CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 18, 2016

Ms. Jo-Anne Alvarez
Tesoro Refining & Marketing Company LLC
400 Oceangate, Suite 600
Long Beach, CA 90802-4692

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO.: **7015 3010 0001 9147 6881**

MODIFICATION OF GENERAL WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER REMEDIATION AND GROUNDWATER RE-INJECTION

TESORO SERVICE STATION NO. 42089 (FORMER ARCO STATION NO. 6169)
1411 EAST DEL AMO BOULEVARD, CARSON
(CASE NO. I-00067A) (GLOBAL ID NO. T0603791337) (PRIORITY B-2)
(ORDER NO. R4-2014-0187, SERIES NO. 013, MRP NO. CI-10110)

Dear Ms. Alvarez:

On December 10, 2014, the Executive Officer of the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) issued Waste Discharge Requirements (WDRs) Order No. R4-2014-0187, Series No. 0.13, to Tesoro Refining & Marketing Company LLC (Tesoro) to inject seven percent hydrogen peroxide solution mixed with Fenton's Reagent into remediation wells D-1 through D-9 to remediate groundwater contamination beneath the subject site (Site).

On June 28, 2016, Stantec Consulting Services, Inc. (Stantec), on behalf of Tesoro, submitted a "Request to Modify Waste Discharge Requirements" (Request). In the Request, Stantec requested to discontinue the current approved remedy (injection of hydrogen peroxide solution mixed with Fenton's Reagent) and begin injecting sodium persulfate with silica activator (PersulfOx™) and calcium oxy-hydroxide (ORC Advanced®) in select areas of the Site to reduce concentrations of petroleum hydrocarbons in groundwater.

Groundwater contamination at the Site has been mitigated by using different remedial technologies between 2011 and 2015 including light non-aqueous phase liquid (LNAPL) recovery, enhanced fluid recovery, high vacuum dual-phase extraction, soil vapor extraction, and in-situ oxygen curtain diffusers. Between February 12 and July 28, 2015, in-situ chemical oxidation (ISCO) was completed at the Site by applying seven percent hydrogen peroxide solution and Dissolvine™ in wells DW-1 through DW-9 over seven events. Based on laboratory results for groundwater samples collected in February 2016, total petroleum hydrocarbons as gasoline (TPHg), benzene, methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA) were detected at concentrations up to 22,000 micrograms per liter (µg/L), 64 µg/L, 37,000 µg/L, and 4,300J µg/L, respectively.

On May 27, 2016, the Regional Board approved the "Remedial Action Plan" (RAP) dated April 25, 2016, submitted by Stantec, on behalf of Tesoro. Stantec proposed in the RAP to

July 18, 2016

If you have any questions, please contact Dr. Eric Wu at (213) 576-6683 or send him an email at ewu@waterboards.ca.gov for issues regarding the WDRs and Mr. James W. Ryan IV at (213) 576-6711 or send him an email at jamesw.ryan@waterboards.ca.gov for issues regarding the USTs.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Enclosures:
1. General WDR Order No. R4-2014-0187
2. Revised Monitoring and Reporting Program No. CI-10110

cc: Micah Reich, State Water Resources Control Board, UST Cleanup Fund
Tim Smith, Los Angeles County Department of Public Works, Environmental Program Division
Brian Partington, Water Replenishment District of Southern California
Lusi Mkhitaryan, County of Los Angeles, Department of Public Health
Kristy Edblad, Stantec Consulting Services, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

320 West 4th Street, Suite 200, Los Angeles, California 90013
(213) 576-6660 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles/

ORDER NO. R4-2014-0187
GENERAL WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER REMEDIATION AND GROUNDWATER RE-INJECTION (FILE NO. 01-116)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. On January 24, 2002, pursuant to the Porter-Cologne Water Quality Control Act (Cal. Water Code §§ 13000 et seq.), the Regional Board adopted General Waste Discharge Requirements (General WDRs) (Order No. R4-2002-0030) that regulated discharges of waste associated with groundwater remediation at petroleum hydrocarbon fuel, volatile organic compound, and/or hexavalent chromium impacted sites. Those General WDRs have been revised by Order No. R4-2005-0030 adopted on May 5, 2005, and by Order No. R4-2007-0019 adopted on March 1, 2007. Order No. R4-2007-0019 authorized the use of a variety of materials for in-situ remediation purposes, including oxidation/aerobic degradation enhancement compounds, reducing/reductive degradation enhancement compounds, inorganics/nutrients, carbon sources/electron donors, and tracer study compounds.

2. Since then, additional materials for in-situ remediation have come into use at sites throughout the Los Angeles Region to remediate wastes at petroleum hydrocarbon fuel, volatile organic compound, and inorganic contaminant impacted sites. This revision of the General WDRs by this Order No. R4-2014-0187 (Order) is to authorize the use of additional materials that have been effectively used to remediate wastes in groundwater and soil.

3. Attachment A of this Order includes a list of materials that can be used for in-situ soil/groundwater remediation purposes. Newly added or revised remedial materials or amendments include chemical oxidants, chemical oxidant activators, aerobic bioremediation enhancement compounds, anaerobic degradation enhancement compounds, reduction degradation enhancement compounds, metals precipitation/stabilization compounds, surfactants/co-solvents, bioaugmentation organisms, tracer study compounds, and buffer solutions and pH adjusters.

4. The California Water Code (CWC), section 13260, subdivision (a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community waste water collection system, which could affect the quality of the waters of the State, shall file a Report of Waste Discharge with the Regional Board. The Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.

contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Water Board). Pursuant to section 13263(a) of the CWC, waste discharge requirements must implement the Basin Plan.

11. The designated beneficial uses of underlying groundwater include:

    a. Municipal and domestic water supply (MUN);
    b. Agricultural water supply (AGR);
    c. Industrial service supply (IND);
    d. Industrial process supply (PRO); and
    e. Groundwater recharge.

12. The Basin Plan establishes numerical and narrative water quality objectives (WQOs) for surface and groundwater within the basin, and recognizes that WQOs are achieved primarily through the Regional Board's adoption of waste discharge requirements and enforcement orders. Where numerical WQOs are listed, these are limits necessary for the reasonable protection of beneficial uses of the water. Where compliance with narrative WQOs is required, the Regional Board will, on a case-by-case basis, adopt numerical limits in orders, which will implement the narrative objectives to protect beneficial uses of the waters of the State. Beneficial uses for individual hydrologic sub-areas are specified in the Basin Plan. See Attachment B (Table 3-13 from the updated 2013 Basin Plan) for WQOs for selected constituents in regional groundwater.

13. State Water Board Resolution No. 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Dischargers Under Water Code Section 13304")(Resolution No. 92-49) requires the Regional Board to require actions for cleanup and abatement of discharges that cause or threaten to cause pollution or nuisance to conform to the provisions of State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California")(Resolution No. 68-16) and the Basin Plan. Pursuant to Resolution No. 92-49, the Regional Board shall ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or if background levels of water quality cannot be restored, the best water quality which is reasonable and which complies with the Basin Plan including applicable WQOs.

14. Resolution No. 68-16 requires the Regional Board in regulating discharges to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and potential beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., quality that exceeds WQOs). Temporal degradation of groundwater may occur at sites subject to this Order within the defined treatment zone due to the use of amendments. The temporary degradation allowed by this Order is consistent with Resolution No. 68-16 since (1) the purpose is to accelerate and enhance

21. In accordance with the Governor's Executive Order requiring any proposed activity be reviewed to determine whether such activity will cause additional energy usage, this Regional Board has determined that implementation of these General WDRs will not result in a change in energy usage exceeding what would be used if site-specific WDRs were issued for cleanup at the impacted sites.

22. The Regional Board is the lead agency for this project pursuant to the California Environmental Quality Act (Public Resources Code section 21000 et seq.) and has conducted an Initial Study in accordance with section 15063 of the "State CEQA Guidelines" at California Code of Regulations, title 14, section 15000 et seq. Based upon the Initial Study, the Regional Board prepared a Mitigated Negative Declaration concluding that the project will not have a significant adverse effect on the environment and the Regional Board incorporates Resolution No. R14-008 adopting the Mitigated Negative Declaration and approving the Environmental Checklist in this Order. The Mitigated Negative Declaration identifies environmental impacts that are less than significant with mitigation measures regarding (1) Air Quality, (2) Geology and Soils, (3) Hydrology and Water Quality, and (4) Transportation and Traffic. The Mitigated Negative Declaration identifies the mitigation measures and the actions to be taken to reduce the impacts to less than significant. The Dischargers are required by this Order to obtain and comply with applicable permits of other agencies. This Order includes a monitoring and reporting program to assure protection of water quality.

23. The discharges authorized in this Order are exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, set forth in the Title 27, California Code of Regulations (CCR), section 20005 *et seq.* (hereafter Title 27), which allows a conditional exemption from some or all of the provisions of Title 27. The exemption, pursuant to Title 27 CCR Section 20090(b), is based on the following:

    i. The Regional Water Board is issuing waste discharge requirements.
    ii. The discharge is in compliance with the applicable Basin Plan.
    iii. The wastewater does not need to be managed according to Title 22 CCR, Division 4.5 and Chapter 11 as a hazardous waste.

Section 20090(d) allows exemption for a project to clean up a condition of pollution that resulted from an unauthorized discharge of waste based on the following:

    iv. The application of amendments to groundwater is at the direction of the Regional Board to cleanup and abate conditions of pollution or nuisance resulting from the unauthorized discharge of waste;
    v. Wastes removed from the immediate place of release must be discharged according to the Title 27 regulations; and
    vi. The cleanup actions intended to contain wastes at the place of release shall implement the Title 27 regulations to the extent feasible.

irrigation and/or dust control provided that the treated groundwater meets the applicable discharge limits for recycling and reuse.

2. To be covered under this Order, a discharge must meet the following criteria:
   a. The Executive Officer must find, based on the Report of Waste Discharge submitted pursuant to Provision C, that the groundwater discharges for which coverage under this Order are sought have a threat to water quality of Category 3 and Complexity rating of A for a combined rating of 3-A, using the rating criteria noted on the Regional Board website.

   b. The discharger must have an approved Remedial Action Plan (RAP). The discharger shall submit a copy of the approved RAP including any conditions of implementation with the Report of Waste Discharge for application of the General WDRs. At a minimum, the RAP shall comply with any requirements of a cleanup and abatement order issued by the Regional Board and include the following site-specific information:

      - The background water quality of the aquifer of the groundwater remediation site(s) including constituents of concern , total dissolved solids, sulfates, chlorides, nitrogen (NH_4, NO_3, NO_2), chemical oxygen demand, biochemical oxygen demand, phosphorus, pH, dissolved metals, nutrients, dissolved oxygen, dissolved carbon dioxide, methane, temperature, iron, and oxidation-reduction potential;
      - Information on any potential adverse impacts to groundwater quality, and whether the impacts will be localized and short-term;
      - The results of any pilot testing performed for the treatment technology used;
      - Site-specific geology (lithology and physical parameters) and hydrogeologic parameters, hydrologic report;
      - Infiltration rate;
      - Characterization and extent of the wastes, including petroleum hydrocarbon fuel, volatile organic compounds, and inorganic contaminants;
      - Description of the treatment system(s);
      - Adequate groundwater monitoring network with historical groundwater monitoring report;
      - Description of the aerial extent of the application area and identification of monitoring wells to be used to determine water quality upgradient, within the application area, downgradient from the application area and identify the compliance point;
      - Material Safety Data Sheet (MSDS) information and other product technical information for any materials to be used for cleanup;

the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this Order and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination that the discharge is eligible to be covered by this Order and has issued a site-specific monitoring and reporting program.

C. REPORT OF WASTE DISCHARGE

1. Deadline for Submission

   a. New dischargers seeking coverage under this Order shall file a complete Report of Waste Discharge that includes all information identified in Items A.1 and A.2 above at least 90 days before planned commencement of any discharge.

   b. Existing dischargers covered under individual WDRs may seek coverage under this Order by submitting a Report of Waste Discharge that includes all information identified in Items A.1 and A.2. Coverage under this Order will not occur until the discharger receives notification from the Executive Officer.

2. Forms for Report of Waste Discharge

   a. Dischargers shall use the appropriate forms (Standard Form 200) or equivalent forms approved by the State Water Resources Control Board or the Executive Officer of the Los Angeles Regional Board.

   b. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.

   c. The Report of Waste Discharge shall be accompanied by the first annual fee (if appropriate) in accordance with the current version of California Code of Regulation, Title 23, Division 7, Chapter 9, Waste Discharge Report and Requirements Article 1 fees for a discharge. The check or money order shall be made payable to the "State Water Resources Control Board" and submitted to the Regional Water Quality Control Board – Los Angeles Region.

D. DISCHARGE PROHIBITIONS

1. The discharge of wastes, amendments, or other materials other than those which meet eligibility requirements in Part A of this Order and listed in Attachment A, is

3. The discharge of wastes shall not cause the concentrations of chemical constituents and radionuclides of the receiving groundwater designated for use as domestic or municipal supply at the compliance point, downgradient outside the application area, to be in excess of the Maximum Contaminant Levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations which are incorporated by reference into the Basin Plan: Table 64431-A of section 64431 (inorganic chemicals, including fluoride), Table 64444-A of section 64444 (organic chemicals), and Table 64442 of section 64442 and Table 64443 of section 64443 (radioactivity). This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

4. Treated groundwater recycled and/or reused for irrigation or dust control shall meet the Title 22 Recycle Water Requirement for coliform not to exceed 2.2. most probable numbers per 100 milliliters (MPN/100ml). Wastewater discharged to groundwater basin/subbasin shall meet the Basin Plan objective of 1.1 MPN/100 ml.

5. Waste discharged shall not contain salts, heavy metals, or organic constituents at levels that would cause receiving groundwater at the compliance point, downgradient outside the application area, to exceed the WQOs for groundwater or groundwater that may be in hydraulic connection with surface waters designated for marine aquatic life or body contact recreation.

6. Waste discharged shall not cause the groundwater to contain concentrations of chemical substances or its by-products in amounts that adversely affect any designated beneficial use, outside the application area or treatment zone at the compliance point(s).

7. Waste discharged shall not cause the groundwater to contain residual taste or odor in concentrations that cause nuisance or adversely affect beneficial uses, outside the application area or treatment zone at the compliance point(s).

8. Waste discharged shall not cause the groundwater to contain nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO_3-N+NO_2-N) that exceeds the background concentrations in groundwater basins, or the Basin Plan's groundwater quality objectives of 45 mg/L as Nitrate (NO_3), or 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N), whichever is lower, outside the application area or treatment zone at the compliance point(s). In a situation where the groundwater may interact with surface water or other aquifers, other relevant regulatory standards may also apply, and then the most protective criteria shall prevail.

9. This Order does not alleviate the responsibility of the discharger to obtain other applicable local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Additionally, the discharger shall notify the Native American Heritage Commission of any plans to disturb the soil in order to comply with California Environmental Quality Act (CEQA) guidelines as set forth in Section 15064.5(b)(c). Furthermore the discharger is required to provide local information prior to excavation to the California Historical Resources Information System (CHRIS). This will serve as their due diligence record search to provide proximity to Native American historical and archeological resources. The discharger shall also be required to adhere to California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, CEQA Section 15064.5(d) and Section 15064.5 (f) to ensure that mitigation plan provisions are in-place to identify, evaluate and consult with your commission about the discovery and disposition of any recovered human remains or artifacts, should the occasion arise, during the remediation process overseen by this agency.

10. The discharger shall notify Regional Board staff by telephone within 24 hours, followed by written notification within one week, in the event it is unable to comply with any of the conditions of this Order due to:

    a. Breakdown of waste treatment equipment,
    b. Accident caused by human error or negligence,
    c. Other causes such as acts of nature, or
    d. Site construction or development operations.

11. Any discharger authorized under this Order may request to be excluded from coverage of this Order by applying for individual WDRs.

12. In accordance with section 13263(e) of the California Water Code, these requirements are subject to periodic review and revision by the Regional Board.

13. In accordance with Water Code section 13263(g), these requirements do not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into waters of the state are privileges, not rights.

14. The discharger shall develop a contingency plan and maintain it on site. The contingency plan shall detail appropriate actions to be taken in order to protect human health and the environment in case of any spill or failure related to the operation or mis-operation of the treatment system.

full compliance with requirements at the earliest time and submit a timetable for correction.

10. The discharger shall file a report of any material change or proposed change in the character, location, or volume of the discharge.

11. The discharger shall notify this Regional Board within 24 hours by telephone of any adverse condition resulting from the discharge; such notification shall be affirmed in writing within five working days.

12. Whenever wastes, associated with the discharge under this Order, are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.

13. Each monitoring report must contain an affirmation in writing that:

> "All analyses were conducted at a laboratory certified for such analyses by and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program."

14. Each report shall contain the following completed declaration:

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

15. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under the WDRs' Monitoring and Reporting Program, including groundwater monitoring

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

320 West 4th Street, Suite 200, Los Angeles, California 90013
(213) 576-6660 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles/

RESOLUTION NO. R14-008

APPROVING THE ENVIRONMENTAL CHECKLIST AND ADOPTING A MITIGATED NEGATIVE DECLARATION FOR GENERAL WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER REMEDIATION AND GROUNDWATER RE-INJECTION (FILE NO. 01-116)

WHEREAS, THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION, FINDS:

1. The California Water Code (CWC) section 13260, subdivision (a)(1) requires that any person discharging wastes or proposing to discharge wastes, other than into a community waste water collection system, which could affect the quality of the waters of the State, shall file a Report of Waste Discharge with the California Regional Water Quality Control Board, Los Angeles Region (Regional Board). The Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.

2. Section 13263, subdivision (i), of the CWC provides that a Regional Board may prescribe general Waste Discharge Requirements (WDRs) for discharges produced by similar operations, involving similar types of wastes, and requiring similar treatment standards.

3. Wastes, including petroleum hydrocarbon fuel, volatile organic compounds and inorganic contaminants, have impacted groundwater at various sites throughout the Los Angeles Region and cause or threaten to cause adverse impacts to existing and potential beneficial uses of the region's groundwater resources. Remediation/cleanup of groundwater at these sites includes the use and application of chemical, biological, and physical treatment processes, such as oxygen enhanced process, chemical oxidation, chemical reduction, nutrient or chemical addition for enhanced biodegradation, or groundwater pump and treat technology with the return of treated groundwater to the same aquifer zone in some cases.

4. Pursuant to the section 13263 of the CWC, the Regional Board adopted General Waste Discharge Requirements Order No. R4-2002-0030 (General WDRs) on January 24, 2002, that regulated discharges of waste associated with groundwater remediation at petroleum hydrocarbon fuel, volatile organic compound and/or hexavalent chromium impacted sites. Those General WDRs have been revised by Order No. R4-2005-0030 adopted on May 5, 2005, and by Order No. R4-2007-0019, adopted on March 1, 2007. Order No. R4-2007-0019 authorized the use of a variety of materials for in-situ remediation purposes, including oxidation/aerobic degradation enhancement

11. *The Water Quality Control Plan, for the Los Angeles Region,* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains prohibitions, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Board). Beneficial uses of groundwater in the Los Angeles Region include, among others: municipal and domestic supply, industrial service and process supply, agricultural supply and groundwater recharge. Beneficial uses for individual Hydrologic Sub-areas are specified in the Basin Plan. Pursuant to section 13263(a) of the California Water Code (CWC), waste discharge requirements must implement the Basin Plan.

12. The General WDRs are applicable to groundwater remediation at petroleum hydrocarbon fuel, volatile organic compound, and inorganic constituent impacted sites in the Los Angeles Region. The discharges authorized by the General WDRs are required to comply with a groundwater monitoring program as set forth in the Monitoring and Reporting Programs required by the General WDRs.

13. The requirements contained in the General WDRs are consistent with applicable water quality control plans, policies, and regulations and will protect and maintain the beneficial uses of the receiving groundwater.

14. The permitted discharge is consistent with State Water Resources Control Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California", also called the "anti-degradation policy"). The General WDRs authorize the use of materials to effectively clean up wastes and contain conditions to protect waters of the State from degradation.

15. The Regional Board considered all testimony and evidence at a public hearing held on September 11, 2014, at the Metropolitan Water District of Southern California located at 700 North Alameda Street, Los Angeles, California and good cause was found to approve the Environmental Checklist and adopt a Mitigated Negative Declaration.

THEREFORE BE IT RESOLVED THAT:

1. This Regional Board hereby approves the Environmental Checklist and adopts the Mitigated Negative Declaration for the General Waste Discharge Requirements for In-Situ Groundwater Remediation and Groundwater Re-injection.

2. The application of chemical, biological and physical treatment processes, such as oxygen enhanced process, chemical oxidation, nutrient or chemical addition for enhanced biodegradation or groundwater pump and treat discharges shall conform with all the requirements, conditions, provisions and limitations set forth in the Order No. R4-2014-0187.

Attachment A
List of Authorized Injection Material Amendments

The list below does not represent any endorsement of products or materials by the Regional Water Quality Control Board, Los Angeles Region (Regional Board). Many of the products/materials listed are patented. Users of these products/materials shall comply with any regulations and laws applicable to the use of the products/ materials. Some products/materials may contain by-products or impurities that are not authorized to be used by the Regional Board. Compounds listed under one category can also be used under another category.

1. Chemical Oxidants:

- Fenton's reagent (hydrogen peroxide, ferrous iron catalyst, and pH buffer)
- Hydrogen Peroxide
- Ozone
- Potassium or Sodium Permanganate
- Sodium Percarbonate
- Sodium Persulfate

2. Chemical Oxidant Activators:

- Calcium Hydroxide
- Chelating Agents (ferric ethyldiaminetetraacetic acid (EDTA), sodium citrate, sodium malonate, sodium phytate)
- Silica and Silicates (Silicic Acid, Sodium Silicate, Silica Gel)
- Sodium Hydroxide

3. Aerobic Bioremediation Enhancement Compounds:

- Calcium Oxide/Peroxide
- Calcium Oxy-hydroxide
- Magnesium (Oxide/Hydroxide/Peroxide)
- Methane (Dissolved Phase)
- Propane (Dissolved Phase)

4. Anaerobic Degradation Enhancement Compounds:

- Calcium Sulfate (gypsum)
- Cheese Whey
- Complex organic materials (starch, wood chips, yeast extract, grain milling products)
- Complex Sugars
- Corn Syrup
- Emulsified Vegetable Oil
- Ethanol

8. Bioaugmentation Organisms: *The users shall prove that any bacterial genomes in the original injection form, its degradation form, other impurity or by-product shall not be human/animal pathogens. Genetically-modified organisms (GMO) should not be used.*

- Dehalococcoides Sp.
- Dehalobactor Sp.
- Geobacter
- Methanomethlovorans
- Desulfovibrio
- Desulfobacterium

9. Tracer Study Compounds: *The tracer compounds shall be highly contrasting and not reactive with current contaminants to be treated. The tracers may be chloride-based, bromide-based, or fluoride-based salts, or similar materials as approved by the Executive Officer.*

- Calcium Bromide
- Calcium Chloride
- Eosin Dyes
- Fluoride Salts
- Iodide
- Potassium Bromide
- Potassium Iodide
- Rhodamine Dyes
- Sodium Bromide
- Sodium Chloride
- Sodium Fluorescein

10. Buffer Solutions and pH Adjusters:

- Calcium Carbonate
- Calcium Magnesium Carbonate
- Potassium Bicarbonate
- Sodium (carbonate/bicarbonate)

Attachment B

Table 3-13. Water Quality Objectives for Selected Constituents in Regional Ground Waters[a].

BASINS			Objectives (mg/l)[m]				
Basin	Basin No[b]	1994 Basin Name	1994 Basin No	TDS	Sulfate	Chloride	Boron
Pitas Point Area[c]		**Pitas Point Area**		**None specified**			
Upper Ojai Valley	**4-1**	**Ojai Valley**	**4-1**				
Upper Ojai Valley	4-1	Upper Ojai Valley	4-1				
Upper Ojai Valley	4-1	West of Sulfur Mountain Road	4-1	1000	300	200	1.0
Upper Ojai Valley	4-1	Central Area	4-1	700	50	100	1.0
Upper Ojai Valley	4-1	Sisar Area	4-1	700	250	100	0.5
Ojai Valley	**4-2**	**Lower Ojai Valley**	**4-2**				**0.5**
Ojai Valley	4-2	West of San Antonio-Senior Canyon	4-2	1000	300	200	0.5
Ojai Valley	4-2	East of San Antonio-Senior Canyon	4-2	700	200	50	
Ventura River Valley	**4-3**	**Ventura River Valley**	**4-3**				
Upper Ventura River	4-3.01	Upper Ventura	4-3	800	300	100	0.5
Upper Ventura River	4-3.01	San Antonio Creek Area	4-3	1000	300	100	1.0
Lower Ventura River	4-3.02	Lower Ventura	4-3	1500	500	30	1.5
Santa Clara River Valley[d]	**4-4**	**Ventura Central**	**4-4**				
Piru	4-4.06	Santa Clara-Piru Creek Area	4-4				
Piru	4-4.06	Upper Area (above Lake Piru)	4-4	1100	400	200	2.0
Piru	4-4.06	Lower Area East of Piru Creek	4-4	2500	1200	200	1.5
Piru	4-4.06	Lower Area West of Piru Creek	4-4	1200	600	100	1.5
Fillmore	4-4.05	Santa Clara-Sespe Creek Area	4-4				
Fillmore	4-4.05	Topa Topa (upper Sespe) Area	4-4	900	350	30	2.0
Fillmore	4-4.05	Fillmore Area	4-4				
Fillmore	4-4.05	Pole Creek Fan Area	4-4	2000	800	100	1.0
Fillmore	4-4.05	South Side of Santa Clara River	4-4	1500	800	100	1.1
Fillmore	4-4.05	Remaining Fillmore Area	4-4	1000	400	50	0.7
Santa Paula	4-4.04	Santa Clara-Santa Paula Area	4-4				
Santa Paula	4-4.04	East of Peck Road	4-4	1200	600	100	1.0
Santa Paula	4-4.04	West of Peck Road	4-4	2000	800	110	1.0

BASINS			Objectives (mg/l)[m]				
Basin	**Basin No[b]**	**1994 Basin Name**	**1994 Basin No**	**TDS**	**Sulfate**	**Chloride**	**Boron**
Santa Clara River Valley East	4-4.07	Santa Clara-Mint Canyon	4-4.07	800	150	150	1.0
Santa Clara River Valley East	4-4.07	South Fork	4-4.07	700	200	100	0.5
Santa Clara River Valley East	4-4.07	Placentia Canyon	4-4.07	700	150	100	0.5
Santa Clara River Valley East	4-4.07	Santa Clara-Bouquet & San Fransisquito Canyons	4-4.07	700	250	100	1.0
Santa Clara River Valley East	4-4.07	Castaic Valley	4-4.07	1000	350	150	1.0
Santa Clara River Valley East	4-4.07	Saugus Aquifer	4-4.07				
Simi Valley	**4-9**	**Simi Valley**	**4-9**				
Simi Valley	4-9	Simi Valley Basin	4-9				
Simi Valley	4-10	Confined Aquifers	4-9	1200	600	150	1.0
Simi Valley	4-11	Unconfined & Perched Aquifers	4-9				
Simi Valley	4-12	Gillibrand Basin	4-9	900	350	50	1.0
Conejo Valley	**4-10**	**Conejo Valley**	**4-10**	**800**	**250**	**150**	**1.0**
Coastal Plain of Los Angeles	**4-11**	**Los Angeles Coastal Plain**	**4-11**				
Central	4-11.04	Central Basin	4-11	700	250	150	1.0
West Coast	4-11.03	West Coast Basin	4-11	800	250	250	1.5
Hollywood	4-11.02	Hollywood Basin	4-11	750	100	100	1.0
Santa Monica	4-11.01	Santa Monica Basin	4-11	1000	250	200	0.5
San Fernando Valley	**4-12**	**San Fernando Valley**	**4-12**				
San Fernando Valley	4-12	Sylmar Basin	4-12	600	150	100	0.5
San Fernando Valley	4-12	Verdugo Basin	4-12	600	150	100	0.5
San Fernando Valley	4-12	San Fernando Basin	4-12				
San Fernando Valley	4-12	West of Highway 405	4-12	800	300	100	1.5
San Fernando Valley	4-12	East of Highway 405 (overall)	4-12	700	300	100	1.5
San Fernando Valley	4-12	Sunland-Tujunga Area	4-12	400	50	50	0.5
San Fernando Valley	4-12	Foothill Area	4-12	400	100	50	1.0

BASINS			Objectives (mg/l)[m]				
Basin	**Basin No[b]**	**1994 Basin Name**	**1994 Basin No**	**TDS**	**Sulfate**	**Chloride**	**Boron**
Conejo Valley	**4-10**	**Thousand Oaks Area**	**4-19**	**1400**	**700**	**150**	**1.0**
Russell Valley	**4-20**	**Russell Valley**	**4-20**				
Russell Valley	4-20	Russell Valley	4-20	1500	500	250	1.0
Thousand Oaks Area	4-19	Triunfo Canyon Area	4-20	2000	500	500	2.0
Thousand Oaks Area	4-20	Lindero Canyon Area	4-20	2000	500	500	2.0
Thousand Oaks Area	4-21	Las Virgenes Canyon Area	4-20	2000	500	500	2.0
Conejo-Tierra Rejada Volcanic Area[j]	No DWR#	**Conejo-Tierra Rejada Volcanic Area**	**4-21**				
Malibu Valley	**4-22**	**Santa Monica Mountains-Southern Slopes[k]**	**4-22**				
Malibu Valley	No DWR#	Camarillo Area		1000	250	250	1.0
Malibu Valley	No DWR#	Point Dume Area		1000	250	250	1.0
Malibu Valley	4-22	Malibu Valley	4-22	2000	500	500	2.0
Malibu Valley	No DWR#	Topanga Canyon Area		2000	500	500	2.0
San Pedro Channel Islands[l]	No DWR#	**San Pedro Channel Islands**					
Anacapa Island	No DWR#	Anacapa Island	No DWR#				
San Nicholas Island	No DWR#	San Nicholas Island	No DWR#	1100	150	350	
Santa Catalina Island	No DWR#	Santa Catalina Island	No DWR#	1000	100	250	1.0
San Clemente Island	No DWR#	San Clemente Island	No DWR#				
Santa Barbara	No DWR#	Santa Barbara Island	No DWR#				

a. Objectives for ground waters outside of the major basins listed on this table and outlined in Figure 1-9 have not been specifically listed. However, ground waters outside of the major basins are, in many cases, significant sources of water. Furthermore, ground waters outside of the major basins are either potential or existing sources of water for downgradient basins and, as such, objectives in the downgradient basins shall apply to these areas.

b. Basins are numbered according to Bulletin 118-Update 2003 (Department of Water Resources, 2003).

c. Ground waters in the Pitas Point area (between the lower Ventura River and Rincon Point) are not considered to comprise a major basin, and accordingly have not been designated a basin number by the California Department of Water Resources (DWR) or outlined on Figure 1-9.

d. The Santa Clara River Valley (4-4) was formerly Ventura Central Basin

e. Pleasant Valley (4-6), Arroyo Santa Rosa Valley (4-7) and Las Posas Valley (4-8) Ground Water Basins were former sub-basins of the Ventura Central Basin (DWR, 1980).

f. Acton Valley Basin was formerly Upper Santa Clara Basin (DWR, 1980)

Attachment C

STANDARD PROVISIONS
APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350]

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code (CWC). [H&SC Section 5411, CWC Section 13263]

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. [CWC Section 13263]

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. [CWC Section 13260(c)]. A material change includes, but is not limited to, the following:

(a) Addition of a major industrial waste discharge to a 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.

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes 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 Section 13263(f)]

11. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, 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, 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, immediately notify the Office of Emergency Services 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 Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. [CWC Section 1327(a)]

12. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product 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, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC Section 13272]

15. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. [CWC Section 13263(f)]

16. DISCHARGE TO NAVIGABLE WATERS

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 of the Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Board. [CCR Title 2 Section 22357]

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes 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 Executive officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Office within 24 hours:

(a) Any bypass from any portion of the treatment facility.

(b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.

(c) Any treatment plant upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

18. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies off all reports required by this Order, and record of all data used

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268]"

20. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with Title 23, California Code of Regulations Section 3680. State Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plant operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

Each plant shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through the Clean Water Grant Program [CWC Title 23, Section 2233(d)]

ADDITIONAL PROVISIONS APPLICABLE TO
PUBLICLY OWNED TREATMENT WORKS' ADEQUATE CAPACITY

21. Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Board itself. [CCR Title 23, Section 2232]

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-10110

FOR

TESORO STATION NO. 42089 (FORMER ARCO STATION NO. 6169)
1411 EAST DEL AMO BOULEVARD, CARSON, CALIFORNIA
(IN-SITU CHEMICAL OXIDATION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2014-0187, SERIES NO. 013)

I. REPORTING REQUIREMENTS

A. Tesoro Refining & Marketing Company LLC (hereinafter Discharger) shall implement this monitoring program on the effective date of this Monitoring and Reporting Program (MRP). The first monitoring report under this MRP, for the period from July to December 2016, shall be received at the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) by January 15, 2017. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

Monitoring Period	Report Due
January – June	July 15
July – December	January 15

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP to the State Water Resources Control Board (State Board) GeoTracker database, Attention: Information Technology Unit.

If there is no discharge or injection during any reporting period, the report shall so state.

B. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Board Division of Drinking Water - Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.

C. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.

II. CALCIUM OXY-HYDROXIDE AND SODIUM PERSULFATE WITH SILICA ACTIVATOR MONITORING REQUIREMENTS

The semi-annual reports shall contain the following information regarding injection activities:

1. A location map showing placement locations used for the calcium oxy-hydroxide and sodium persulfate injection (refer to attached Figure 1 for site map).

2. Written and tabular summary defining the quantity of calcium oxy-hydroxide and sodium persulfate injection injected to the groundwater and a summary describing the days on which the injection system was in operation.

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS[1]
Sodium Persulfate delivered per location	Gallons and Concentration	--	Semi-Annually
Calcium Oxy-Hydroxide delivered per location	Gallons and Concentration	--	Semi-Annually

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. The Executive Officer may change the monitoring program at any time during remediation Groundwater samples shall be collected from up-gradient area groundwater monitoring well MW-8, source area groundwater monitoring wells MW-2, MW-3R, and MW-7, and down-gradient area groundwater monitoring wells MW-10, MW-11, and MW-13 (Figure 1) on a semi-annual schedule to monitor the effectiveness of the in-situ groundwater remediation. Groundwater shall be monitored for the duration of the remediation in accordance with the following monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS[1]
Total petroleum hydrocarbons as gasoline (TPHg)	µg/L[3]	Grab	Semi-Annually
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	Semi-Annually
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), Ethyl tertiary butyl ether (ETBE)	µg/L	Grab	Semi-Annually

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

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

Executed on the _____day of _____ at _____.

_____ (Signature)

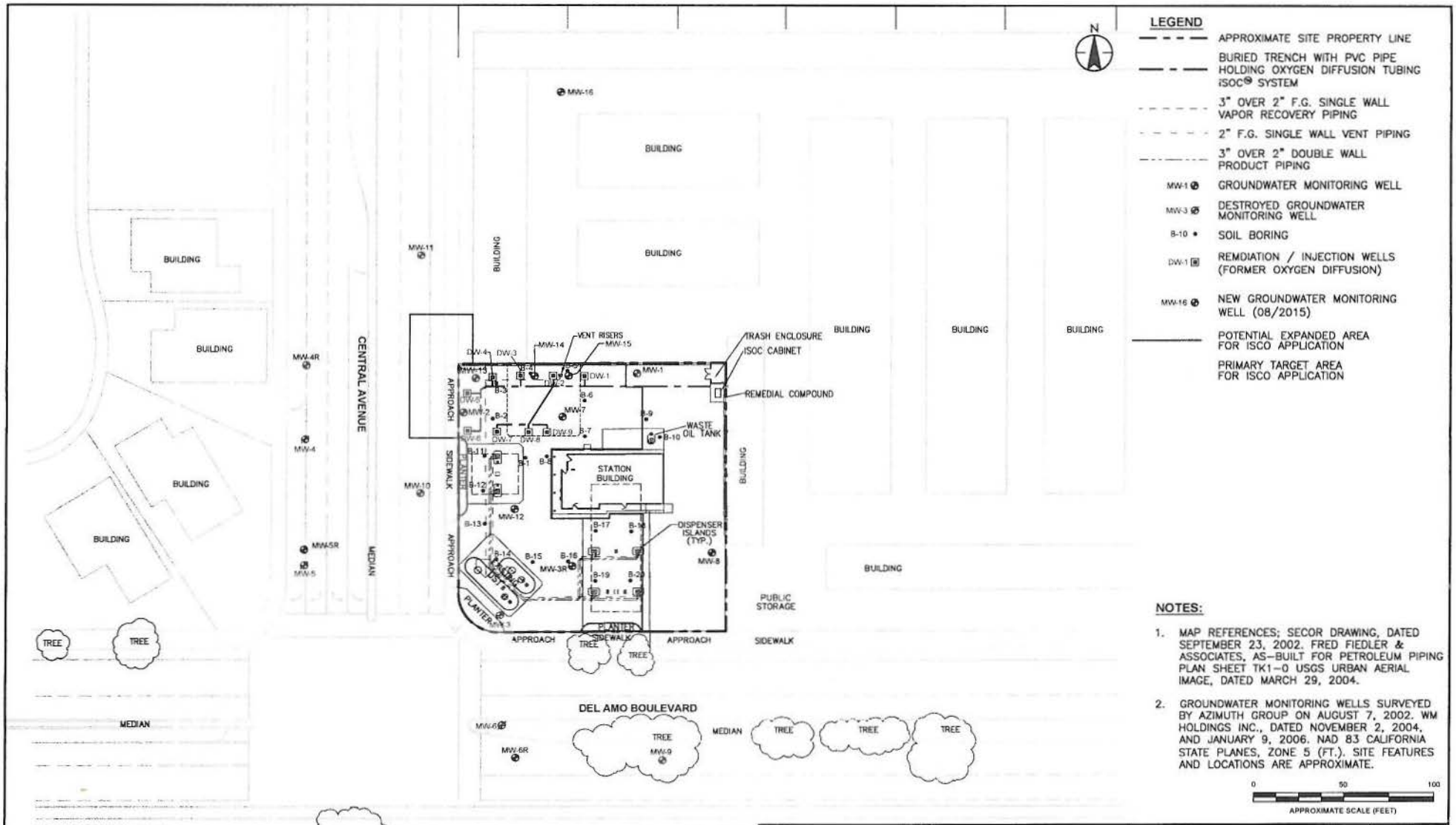
_____ (Title)"

VI. PUBLIC DOCUMENTS

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the Regional Board, upon request by interested parties.

Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

Date: July 18, 2016



NOTES:

1. MAP REFERENCES; SECOR DRAWING, DATED SEPTEMBER 23, 2002. FRED FIEDLER & ASSOCIATES, AS-BUILT FOR PETROLEUM PIPING PLAN SHEET TK1-0 USGS URBAN AERIAL IMAGE, DATED MARCH 29, 2004.
2. GROUNDWATER MONITORING WELLS SURVEYED BY AZIMUTH GROUP ON AUGUST 7, 2002. WM HOLDINGS INC., DATED NOVEMBER 2, 2004, AND JANUARY 9, 2006. NAD 83 CALIFORNIA STATE PLANES, ZONE 5 (FT.). SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 50 100
APPROXIMATE SCALE (FEET)

Stantec
260 Conejo Ridge Avenue
Thousand Oaks, CA 91361
PHONE (805) 230-1266 FAX (805) 230-1277

FOR
Tesoro Refining & Marketing Company LLC
Tesoro Station No. 42089
(Former Arco Station No. 6169)
1411 East Del Amo Boulevard
Carson, CA 90746

SITE MAP
POTENTIAL ISCO TREATMENT AREA

FIGURE: 2

JOB NUMBER	DRAWN BY	CHECKED BY	APPROVED BY	DATE
185850146.410	R. Roman	K. Edblad	G. Roberts	03/31/16

FILEPATH:F:\1858\active\185850146.410\03_data\cad\20160412_rap_l42089-6169_g1gw16.dwg|roman|Apr 12, 2016 at 11:15|Layout: F4_PISCOTA