### CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER No. R2-2026-xxxx

WASTE DISCHARGE REQUIREMENTS for:

TESORO REFINING & MARKETING COMPANY LLC (TRMC) AND TEXACO INC. (TI)

MARTINEZ RENEWABLE FUELS FACILITY MARTINEZ, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter the Regional Water Board, finds that:

#### **FACILITY DESCRIPTION AND LOCATION**

- 1. Tesoro Refining & Marketing Company LLC (TRMC) owns the Martinez Renewable Fuels Facility (Facility) (Figure 1). The 2,100-acre Facility is located about three miles east of downtown Martinez on the southern shore of Suisun Bay in Contra Costa County. The Facility is bounded on the west by Pacheco Creek and Walnut Creek, on the north by wetlands and Suisun Bay, on the south by Highway 4, and on the east by Memory Gardens cemetery, Mallard Reservoir, Hastings Slough, and wetlands. The Facility includes the Amorco Terminal, a separate 70-acre loading/unloading terminal, which is located about 2 miles west from the center of the Facility.
- 2. The Facility suspended crude oil refining operations in April 2020 and part of the Facility was converted to production of fuels from renewable feedstock sources. This part of the property is known as the Renewable Fuels Facility and has a daily throughput capacity of approximately 48,000 barrels per day of crop-based oils, rendered fats, and other biological oils (feedstock). Products produced at the Renewable Fuels Facility from renewable feedstocks include diesel, propane, and naphtha. Some petroleum crude-based products could be stored at the Facility, including conventional diesel fuel, gasoline, distillates, petroleum coke, liquified petroleum gas, heavy fuel oil, and refinery-grade propylene. However, crude-oil-based products are no longer manufactured at the Facility.

#### **OWNERSHIP AND SITE HISTORY**

3. The Facility has been operating since 1913. From 1913 to 1966, the Facility was owned by three related companies whose names changed through mergers and acquisitions: Associated Oil Company, that underwent two name changes, the last being Tidewater Oil Company. Phillips Petroleum (Phillips) owned and operated the Facility from 1966 to 1976. Tosco Refining Company and Tosco Corporation (Tosco) owned and operated the Facility from 1976 to September 1, 2000. Ultramar, Inc. (Ultramar) owned and operated the Facility from September 1, 2000, to May 17,

2002. TRMC acquired the Facility on May 17, 2002. Table 1 summarizes the Facility's ownership history.

Table 1. Facility Ownership History

Owner	Dates	Current Successor in Interest
TRMC	2002 – Present	N/A
Ultramar	2000 – 2002	TRMC
Tosco	1976 – 2000	TRMC
Phillips	1966 – 1976	TRMC
Associated Oil Company/ Tidewater Associated Oil Company/Tidewater Oil Company	1913 – 1966	TI

TRMC is the successor to Ultramar and Phillips' interest in the Facility real property and assets. TRMC is also the successor in interest to Tosco. Texaco Inc. (TI) is the successor in interest to Associated Oil Company, Tidewater Associated Oil Company, and Tidewater Oil Company. TRMC and TI are hereinafter referred to as the Dischargers.

- 4. Tosco, Phillips, and Texaco entered into a Joint Investigation and Remediation Agreement in July 1993 to complete investigation and remediation work at the Facility. The agreement created a committee that was named the Joint Environmental Investigation and Remediation Committee (JEIRC). In 2004, the JEIRC changed the name of the committee responsible for work covered by the agreement to the Avon Remediation Team (hereinafter called ART). To date, due to mergers, acquisitions, and settlements, the ART is composed of representatives of TRMC and TI.
- 5. Within the Facility, seven parcels and facilities are owned and operated by other companies:
  - Chevron Products Company owns and operates a bulk fuel terminal;
  - Elessent Clean Technologies Inc. owns and operates a catalyst and chemical manufacturing plant;
  - Crimson Midstream LLC owns and operates a crude oil pump station and pipeline;
  - Kinder Morgan owns and operates a refined product pump station and the Santa Fe pipeline located on the property;
  - Matheson owns and operates a plant where carbon dioxide and compressed natural gas are manufactured;

- Air Products owns and operates a hydrogen gas plant; and
- TransMontaigne Partners LLC owns and operates pipelines and associated equipment on the Facility real property.

#### **REGULATORY HISTORY**

- 6. The Regional Water Board issues waste discharge requirements (WDRs) to regulate discharges to land pursuant to California Code of Regulations (CCR) Title 27 (Title 27) and California Water Code (CWC) section 13263. Industrial wastes from the Facility were historically discharged into areas subsequently designated by the Regional Water Board as waste management units (WMUs) in accordance with Title 27 regulations. The WDRs for WMUs at this Facility were last updated in 2004 with the adoption of Order No. R2-2004-0056.
- 7. In addition to the WDRs, the Regional Water Board has issued Site Cleanup Requirements (SCR) orders pursuant to CWC section 13304 to require cleanup of spills and releases that cause, or threaten to cause, water quality degradation. SCR Order No. 00-021 rescinded previous SCR Order No. 93-079 and specified new requirements to establish trigger levels for known contaminants; remediate subsurface petroleum contamination; and complete leak detection, tank bottom testing, and secondary containment of all above-ground storage tanks.
- 8. On February 16, 2016, the Regional Water Board emailed ART indicating that the United States Environmental Protection Agency (U.S. EPA) and Regional Water Board concurred with ART's proposed application of U.S. EPA's "Area of Contamination" (AOC) policy for the regulatory closure of WMUs 10, 11, 14, 31, and 32. The AOC policy allows for the transport and consolidation of contaminated soil and waste between WMUs without the activity being considered "active management" and as such generation of hazardous waste.
- 9. Order No. R2-2021-0029 reissued the Facility's NPDES permit (NPDES permit CA0004961), which regulates the discharge of treated wastewater and stormwater to surface waters.
- 10. Surface subsidence within the inactive WMUs 10, 11, 14, 31, and 32 occurred after they were no longer used for waste disposal and over time, jurisdictional wetlands formed within the WMUs. A Clean Water Act (CWA) 401 water quality certification will address wetland impacts and required mitigation measures. Planned mitigation measures include the onsite reestablishment of wetlands on WMUs 10, 11, and 31, and the completed purchase and transfer of the nearby Suisun Properties industrial parcel to the John Muir Land Trust for incorporation into the Pacheco Marsh Restoration Project. Following construction, the onsite reestablished wetlands will be evaluated for success during a five-year mitigation monitoring period. Thereafter, the reestablished wetlands will be managed in accordance with a Long-Term Management Plan developed pursuant to the certification.

#### PURPOSE OF ORDER UPDATE

- 11. This Order accomplishes the following:
  - Terminates and supersedes WDR Order No. R2-2004-0056;
  - Updates Facility ownership and Facility name information;
  - Updates the requirements for the closure and continued maintenance and monitoring of specified waste management units (WMUs);
  - Updates requirements for continued maintenance and monitoring of active Class II surface impoundments;
  - Updates requirements for stormwater impoundments:
  - Requires the Dischargers to perform and submit a vulnerability assessment and long-term flood protection plan to address sea level rise and groundwater rise; and
  - Updates the Self-Monitoring Program (SMP).

#### **GEOLOGIC AND HYDROLOGIC SETTING**

- 12. A portion of the Facility was built on marshlands or wetlands. Except where artificial fill has been deposited, Bay Mud is the first subsurface material encountered in the flat portions of the Facility. The Bay Mud ranges in thickness from zero to forty feet throughout the region and is interbedded with Bay Peat and sandy units. The Bay Peat is composed primarily of black or brown organic matter derived from vegetation deposited in marsh environments.
- 13. There are four offsite drinking water wells located south of the Facility approximately 3,000 feet from Mallard Reservoir. Groundwater in parts of the Facility is a potential drinking water source. However, the shallow groundwater within the northern portion of the Facility, located closer to the bay, exceeds 3,000 mg/L total dissolved solids, and thus meets the exception criteria as described in State Water Resources Control Board (State Water Board) Resolution No. 88-63 ("Sources of Drinking Water Policy") and Regional Water Board Resolution No. 89-39 (see Finding 42, below). Groundwater and surface water from the Facility flows toward nearby wetlands and Suisun Bay. The flow direction and gradient vary significantly across the Facility (Figures 2 and 3).

#### **SEISMICITY**

14. The Concord Fault runs through the western side of the Facility. It is connected to and considered to be part of the Green Valley fault, which lies a few miles to the north across Suisan Bay. Although the last large earthquake linked to the Concord Fault occurred over 400 years ago, the fault is considered active.

#### **GROUNDWATER MONITORING PROGRAM**

- 15. The Facility contains several commingled areas of contaminated soil and groundwater that were caused by leakage of solid waste disposal sites, spills, piping leaks, and other discharges to land during the Facility's operation. To assess groundwater concentrations and trends at the Facility that have resulted from historical releases, the Dischargers conduct a Facility-wide Groundwater SMP. The SMP includes both interior and perimeter groundwater monitoring (Figure 5). Perimeter monitoring is used to ensure that offsite migration is prevented and to determine if corrective actions are warranted. Interior monitoring is performed at closed WMUs, WMUs pending closure, and areas of concern (AOCs) within the Facility. The monitoring performed at the WMUs covered by this Order constitutes the Detection Monitoring Program (DMP) that is required by CCR Title 27, section 20420. Monitoring performed outside the WMU areas (for example, facility perimeter monitoring) is required by the Facility's SCR Order No. 00-021 (see Finding 7). The Facility-wide SMP includes the monitoring required by this Order and the SCR Order. Groundwater sampling results are evaluated for concentration trends.
- 16. Fifteen groundwater monitoring wells associated with the Bio-Oxidation Pond and 10 wells associated with the Surge Ponds are sampled semi-annually for COCs known to be present in the pond influent. A larger number of wells surrounding the impoundments have water elevations measured annually for evaluation of groundwater gradients in the area of each impoundment. Surface water samples are also collected from each pond and analyzed on a biennial basis. Sampling results are evaluated for significant increasing or decreasing concentration trends. Concentrations exceeding screening criteria and/or increasing trends may require further evaluations or corrective action.

#### **WASTE MANAGEMENT UNITS**

17. The Dischargers have used a number of onsite WMUs for the treatment, storage, or disposal of wastes generated at the Facility (Figure 4). The WMUs regulated by the Regional Water Board and described below are inactive or closed and contain primarily non-hazardous Class II waste. All dates of operation of each listed waste management unit and surface impoundment are provided for informational purposes and are based on information currently and readily available. Any such date ranges should be considered reasonable approximations.

#### **Closed Waste Management Units**

18. WMUs 1, 2, 3, 4, 5, 6, 8, 9, and 13 have been closed in accordance with CCR Title 27 regulations and are managed under the Post-Closure Maintenance Plan (PCMP). The PCMP addresses operations and maintenance required for each WMU. Inspections of the closed WMUs are performed in accordance with the protocol and schedule included in the PCMP. These inspections include, but are not limited to, the final cover system, drainage structures, and settlement features, if applicable.

The most recent Annual Post-Closure Inspection Report was submitted in May 2025. These closed WMUs are described below.

- 19. WMU-1 Tetraethyl Lead I Landfill: This unit is a former unlined, approximately one-acre landfill, with a period of disposal from 1947-1971. This unit reportedly was used for disposal of sludge from leaded gasoline tank bottoms and oil-soaked wood. The unit was closed with a cover consisting of grading for drainage, high-density polyethylene (HDPE) liner, asphalt and gravel cap. On December 9, 2008, the Regional Water Board issued an approval of the closure certification report.
- 20. WMU-2 Arsenic Trioxide Landfill: This unit is a former unlined 0.46-acre landfill with a period of disposal from 1973 to 1974. Arsenic trioxide was disposed in this area, either in drums or dumped directly onto the ground. The unit was closed with a cover consisting of a clay layer, vegetative layer, and erosion-control mat. On December 9, 2008, the Regional Water Board issued an approval of the closure certification report.
- 21. WMU-3 Tetraethyl Lead and Arsenic Trioxide Landfill: This unit is a former unlined 0.11-acre landfill with a period of disposal from 1947-1965. The area consisted of more than 29 burial cells containing gasoline tank bottom sludges, tetraethyl lead sludge, arsenic waste, and aluminum chloride waste. Some waste may have originated before 1947. It is documented that 47 drums were buried in Cells 2, 15, and 22. In 2007, the unit was closed with a cover consisting of an HPDE liner and gravel cap. On December 9, 2008, the Regional Water Board issued an approval of the closure certification report.
- 22. WMU-4 Acid and Caustic Wastewater Pond: This unit is a former unlined 3.1-acre landfill located east of the Cardox Canal with a period of disposal from 1950 through the 1960s. The unit received liquid and sludge waste, residue from handling caustic cleaning solution, acidic wastes, tetraethyl lead sludge, oily coke, kerosene residues, solvents, and catalytic reformer bottoms. The waste fill in the unit varied from 3 to 10 feet thick. In 2014, the unit was covered with low-permeability clay and a vegetated cap after limited consolidation of waste. On January 18, 2014, the Regional Water Board issued approval of the closure certification report.
- 23. WMU-5 Oily Waste Landfill: This unit is a former unlined 8.8-acre landfill with a period of disposal from the late 1950s to early 1970s. The unit was used for disposal of approximately 40,000 cubic yards of spent catalysts, tetraethyl lead sludge, aluminum chloride, solvents, and oily coke. The waste fill in the unit varies from zero to seven feet thick. In 2011, the unit was closed with a cover consisting of a low-permeability clay layer, geotextile, and gravel cap. On April 30, 2012, the Regional Water Board issued approval of the closure certification report.
- 24. WMU-6 Oily Sewer Outfall: This unit is a former unlined 2.8-acre unit with a period of disposal from approximately 1939 to 1961. The unit was previously known as the Oily Sewer Outfall and received oily waste. Reportedly oily material was excavated from WMU-6 and transported to WMU-8 during the construction of the Iso-cracker

Unit in 1961. In 1982, approximately 2,900 cubic yards of arsenic contaminated soil, with concentrations greater than the total threshold limit concentration (TTLC) value of 500 mg/kg, were excavated from WMU-6 and disposed of at an offsite Class I hazardous waste facility. The Dischargers reported that the presence of high concentrations of arsenic within the unit is not related to the oily material the unit received, but rather from Iso-cracker discharges. The area is located beneath an active process unit and covered with asphalt or other processing infrastructure. To facilitate closure of this WMU, the WMU was subdivided into ten distinct areas based on the type and condition of infrastructure present. Most areas were certified closed in 2008; Area 8 was certified closed in 2014, and Area 10 was certified closed in 2015.

- 25. WMU-8 Oily Sludge Landfill: This unit is a former unlined 3.4-acre landfill located east of the Oily Wastewater Canal with a period of disposal from approximately 1913 to 1961. The unit reportedly received catalyst fines, aluminum chloride waste, oily waste excavated from WMU-6 in 1961, and litharge (a lead-based compound). The waste fill in the unit varies from 5 to 10 feet thick. In 2009, the unit was closed with a cover consisting of a low-permeability clay layer, geotextile, and gravel cap. On September 8, 2009, the Water Board issued approval of the closure certification report.
- 26. WMU-9 Antimony Trichloride Landfill: This unit is a former unlined 2.5-acre landfill, with a period of disposal from 1943 to 1955. The unit reportedly received antimony trichloride waste, spent catalyst, and miscellaneous construction and demolition waste. In 2009, the unit was closed with a cover consisting of low-permeability clay layer, geotextile, and gravel cap. On September 8, 2009, the Regional Water Board issued approval of the closure certification report.
- 27. WMU-13 Acid-Sludge Landfill: This unit is a former unlined 6-acre pond system with a period of disposal from approximately 1913 to 1969. The unit received approximately one million cubic yards of oily acidic petroleum sludges. In 2011, unit closure construction included in-situ waste stabilization and solidification (4.3 acres), an aggregate erosion resistant layer (12 inches of aggregate base, separated from the treated waste by geotextile fabric), and grading to drain (to promote lateral runoff and avoid ponding and infiltration of water). Surface drainage was later modified with approval from the Regional Water Board. Regional Water Board staff issued approval of the closure certification on April 16, 2012.

#### **Inactive Waste Management Units**

28. WMUs 10, 11, 14, 31, and 32 are inactive but have not been officially closed. None of the inactive WMUs described below are presently in compliance with the closure and maintenance requirements specified in CCR Title 27. The Provisions in this Order establish deadlines for the submittal of a Closure and Post-Closure Maintenance Plan (CPCMP). When the CPCMP is implemented, it should bring the Facility into compliance with the requirements as specified in Title 27.

- 29. Based on the estimated operation dates, the WMUs described below did not receive waste after November 27, 1984, and therefore fall under the category of a closed, abandoned, or inactive (CAI) WMU per CCR Title 27 section 20080(g).
- 30. WMU-10 Oily Sludge Land Farm: This unit is an unlined, inactive, 10.4-acre land-farm made up of two cells that operated from 1966-1976. The land treatment unit received approximately 10,600 cubic yards of oily wastes and waste from the API Separator and dissolved air flotation (DAF) units. The unit is in the 100-year flood plain and is protected from flooding by 3- to 4-foot-high dikes constructed around the perimeter. Prior investigations have identified petroleum hydrocarbons, metals (primarily lead and chromium), tetraethyl lead, petroleum coke, and various organic compounds as contaminants present at the unit. Groundwater monitoring in the vicinity of the unit has detected lead, arsenic, and petroleum hydrocarbons. The Final Phase II Human Health and Ecological Risk Assessment (HHERA) (URS, 2000) recommended corrective action or a Phase III HHERA based on exceedances of both human health and ecological benchmarks. The Coke Fill Risk Assessment (Geosyntec, 2018) concluded that following closure and wetland restoration, the coke fill remaining in place below two feet of clean soil would not pose a risk to ecological receptors.

On April 9, 2019, the Dischargers submitted a Draft CPCMP including a closure plan for WMU 10. On August 21, 2019, the Regional Water Board sent an email requesting the Dischargers proceed with the planning and engineering of the closure construction as laid out in the Draft CPCMP.

31. WMU-11 – Oily Sludge Land Farm: This unit is an unlined, inactive 7.2-acre land farm with a period of disposal from 1966-1976. The land treatment unit received oily wastes, petroleum sludges, and waste from the API Separator and DAF units. This unit is located in the 100-year flood plain and is protected from flooding by the dikes constructed around the perimeter. Prior investigations have identified petroleum hydrocarbons, metals (i.e., lead, and chromium), tetraethyl lead, petroleum coke, and various organic compounds as contaminants present at the unit. Groundwater monitoring in the vicinity of the unit has detected lead, chromium, arsenic, and petroleum hydrocarbons. The Phase II HHERA (URS, 2000) recommended corrective action or a Phase III HHERA based on exceedances of both human health and ecological benchmarks. The Coke Fill Risk Assessment (Geosyntec, 2018) concluded that following closure and wetland restoration the coke fill remaining in place below two feet of clean soil would not pose a risk to ecological receptors.

On April 9, 2019, the Dischargers submitted a Draft CPCMP including a closure plan for WMU 11. On August 21, 2019, Regional Water Board staff concurred and requested the Dischargers proceed with the planning and engineering of the closure construction as described in the Draft CPCMP.

32. WMU-14 – Oily Sludge Land Farm: This unit is an unlined, inactive, 9.1-acre pond system that was constructed over the western portion of WMU-10 in 1976. The unit

is made up of four sludge-drying beds that received sludge until the late 1970s from biologically treated Facility wastewater. This unit is in the 100-year flood plain and is protected from flooding by 2- to 5-foot-high dikes constructed around the perimeter of the unit. Prior investigations had identified petroleum hydrocarbons, metals (i.e., lead, selenium, and chromium), tetraethyl lead, and various organic compounds as contaminants present in the unit. Groundwater monitoring in the vicinity of the unit has detected arsenic, lead, chromium, hexavalent chromium, and petroleum hydrocarbons. The HHERA (URS, 2000) recommended corrective action or a Phase III HHERA based on exceedances of both human health and ecological benchmarks.

On April 9, 2019, the Dischargers submitted a Draft CPCMP for WMU-14. On August 21, 2019, Regional Water Board staff concurred and requested the Dischargers proceed with the planning and engineering of the closure construction as described in the Draft CPCMP.

33. WMU-31 – Oily Sludge Landfill: This unit is an approximately 21-acre unlined and inactive landfill, with a period of disposal from the mid-1920s to 1960s. It additionally includes the Oily Skim Pond. A tetraethyl lead blending facility was located on the west side of the unit and may have impacted the unit. The unit received oily wastes and dredge spoils from the former Oily Water Canal. This unit is underlain by up to 6.5 feet of oily sludge. Prior investigations had identified petroleum hydrocarbons, metals (i.e., lead), tetraethyl lead, and various organic compounds as contaminants present in the unit. Groundwater monitoring in the vicinity of the unit has detected LNAPL, lead, chromium, zinc, and petroleum hydrocarbons.

Provision 6.b of this Order requires the Dischargers to submit a Closure and Post-Closure Maintenance Plan for WMU-31.

34. WMU-32 – This unit is a 10.7-acre area located adjacent to WMU-16, with a period of disposal from the 1930s to 1970s. Chemical impacts to the area indicate that releases have occurred. A drum reconditioning facility was located 700 feet east of the unit where historical aerial photographs reveal stockpiles containing thousands of drums. The unit's area at one time contained north- and south-trending drainage canals, which may have received oily and contaminated water. The unit may have received dredge spoil disposal from the West Canal. The unit has recently been the subject of further investigation and interim corrective measures to mitigate low-pH conditions. Prior investigations have identified petroleum hydrocarbons, metals (i.e., lead), tetraethyl lead, low-pH soil, and various organic compounds. Groundwater monitoring in the vicinity of the unit has detected LNAPL, arsenic, nickel, chromium, zinc, benzene, and other petroleum hydrocarbons. Low pH has also been reported in groundwater beneath the unit.

Provision 6.c of this Order requires the Dischargers to submit a Closure and Post-Closure Maintenance Plan for WMU-32.

#### Waste Management Units not regulated under this Order

- 35. WMU-17 Oily Waste Impoundment: This closed impoundment is regulated by DTSC and is not subject to this Order. The unit, which consisted of two cells, received oily waste, including API Separator sludge, Dissolved Air Flotation (DAF) unit waste, unleaded and crude tank bottoms, and slop oil emulsion solids from 1966 to 1983. Closure of the unit consisted of the removal of liquid and oily waste from the unit and installation of a synthetic cover, a cover drainage layer, and a vegetated soil cover. The closure was approved by U.S. EPA in December 1988. A DTSC post-closure permit was issued on July 30, 1998, pursuant to California Health and Safety Code section 25200. The post-closure care permit was modified and updated in 2009 and most recently in 2021. The monitoring data and inspection reports are included in the Annual SMP Report and provided to DTSC for regulatory review.
- 36. Oily Water Canal This former WMU was approved as clean-closed and is not subject to this Order. The Oily Water Canal was an unlined 2,300-foot-long drainage canal that was used until 1990 to transport partially treated Facility wastewater. Prior to 1952 this section of the canal was hydraulically connected with the Clean Water Canal, extending from WMU-6 to Suisun Bay. Prior to closure, several oil skimmers and skim pits were located along the canal alignment. Historically, the Oily Water Canal waste contained petroleum hydrocarbons, metals, and various organic compounds. Clean closure activities were completed between 2008 and 2011, and historical waste was removed and disposed of off-site. On April 17, 2012, the Regional Water Board approved the clean closure certification report. There are no post-closure monitoring or maintenance requirements for this unit.

#### **ACTIVE SURFACE IMPOUNDMENTS**

37. The Facility wastewater treatment system includes multiple active unlined surface impoundments, including Active Class II Surface Impoundments and impoundments used to manage treated wastewater prior to discharge to surface waters. The wastewater treatment system is used to treat process wastewater, surface water runoff, and other liquid waste streams that originate at the Facility. Discharge from these ponds is covered under NPDES Permit CA0004961 (Order No. R2-2021-0029), whereas potential leakages from the ponds to groundwater are covered under this Order. The Facility, including the Amorco Terminal, also contains stormwater impoundments that are managed under the Facility's NPDES Permit and associated Stormwater Pollution Prevention Plan (SWPPP); two of the stormwater impoundments may have received waste in the past and are regulated under this Order.

#### **Active Class II Surface Impoundments**

38. In addition to the WMUs described above, the Facility contains three Active Class II Surface Impoundments (Surge Pond 1, Surge Pond 2, and the Bio-Oxidation Pond) that are subject to CCR Title 27 requirements. These surface impoundments are part of the Facility's wastewater treatment plant and receive partially treated

wastewater and stormwater from the Facility. The ponds were constructed within the footprint of historical operational areas from in-place Bay Mud and other native sediments and materials in about 1967. These Active Class II Surface Impoundments are described below, and their locations are shown on Figure 4.

- a. <u>Surge Pond 1 and Surge Pond 2 (WMU-15)</u> This unit consists of two active surface impoundments, Surge Pond 1 (14 acres) and Surge Pond 2 (6 acres), that receive partially treated wastewater from the dissolved nitrogen flotation (DNF) units and stormwater. Surge Ponds 1 and 2 are baffled into sections, providing aeration and nutrients for biological treatment. Wastewater flows from Surge Pond 1 into Surge Pond 2 during treatment. Effluent from Surge Pond 2 is routed to the Bio-Oxidation Pond. The ponds are dredged regularly. Investigations were completed in 2005 and 2007 to characterize the Surge Ponds and to evaluate compliance with CCR Title 27 construction standards.
- b. Bio-Oxidation Pond (WMU-16) This unit is an active wastewater storage and treatment pond lined with Bay Mud. The 108-acre pond began operation in 1966 and receives stormwater and partially treated wastewater from Surge Pond No. 2. Several aerators in the southern end of the pond maintain adequate oxygen levels in the wastewater during passive treatment in the Bio-Oxidation Pond. Pond effluent flows to the Facility's wastewater treatment plant, then is routed to the Coke Pond and ultimately discharged into the Clean Water Canal. Pond sediment varies in thickness from 0 to 2 feet. The partially treated wastewater discharged in the unit contains petroleum hydrocarbons, metals, and various organic compounds. Sediment samples collected from the pond indicate that the sediments are impacted with metals, petroleum hydrocarbons, and organic compounds. Groundwater monitoring in the vicinity of the unit has detected metals, TPH, BTEX (benzene, toluene, ethylbenzene, and xylenes), carbon disulfide, 2-methylnapthalene, and naphthalene. A cutoff wall was installed within the pond berm along the perimeter of the Bio-Oxidation Pond in 2019-2020. The cutoff wall was approved by the Regional Water Board as meeting the construction standards requirements of Title 27.

#### **Treated Wastewater Impoundments**

39. The Facility contains three active treated wastewater impoundments (Inner Coke Pond, Outer Coke Pond, and Clean Water Canal) that are part of the Facility's wastewater treatment plant and not regulated by CCR Title 27 requirements.

#### **Stormwater Impoundments**

40. The Facility contains five active stormwater impoundments at the main facility: two that are regulated under CCR Title 27, since they may have received waste historically (Deacon's Pond and Tract 3 West Canal), and three that are not regulated under Title 27 (South Pond aka Tract 4 Stormwater Impoundment, Tract 3 East Canal, and Clean Water Canal Skim Pond Stormwater Impoundment). There are two additional stormwater impoundments at the Amorco Terminal that are not

covered by this Order. The two stormwater impoundments covered under this Order are described below.

- a. Deacon's Pond This is an active, unlined 2.35-acre stormwater pond located in Tract 4 (See Figure 4). The pond has operated as a stormwater collection pond since the 1920s. Currently, stormwater within Deacon's Pond is allowed to evaporate and percolate into underlying soils. Investigations of accumulated sediment were completed in 2004 and 2022. Maintenance activities were completed in 2023 to remove accumulated sediment. The Dischargers reported that the pond was not used for the storage of waste, although historical petroleum hydrocarbon spills from the tank farm may have periodically entered the pond. Historically, sediment may have been moved within the base of the pond and/or removed and disposed, but there is no documentation or evidence of waste discharge from the Deacon's Pond.
- b. <u>Tract 3 West Canal</u> The Tract 3 West Canal (West Canal) is an unlined active stormwater impoundment, approximately 1,120 feet long, located in the southwestern portion of Tract 3. Four aerators currently operate in the canal. A pipeline located at the northern end of the canal transfers stormwater to the Speeder Pond, located to the north of the canal. This unit may have historically received oily water and/or waste, may have been historically dredged in the 1960s and early 1990s, and may have been dredged as early as the 1930s. Dredge spoils may have been deposited in WMU-32. Additionally, WMU-32 may have historically received "overflow" from the West Canal. An investigation of the West Canal was conducted in 2005 and identified accumulated sediment and possible historical waste.

#### **BASIN PLAN**

41. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Board, the Office of Administrative Law, and U.S. EPA, where required.

#### BENEFICIAL USES AND SOURCES OF DRINKING WATER

42. State Water Board Resolution No. 88-63 ("Sources of Drinking Water Policy") and Regional Water Board Resolution No. 89-39 ("Incorporation of Sources of Drinking Water Policy into the Basin Plan") define potential sources of drinking water to include all groundwater, with limited exceptions for areas containing high total dissolved solids or electrical conductivity, untreatable contaminant levels, low well yields, or specific energy-related uses. Groundwater has the potential to discharge into Suisun Bay; therefore, the beneficial uses for Suisun Bay are applicable to groundwater in perimeter monitoring wells.

- 43. The Facility overlies the Clayton Valley Groundwater Basin. The existing and potential beneficial uses of the groundwater in this Basin are:
  - a. Industrial process and service supply;
  - b. Groundwater recharge;
  - c. Agricultural water supply; and
  - d. Municipal and domestic supply.
- 44. The existing and potential beneficial uses of Suisun Bay are:
  - a. Commercial and sport fishing;
  - b. Estuarine habitat;
  - c. Fish migration;
  - d. Preservation of rare and endangered species;
  - e. Fish spawning;
  - f. Wildlife habitat;
  - g. Water contact recreation;
  - h. Non-contact water recreation;
  - i. Industrial process supply;
  - j. Industrial service supply; and
  - k. Navigation.

#### **ANTIDEGRADATION POLICY**

45. Title 40 of the Code of Federal Regulations, part 131.12, requires that state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy through State Water Board Resolution 68-16, which is deemed to incorporate the federal anti-degradation policy where the federal policy applies. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal anti-degradation policies. This Order is consistent with both the State and federal anti-degradation policies because it does not allow degradation.

#### CALIFORNIA ENVIRONMENTAL QUALITY ACT

46. The Regional Water Board is the lead agency under the California Environmental Quality Act (CEQA) (Public Resources Code sections 21000 et seq.). The Regional Water Board prepared an Initial Study and Mitigated Negative Declaration (IS/MND) for WMUs 10, 11, 14, 31, and 32 closure activities and circulated it for public comment in accordance with CEQA and CCR, title 14, section 15000 et seq. The Regional Water Board also prepared a Mitigation Monitoring and Reporting Program (MMRP) to ensure required mitigation measures are implemented. On [date], the Regional Water Board adopted the IS/MND and MMRP under Resolution No. R2-2026-xxxx. The Regional Water Board found that the IS/MND reflects the Board's independent judgment and analysis and, based on the record as a whole, there is no

substantial evidence that the project as mitigated will have a significant effect on the environment. The record is available at the Regional Water Board's office.

#### **ENDANGERED SPECIES ACT**

47. The Order does not provide authorization for the dischargers to take any listed threatened or endangered species or engage in any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C. §§ 1531 to 1544). This Discharger is responsible for obtaining any necessary take authorization from either the U.S. Fish and Wildlife Service or the California Department of Fish and Wildlife. This Order prohibits waste from being discharged in a manner that would deleteriously impact beneficial uses, including protecting rare, threatened, or endangered species such as the salt marsh harvest mouse (*Reithrodontomys raviventris*) that can be located onsite. The Dischargers are responsible for meeting all applicable Endangered Species Act requirements.

#### **NOTIFICATIONS AND MEETINGS**

- 48. The Regional Water Board notified the Dischargers and interested agencies and persons of its intent to update WDRs and provided them with an opportunity to submit written comments on the tentative order.
- 49. The Regional Water Board, in a public hearing, heard and considered all comments pertaining to this Order. The Regional Water Board notified the Dischargers and interested persons of the hearing and provided information on how to participate.

**IT IS HEREBY ORDERED** pursuant to the authority in CWC sections 13263 and 13267 and CCR Title 27 that the Dischargers shall meet the applicable provisions contained in Title 27 and shall comply with the following:

#### A. PROHIBITIONS

- 1. Migration of pollutants through subsurface transport to waters of the State is prohibited.
- 2. There shall be no discharge of waste to surface waters, except as authorized under an NPDES Permit.
- 3. The long-term management of wastes in the WMUs shall not create a condition of pollution or nuisance as defined in CWC sections 13050(I) and (m), nor degrade the quality of waters of the State or of the United States.
- 4. The creation of any new WMU not authorized by this Order is prohibited.
- 5. The relocation of wastes to or from WMUs shall not create a condition of pollution or nuisance as defined in CWC sections 13050(I) and (m). Wastes shall not be

- relocated to any location where they can be discharged into waters of the State or waters of the United States.
- 6. Excavation within or reconfiguration of any existing WMU is prohibited without prior concurrence of Regional Water Board staff. Minor excavation or reconfiguration activities such as for installation of signs, landscaping, or routine maintenance and repair do not require prior Regional Water Board staff concurrence.
- 7. Waste shall not be exposed at the surface of any WMU. Inactive WMUs that are currently undergoing closure planning, design/engineering, or implementation might have wastes temporarily exposed during closure work, provided best management practices (BMPs) are employed to prevent migration of wastes from the WMUs via stormwater transport.
- 8. Surface and subsurface drainage from outside of the unit shall be diverted from the WMU in accordance with CCR Title 27 section 20365(e).
- 9. The discharge of hazardous waste at the Facility is prohibited. For this Order, the term "hazardous waste" is as defined in CCR Title 27 section 20164.
- 10. The discharge of leachate or wastewater (including from surface impoundments, process waters, and runoff from the Facility's operation areas) that: (1) have the potential to cause corrosion or decay, or otherwise reduce or impair the integrity of the containment structures; (2) if mixed or commingled with other wastes in the unit, could produce a violent reaction including heat, pressure, fire, explosion, or the production of toxic by-products; (3) require a higher level of containment than provided by the unit; (4) are "restricted hazardous wastes;" or (5) impair the integrity of the containment structures, are prohibited pursuant to CCR Title 27 section 20200(2)(b).
- 11. Activities associated with subsurface investigations and cleanup that will cause significant adverse migration of pollutants are prohibited.
- 12. If it is determined that an active surface impoundment is leaking or there is a failure which causes a threat to water quality, there shall be no discharges to that impoundment, and any residual liquids and sludge shall be removed expeditiously.
- 13. The Dischargers shall not cause the following conditions to exist in waters of the State or waters of the United States at any place outside existing waste management units:

#### a. Surface Waters

- i. Floating, suspended, or deposited macroscopic particulate matter or foam;
- ii. Bottom deposits or aquatic growth;

- iii. Adversely altered temperature, turbidity, or apparent color beyond natural background levels;
- iv. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or
- v. Toxic or other deleterious substances to be present in concentrations or quantities that may cause deleterious effects on aquatic biota, wildlife, or waterfowl, or that render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

#### b. Groundwater

- i. Degradation of groundwater quality; or
- ii. Subsurface migration of pollutants associated with Facility operations to waters of the State.

#### **B. SPECIFICATIONS**

#### **Reporting Specifications**

- 1. All technical reports submitted pursuant to this Order shall be prepared under the supervision of and signed by licensed professionals, such as a California registered civil engineer, registered geologist, and/or certified engineering geologist.
- 2. At any time, the Dischargers may file a written request (including supporting documentation) with the Executive Officer, proposing modifications to the SMP. If the proposed modifications are acceptable, the Executive Officer may issue a letter of approval that incorporates the proposed revisions into the SMP.

#### **Waste Management Unit and Surface Impoundment Specifications**

- 3. The Dischargers shall notify the Regional Water Board immediately of any failure that threatens the integrity of any containment and control facilities, structures, or devices. Any such failure shall be promptly corrected after approval of the method and schedule by the Executive Officer.
- 4. The Dischargers shall maintain the WMUs to prevent a statistically significant increase in water quality parameters at points of compliance as provided in CCR Title 27 section 20420.
- 5. The Dischargers shall maintain the WMUs to prevent discharges, such that the units do not constitute a pollution source.
- 6. The Dischargers shall have continual responsibility for correcting any problems that could negatively impact beneficial uses of surface or subsurface waters of the State

which arise in the future as a result of waste discharge or related operations or site use.

- 7. The Dischargers shall comply with all applicable provisions of CCR Title 27 that apply to the closure or corrective action and post-closure of WMUs and the design and maintenance of surface impoundments, including those that are not specifically referenced in this Order.
- 8. If the Executive Officer determines the existence of an imminent threat to the beneficial uses of surface or subsurface waters of the State, the Dischargers may be required to install additional groundwater monitoring wells and/or undertake corrective action measures, including submittal of a site investigation report.
- 9. The Dischargers shall install, maintain in good working order, and operate efficiently any monitoring system necessary to assure compliance with this Order.
- 10. If it is determined by the Executive Officer, based on groundwater monitoring information, that water quality immediately outside the boundary of any WMU continues to degrade due to activities at the WMU, the Dischargers will be required to submit and implement a site-specific groundwater corrective action proposal.

#### **Monitoring Specifications**

- 11. As discussed in the Findings above, the Facility contains several WMUs that contain wastes that, if released, would pose a threat to water quality. These WMUs are subject to the monitoring requirements of CCR Title 27, section 20420. Accordingly, the Dischargers shall implement a DMP that is designed to identify any water quality impacts from the WMUs and demonstrate compliance with the Water Quality Protection Standard (WQPS), which is required pursuant to CCR Title 27, section 20390. The SMP attached to this Order is intended to constitute the DMP for the Facility. The Dischargers shall periodically evaluate the SMP to determine if monitoring is achieving the program goals.
- 12. The WQPS for the WMUs shall include constituents of concern, concentration limits, point of compliance, and all monitoring points in accordance with the SMP attached to this Order. The WQPS shall establish and comply with all of the following:
  - a. <u>Constituents of Concern</u>: CCR Title 27, section 20395 defines Constituents of Concern (COCs) as "all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit." COCs include the monitoring parameters identified in the SMP attached to this Order, or any future amendment thereof.
  - b. Monitoring and Sampling Parameters: Monitoring and Sampling Parameters (MSPs), a subset of the COCs, are typically the most mobile and commonly detected COCs in groundwater at the site and are measured on a more frequent basis than the entire list of COCs. The MSPs shall include, at a minimum, all constituents identified as such in the SMP attached to this Order, or any future

- amendments. The Dischargers may propose modification to the MSPs as additional data become available concerning site-specific source characteristics and natural background water quality. However, modifications shall only be made upon written concurrence from the Executive Officer.
- c. <u>Concentration Limits</u>: Concentration limits for all COCs detected at the specified points of compliance are typically established using the background data set pursuant to CCR Title 27, section 20400. A report that established the background water quality titled, *Site-Specific Groundwater Background Concentration Limits, Self-Monitoring Program Revision, Tesoro Golden Eagle Refinery* (EarthTech, 2008) was submitted in February 2008. For non-naturally occurring chemicals, such as VOCs, the concentration limits may not exceed MCLs.
- d. <u>Point of Compliance</u>: CCR Title 27, section 20405 defines the Point of Compliance (POC) as the "vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit." The POC shall be the hydraulically downgradient perimeter of the waste fill area.
- e. <u>Monitoring Points</u>: CCR Title 27, section 20164 defines a Monitoring Point as a "well, device, or location specified in the waste discharge requirements at which monitoring is conducted and at which the water quality protection standard applies." Monitoring points for the WMUs are specified in the SMP attached to the Order, or any future amendment thereof.
- 13. The Dischargers shall conduct monitoring activities according to the SMP attached to this Order and as may be amended by the Executive Officer, to verify the effectiveness of SMP programs and WMU closure systems.
- 14. Any additional monitoring wells installed at the Facility shall be constructed in a manner that maintains the integrity of the drill hole, prevents cross-contamination of saturated zones, and produces representative groundwater samples from discrete zones within the groundwater zone each well is intended to monitor.
- 15. All borings for monitoring wells shall be continuously cored. The drill holes shall be logged during drilling under the supervision of a Professional Geologist whose signature appears on the corresponding well log. All information used to construct the wells shall be submitted to the Regional Water Board upon well completion.
- 16. The groundwater sampling and analysis program shall ensure that groundwater quality data are representative of the groundwater in the area that is monitored.

#### **Soil Contamination**

17. The Dischargers shall notify the Regional Water Board of any soil contamination not previously identified in subsurface investigations that is discovered during any subsurface investigation or excavation work conducted on Facility property that may

potentially adversely impact water quality. In 2020, a soils management plan was approved by the Water Board to direct the reuse and disposal of onsite soils (Facility-Wide Soil Management Plan, Stantec 2020)

#### **C. PROVISIONS**

- 1. **Compliance:** The Dischargers shall comply with all Prohibitions, Specifications, and Provisions of this Order. All required submittals must be acceptable to the Regional Water Board's Executive Officer. The Dischargers must also comply with the conditions of these waste discharge requirements. Violations may result in enforcement actions, including issuance of Regional Water Board orders or court orders requiring corrective action or imposing civil monetary liability.
- 2. **Authority**: All technical and monitoring reports required by this Order are requested pursuant to CWC section 13267. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Dischargers to enforcement action pursuant to CWC section 13268.
- 3. **Self-Monitoring Program (SMP):** The Dischargers shall implement the Self-Monitoring Program attached to this Order and any revisions issued by the Executive Officer. The Dischargers shall submit annual self-monitoring reports, acceptable to the Executive Officer, no later than February 28 each year covering the previous calendar year.

COMPLIANCE DATE: Immediately upon adoption of this Order REPORT DUE DATE: February 28, 2026, and every year thereafter

4. Detection Monitoring Program Review: The Dischargers shall evaluate and determine if changes are needed to ensure the adequacy of the Facility's DMP to promptly detect any releases to groundwater or surface water from contamination contained within WMUs, including the consideration of potential impacts to the mitigation wetlands and habitat areas. Based on the results of the evaluation, the Dischargers shall propose to the Executive Officer any improvements, such as new monitoring wells or updated trigger values to assess environmental impacts to proposed wetlands and habitat, that may be needed to identify water quality impacts from the WMUs and demonstrate compliance with the Water Quality Protection Standard (WQPS) and Prohibition 1 of this Order.

#### **COMPLIANCE DATE: 120 days from the adoption of this Order**

- 5. **Long-Term Flood Protection Plan:** The Dischargers shall submit a long-term flood protection plan acceptable to the Executive Officer. The plan shall identify strategies for the long-term protection of the site from flooding and inundation due to sea level rise, groundwater rise, and extreme climate/weather events. The plan shall:
  - a. Be prepared by a licensed engineer or geologist and should consider and reference the most current State of California Sea Level Rise Guidance

developed by the Ocean Protection Council (OPC) and other science-based climate resources, including but not limited to the following: (1) the San Francisco Bay Shoreline Adaptation Atlas prepared by the San Francisco Estuary Institute (SFEI), (2) the Pathways Climate Institute and SFEI report titled Shallow Groundwater Response to Sea-Level Rise: Alameda, Marin, San Francisco, and San Mateo Counties (2022), and (3) the Coastal Storm Modeling System (CoSMoS) developed by the United States Geological Survey (USGS).

- b. Be based on providing protection from the estimated 100-year storm event, on top of the 2100 "intermediate" or "intermediate-high" risk aversion sea level rise scenarios as described in the most recent OPC Sea Level Rise Guidance. The 100-year storm event shall consider astronomical tides and storm surge as well as wave run-up, seasonal effects (e.g., El Niño conditions), and discharge from local tributaries (e.g., as modeled by the USGS CoSMoS tool). Provide technical justification for the selection of sea level rise scenarios.
- c. Describe how vulnerable features and infrastructure, building uses, and public access will be protected from flooding prior to the projected timing of sea level rise, groundwater rise, and extreme storm event impacts (e.g., prior to projected flooding).
- d. Propose a phased adaptation strategy that briefly describes the potential future projects that may be necessary to provide for protection from the 2100 "intermediate" or "intermediate-high" sea level rise scenarios as described in the most recent OPC Sea Level Rise Guidance, as well as potential accompanying changes in groundwater rise and extreme storm events. The strategy shall allow for a range of future actions at different climate change thresholds to address uncertainty and allow for flexibility over the long term.
- e. Identify baseline conditions for the site and show, at a minimum, the following on a map(s): sitewide elevations, vulnerable infrastructure (i.e., waste containment features, wetlands (including mitigation wetlands on WMUs 10, 11, and 31), roads, buildings, remediation systems, piping, wells), existing groundwater levels, the degree of sea level rise, groundwater rise, and/or extreme storm event exposure already noted at the site (if any), sea level elevations at which flooding will impact the site, areas potentially vulnerable to groundwater rise. Data obtained from onsite survey monuments shall be evaluated with respect to land subsidence or settlement and sea level rise risk scenarios.
- f. Be updated and submitted every five years with the most recently available and credible information and climate change adaptation guidance at the time of the update, including observed changes in sea levels, groundwater levels, and flooding measured at or as near as possible to the site (e.g., from local tide gauges and monitoring wells), and any observed or potential changes in the adaptive capacity and risk tolerance of vulnerable infrastructure, including an implementation schedule with key milestones that have been or will be met in the future.

When preparing and implementing adaptive management plans, the Dischargers shall take into consideration how rising shallow groundwater and any associated flooding may affect long-term cap stability, increase in leachate amounts, leachate and landfill gas migration, contaminant mobility including discharge to surface water within mitigation wetlands, and post-closure monitoring and maintenance goals at the site (where applicable). Groundwater monitoring data from the site should be used for the most accurate water level onsite; however, if groundwater wells are not present at the site, databases such as GeoTracker can be used to access water table elevations nearby, using USGS, California Department of Water Resources, or other nearby cleanup site well observations.

### COMPLIANCE DATE: December 20, 2026, and shall be updated and submitted every 5 years thereafter

- 6. Closure, Clean-Closure, and Post-Closure Maintenance Plans: The Dischargers shall prepare and submit Closure Plans for WMUs 14 and 32, Clean-Closure Plans for WMUs 10, 11, and 31, and Post-Closure Maintenance Plans that address the closure of WMUs 10, 11, 14, 31, and 32. The plans must be acceptable to the Executive Officer. The proposed closure methods shall comply with CCR Title 27 requirements as is appropriate for each unit and, as agreed upon by the Dischargers, must incorporate the mitigation measures required in the IS/MND. Each plan shall contain performance standards and minimum substantive requirements to ensure that each WMU is closed and maintained to protect public health, safety, and the environment. Post-closure maintenance plans for WMUs 10, 11, and 31 shall include measures to manage deed restricted activities and measures to maintain a minimum two-foot cover over the coke beneath the mitigation wetlands established at WMUs 10 and 11 or incorporate the mitigation wetlands Long-Term Management Plan by reference.
  - a. WMUs 10, 11, AND 14 COMPLIANCE DATE September 30, 2027
  - b. WMU 31 COMPLIANCE DATE: December 30, 2027
  - c. WMU 32 COMPLIANCE DATE: September 30, 2030
- 7. Stormwater Impoundments Investigation Work Plan and Completion Report: The Dischargers shall prepare and submit a work plan acceptable to the Executive Officer to evaluate if any sediment has accumulated in the West Canal (as described in Finding 40) and whether the sediment contains waste (Deacon's Pond is excluded because accumulated sediment was removed in 2023). The Amorco impoundments are excluded from this task. The investigation work plan shall include details on data collection procedures, field sampling methodologies, cleanup goals, verification sampling, soil stockpile management, stormwater management, and project schedule that includes submittal of a completion report.
  - a. WORK PLAN COMPLIANCE DATE: September 30, 2027

#### b. COMPLETION REPORT COMPLIANCE DATE: Date in approved Work Plan

8. **Bio-Oxidation Pond (WMU 16) Operation and Maintenance Plan:** The Dischargers shall prepare and submit an operation and maintenance plan acceptable to the Executive Officer for the Bio-Oxidation Pond (described in Finding 38b). The plan shall include schedules for inspecting and maintaining the pond. The plan shall include an anticipated budget for operations and maintenance, an inspection checklist, an inspection schedule, and an example maintenance report. Maintenance records shall be kept at the Facility and be available for review by Regional Water Board staff.

#### **COMPLIANCE DATE: September 30, 2026**

- 9. Surge Ponds 1 and 2 (WMU 15) Data Gap Investigation Work Plan and Completion Report: The Dischargers shall prepare and submit a work plan acceptable to the Executive Officer to investigate data gaps in the design of both Surge Ponds (described in Finding 38a). The work plan shall evaluate whether the ponds comply with all the requirements of CCR Title 27. The work plan shall include a schedule to complete the data gap investigation work and include a schedule for submittal of a completion report.
  - a. WORK PLAN COMPLIANCE DATE: September 30, 2027
  - b. COMPLETION REPORT COMPLIANCE DATE: Date in approved Work Plan
- 10. Financial Assurance: The Dischargers shall submit to the Regional Water Board evidence of financial assurance acceptable to the Executive Officer to demonstrate financial responsibility for closure and/or post-closure maintenance and/or reasonably foreseeable corrective action costs in accordance with CCR Title 27, Division 2, Chapter 6. The Dischargers shall use one or more of the mechanisms set forth in CCR Title 27, Subchapter 3, Article 1, section 22228 to establish financial assurance. Every five years, for the duration of the post-closure monitoring period, the Dischargers shall submit a report that includes an outline of the financial assurance mechanism(s) and the information required by the applicable provisions of CCR Title 27, Subchapter 3, Article 1, section 22228 demonstrating that the Dischargers meet the requirements for the selected financial assurance mechanism. The financial assurance value shall be supported by calculations, to be included with this submittal, providing cost estimates for all post-closure monitoring, maintenance, repair, and replacement of WMU or landfill containment, cover, and monitoring systems.

Additionally, cost estimates must be provided for corrective action for known releases that may be required for all WMUs at the Facility. The financial assurance value shall be based on the sum of these estimates. The cost estimates and financial assurance shall be updated to reflect changes to monitoring systems as they occur. The post-closure maintenance period shall extend as long as the wastes within the WMUs pose a threat to water quality.

#### **COMPLIANCE DATE:** June 30, 2026 and every five years thereafter

11. **Earthquake Inspection:** The Dischargers shall submit a detailed Post Earthquake Inspection Report acceptable to the Executive Officer, in the event of any earthquake generating ground shaking of moment magnitude 7 or greater at or within 30 miles of the Facility. The report shall describe the containment features, groundwater monitoring, and control facilities potentially impacted by the static and seismic deformations of any WMU. Damage to any WMU or Active Class II Surface Impoundment, which may impact State waters, must be reported immediately upon discovery to the Executive Officer.

#### **COMPLIANCE DATE: Written report due within 2 weeks of earthquake**

12. Change in Ownership: In the event of any change in control or ownership of the Facility presently controlled by the Dischargers, the Dischargers shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Regional Water Board, upon a final change in ownership. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of this Order within 30 days of the change of ownership. Any change in the Dischargers named on this Order requires an update or amendment to the Order by the action of the Regional Water Board. The request must contain the requesting entity's full legal name, mailing address, electronic address, and telephone number of the people responsible for contact with the Regional Water Board. Failure to submit the request shall be considered a discharge without requirements, a violation of the CWC sections 13263 and 13267.

#### COMPLIANCE DATE: 30 days after a change in site control or ownership

- 13. **Availability:** A copy of this Order shall be maintained by the Dischargers and shall be made available by the Dischargers to all employees or contractors performing work (maintenance, monitoring, repair, construction, etc.) at the WMUs (CWC §13263).
- 14. **Change in Discharge:** In the event of a material change in the character, location, or volume of a discharge, the Dischargers shall file with this Regional Water Board a new Report of Waste Discharge (CWC §13260(c)). Material change includes, but is not limited to, the following:
  - a. Addition of a major industrial waste discharge to discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
  - b. Significant change in disposal method, e.g., change from land disposal to a direct discharge to water, or change in the method of treatment, which would significantly alter the characteristics of the waste.

- c. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- d. Increase in flow to a WMU or water body beyond that specified in this Order.

#### **COMPLIANCE DATE: 120 days prior to any material change**

- 15. **Revision:** This Order is subject to review and revision by the Regional Water Board.
- 16. **Information Correction:** When a discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge (ROWD) or submitted incorrect information in a ROWD or in any report to the Regional Water Board, it shall promptly submit such facts or information.
- 17. **Vested Rights:** This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Dischargers from liability under Federal, State or local laws, nor do they create a vested right for the Dischargers to continue the waste discharge (CWC §13263(g)).
- 18. **Operation and Maintenance:** The Dischargers shall always operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with conditions of this Order. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order (CWC §13263(f)).
- 19. **Reporting Releases:** Except for a discharge which is in compliance with this Order, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall immediately notify the California Office of Emergency Services (Cal OES) of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with §8574.7) of the Government Code and immediately notify the Regional Water Board of the discharge as soon as:
  - a. That person has knowledge of the discharge;
  - b. Notification is possible; and
  - c. Notification can be provided without substantially impeding cleanup or other emergency measures.

This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of CWC section 13271 unless the Dischargers are in violation of a prohibition in the Basin Plan (CWC §13271(a)).

- 20. **Release Reporting Requirements:** In the case of a release (as defined above), the following must be provided to the Regional Water Board within five days of knowledge of the release:
  - a. Site map illustrating location and approximate size of impacted area;
  - b. Photographs of the impacted area before and after remediation; and
  - c. A report detailing the remediation method chosen and its efficacy and illustrating that the release contingency plan was effective, or else proposing modifications to the contingency plan to increase its effectiveness.
- 21. **Entry and Inspection:** The Dischargers shall allow the Regional Water Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
  - Enter upon the Dischargers' premises in accordance with Dischargers' health and safety procedures, where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
  - Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
  - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the CWC, any substances or parameters at any location.
- 22. **Endangerment of Health or the Environment:** The Dischargers shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the Regional Water Board within 24 hours of the time a Dischargers become aware of the circumstances by calling (510) 622-2369. A written submission to the Regional Water Board shall also be provided within five days of the time a Dischargers become aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Regional Water Board may waive the requirement for a written report on a case-by-case basis if the oral report has been received within 24 hours.

23. **Maintenance of Records:** The Dischargers shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order or demonstrate compliance with this Order.

Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board Executive Officer.

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individuals who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individuals who performed the analyses;
- e. The analytical techniques or method used; and
- f. The results of such analyses.
- 24. **Reporting Requirements**: All reports submitted pursuant to this Order must be in accordance with the State Water Board-adopted regulations requiring electronic report and data submittal to the State's GeoTracker database (CCR §§ 3890-3895). Email notification should be provided to Regional Water Board staff whenever a file is uploaded to GeoTracker. In addition, the Dischargers shall submit hard copies of reports to Regional Water Board staff upon request.
  - a. The Dischargers are responsible for submitting the following via GeoTracker:
    - i. All chemical analytical results for water samples;
    - ii. The latitude and longitude of any sampling point for which data is reported, accurate to within one meter and referenced to a minimum of two reference points from the California Spatial Reference System, if available, unless specified in the SMP;
    - iii. The surveyed elevation relative to a geodetic datum of any permanent sampling point for which data is reported;
    - iv. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevations for which data is reported;
    - v. A site map or maps showing the location of all sampling points for which data is reported;
    - vi. The depth of the sampling point or depth and length of screened interval for any permanent monitoring well for which data is reported;

- vii. PDF copies of boring logs; and
- viii.PDF copies of all reports, Work Plans, and other documents (the document, in its entirety [signature pages, text, figures, tables, etc.] must be saved to a single PDF file) including the signed transmittal letter and professional certification by a California professional civil engineer, certified engineering geologist, or a professional geologist.
- b. Upon request, monitoring results shall also be provided electronically in Microsoft Excel to allow for ease of review of site data and to facilitate data computations and/or plotting that Regional Water Board staff may undertake during the review process. Such electronic tables shall include the following information unless directed otherwise by Water Board staff:
  - i. Well designations;
  - ii. Well location coordinates (latitude and longitude);
  - iii. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, screen interval elevation, and a characterization of geology of subsurface the well is located in);
  - iv. Groundwater depths and elevations (water levels);
  - v. Current analytical results by constituent of concern (including detection limits for each constituent);
  - vi. Historical analytical results (including the past five years unless otherwise requested); and
  - vii. Measurement dates.
- 25. This Order terminates and supersedes WDR Order No. R2-2004-0056, except for purposes of future enforcement for past violations of the requirements of Order No. R2-2004-0056.
- I, Eileen White, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on MONTH DAY, 2026.

Eileen M. White, P.E.
Executive Officer

#### Figures:

Figure 1. Location Map

Figure 2. Groundwater Contour Map, Shallow Zone

Figure 3. Groundwater Contour Map, Alluvial Zone

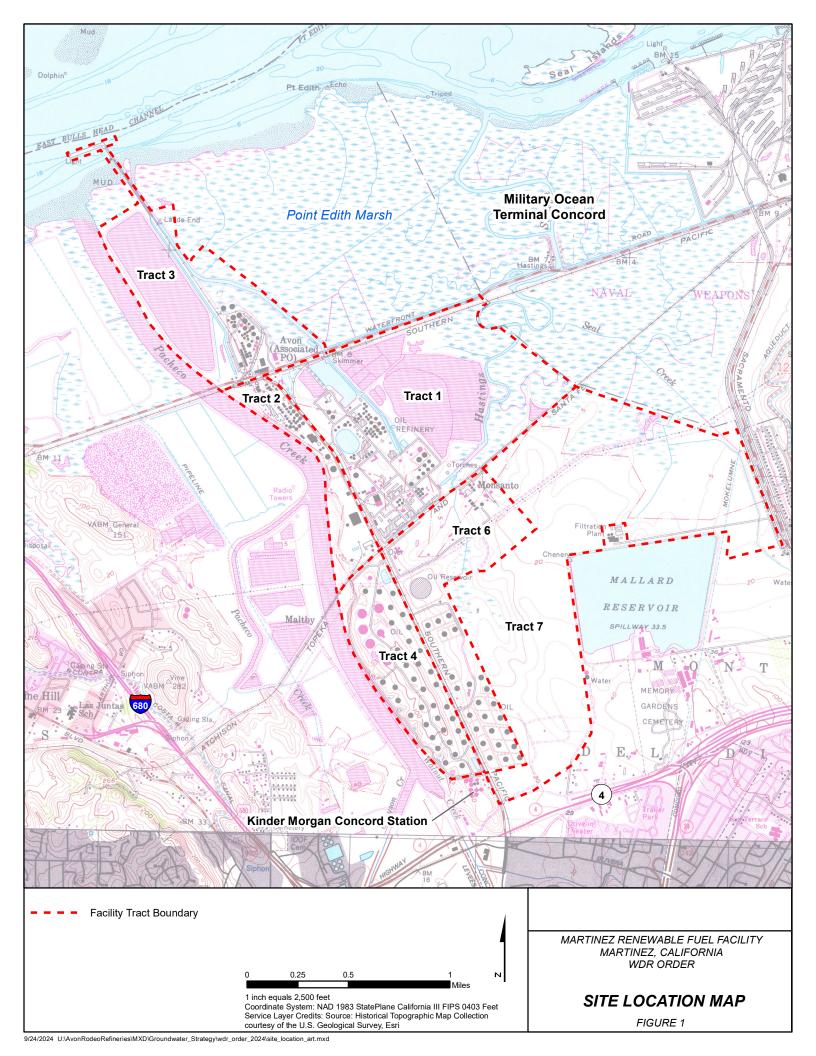
Figure 4. Waste Management Units and Impoundments Map

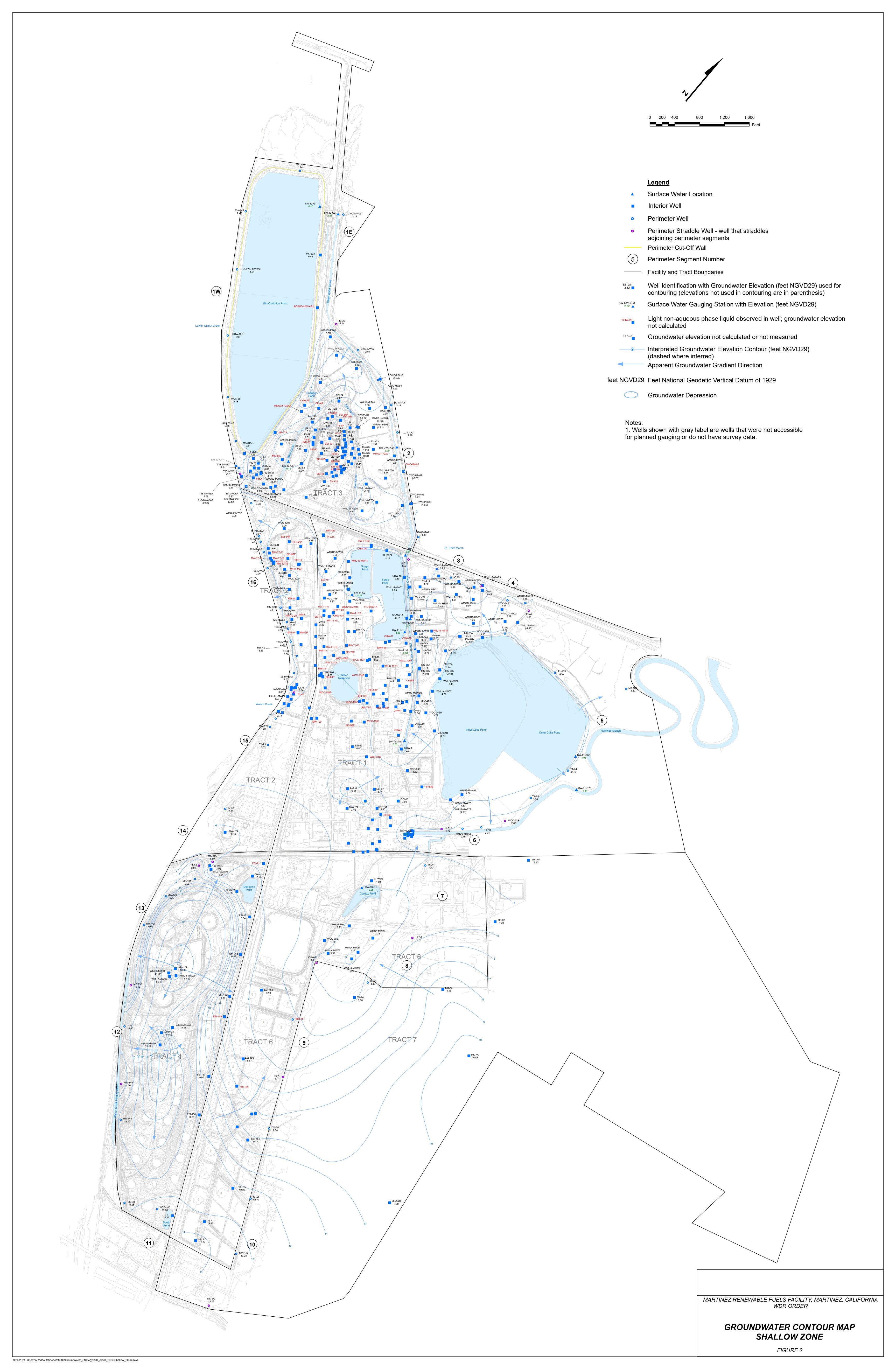
Figure 5. Well Location Map

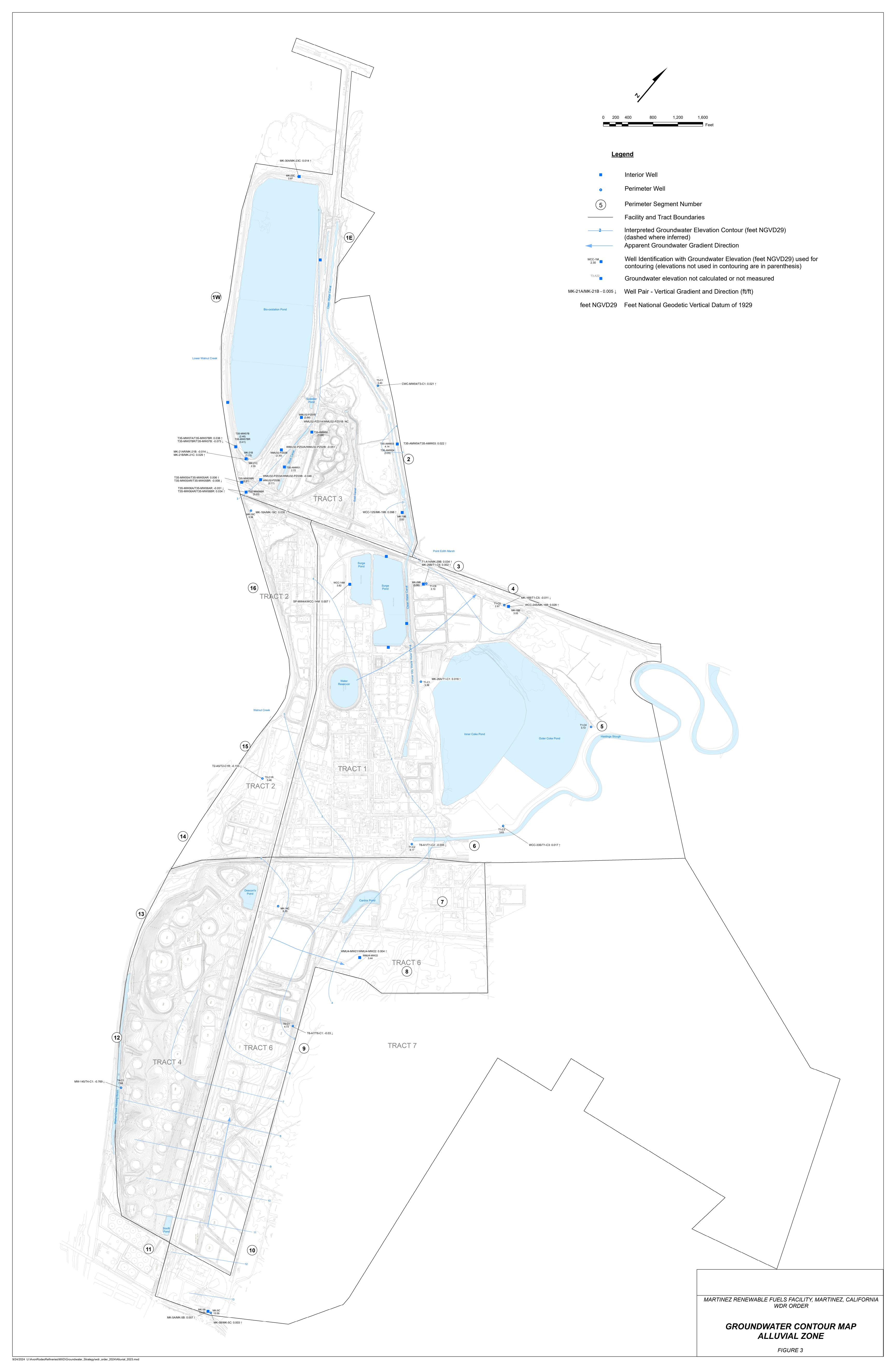
#### **Attachments:**

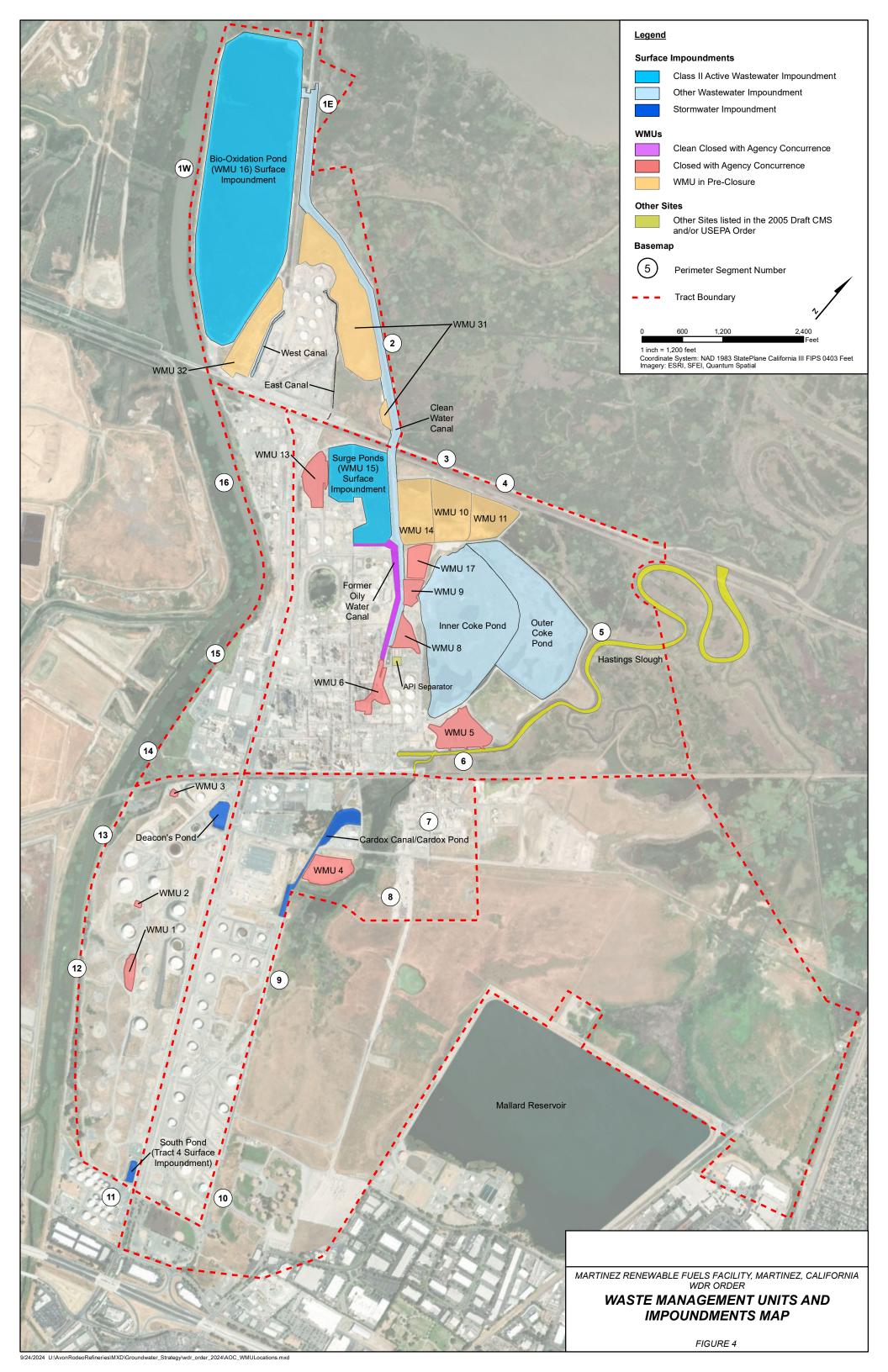
Attachment A. Provision Due Date Summary Table

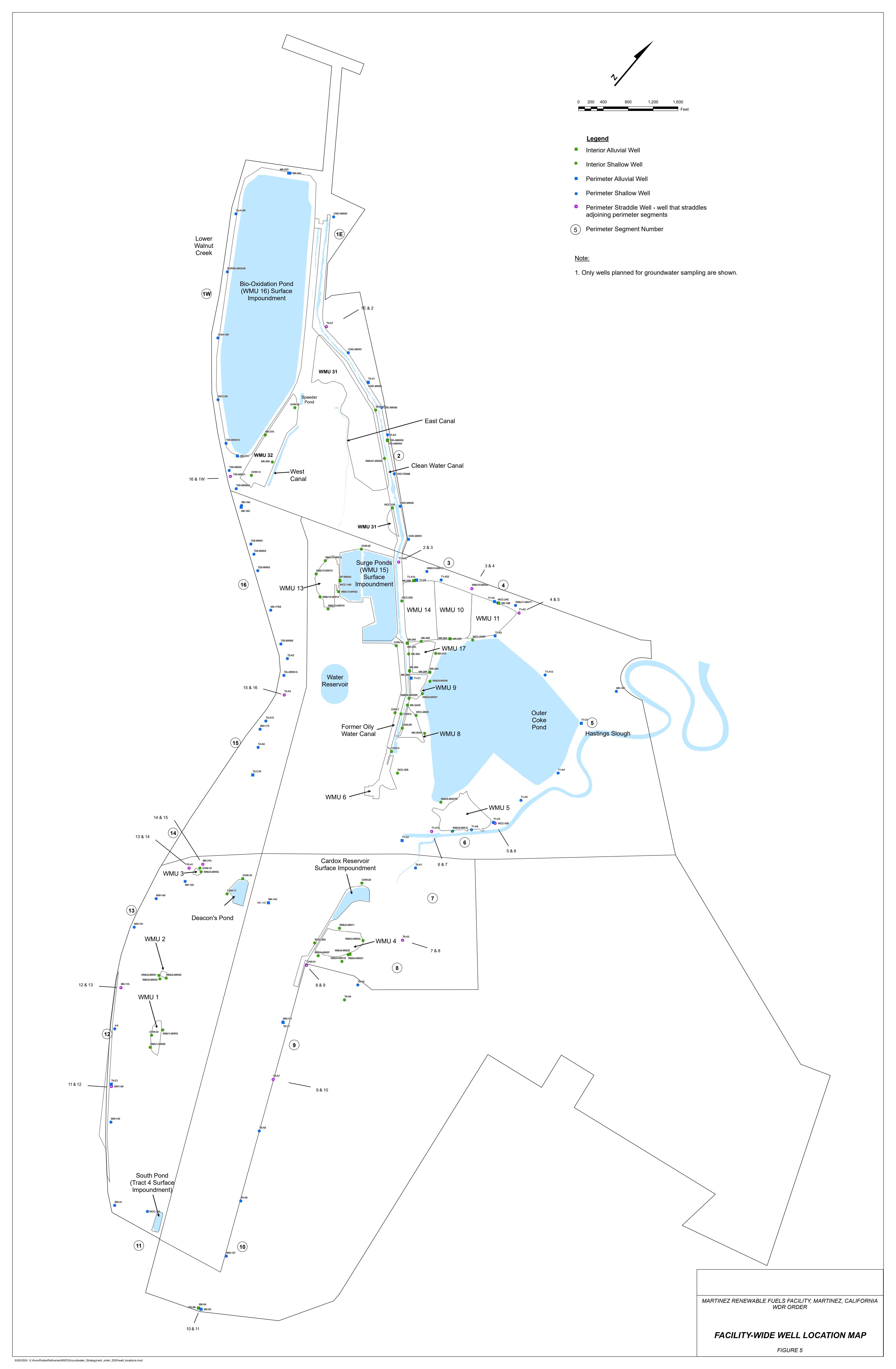
Attachment B. Self-Monitoring Program (SMP)











# ATTACHMENT A Provision Due Date Summary Table

## Attachment A: Provision Due Date Summary Table

No.	Provision	Due Date
3	Self-Monitoring Program (SMP)	February 28, 2026, and every year thereafter
4	Detection Monitoring Program Review	120 days from the adoption of this Order
5	Long-Term Flood Protection Plan	December 20, 2026, and every 5 years thereafter
6a	WMUs 10, 11, and 14 Closure, Clean-Closure, and Post-Closure Maintenance Plans	September 30, 2027
6b	WMU 31 Clean-Closure and Post- Closure Maintenance Plans	December 30, 2027
6c	WMU 32 Closure and Post- Closure Maintenance Plans	September 30, 2030
7a	Stormwater Impoundments Investigation Work Plan	September 30, 2027
7b	Stormwater Impoundments Investigation Completion Report	Date in approved Work Plan
8	Bio-Oxidation Pond (WMU 16) Operation and Maintenance Plan	September 30, 2026
9a	Surge Ponds 1 and 2 (WMU 15) Data Gap Investigation Work Plan	September 30, 2027
9b	Surge Ponds 1 and 2 (WMU 15) Data Gap Investigation Completion Report	Date in approved Work Plan
10	Financial Assurance	June 30, 2026, and every 5 years thereafter

# ATTACHMENT B Self-Monitoring Program

### CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

# SELF-MONITORING PROGRAM FOR TESORO REFINING & MARKETING COMPANY LLC AND TEXACO, INC. MARTINEZ FACILITY

CONTRA COSTA COUNTY

ORDER NO. R2-2026-xxxx

CONSISTS OF PART A AND PART B

#### **PART A**

This Self-Monitoring Program (SMP) specifies monitoring and reporting requirements, including:

- General monitoring requirements (Part A);
- Self-monitoring report content and format (Part A);
- Monitoring locations, frequency, parameters, and analytes (Part B); and
- Self-monitoring report submittal frequency and schedule (Part B).

#### A. AUTHORITY AND PURPOSE

For discharges of waste to land, water quality monitoring is required pursuant to the California Code of Regulations (CCR), Title 27, sections 20380 through 20435. The principal purposes of an SMP are: (1) to document compliance with waste discharge requirements (WDRs) and prohibitions established by the Regional Water Board; (2) to facilitate self-policing by waste dischargers in the prevention and abatement of pollution arising from the waste discharge; (3) to develop or assist in the development of effluent standards of performance and toxicity standards; and (4) to assist dischargers in complying with the requirements of Title 27.

#### **B. MONITORING REQUIREMENTS**

Monitoring refers to the observation, inspection, measurement, and/or sampling of environmental media at the Facility. The following defines the types of monitoring that may be required.

#### **Monitoring of Environmental Media**

The Regional Water Board may require monitoring of groundwater, surface water, leachate, and any other environmental media that may pose a threat to water quality or provide an indication of a water quality threat at the Facility.

Sample collection, storage, and analyses shall be performed according to the most recent version of U.S. EPA-approved methods or in accordance with a sampling and analysis plan approved by Regional Water Board staff. Analytical testing of environmental media required by this SMP shall be performed by a State-approved laboratory for the required analyses. The director of the laboratory whose name appears on the certification shall be responsible for supervising all analytical work in his/her laboratory and shall have signing authority for all reports or may designate signing of all such work submitted to the Regional Water Board.

All monitoring instruments and devices used to conduct monitoring in accordance with this SMP shall be maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once every two years.

"Receiving waters" refers to any surface water that actually or potentially receives surface or groundwater that passes over, through, or under waste materials or impacted soils. In this case, the groundwater beneath and adjacent to the Facility and the surface runoff from the Site are considered "receiving waters."

#### **Standard Observations**

"Standard observations" refers to observations within the limits of the Facility, at the Facility perimeter, and of the receiving waters. Standard observations to be performed and recorded include:

#### 1. The Facility:

- Evidence of any ponded water on WMUs within the Facility, including a map
  of approximate locations, and an estimate of the size of the area affected and
  the volume of water;
- b. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source; and
- c. Evidence of erosion and/or exposed waste, including a map of the approximate location and an assessment of the likelihood that soil or waste was discharged to the waters of the State.

#### 2. Perimeter of the Facility:

- a. Evidence of liquid leaving or entering the Facility, estimated size of affected area and flow rate (show affected area on map);
- b. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source;
- c. Evidence of erosion and/or exposed waste;
- d. Vegetation concerns; and
- Measurement of groundwater elevations.

#### 3. Receiving Waters:

- a. Floating and suspended materials of waste originating from the Facility, including their presence or absence, source, and size of affected area;
- b. Discoloration and turbidity: description of color, source, and size of affected area:
- c. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source;

- d. Evidence of beneficial use, such as presence of water associated with wildlife;
- e. Estimated flow rate; and
- f. Weather conditions, such as estimated wind direction and velocity, total precipitation.

#### **Facilities Inspections**

"Facilities inspections" refers to the inspection of all containment and control structures and devices associated with the Facility. Containment and control facilities may include the following:

- 1. Final and interim covers at WMUs; and
- Stormwater management system elements such as perimeter drainage and diversion channels, ditches, and detention and sedimentation ponds or collection tanks.

#### **Quality Assurance/Quality Control Sample Monitoring**

The Dischargers shall collect duplicate, field blank, equipment blank (if appropriate) and trip blank samples for each semiannual monitoring event at the following frequencies:

- 1. Duplicate sample one sample per 20 regular samples;
- 2. Field blank one per monitoring event;
- 3. Equipment blank one sample per 10 monitoring stations (except where dedicated equipment is used); and
- 4. Trip blank one sample per cooler.

#### C. REPORTING REQUIREMENTS

Reporting responsibilities of waste dischargers are specified in Water Code sections 13260, 13267 subdivision (b), and 13383. At a minimum, each Self-Monitoring Report (SMR) shall include the following information:

Transmittal Letter: A cover letter transmitting the essential points of the
monitoring report shall be included with each monitoring report. The transmittal
letter shall discuss any violations during the reporting period and actions taken or
planned to correct the problem. The letter shall also certify the completion of all
monitoring requirements. The letter shall be signed by the Dischargers' principal
executive officer or his/her duly authorized representative, and shall include a

- statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- 2. <u>Graphic Presentation</u>: The following maps, figures, and graphs (if applicable) shall be included in each SMR to visually present data collected pursuant to this SMP:
  - a. Plan-view maps showing all monitoring and sampling locations, waste management units, containment and control structures, treatment facilities, surface water bodies, and site/property boundaries;
  - Groundwater level/piezometric surface contour maps for each groundwaterbearing zone of interest showing inferred groundwater gradients and flow directions under/around the Facility based upon the past and present water level elevations and pertinent visual observations; and
  - c. Any other maps, figures, photographs, cross-sections, graphs, and charts necessary to visually demonstrate the appropriateness and effectiveness of sampling, monitoring, characterization, investigation, or remediation activities relative to the goals of this SMP.
- 3. <u>Tabular Presentation</u>: The following data (if applicable) shall be presented in tabular form and included in each SMR to show a chronological history and allow easy reference:
  - a. Well designation;
  - b. Well location coordinates (latitude and longitude);
  - c. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation);
  - d. Groundwater depths;
  - e. Groundwater elevations;
  - f. Current analytical results (including analytical method and detection limits for each constituent);
  - g. Historical analytical results (including the past five years); and
  - h. Measurement dates.
- 4. Compliance Evaluation Summary and Discussion:
  - a. A summary and certification of completion of all environmental media monitoring, standard observations, and facilities inspections;

- b. The signature of the laboratory director or his/her designee indicating that he/she has supervised all analytical work in his/her laboratory; and
- c. A discussion of the laboratory results that includes the following information:
  - i. Data interpretations;
  - ii. Conclusions;
  - iii. Recommendations;
  - iv. Newly implemented or proposed investigations or remedial measures;
  - v. Data anomalies;
  - vi. Variations from protocols; and
  - vii. Condition of wells.
- 5. <u>Appendices</u>: The following information shall be provided as appendices in electronic format only unless requested otherwise by Regional Water Board staff and unless the information is already contained in a sampling and analysis plan approved by Regional Water Board staff:
  - a. New boring and well logs;
  - b. Method and time of water level measurements:
  - c. Purging methods and results, including:
    - i. The type of pump used, pump placement in the well, and pumping rate;
    - ii. The equipment and methods used to monitor field pH, temperature, and electrical conductivity;
    - iii. The calibration of the field equipment used to measure pH, temperature, conductivity, and turbidity (as necessary); and
    - iv. The method of disposing of the purge water.
  - d. Sampling procedures, field, equipment, and travel blanks, number and description of duplicate samples, type of sample containers and preservatives used, the date and time of sampling, the name of the person taking the samples, and any other relevant observations; and
  - e. Documentation of laboratory results, analytical methods, and reporting limits (RLs), and Quality Assurance/Quality Control (QA/QC) procedures for the required sampling.

#### D. CONTINGENCY REPORTING

- 1. The Dischargers shall report to the Regional Water Board by telephone (510-622-2369) any measurably significant discharge from the Facility immediately after it is discovered. The Dischargers shall submit a written report to the Regional Water Board within five days of discovery of any discharge. The written report shall contain the following information:
  - a. A map showing the location(s) of discharge;
  - b. Approximate flow rate;
  - c. A description of the nature of the discharge; and
  - d. Corrective measures underway or proposed.
- 2. The Dischargers shall submit a written report to the Regional Water Board within seven working days of determining that a statistically significant exceedance of an approved Water Quality Protection Standard (WQPS) occurred in a perimeter-segment monitoring well. The written report shall indicate which WQPS(s) has been exceeded. If appropriate, within 30 days the Dischargers shall resample at the compliance point(s) where this exceedance occurred.
- 3. If re-sampling and analysis confirms the earlier finding of an exceedance of a WQPS, the Dischargers will report the results of the confirmation sampling in writing within 30 days of receipt of the validated lab reports. The Dischargers shall evaluate whether any additional sampling or corrective measures should be implemented.

#### E. MAINTENANCE OF WRITTEN RECORDS

The Dischargers shall maintain information required pursuant to this SMP for at least five years. The five-year period of retention shall be extended during the course of any unresolved litigation regarding a discharge or when requested by the Regional Water Board.

#### **PART B**

#### A. MONITORING LOCATIONS, FREQUENCY, PARAMETERS, AND ANALYTES

Monitoring locations, frequencies, parameters, and analytes are specified in Table B-1 of this SMP and as indicated below. Monitoring locations are shown on Figure 5.

#### 1. Environmental Media

Groundwater shall be monitored at the locations specified in Table B-1 and shown on Figure 5. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.

#### 2. Standard Observations

Standard observations (described in Part A) shall be made within the Facility, along the perimeter of the Facility, and of the water courses and receiving waters beyond their limits. Standard observations shall be conducted at the frequency specified in Table B-1.

#### 3. Facilities Inspections

The Dischargers shall inspect all containment and control structures and devices associated with the Facility to ensure proper and safe operation.

#### 4. Quality Assurance/Quality Control Samples

The QA/QC samples shall be analyzed for VOCs (field blank, equipment blank and trip blank) or for the same tests as a regular sample (duplicate sample).

#### **B. REPORTING SCHEDULE**

The Dischargers shall submit SMRs to the Regional Water Board in accordance with Provisions C.3 and C.24 of the Order. Reports due at the same time may be combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable.

#### Attachment:

Table B-1 Self-Monitoring Program

				2024 Revised Sampling Program				
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling		
PGMP								
1W & 16		T3S-MW01	А		TPH-g, BTEX, CS2, TBA, TPH-d, naphthalene, Cresol, As, Cr, Cu, Pb, Ni, Se, V, Zn, Hg, Cr+6	MEK, 2,4-DMP, Sb, Mo, Tl, organic Pb		
		T3S-MW07A WCC-6S	SA SA	TPH-g, TPH-d, As, Cr, Pb, Se	BTEX, TBA, CS2, naphthalene, Cu, Ni, V, Zn, Cr+6	MEK, Cresols, 2,4-DMP, Sb, Mo, Tl		
1W		CHW-15R BOPND-MW2A T3-A14R	A A A		TPH-g, BTEX, TBA, CS2, TPH-d, naphthalene, As, Cr, Cu, Pb, Ni, Se, V, Zn, Cr+6	MEK, Cresols, 2,4-DMP, Sb, Mo, Tl		
		T3S-MW02	5Y			TPH-g, BTEX, TBA, CS2, MEK, TPH-d, naphthalene, Cresols, 2,4-DMP, Sb, As, Cr, Cu, Pb, Mo, Ni, Se, Tl, V, Zn, Cr+6		
1E		CWC-MW03	А		TPH-g, TBA, TPH-d, As, Ba, Cr, Se,	BTEX, MEK, CS2, naphthalene, Cresols, 2,4-DMP, Sb, Pb, Mo, Tl,		
		MK-30A	Α		V	Cr+6		
1E & 2		T3-A7	SA	TBA, TPH-d, As, Ba, Cr, Cu, Ni, Se, V, Zn, organic Pb	CS2, Cu, Pb, Ni, Zn, Cr+6	TPH-g, BTEX, MEK, naphthalene, Cresols, 2,4-DMP, Sb, Mo, Tl		
		CWC-MW01	SA	TPH-d, As, Ba, Cr, Ni, Se, V, organic	TPH-g, BTEX, TBA, CS2,	MEK, Mo, TI		
		CWC-MW02	SA					
		CWC-MW04	SA					
2		CWC-MW06	SA	Pb	naphthalene, Sb, Cu, Pb, Zn, Cr+6			
		CWC-MW07	SA		Hapittialetie, Ob, Ou, i b, Zii, Oi io			
		CWC-PZ06B	SA					
		T3-A3	SA					
2 & 3		T1-A12	SA	TPH-d, As, Ba, Cr, Se, V	TPH-g, TBA, CS2, naphthalene, Sb, Co, Cu, Ni, Ag, Zn, Cr+6	BTEX, MEK, Cresols, phenol, Pb, Mo, Tl, organic Pb		
3		T1-A22	Α		TPH-a BTEX TBA CS2 TPH-d	MEK, Cresols, phenol, Mo, Ag, Tl,		
		WMU14-MW13	Α		Zn, Cr+6	organic Pb		
3 & 4		WMU10-MW04	SA	TBA, CS2, As, Cr, Cu, Ni, Se, Cr+6	TPH-g, BTEX, TPH-d, Sb, Pb, V, Zn	MEK, Cresols, phenol, Ba, Co, Mo, Ag, Tl, organic Pb		
4		WMU11-MW17	А		TPH-g, BTEX, TBA, CS2, TPH-d,	MEK, Cresols, phenol, Ba, Co, Mo,		
<del>-</del>		WCC-24S	А		Sb, As, Cr, Cu, Pb, Ni, Se, Ag, V, Zn, Cr+6	TI, organic Pb		
4 & 5		T1-A2	SA	TBA	TPH-d, As, Cr, Cu, Ni, Se, Ag, V, Cr+6	TPH-g, BTEX, MEK, Cresols, phenol, Sb, Ba, Co, Pb, Mo, Tl, Zn, organic Pb		

	WMU/AOC	Well /AOC Identification		2024 Revised Sampling Program			
Perimeter Segment			Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling	
PGMP (conti	nued)						
		T1-A4	SA	Cr	TBA, TPH-d, Sb, Pb, Ni	TPH-g, BTEX, Cresols, Co, Mo, Se,	
5		T1-A13	SA	<u> </u>	157, 1111 4, 55, 1 5, 14	V, Zn	
		T1-A3	Α			TPH-g, BTEX, Cresols, Co, Mo, Se,	
		T1-A5	Α		TBA, TPH-d, Sb, Cr, Pb, Ni	V, Zn	
		MK-15A	Α			·	
5 & 6		WCC-33S*	SA	TBA, As	TPH-d, Cr, Pb, Ni	TPH-g, BTEX, MEK, Sb, Co, Mo, Se, V, Zn, Cr+6, organic Pb	
6		T1-A8*	А		TDH d Sh As Cr Ni	TPH-g, BTEX, MEK, Pb, Mo, Se, V,	
0		WMU5-MW12*	Α		TFTI-u, Sb, As, CI, NI	Zn, Cr+6, organic Pb	
6 & 7	1	T1-A10*	SA	As	TPH-g, BTEX, TBA, TPH-d, Cr, Ni	MEK, CS2, Sb, Pb, Mo, Se, V, Zn, Cr+6, organic Pb	
7		T6-A1	SA	ТВА	TPH-g, As, Pb, Ni	BTEX, MEK, CS2, TPH-d, Sb, Cr, V, Zn, Cr+6	
7 & 8		T6-A3	SA	As	naphthalene, TPH-d, Ba, Co, Cu, Mo, Ni	TPH-g, BTEX, MEK, CS2, Sb, Cr, Pb, V, Zn, Cr+6, organic Pb	
8		T6-A5	SA	As	BTEX, naphthalene, Ba, Co, Cu, Mo, Ni, Cr+6	TPH-g, CS2, TPH-d, Cr, Pb, V, Zn, organic Pb	
8 & 9		CHW-21	SA	As	MTBE, naphthalene, Ba, Co, Cu, Pb, Mo, Ni	TPH-g, BTEX, CS2, TPH-d, V, Zn, organic Pb	
9		MW-151	SA	TPH-g, BTEX, MTBE, TPH-d, Cu, Pb		CS2, V, Zn	
9 & 10		T6-A7	SA	MTBE, TPH-d, Cu, Pb		TPH-g, BTEX, CS2, V, Zn	
		MW-157	SA			-	
10		T6-A8	SA	TPH-g, BTEX, TPH-d, Cu	<del></del>	MTBE, CS2, Pb, V, Zn	
		T6-A9	SA		TPH-g, As, Pb, Ni  naphthalene, TPH-d, Ba, Co, Cu, M Ni  BTEX, naphthalene, Ba, Co, Cu, M Ni, Cr+6  MTBE, naphthalene, Ba, Co, Cu, P Mo, Ni		
10 & 11	1	MK-5A	А		As, Cr, Cu, Pb, Mo, Ni, Zn, Cr+6	TPH-g, BTEX, MTBE, CS2, naphthalene, TPH-d, Cresols, 2,4-DMP, Sb, Co, Se, Ag, Tl, V, Hg	
		WCC-140	SA	TPH-g, BTEX, naphthalene, TPH-d, Cresols, As	Pb, Zn	CS2, 2,4-DMP	
11		EEI-31	5Y	, , , , , , , , , , , , , , , , , , ,		TPH-g, BTEX, CS2, TPH-d,	
		MW-145	5Y			naphthalene, Cresols, 2,4-DMP, As, Pb, Zn	
11 & 12		MW-146	А		naphthalene, TPH-d, As, Pb, Zn	TPH-g, BTEX, CS2, Cresols, 2,4-DMP, Se	
12		4-6	А		TPH-g, BTEX, TPH-d, As, Cr, Pb, Cr+6	CS2, naphthalene, Se, Zn	

				2024 Revised Sampling Program			
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling	
PGMP (conti	nued)						
12 & 13		MK-11A	Α		TPH-g, BTEX, TPH-d, Cr, As, Pb, Ni	CS2, naphthalene, Cu, Se, Ag, V, Zn, Cr+6, organic Pb	
		MW-149	Α		TPH-g, TPH-d, As, Cr, Cu, Pb, Ni	BTEX, CS2, Se, Ag, V, Zn, Cr+6,	
		MW-161	Α	<del>-</del>	11 11-9, 11 11-4, A3, O1, O4, 1 b, W	organic Pb	
13	1	MK-13A	5Y	<del></del>		TPH-g, BTEX, CS2, TPH-d, As, Cr, Cu, Pb, Ni, Se, Ag, V, Zn, Cr+6, organic Pb	
13 & 14	1	T4-A1*	А		TPH-g, As, Cu, Pb, Ni	BTEX, CS2, TPH-d, Cr, Se, Ag, V, Zn, Cr+6, organic Pb	
14 & 15		MK-31A	А		TPH-g, TPH-d, As, Ni, Ag	BTEX, CS2, Cu, Se, V, Zn, organic Pb	
		MW-173	А		TPH-g, BTEX, TPH-d, As, Ni, Ag	CS2	
15		T2-A5	Α				
		T2-A13	Α				
15 & 16		T2-A3	A		TPH-g, BTEX, CS2, TPH-d,naphthalene, Cresols, As, Cr, Pb, Ni, Ag, V, Zn, Cr+6	MEK, 2,4-DMP, Sb	
		T2L-MW01A	SA	TPH-g, BTEX, CS2, TPH-d, As, Cr,		MEK, naphthalene, Cresols,	
		T3S-MW06A	SA	Pb, Ni, V, Zn, Cr+6	<del></del>	2,4-DMP, Sb	
		MK-17SS	Α				
		MK-18A	Α				
16		T2-A2	Α		TDU a DTEV CS2 TDU d Ac Cr	MEK parkthalana Crasala	
		T2S-MW01	Α		TPH-g, BTEX, CS2, TPH-d, As, Cr, Pb, Ni, V, Zn, Cr+6	MEK, naphthalene, Cresols, 2,4-DMP, Sb	
		T2S-MW02	Α		F 5, Ni, V, 211, G1 10	Z,4-DIVIF, OD	
		T2S-MW03	Α				
		T2S-MW06	Α				
		MK-18C	Α				
		MK-21C	Α				
		MK-23C	Α				
		T1-C1	Α		TDU a DTEV TDA CS2		
		T1-C2	Α		TPH-g, BTEX, TBA, CS2, naphthalene, TPH-d, phenol, Sb, As,		
N. Alluvial		T1-C3	Α		Co Cr, Cu, Pb, Mo, Ni, Se, Tl, V, Zn,	MEK	
		T1-C4	Α		Cr+6		
		T1-C5	Α		CITO		
		T1-C6	Α				
		T3-C1	А			,	
		T3S-AMW03	Α				

				2024 Revised Sampling Program				
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling		
PGMP (conti	nued)							
		MK-5C	Α					
		MK-14C	Α		TPH-g, BTEX, 1,2-DCA, CS2, TPH-			
S. Alluvial	[	T2-C1R	Α		d, Sb, Ba, Cr, Co, Cu, Pb, Mo, Ni,			
		T4-C1	Α		Se, V			
		T6-C1	Α					
IGMP - AOCs	,							
		T3S-AMW04	SA	TPH-d, As, Ba, Cr, Se, V	TPH-g, BTEX, Sb, Cu, Pb, Ni, Tl, Zn,			
	CMC	WCC-11S	SA	TPH-u, AS, Ba, Cr, Se, V	Cr+6			
	CWC	WCC-12S	Α		TPH-g, BTEX, TPH-d, Sb, As, Ba,			
	Ī	WMU31-MW29	Α	<del></del>	Se, V  TPH-g, BTEX, Sb, Cu, Pb, Ni, Tl, Cr+6  TPH-g, BTEX, TPH-d, Sb, As, B Cr, Cu, Pb, Ni, Se, Tl, V, Zn, Cr+  TPH-g, BTEX, MTBE, TBA, TPH   TPH-g, BTEX, TPH-d, As, Cr, Ni, Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, Mo, Ni, Sb, Se, V, Hg, Cr+6  TPH-g, BTEX, TPH-d, As, Pb, N Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni, Zn, Cr+6			
		CHW-4	Α		TPH-g, BTEX, MTBE, TBA, TPH-d			
	O control To cot 4	CHW-7	Α	IPH-g, BTEX, MTBE, TBA	I TPH-9, BTEX, MTBE, TBA, TPH-0			
	Central Tract 1	CHW-3	5Y			TOUR DIEV MIDE IDA IDUA		
	Ī	CHW-10	5Y	<del></del>		TPH-g, BTEX, MTBE, TBA, TPH-d		
	Deacon's Pond Surface	CHW-17	Α		TPH-g, BTEX, TPH-d, As, Cr, Ni, Zn,	Pb		
	Impoundment	CHW-18	Α		Cr+6			
	Background	MK-5B	А		TPH-g, BTEX, TPH-d, As, Cr, Pb, Mo, Ni, Sb, Se, V, Hg, Cr+6	Ag, Zn		
	Cardox Surface Impoundment	CHW-20	А		TPH-g, BTEX, TPH-d, As, Pb, Ni, Cr+6	Cr, Zn		
	Tract 7	T6-A6	SA	Hg	TPH-g, BTEX, TPH-d, Sb, As, Cr, Pb, Ni, Zn, Cr+6	Se		
IGMP - WMU	s Pending Closur	'e						
		T1-A14	SA	TPH-g, BTEX, TBA, CS2, TPH-d, Sb, As, Cr, Cu, Pb, Ni, Se, Zn, Cr+6		organic Pb		
	Ī	MK-16B	Α		TPH-g, BTEX, TBA, CS2, TPH-d,	annonia Dh		
	WMUs 10,11,14	WCC-20S	Α	<del></del>	Sb, As, Cr, Cu, Pb, Ni, Se, Zn, Cr+6	organic Pb		
	l t	MK-29B	5Y			TPH-g, BTEX, TBA, CS2, TPH-d,		
	WCC-25SR 5Y		Sb, As, Cr, Cu, Pb, Ni, Se, Zn, Cr+6, organic Pb					
		CHW-14	SA	TPH-g, BTEX, TBA, TPH-d, As, Cr,		•		
	1 100	MK-36A	SA	Pb, Ni, Zn, Hg, Cr+6		organic Pb		
	WMU 32	CHW-26	5Y	-		TPH-g, BTEX, TBA, TPH-d, As, Cr,		
		MK-37A	5Y			Pb, Ni, Zn, Hg, Cr+6, Organic Pb		

				2024 Revised Sampling Program				
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling		
IGMP - Close	d WMUs under 1	Title 27 (DMP)						
	10/0/11/1	CHW-23 WMU1-MW03	A		TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni, Zn, Cr+6	organic Pb		
	WMU 1	WMU1-MW05	5Y			TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni, Zn, Cr+6, organic Pb		
		WMU2-MW01	SA	TPH-g, As, Cr, Pb	BTEX, TPH-d, Cr+6			
	WMU 2	WMU2-MW02	Α		TPH-g, BTEX, TPH-d, As, Cr, Pb,			
		WMU2-MW03	Α		TPH-g, BTEX, TPH-d, As, Cr, Pb Ni, Zn, Cr+6   BTEX, TPH-d, Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, N Zn, Cr+6  TPH-d, As, Ba, Co, Cu, Mo, Ni, V, Z   TPH-g, BTEX, TPH-d, Cr, Pb, Ni, Z Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, N Zn, Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, N Zn, Cr+6  TPH-g, BTEX, TPH-d, As, Cr, Pb, N Zn, Cr+6   TPH-g, BTEX, TPH-d, As, Ba, Cr, Cu, Pb, Ni, V, Zn, Cr+6,			
		CHW-19	Α		TDU a DTEV TDU d As Cr Db Ni			
	WMU 3	T4-A1*	Α			organic Pb		
		WMU3-MW02	Α		Z11, C1+0			
		WCC-36S	Α			organic Pb		
		WMU4-MW07	Α		TPH-g, BTEX, CS2, naphthalene,			
		WMU4-MW11	Α					
		WMU4-MW19	Α	<del></del>	TPH-d, As, Ba, Co, Cu, Mo, Ni, V, Zn			
	WMU 4	WMU4-MW21	Α					
		WMU4-MW23	Α					
		WMU4-MW22	5Y			TPH-g, BTEX, CS2, naphthalene, TPH-d, As, Ba, Co, Cu, Mo, Ni, V, Zn, organic Pb		
		T1-A10*	SA	As	TPH-g, BTEX, TPH-d, Cr, Pb, Ni, Zn,	V, organic Pb		
		WCC-33S*	SA	AS	Cr+6	v, organic Pb		
	WMU 5	T1-A8*	А		TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni,	V, organic Pb		
		WMU5-MW12*	Α		211, 01 10			
		WMU5-MW27B	5Y			TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni, Zn, V, Cr+6, organic Pb		
	WMU 6	WCC-30S	5Y			TPH-g, BTEX, TPH-d, As, Cr, Pb, Ni, Zn, Cr+6		
		MK-34AR	А		TPH-g, BTEX, TPH-d, As, Ba, Cr, Cu, Pb, Ni, V, Zn, Cr+6.			
		MK-35AR	Α	<u>-</u>	organic Pb			
	8 UMW	CHW-2R	5Y			TPH-g, BTEX, TPH-d, As, Ba, Cr,		
		WCC-28SR	5Y			Cu, Ni, Pb, V, Zn, Cr+6, organic Pb		

				2024 Revised Sampling Program			
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling	
<b>IGMP - Close</b>	d WMUs under 1	Title 27 (DMP) (contin	ued)				
		MK-26A*	SA	TPH-g, TPH-d, As, Co, Ni, Hg	BTEX, Ba, Cr, Cu, Pb, Mo, Zn, Cr+6	Cd, organic Pb	
	WMU 9	WMU9-MW02R	5Y			TPH-g, BTEX, TPH-d, As, Ba, Cd,	
	VVIVIO 9	WMU9-MW07	5Y			Cr, Cu, Co, Pb, Mo, Ni, Zn, Hg,	
		WMU9-MW08	5Y			Cr+6, organic Pb	
		SP-MW4A	SA	TPH-g, TPH-d, As, Be, Co, Cu, Ni, V	BTEX, Cr, Pb		
	WMU 13	WMU13-MW12	Α		TPH-g, TPH-d, As, Be, Co, Cr, Cu,		
		WMU13-MW13	Α				
		WMU13-MW14	Α				
		WMU13-MW15	Α	<del></del>	Pb, Ni, V	<del></del>	
		WCC-14M	Α				
		WMU13-MW02	Α				
IGMP - Closed WMU under Title 22 (AMP)							
		MK-24A	SA				
		MK-24K	SA				
		MK-25A	SA				
		MK-25K	SA	TPH-g, TPH-d, TPH-mo, BTEX,			
		MK-26A*	SA	VOCs, SVOCs, PAHs, Title 22	1		
	WMU 17	MK-26K	SA	metals, Cr+6, cyanide			
		MK-28A	SA	(65 COCs total per WMU 17 AMP <sup>1</sup> )			
		MK-28K	SA	(00 0000 total per Wivio 17 Alvii )			
		MK-39A	SA				
		MK-40K	SA				
		MK-41K	SA				

### FACILTY-WIDE SELF-MONITORING AND REPORTING PROGRAM WASTE DISCHARGE ORDER MARTINEZ RENEWABLE FUELS FACILITY, MARTINEZ, CALIFORNIA

				2024 Revised Sampling Program			
Perimeter Segment	WMU/AOC	Well Identification	Sampling Frequency	Semi-Annual Parameters	Additional Parameters for Annual Sampling	Additional Parameters for 5-Year Sampling	

#### Notes

- <sup>1.</sup> Revised Post-Closure Plan, Waste Management Unit (WMU) 17 (Stantec 2021)
- \* well is sampled for multiple groundwater monitoring programs.
- -- not applicable

#### **Acronyms and Abbreviations**

- 5Y sample once every 5-year
- A sample annually
- SA sample semi-annually

1,2-DCA - 1,2-dichloroethane

2,4-DMP - 2,4-dimethylphenol

Ag - Silver

AI - aluminum

AMP - Alternative Monitoring Program

AOC - Area of Concern

As - Arsenic

Ba - Barium

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

Cd - Cadmium Co - Cobalt

COC - constituent of concern

Cr - Chromium

Cr+6 - Hexavalent Chromium CS2 - Carbon disulfide

Cu - Copper

CWC - Clean Water Canal

DMP - Detection Monitoring Program

Hg - Mercury

IGMP - Interior Groundwater Monitoring Program

MEK - Methyl ethyl ketone

Mo - Molybdenum

MTBE - Methyl tert-Butyl Ether

Ni - Nickel

OWC - Oily Water Canal

PAH - polycyclic aromatic hydrocarbon

Pb - Lead

PGMP - Perimeter Groundwater Monitoring Program

PS - Perimeter segment

Sb - Antimony Se - Selenium

SVOC - semivolatile organic compound

TBA - tert-Butyl alcohol

TI - Thallium

TPH-d - Total petroleum hydrocarbons in the diesel range TPH-g - Total petroleum hydrocarbons in the gasoline range TPH-mo - Total petroleum hydrocarbons in the motor oil range

V - Vanadium

VOC - volatile organic compound WMU - Waste Management Unit

Zn - Zinc