanks and secondary containment areas and are performed by PTU Facility operators assigned to that section of the Facility.

Tank foundations have been constructed to sit on an elevated platform designed to improve visual inspections and allow for additional diagnostics as to where a leak may be occurring within the tank. Perforated PVC piping has been placed at equal intervals within packed sandfill under the concrete ring of the tank foundation. Anything that appears out of the ordinary will be reported for further investigation. If a small spill is discovered, actions to contain and remove the spilled liquids will commence immediately upon discovery. These inspections are not formally documented unless a spill or an item that needs correction is found.

The Navajo Refinery, including the PTU Facility, utilizes Praxair TracerTight® leak detection technology on all of its tanks. TracerTight® is a non-volumetric test method that utilizes tracer compounds and can be applied to USTs, ASTs, and Pipelines. The methodology is third-party evaluated with a leak sensitivity of 0.05 gph with a probability of detection (PD) of 97.1% and a probability of false alarm (PF) of 2.9%. The method is accepted and listed by U.S. EPA National Work Group of Leak Detection Evaluations (NWGLDE).

If a leak is detected, the Praxair system inoculates the tank with a small amount of a tracer compound into the fuel of the storage tank and samples are then collected from vapor sampling probes for the presence or non-presence of the tracer compound. TracerTight® does not require the tank to be taken out of service during the test. If the presence of the tracer compound is confirmed, tank inspectors are immediately notified. Tank inspectors will then run tests to further confirm the leak, and if confirmed, materials will be removed from the tank, and the tank will be considered out of service until it has been repaired. Navajo inspects the Praxair system of approximately 20% of the storage tanks at the Refinery every year.

In addition to these daily inspections, monthly inspections occur for all bulk storage tanks and containment areas and for all aboveground valves and piping. Records of these inspections are documented in operating personnel logs. Corrective actions that are identified during inspections will be noted in the Enablon database or entered into the work order system for prompt attention. Records of the inspections will be maintained on file at the Facility for a minimum period of three years. Blank example monthly inspection forms can be found in Appendix 6-1.

The inspection and testing requirements described in the American Petroleum Institute (API) Standard 653 - Tank Inspection, Repair, Alteration, and Reconstruction are followed for any work performed on field-constructed tanks at the PTU. Tanks constructed at the PTU are built to

the API Standard 650 Welded Steel Tanks for Oil Storage. Copies of tank inspection and certification for service are kept in the Tank Inspection Department's files.

### **Underground Piping**

Navajo and APTU have prepared a master list of underground piping at the plant, and leak detection testing of these lines is performed on a periodic basis to ensure structural integrity. Leak testing is performed in accordance with API Standard 570 – Piping Inspection Code: In-Service Inspection, Rating, Repair, and Alteration of Piping System. If any line leaks are detected, corrective action including repair or replacement will be undertaken. If a section of buried pipe is exposed, it is carefully examined for deterioration and corrective action is taken as necessary. When possible, underground piping will be replaced with aboveground piping.

### **Railcars and Railcar Staging Area**

Prior to the filling or departure of any railcar from the PTU, the lower drain and outlets on the railcars will be verified to be in a closed and/or locked position and inspected for leakage. Any sign of leakage will immediately be corrected to prevent liquid leakage while in transit. All railcars and containment areas will be inspected on a routine basis by trained personnel. This includes inspection for cut or damaged dikes, leaking or damaged valves, and indication of railcar leaks. Corrective actions that are identified during inspections will be noted in the Enablon database or entered into the work order system for prompt attention.

Records of the inspections will be maintained on file at the Facility for a minimum period of three years. An example routine inspection form can be found in Appendix 6-1.

No loading, unloading, or handling of materials will be conducted at the railcar staging area. There are no aboveground storage tanks associated with the staging of gas oil and asphalt railcars in the railcar staging area.

### **Stormwater Management**

Routine inspections are performed by qualified personnel with at least one member of the stormwater pollution prevention team participating. Routine inspections of tanks, tank berms, valves, dumpsters, or other areas that are exposed to stormwater are conducted at least quarterly. Inspection and maintenance on all stormwater controls at the PTU, including drains, swales, the retention pond, and secondary containment areas will be conducted at regular intervals. Repairs or replacement of stormwater controls will be completed as soon as feasible but no later than 14 days after identification of a need for corrective action, or if that is infeasible (and the reason is documented), within 45 days. Example inspection forms can be found in Appendix 6-1.

## **6.2 MONITORING AND REPORTING**

Facility-wide groundwater monitoring is conducted to identify releases at the Navajo Refinery, which includes the area of the PTU; to evaluate the presence, nature, and extent of groundwater impacts; and to support remediation of impaired groundwater. The groundwater monitoring program consists of semi-annual well gauging and groundwater sampling and analysis

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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conducted in accordance with the *Facility-Wide Groundwater Monitoring Work Plan*. Navajo submits an *Annual Groundwater Monitoring Report* to the OCD to document groundwater monitoring and recovery activities conducted. These groundwater monitoring results are also used as a means to identify any releases. If an increase in PSH or other constituents of concern are observed, the facility promptly works to identify the source of the increase.

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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## **APPENDICES FOR INSPECTION, MAINTENANCE, AND REPORTING**

### **Appendices**

6-1 Example Inspection Forms

## **APPENDIX 6-1**

### **EXAMPLE INSPECTION FORMS**





# MONTHLY INSPECTION CHECKLIST

Artesia PTU LLC

## INSTRUCTIONS

At least once a month, visually inspect bulk storage containers (aboveground storage tanks, totes, drums), associated piping, oil-filled equipment and secondary containments using this checklist. Retain completed checklists for at least 3 years.

Notes:

- The visual inspection is intended to monitor the external condition of the equipment and its containment, and does not require a Certified Inspector. The inspection shall be performed by qualified facility personnel.
- Non-conforming items important to aboveground storage tank integrity require evaluation by an engineer experienced in tank design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action(s) in the comment section.
- After severe weather (snow, ice, wind storms) or maintenance (such as coating) that could affect the operation of critical components (normal and emergency vents, valves), an inspection of these components is required as soon as the equipment is safely accessible after the event.

INSPECTION DATE (MM/DD/YYYY):

INSPECTOR NAME/TITLE:

## ABOVEGROUND STORAGE TANKS AT THE RD TANK FARM AND RAW PRODUCT TANK FARM

#	INSPECTION ITEM	TANK ID AND STATUS									COMMENTS/ DATE CORRECTED
		T-0901	T-0902	T-0903	T-0906	T-0907	T-0908	T-0909	T-0910	T-0911	
1	Is tank exterior (roof, shell, heads, bottom, connections, fittings, valves, etc.) free of visible leaks? <i>If "No", identify tank and describe leak and actions taken.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Is the tank liquid level gauge legible and does it appear to be in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3	Is the area around the tank (concrete surfaces, ground, containment, etc.) free of visible signs of leakage?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Is the spill container (spill bucket) empty, free of visible leaks and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

# MONTHLY INSPECTION CHECKLIST

Artesia PTU LLC

#	INSPECTION ITEM	TANK ID AND STATUS									COMMENTS/ DATE CORRECTED
		T-0901	T-0902	T-0903	T-0906	T-0907	T-0908	T-0909	T-0910	T-0911	
5	Are piping connections to the tank (valves, fittings, pumps, etc.) free of visible leaks? <i>If "No", identify location and describe leak.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Do the ladders/platforms/walkways appear to be secure with no sign of severe corrosion or damage?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
7	Is the containment free of excess liquid, debris, cracks, corrosion, erosion, fire hazards, and other integrity issues?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
8	Are dike drain valves closed and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9	Are containment egress pathways clear and any gates/doors operable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10	Is the system free of any other conditions that need to be addressed for continued safe operation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

# MONTHLY INSPECTION CHECKLIST

Artesia PTU LLC

INSPECTION DATE (MM/DD/YYYY):	INSPECTOR NAME/TITLE:
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## ABOVEGROUND STORAGE TANKS AT THE PTU TANK FARM AND RAILCAR LOADING/UNLOADING AND STAGING AREA

#	INSPECTION ITEM	TANK ID AND STATUS								COMMENTS/ DATE CORRECTED
		T-0915	T-0916	T-0917	T-0918	T-0919	T-0920	RAILCAR LOADING/ UNLOADING	RAILCAR STAGING AREA	
1	Is tank exterior (roof, shell, heads, bottom, connections, fittings, valves, etc.) free of visible leaks? <i>If "No", identify tank and describe leak and actions taken.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Is the tank liquid level gauge legible and does it appear to be in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3	Is the area around the tank (concrete surfaces, ground, containment, etc.) free of visible signs of leakage?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Is the spill container (spill bucket) empty, free of visible leaks and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
5	Are piping connections to the tank (valves, fittings, pumps, etc.) free of visible leaks? <i>If "No", identify location and describe leak.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Do the ladders/platforms/walkways appear to be secure with no sign of severe corrosion or damage?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
7	Is the containment free of excess liquid, debris, cracks, corrosion, erosion, fire hazards, and other integrity issues?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	



## MONTHLY INSPECTION CHECKLIST

Artesia PTU LLC

#	INSPECTION ITEM	TANK ID AND STATUS								COMMENTS/ DATE CORRECTED
		T-0915	T-0916	T-0917	T-0918	T-0919	T-0920	RAILCAR LOADING/ UNLOADING	RAILCAR STAGING AREA	
8	Are dike drain valves closed and in good working condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9	Are containment egress pathways clear and any gates/doors operable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10	Is the system free of any other conditions that need to be addressed for continued safe operation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

INSPECTOR SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

## Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Artesia PTU LLC		
NPDES Tracking No.	NMR05J05R		
Date of Inspection		Start/End Time	
Inspector's Name			
Inspector's Title			
Inspector's Contact Information			
Weather Information			
<b>Weather at time of this inspection?</b> <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other:			
Temperature:			
<b>Have any previously unidentified discharges of pollutants occurred since the last inspection?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			
<b>Are there any discharges occurring at the time of inspection?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			

### 1. Observations Related to the Implementation of Control Measures

Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility. **Identify if maintenance or Corrective Action is needed.**

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Maintenance or Corrective Action Needed and Notes
1	Secondary Containments for Bulk Tanks	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Drainage swales and Retention Pond free of debris, trash, evidence of hydrocarbons, etc.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	All sluice gates on the Retention Pond are operational and closed.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
4	Cover over rail loading and unloading	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
5	Dumpsters with closed lids and bungs in place	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
6	Truck Loading/ Unloading Control Measures in place (eg. locking cams for connection points)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

## Stormwater Industrial Routine Facility Inspection Report

### 2. Observations Related to Areas of Industrial Materials or Activities Exposed to Stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility that are potential pollutant sources. Identify if maintenance or corrective action is needed. If maintenance is needed, fill out section B of this template. If corrective action is needed, fill out section G of this template.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective and operating)?	Maintenance or Corrective Action Needed and Notes
1	Truck loading/unloading areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Railcar loading/unloading areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Waste handling and disposal areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Overhead piping between bulk storage	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Track-in/track-out of material from PTU Building	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Dust generation from vehicle traffic	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Truck loading/unloading operations	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	HFNR rail car staging area	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Immediate access roads and rail lines used by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	Hazardous waste storage areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

### 3. Observations Related to the Discharge Point

Discharge Point ID	Describe your observations of any evidence of potential for pollutants entering the drainage system, physical condition of and around each outfall, flow dissipation devices, etc. Identify if any corrective action is needed.
001	
002	

## Stormwater Industrial Routine Facility Inspection Report

### 4. Incidents of Non-Compliance

Describe any incidents of non-compliance observed and not described above:

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### 5. Additional Control Measures needed to Comply with the Permit Requirement

Describe any additional control measures needed to comply with the permit requirements:

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### 6. Additional Notes or Observations from the Inspection

Describe any additional notes or observations from the inspection:

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### CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Quarterly Visual Assessment Form

Facility Name: Artesia PTU LLC		NPDES Tracking No.: NMR05####
Discharge Point: 001	Substantially Identical Outfall? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Date & Time Discharge Began:	Date & Time Sample Collected:	Date & Time Sample Examined:
Substitute Sample? <input type="checkbox"/> No	<input type="checkbox"/> Yes (Identify quarter/year when sample was originally scheduled to be collected)	
Person's Name/Title collecting sample:		
Nature of Discharge: <input type="checkbox"/> Rainfall <input type="checkbox"/> Snowmelt   If rainfall: <b>Rainfall Amount</b> inches		

## Parameters &amp; Observation Results

Parameter	Method	Results
Color	Visual	<input type="checkbox"/> Clear <input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Red <input type="checkbox"/> Black <input type="checkbox"/> Blue <input type="checkbox"/> Milky <input type="checkbox"/> Other (Describe) _____
Odor	Smell	<input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Solvents <input type="checkbox"/> Other (Describe) _____
Clarity or Turbidity	Visual (try to see through clear container)	<input type="checkbox"/> Can't see through bottle, <input type="checkbox"/> Can see through but can't read newsprint, <input type="checkbox"/> Can see through and read newsprint, <input type="checkbox"/> Clear, but not as clear as bottled water, <input type="checkbox"/> As clear as bottled water
Floating Solids	Visual (top of water in container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Settled Solids	Visual (bottom of container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Suspended Solids	Visual (look through container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Foam	Visual	<input type="checkbox"/> No <input type="checkbox"/> Yes, if yes, Thickness _____ Color _____
Oil Sheen	Visual	<input type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Slick <input type="checkbox"/> Other (Describe) _____
Other Obvious Indicators of Stormwater Pollution	Indicate what you observed	Describe: _____
Probable Sources of any Observed Stormwater Contamination: _____		

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Quarterly Visual Assessment Form

Facility Name: Artesia PTU LLC		NPDES Tracking No.: NMR05####
Discharge Point: 002	Substantially Identical Outfall? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Date & Time Discharge Began:	Date & Time Sample Collected:	Date & Time Sample Examined:
Substitute Sample? <input type="checkbox"/> No	<input type="checkbox"/> Yes (Identify quarter/year when sample was originally scheduled to be collected)	
Person's Name/Title collecting sample:		
Nature of Discharge: <input type="checkbox"/> Rainfall <input type="checkbox"/> Snowmelt   If rainfall: <b>Rainfall Amount</b> inches		

## Parameters &amp; Observation Results

Parameter	Method	Results
Color	Visual	<input type="checkbox"/> Clear <input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Red <input type="checkbox"/> Black <input type="checkbox"/> Blue <input type="checkbox"/> Milky <input type="checkbox"/> Other (Describe) _____
Odor	Smell	<input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Solvents <input type="checkbox"/> Other (Describe) _____
Clarity or Turbidity	Visual (try to see through clear container)	<input type="checkbox"/> Can't see through bottle, <input type="checkbox"/> Can see through but can't read newsprint, <input type="checkbox"/> Can see through and read newsprint, <input type="checkbox"/> Clear, but not as clear as bottled water, <input type="checkbox"/> As clear as bottled water
Floating Solids	Visual (top of water in container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Settled Solids	Visual (bottom of container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Suspended Solids	Visual (look through container)	<input type="checkbox"/> Yes (Describe) _____ <input type="checkbox"/> No
Foam	Visual	<input type="checkbox"/> No <input type="checkbox"/> Yes, if yes, Thickness _____ Color _____
Oil Sheen	Visual	<input type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Slick <input type="checkbox"/> Other (Describe) _____
Other Obvious Indicators of Stormwater Pollution	Indicate what you observed	Describe: _____
Probable Sources of any Observed Stormwater Contamination: _____		

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## 7 PROPOSED MODIFICATIONS

The discharge collection and storage systems at the PTU meet the necessary criteria provided in 20.6.2.3106(D) and 23.6.2.3107 NMAC to protect groundwater quality in accordance with 20.6.2.3101 and 20.6.2.3103 NMAC. Additionally, there are no lined surface impoundments, land farms, or below grade tanks present at the PTU. Therefore, APTU does not propose modifications to the current operating system at this time.

Intentional discharges of potential water contaminants are not expected at the PTU Facility given the design, inspection, and maintenance procedures for the collection and storage systems. Tanks and containers are provided with secondary containment and surficial spills can be cleaned up rapidly in accordance with established emergency response procedures described in Section 8 of this Application, or be directed to the Facility WWTP, tied directly to the PTU building, for treatment.

The PTU Facility has existing emergency preparedness, communications, and response procedures and plans in place (e.g., the *RCRA Contingency Plan*, the *Artesia Pre-Treatment Unit Spill Prevention, Control and Countermeasure Plan*, the *Spill Prevention, Control, and Countermeasure Plan for the Railcar Staging Area*, the *Facility Response Plan*, the *Emergency Response Action Plan*, and *Clean Air Act Risk Management Plan*) to be utilized in the event of a contingency associated with the PTU Facility. Implementation of the emergency preparedness and response procedures described in Section 8 of this Application allows for the protection of groundwater in the event of an unintentional release or emergency.

Inspection and maintenance of tanks or containers containing materials and piping that could cause a potential discharge is conducted on a regular basis as described in Section 6 of this Application to provide further protection from potential discharges.

In addition, routine groundwater monitoring and reporting is conducted in accordance with the FWGMWP as described in Section 3 of this Application. Regular groundwater monitoring allows for identification and correction of any releases.

If in the future, protection of groundwater cannot be demonstrated, APTU will describe what modifications are proposed for the particular method to meet the requirements.

## 8 CONTINGENCY PLAN

The PTU is designed, maintained, and operated in such a manner as to minimize hazards to human health and/or the environment from fires, explosions, or any unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to air, soil, or surface water at the PTU. Further, Navajo has existing emergency preparedness, communications, and response procedures and plans in place at the Navajo Refinery facility where the PTU is located, e.g., the *RCRA Contingency Plan*, the *Artesia Pre-Treatment Unit Spill Prevention, Control and Countermeasure Plan*, the *Spill Prevention, Control, and Countermeasure Plan for the Railcar Staging Area*, the *Facility Response Plan*, the *Emergency Response Action Plan*, and *Clean Air Act Risk Management Plan*. These well-established plans and procedures will be utilized in the event of a spill or emergency associated with the PTU.

### 8.1 SPILL PREVENTION AND CONTAINMENT

The transfer/circulation of feedstocks from the PTU to the RDU for processing, and product to the PTU from the RDU for off-site transport is conducted through a series of underground pipelines that are encased in two 36-inch diameter steel pipes and enter/exit the Navajo Refinery from a concrete vault located just north of East Main Street. A concrete sump along the bottom of the concrete vault is fitted with a pump so that excess stormwater or a potential release can be removed via vacuum truck as needed. If a release were to overtop this containment, the bermed containment at the PTU is designed to channel flow into a vegetated swale that leads to the retention pond located within the PTU.

The entire PTU Process Building is designed as a closed system with concrete curbs that gently slope toward concrete trenches. Fluids collected in the trenches drain directly into a sump that pumps the material directly to the PTU Wastewater Treatment Unit. Any spills or leaks from equipment or tanks within the PTU building would be collected and pumped back into the process for reuse, or, if applicable, shipped off-site via truck to the Gandy Marley Landfill located in Roswell, NM. The PTU, and associated pipelines, are inspected for leaks and spills regularly as described in Section 6.1 of this Application.

Prior to the filling or departure of any railcar from the PTU, the lower drain and outlets on the railcars will be verified to be in a closed and/or locked position and inspected for leakage. Any sign of leakage will immediately be corrected to prevent liquid leakage while in transit. Employees are trained in these procedures. Equipment is maintained according to schedules that are set based on manufacturer's recommendations and the PTU's experience. All equipment that can impact or cause a release is visually inspected daily as part of standard operating procedures.

No loading, unloading, or handling of materials will be conducted at the railcar staging area. The railcar staging area located within the boundary of the PTU provides temporary staging for railcars. These railcars may contain PTU feedstocks, renewable diesel, asphalt, gas, oil or other petroleum hydrocarbons. Railcars have a capacity of 29,000 gallons each. The PTU's railcar staging area is designed with secondary containment sized to prevent a release from leaving the area or entering a navigable water. Any potential releases will collect in secondary containment

and then will be collected using a vacuum truck and transferred to the Navajo Refinery WWTP. Additionally, no loading, unloading, or handling of materials will be conducted at the railcar staging area. Use of the railcar staging area will be for the temporary staging of railcars only.

## **8.2 RELEASE REPORTING**

A minor release is an unauthorized release with a volume greater than five bbls but less than 25 bbls. A major release is an unauthorized release with a volume greater than 25 bbls. APTU will notify OCD's Administrative Permitting Section via phone and/or email for spills under five bbls. The OCD must be notified of a major or minor release verbally (or by email) within 24 hours to the OCD Environmental Bureau Chief and the OCD District 2 office. The OCD must also receive a written notification within one week of discovery of the release via the OCD Form C141 in accordance with the requirements of 19.15.29 NMAC. A written corrective action report shall be provided within 15 days after learning of the release.

The NMED will be contacted as needed or as deemed appropriate. When applicable, APTU must also verbally notify the National Response Center (NRC) immediately for any spills that impact navigable waters or adjoining shoreline. Written communication must be submitted within 60 days to the United States Environmental Protection Agency (U.S EPA) for a spill in excess of 24 bbls in a single event or two spill events of 42 gallons or more within a twelve-month period into or upon navigable waters or adjoining shorelines.

Additional release reporting procedures can be found in the *Artesia Pre-Treatment Unit Spill Prevention, Control, and Countermeasure Plan* and the Navajo Refinery's *RCRA Contingency Plan*.

## **9 PUBLIC NOTICE**

This Application is subject to public notice requirements in accordance with 20.6.2.3108 NMAC. A discussion of APTU's planned procedures for notifying the public and meeting the public notice requirements is provided in the subsections below. A copy of the public notice to be used for the required mailing, which includes the information required by 20.6.2.3108(F) NMAC, is provided in Appendix 9-1. Initial public notice will be provided within 30 days of APTU's receipt of an administrative completeness determination from OCD regarding the Application.

### **9.1 LOCATION OF PUBLIC NOTICE DISPLAY**

A synopsis of the public notice will be posted for 30 days in both English and Spanish and at least two feet by three feet in size in two locations: 1) at the PTU; and 2) outside of the Navajo Refinery's main administrative office at 501 East Main Street, Artesia, NM 88210.

### **9.2 NOTIFICATION OF NEARBY PROPERTY OWNERS**

Notice of the proposed modification will be made by United States Postal Service (USPS) certified mail, return receipt requested, to property owners located within  $\frac{1}{3}$  mile of the Refinery property boundary, or to the nearest adjacent landowner, in accordance with 20.6.2.3108(B)(2) NMAC.

### **9.3 OWNER OF THE DISCHARGE SITE**

APTU is the applicant and owns (and operates) the PTU located on HFNR owned land directly south of the Navajo Refinery. APTU and HFNR are both subsidiaries of HFC, therefore, separate notification to the discharge site landowner is not applicable.

### **9.4 NEWSPAPER PUBLICATION**

A synopsis of the public notice will be published once by APTU in the Artesia Daily Press in both English and Spanish, and in a display ad at least three inches by four inches in size, and which is not posted in the classified or legal advertisements section.

### **9.5 PROOF OF PUBLIC NOTICE**

Within 15 days of completion of public notice requirements, APTU will submit to OCD an affidavit of mailings and the list of property owners, an affidavit and proof of publication from the Artesia Daily Press.

### **9.6 CONTENTS OF THE PUBLIC NOTICE**

APTU will provide a notice that fulfills the requirements in 20.6.2.3108 (F) NMAC, as shown in the proposed Notice of Permit Application provided in Appendix 9-1.

Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

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## APPENDICES FOR PUBLIC NOTICE

### Appendices

9-1 Public Notice



**APPENDIX 9-1  
PUBLIC NOTICE**

### Notice of Permit Application

On December 22, 2021, Artesia PTU LLC (APTU), a subsidiary of HollyFrontier Corporation (HFC), applied to the New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division (OCD) for a Discharge Permit for the Pre-Treatment Unit (PTU) located at the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico (NM), 88210 Refinery (the Navajo Refinery) as part of the renewable diesel generation process. This Discharge Permit Application provides information on current PTU operations and potential (unintentional) discharges at the PTU. As specified in 20.6.2.3108(B) New Mexico Administrative Code (NMAC), APTU is posting this public notice of discharge permit application in a newspaper to inform the general public. This public notice includes the information required by 20.6.2.3108(F) NMAC.

The PTU is located at 190 S Freeman Avenue in the City of Artesia, Eddy County, New Mexico, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, New Mexico Principal Meridian (NMPM), Eddy County. The 13,000 barrel/day PTU is being constructed in the southern portion of the Navajo Refinery property. The PTU will generate the feedstock for the newly constructed Renewable Diesel Unit (RDU) that is in the North Plant Process Area of the Navajo Refinery. The PTU rail spur is also temporarily being used to stage railcars as needed.

Ground water that may be affected by a potential (unintentional) discharge at the PTU occurs at a depth of approximately 10 to 30 feet below ground surface with a total dissolved solids concentration of approximately 2,400 milligrams per liter (mg/L).

Comments, questions, and requests for a copy of the application (either a paper copy or an electronic copy via the internet) should be sent to the following OCD contact:

Ms. Leigh Barr  
Oil Conservation Division  
New Mexico Energy, Minerals & Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505  
(505) 670-5684  
[leighp.barr@state.nm.us](mailto:leighp.barr@state.nm.us)

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energía, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-703-3842)

The OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons wishing to receive future notices.

## AVISO DE SOLICITUD DE PERMISO

El día 22 de diciembre de 2021, Artesia PTU LLC (APTU), una subsidiaria de HollyFrontier Corporation (HFC), solicitó a la División de Conservación de Petróleo (OCD) del Departamento de Energía, Minerales y Recursos Naturales de Nuevo México un Permiso de Descarga para la Unidad de Pretratamiento (PTU) ubicada en HollyFrontier Navajo Refining LLC (Navajo), Artesia, Nuevo México (NM), Refinería 88210 (la Refinería Navajo) como parte del proceso de generación de diesel renovable. Esta Solicitud de permiso de descarga proporciona información sobre las operaciones actuales de la PTU y las descargas potenciales (no intencionales) en la PTU. Como se especifica en 20.6.2.3108(B) Código Administrativo de Nuevo México (New Mexico Administrative Code [NMAC]), APTU está publicando este aviso público de solicitud de permiso de descarga en un periódico para informar al público en general. Este aviso público incluye la información requerida por NMAC 20.6.2.3108(F).

La PTU está ubicada en 190 S Freeman Avenue en la Ciudad de Artesia, Condado de Eddy, Nuevo México, 88210 en el SE / 4 de la Sección 1, E / 2 de la Sección 8, W / 2 de la Sección 9, N / 2 de la Sección 12, municipio 17 sur, rango 26 este, meridiano principal de Nuevo México, condado de Eddy. La PTU de 13.000 barriles / día se está construyendo en la parte sur de la propiedad de la Refinería de Navajo. La PTU generará la materia prima para la Unidad de Diesel Renovable (RDU) recién construida que se encuentra en el Área de Proceso de la Planta Norte de la Refinería Navajo. El raíl de la PTU también se está utilizando temporalmente para organizar los vagones según sea necesario.

El agua subterránea que puede verse afectada por una descarga potencial (no intencional) en la PTU ocurre a una profundidad de aproximadamente 10 a 30 pies debajo de la superficie del suelo con una concentración total de sólidos disueltos de aproximadamente 2,400 miligramos por litro (mg/L).

Para enviar comentarios, preguntas, y ordenar una copia de la solicitud (ambos en papel o copia electrónica vía internet), favor mandarlos al siguiente contacto de la OCD:

**Sra. Leigh Barr**

Oil Conservation Division  
New Mexico Energy, Minerals & Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505  
(505) 670-5684

[leighp.barr@state.nm.us](mailto:leighp.barr@state.nm.us)

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Departamento de Energía, Minerales y Recursos Naturales de Nuevo México), Oil Conservation Division (División de Conservación de Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-703-3842)

La OCD aceptará comentarios y declaraciones de interés en relación con esta solicitud y preparará una lista de correo específica de esta instalación para personas que desean recibir avisos futuros.

## **10 ADDITIONAL INFORMATION**

Based on the inspection, maintenance, and monitoring programs in place at the PTU, it is not expected that unplanned discharges will result in concentrations of constituents of concern that exceed the water quality control standards in WQCC 20.6.2.3103 NMAC. In addition, there are no unlined surface impoundments or pits or leach fields present; therefore, this section is not applicable to this Application.

## **11 CLOSURE PLAN**

The applicability of a Closure Plan for the PTU to prevent the exceedance of standards of 20.6.2.3103 NMAC in groundwater after the cessation of operation of the PTU, required under 20.6.2.3107(A)(11) NMAC, will be assessed and discussed with OCD when closure is anticipated.

The approach to closure of the PTU will be addressed when operations are scheduled to cease permanently. At that time, APTU will review the current state of the RCRA corrective action program (CAP) that is maintained by the Navajo Refinery in accordance with 40 CFR 264 Subpart F to address release to soils and groundwater, and the results of groundwater monitoring at the PTU. OCD and NMED regulations regarding closure of the PTU will also be reviewed, and APTU will develop a closure plan, as appropriate.

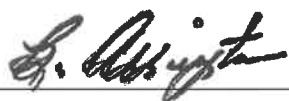
Groundwater Discharge Plan  
Artesia PTU LLC

December 22, 2021

## 12 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_



Blake Arrington  
Vice President Renewables Operations  
Artesia PTU LLC

Date: December 22, 2021



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 82735

CONDITIONS

Operator: Artesia PTU LLC 703 East Main St Artesia, NM 88210	OGRID: 331119
	Action Number: 82735
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	3/7/2022