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STATE WATER RESOURCES CONTROL BOARD

FOR THE STATE OF CALIFORNIA

In the Matter of the Petition of EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US Cleanup and Abatement Order R5-2012-0701 California Regional Water Quality Control Board, Central Valley Region California Water Code §§ 13267 and 13304	Case No. **PETITION FOR REVIEW AND REQUEST FOR HEARING**

Equilon Enterprises LLC dba Shell Oil Products US ("Equilon") hereby files this Petition for Review, along with the supporting Declaration of Kevin Dyer (attached hereto and referred to hereafter as "Dyer Decl."). Equilon alleges as follows:

1. Equilon's mailing address is 20945 South Wilmington Avenue, Carson, California 90810. (Dyer Decl., ¶ 2.)

2. On May 3, 2012, the Executive Officer of the California Regional Water Quality Control Board, Central Valley region (the "Regional Board") issued Cleanup and Abatement Order R5-2012-0701 pursuant to Water Code sections 13267 and 13304. (*Id.*, ¶ 3, Exh. A ("CAO").) The CAO refers to Equilon and Alon Bakersfield Property, Inc. ("Alon") collectively as "Dischargers," and requires Dischargers to undertake certain remediation and abatement actions and to provide technical and monitoring reports for designated portions of the refinery

located at 6451 Rosedale Highway, Bakersfield, Kern County. (*Id.*, ¶ 4.) Specifically, as shown in CAO Figure 1, the portion of the refinery to which the CAO applies "consists of Area 1 (including, but not limited to, the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2" ("Bakersfield Refinery" or the "Site"). (*Id.*, CAO, ¶ 1, Figure 1.) The CAO supersedes and replaces the obligations contained in prior orders relating to the Bakersfield Refinery (*Id.*, ¶ 37), including Cleanup and Abatement Order R5-2007-0728. (Dyer Decl., ¶ 5, Exh. B ("2007 CAO").)

3. Based on an earlier division of responsibilities between Equilon and Alon's predecessor, Big West of California, LLC ("Big West"), that was submitted to the Regional Board as required under the 2007 CAO, Equilon and Alon are actively engaged in efforts to reach an agreement as to their respective responsibilities for the various actions required by the CAO, and Equilon intends to meet its responsibilities under the CAO consistent with that understanding. (Dyer Decl., ¶ 16.) Accordingly, Equilon is not currently requesting that the State Water Board stay any of the Required Actions enumerated in the CAO or hold a hearing at this time. Instead, Equilon files this protective petition and request for hearing to preserve Equilon's rights and arguments relating to the allocation of responsibility for the Required Actions, and for the other reasons enumerated herein. Equilon requests that this Petition for Review be held in abeyance and the matter referred back to the Regional Board so that Equilon and Alon can work together, and with the Regional Board, to modify the CAO to reflect Equilon and Alon's respective responsibilities and for any other resulting modifications agreeable to the Regional Board and the parties.

4. This Petition for Review is made on the following grounds:

a. *First*, Equilon seeks review of the CAO to the extent that it purports to impose on Equilon a responsibility to take any protective action to prevent or mitigate against *future* releases associated with Alon's ownership and operation of the refinery. As stated in the CAO, Equilon sold the Bakersfield Refinery to Big West in March of 2005 (CAO, ¶¶ 1, 3), and

has not conducted any refinery operations on the Site since that time. (Dyer Decl., ¶ 6.)[1] Because Alon, not Equilon, now owns and operates the refinery, the CAO should make clear that Alon is solely responsible for the Required Actions in the CAO aimed at minimizing the prospect or impact of future releases or responding to Alon's future releases, including:

- Implementation of the Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines dated 17 December 2007. (CAO, Required Actions ¶ 20.)[2]
- Implementation of the Discharge Response Plan dated 17 December 2007. (*Id.*, ¶ 21.)
- Implementation of the Public Participation Plan dated January 2008. (*Id.*, ¶ 22.)
- Installation of leak detection systems on aboveground storage tanks at the site. (*Id.*, ¶ 23.)
- Notification of the Regional Board within 48 hours of any discharges of petroleum hydrocarbons, hazardous materials, or other materials that could pose a threat to soil or groundwater at the facility. (*Id.*, ¶ 26.)

b. *Second*, the CAO should be revised to confirm that the obligation to report, investigate, and respond to any releases that occurred after Equilon sold the Bakersfield Refinery to Big West in March 2005, or that may occur in the future, belongs solely to Alon as Big West's successor-in-interest and the current owner and operator of the Bakersfield Refinery. By treating Equilon and Alon collectively and indiscriminately as "Dischargers," the CAO improperly suggests that Equilon is responsible for releases that occurred *after* it no longer

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[1] Although the Sales Terminal at the Bakersfield Refinery was subsequently re-conveyed to Equilon pursuant to an agreement with Big West, it is currently leased and operated by Alon as successor to Big West. (CAO, ¶ 1.) None of the actions required by the CAO are directed specifically at the Sales Terminal. Equilon retains responsibility, *inter alia*, for the cleanup of MTBE releases from the Sales Terminal in 1999, 2000, and 2001. Equilon continues to maintain and operate a vapor extraction system with vapor extraction wells in several areas on the Site, including the Sales Terminal.

[2] Although Equilon still owns certain underground pipelines that transverse the Site, none of those pipelines are active, and all have either been emptied and purged or have never been used. (Dyer Decl. ¶ 6.)

owned or operated the facility. Because there is no legal basis for any such liability, and because the purchase and sale agreement pursuant to which Equilon sold the Bakersfield Refinery to Big West confirmed that Big West (and now Alon, its successor-in-interest) is responsible for any post-sale releases, the CAO should be modified to avoid any confusion as to Equilon's responsibility for such releases.

c. *Third*, the CAO should allocate responsibility to perform Required Actions between Equilon and Alon in a manner consistent with the division of tasks previously required and submitted to the Regional Board by Equilon and Alon's predecessor, Big West, pursuant to the 2007 CAO. Paragraph 45 of the 2007 CAO directed Dischargers to notify the Regional Board in writing of which individual Discharger will be lead for each required action in the 2007 CAO. As required, Equilon and Big West each submitted letters to the Regional Board in October 2007 in which they identified the specific items in the 2007 CAO for which they were responsible. (Dyer Decl., ¶ 8, Exh. C.) The new CAO does not incorporate, reflect, or even mention this division of labor. As Equilon requested during the comment period preceding the issuance of the CAO, the CAO should reflect the division of responsibilities previously agreed upon and submitted to the Regional Board as required by the 2007 CAO. At a minimum, the CAO should he revised to include language similar to Paragraph 45 of the 2007 CAO requiring Equilon and Alon to submit letters identifying for the Regional Board the Required Actions in the CAO for which they are responsible.

d. *Fourth*, Equilon requests that the work schedule mandated by the CAO be revised to account for the necessary safety constraints and limitations on the number of personnel and type of activities possible within the confines of an operating refinery. Equilon understands that Alon, as the current owner and operator of the facility, will be submitting a revised schedule addressing specific proposed changes to the work schedule in the CAO. Equilon requests that the Regional Board allow for flexibility in the scheduling and sequencing of specific tasks so that Equilon and Alon can optimize the efficiency and effectiveness of their monitoring, investigation, and remediation efforts, while taking the steps necessary to ensure the safety of the environmental teams and refinery personnel.

5. This Petition is filed pursuant to Section 13320 of the Water Code, which authorizes any aggrieved person to petition the State Water Resources Control Board (the "State Water Board") to review any action (or failure to act) by a regional board. *See* Water Code § 13223 (actions of the regional board shall include actions by its executive officer pursuant to powers and duties delegated to her by the regional board).[3]

6. Equilon respectfully requests that the State Water Board grant the relief requested in this Petition as set forth in the Request for Relief.

7. Equilon's Statement of Points and Authorities in support of the issues raised by this Petition commences below.

8. A copy of this Petition is being sent by email and overnight service to the Regional Board on June 4, 2012, to the attention of Ms. Pamela C. Creedon, Executive Officer, and Mr. Clay L. Rodgers, Assistant Executive Officer, and to counsel for Alon.

9. Equilon requests that the State Water Board issue an order holding this Petition in abeyance pursuant to California Code of Regulations, title 23, § 2050.5(d) to permit the Regional Board, Alon, and Equilon to engage in discussions in an attempt to informally resolve this matter. Should those discussions fail, Equilon will request that this Petition be reinstated and also will request a hearing at the appropriate time to address the contentions in the Statement of Points and Authorities. Equilon reserves the right to modify and supplement this Petition, and also requests an opportunity to present additional evidence, including any evidence that comes to light following the filing of this Petition. *See* 23 Cal. Code Regs. § 2050.6.

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[3] While Water Code sections 13220 and 13323 entitle the parties to seek immediate review by the State Water Board of the Executive Officer's action in issuing the CAO (and Equilon is doing so by this Petition), Equilon understands that Alon also intends to request a hearing on these issues before the entire Regional Board. In order to preserve its right to participate in any such hearing and present evidence to the entire Regional Board with the goal of reaching a resolution acceptable to the Regional Board and the parties, Equilon is submitting a similar request for a hearing to the Regional Board contemporaneously with this Petition. Equilon expressly reserves its right to modify or supplement this Petition to reflect any evidence presented or agreements reached at any hearing before the Regional Board.

STATEMENT OF POINTS AND AUTHORITIES

I. BACKGROUND

The Bakersfield Refinery

10. The refinery that is the subject of the CAO "consists of approximately 600 acres and contains various processing units within the refinery at 6451 Rosedale Highway in Bakersfield, California." (CAO, ¶ 1.) As shown in CAO Figure 1, the specific portion of the refinery to which the CAO applies "consists of Area 1 (including, but not limited to, the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2" ("Bakersfield Refinery" or the "Site"). (*Id.*)

11. Equilon owned and operated the Bakersfield Refinery from 1998 until March 2005, when it sold the Site to Big West. (*Id.*, ¶¶ 1, 3.) Under the terms of the Purchase and Sale Agreement and related agreements between Equilon and Big West (collectively the "PSA"), Big West was responsible for conducting any corrective action (including investigation) at its refinery other than ongoing MTBE plume remediation and reformate release remediation, for which Equilon assumed continuing responsibility. (Dyer Decl., ¶ 7.) Big West expressly recognized and agreed in the PSA that it was solely responsible for reporting and responding to all releases occurring after the consummation of the sale in 2005. (*Id.*)

12. Big West owned the Bakersfield Refinery from March 2005 through May 2010. (CAO, ¶ 2.) Big West operated the refinery until February 2009, when it temporarily suspended refining after filing for Chapter 11 bankruptcy. (*Id.*)

13. Alon agreed to purchase the Bakersfield Refinery out of bankruptcy on February 2, 2010. (*Id.*, ¶ 1.) Pursuant to the terms of the bankruptcy proceedings that resulted in Alon's purchase of the Site from Big West, Alon assumed liability for the environmental remediation of the Site, except for certain liabilities that had previously been assumed by Equilon. (*Id.*, ¶ 2.)

The 2007 CAO

14. The Regional Board issued the 2007 CAO to Big West and Equilon on October 10, 2007. The 2007 CAO referred to Big West and Equilon jointly as "Dischargers," but also included a provision requiring Big West and Equilon to "notify the Regional Water Board in

writing which individual Discharger named herein will be lead for each required action in this Order." (2007 CAO, Required Actions ¶ 45.)

15. In compliance with the 2007 CAO, Big West and Equilon submitted complementary letters to the Regional Board in late October 2007 identifying which required actions in the 2007 CAO would be handled by Equilon and which were Big West's responsibility. (Dyer Decl. ¶ 8, Exh. C.) As designated in those letters, Equilon accepted lead status for several of the required actions in the 2007 CAO, including: (1) startup of the vapor extraction system; (2) evaluation of remedial system performance (submitted with quarterly groundwater reports and in the annual report submitted each January); (3) additional assessment of groundwater downgradient/off-site from the Sales Terminal; (4) assessment of the lateral extent of separate phase hydrocarbons (SPH) in the vicinity of well B-109U in the Blending Area; (5) assessment of the source of SPH in the vicinity of wells ROW-2 and B-012 (Area 2 Refinery); and (6) definition of the lateral extent of diesel-impacted groundwater along the Calloway and Friant-Kern Canals. (Dyer Decl., ¶ 9.)

16. Equilon thereafter performed its responsibilities in a manner consistent with the allocation of tasks identified pursuant to Paragraph 45 of the 2007 CAO. (*Id.*, ¶ 10.) On May 14, 2009, representatives of Equilon, Big West, and the Regional Board met to discuss the progress that had been made so far and to confirm the previously agreed-upon allocation of responsibilities between Equilon and Big West. (*Id.*, ¶ 11.) A letter sent to the Regional Board by Trihydro on Equilon's behalf on May 19, 2009 summarized the status of Equilon's remediation efforts as follows: "Approximately 12,362,352 pounds of total hydrocarbons have been extracted and treated by the [vapor extraction system] as of the end of March 2009. In addition, [Equilon] operates and maintains an air sparging system with a total of 46 wells downgradient of the Blending Area and in Area 2. A groundwater extraction and treatment system, installed downgradient of the Sales Terminal, extracted and treated over 313,000,000 gallons of water between 2001 and 2008 prior to shut down upon the successful cleanup of the MTBE plume in that area." (*Id.*, ¶ 12, Exh. D at 1.)

17. The May 19, 2009 letter also reiterated Equilon's position that the allocation of responsibilities between Equilon and Big West must be consistent with the express terms of the PSA and with the previous agreement of the parties as reflected in their designation of responsibilities pursuant to Paragraph 45 of the 2007 CAO. (*Id.*) In particular, the letter explained that "Big West is responsible for all investigations and clean up of releases occurring after finalization of the sale in 2005." (*Id.* at 3.)

The CAO

18. On July 7, 2011, the Regional Board sent Equilon and Alon a Draft Cleanup and Abatement Order ("Draft CAO"), which was intended to replace and update the 2007 CAO and had been prepared "to reflect an ownership change [from Big West to Alon] and work completed to date." (Dyer Decl., ¶ 13, Exh. E at 1.) Like the 2007 CAO, the Draft CAO referred to the two named parties collectively as "Dischargers" without distinguishing between them. The cover letter enclosing the Draft CAO invited all parties to comment on it and to submit additional evidence in support of their comments. (*Id.* at 2.)

19. On August 5, 2011, URS Corporation sent a letter to the Regional Board on behalf of Equilon providing comments on the Draft CAO. (Dyer Decl., ¶ 14, Exh. F.) The letter referenced the allocation of responsibilities under the 2007 CAO as subsequently discussed by the parties and the Regional Board at the May 14, 2009 meeting, and confirmed that Equilon would "continue to conduct the tasks identified as 'Shell Lead' items." (*Id.* at 1.) The letter once again repeated that "[l]egal and binding language in the [PSA] must be followed for the internal allocatiou of responsibility between Alon (previously Big West) and [Equilon]." (*Id.* at 2.)[4]

20. The Regioual Board sent Equilon and Alon a revised Draft Cleanup and Abatement Order ("Revised Draft CAO") on January 26, 2012, but only permitted comments relating to due dates. (Dyer Decl., ¶ 15.) URS Corporation provided comments on behalf of Equilon by letter dated February 17, 2012. (*Id.*, Exh. G.) The letter included a Gantt chart with a proposed work schedule modeled on "similar projects involving site characterization, planning,

[4] Alon also provided comments to the Draft CAO in a letter dated August 19, 2011.

engineering design, contracting, permitting and system installation." (*Id.* at 1.) The Gantt chart proposed by Equilon addressed the required actions contained in the Revised Draft CAO except for Required Actions 13, 14, 15, and 16, which pertained to "assets and/or plans that are unquestionably the responsibility of Alon." (*Id.*) Those Required Actions included the implementation of the Discharge Response Plan, the Public Participation Plan, and the Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines, as well as the installation of leak detection systems in aboveground storage tanks. Equilon expressly noted in the February 17, 2012 letter that its proposed work schedule did "not address Alon's potential need for contracting consultants/contractors to conduct certain tasks, nor [did] it address potential timing and staging issues associated with working around active refinery operations, or coordination with refinery activities that [Equilon] may have no knowledge of and/or that [Equilon has] no control over." (*Id.*)

21. The Executive Officer of the Regional Board issued the CAO on May 3, 2012. (Dyer Decl., ¶ 3, Exh. A.) Despite Equilon's repeated requests, the CAO did not include any language confirming the allocation of responsibility previously agreed upon pursuant to the 2007 CAO, but instead continued to refer to the parties indiscriminately as "Dischargers." (*Id.*)

22. The CAO informed the parties that "[a]ny person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following." (*Id.* at 15.) Equilon accordingly has submitted this Petition, but asks that the State Water Board issue an order holding the Petition in abeyance pursuant to California Code of Regulations, title 23, § 2050.5(d) to permit the Regional Board, Alon, and Equilon to engage in discussions in an attempt to informally resolve this matter.

II. EQUILON IS NOT RESPONSIBLE FOR EFFORTS TO PREVENT OR MITIGATE AGAINST FUTURE RELEASES

23. Several actions required by the CAO are directed entirely at efforts to prevent or mitigate against *future* releases. These Required Actions include:

- Implementation of the Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines dated 17 December 2007. (Dyer Decl., Exh. A, CAO, Required Actions ¶ 20.)
- Implementation of the Discharge Response Plan dated 17 December 2007. (*Id.*, ¶ 21.)
- Implementation of the Public Participation Plan dated January 2008. (*Id.*, ¶ 22.)
- Installation of leak detection systems on aboveground storage tanks at the site. (*Id.*, ¶ 23.)
- Notification of the Regional Board within 48 hours of any discharges of petroleum hydrocarbons, hazardous materials, or other materials that could pose a threat to soil or groundwater at the facility. (*Id.*, ¶ 26.)

24. As explained above, Equilon sold the Bakersfield Refinery more than seven years ago, in March 2005, and has not conducted any refinery operations on the Site since that time. (Dyer Decl., ¶ 6.) Indeed, other than its continued ownership of the Sales Terminal, which it leases to Alon, Equilon's only activities at the Site have been focused exclusively on performance of the required environmental actions under the now superseded 2007 CAO. (*Id.*) Accordingly, there is no basis for holding Equilon responsible for ensuring the implementation of plans and activities aimed at minimizing the possibility or impact of any future releases.

25. "Generally speaking it is appropriate and responsible for a Regional Board to name all parties for which there is reasonable evidence of responsibility, even in cases of disputed responsibility. However, there must be a reasonable basis on which to name each party. There must be substantial evidence to support a finding of responsibility for each party named. This means credible and reasonable evidence which indicates the named party has responsibility." *In the Matter of the Petition Of Exxon Company, U.S.A.*, 1985 WL 20026, at *6

(Cal.St.Wat.Res.Bd. 1985) (amending CAO to delete parties where there was not substantial evidence to support their designation as dischargers under the Water Code). As there is no dispute that Alon currently owns and operates the Site and has the access and authority necessary to comply with the preventive actions enumerated above, and because there is no basis for holding Equilon jointly responsible for such actions, the CAO should be revised to clarify that Alon is solely responsible for compliance with Required Actions 20, 21, 22, 23, and 26.

III. EQUILON IS NOT RESPONSIBLE FOR REPORTING, INVESTIGATING, OR ABATING RELEASES THAT OCCURRED AFTER IT SOLD THE BAKERSFIELD REFINERY IN MARCH 2005

26. It is undisputed that Equilon sold the Bakersfield Refinery to Big West in March 2005, and that Equilon has not conducted any refinery operations at the Site since that date. (Dyer Decl., ¶ 6.) It is also undisputed that certain of the discharges addressed by the CAO did not first occur until *after* Equilon sold the Bakersfield Refinery. (*See, e.g.*, CAO, ¶¶ 2, 12 (Area 2 Refinery), 15 (Mohawk Tank Farm).)[5] These releases were initially reported to the Regional Board by Big West, and are now Alon's responsibility as Big West's successor-in-interest following Alon's purchase of the Bakerfield Refinery from Big West in bankruptcy proceedings. (*Id.*, ¶ 2.)

27. Because Equilon neither owned nor operated the Bakersfield Refinery at the time of the post-March 2005 releases, it is not liable under the Water Code for those discharges, and cannot be compelled to provide technical or monitoring reports in connection with those releases. *See* Water Code § 13304(a) (limiting liability for remediation of discharges to persons who discharge waste or who cause or permit or threaten to cause or permit others to discharge waste); Water Code § 13267(b)(1) (authorizing regional water boards to require technical and monitoring

[5] Equilon recognizes that "[t]he meaning of the term 'discharge,' as interpreted by the State Water Board in precedential orders, including State Water Board Order WQ-86-2 (*In the Matter of the Petition of Zoecon Corporation*), includes the passive migration of waste from soils to groundwater." (Dyer Decl., Exh. A, CAO, ¶ 32.) For the purposes of this section, however, Equilon uses the terms "discharges" and "releases" interchangeably to refer only to releases that *first occurred* subsequent to Equilon's sale of the Bakersfield Refinery in March 2005.

program reports only from "the person [or persons who] discharged, discharges, or is suspected of having discharged or discharging, or who proposes to, discharge waste within its region").

28. The California Court of Appeal has recognized that there is "no indication [that] the Legislature intended the words 'causes or permits' within the Porter–Cologne Act to encompass those whose involvement with a spill was remote and passive. *City of Modesto Redevelopment Agency v. Superior Court*, 119 Cal.App.4th 28, 44 (2004) (dismissing CAO against purported dischargers whose sole involvement in the discharge was the sale of the hazardous materials that were ultimately released). Given that Equilon has neither owned the Bakersfield Refinery nor conducted any operations on the Site (other than ongoing environmental remediation activities) since March 2005, its involvement in any releases occurring after that date would not even be "remote or passive," but entirely nonexistent.

29. By referring to Equilon and Alon indiscriminately as "Dischargers" and failing to specify which releases are the responsibility of which entity, the CAO in its current form implies that Equilon is jointly responsible for discharges that first occurred after Equilon sold the Site and in which, as a consequence, Equilon played no role. Because there is no basis in the Water Code for holding Equilon jointly responsible for such post-sale releases, the CAO should be modified to clarify that Equilon bears no responsibility for reporting, investigating, or cleaning up discharges that first occurred after Equilon sold the Bakersfield Refinery to Big West in March 2005. *See In the Matter of the Petition of Mehdi Mohammadian*, 2002 WL 31694368, at *11-12 (Cal.St.Wat.Res.Bd. 2002) (holding that Texaco could not be a responsible party under the State Water Board's Underground Storage Tank Local Oversight Program in connection with a release that post-dated its ownership of the property at issue).

IV. THE CAO SHOULD BE REVISED TO REFLECT EQUILON AND ALON'S RESPECTIVE RESPONSIBILITIES TO PERFORM REQUIRED ACTIONS

30. When the Regional Board issued the 2007 CAO, it required Equilon and Big West to identify the specific Required Actions for which each entity was responsible. (2007 CAO, ¶ 45.) In compliance with the 2007 CAO, Equilon and Big West submitted letters to the Regional Board in October 2007 allocating their respective responsibilities in a manner

consistent with the terms of the PSA, and Equilon subsequently performed its obligations under the 2007 CAO pursuant to that allocation. (Dyer Decl., ¶¶ 8, 10, Exh. C.) As memorialized in a letter sent on Equilon's behalf on May 19, 2009, the division of responsibilities designated by Equilon and Big West in 2007 was later reaffirmed at a meeting on May 14, 2009 between representatives of Equilon, Big West, and the Regional Board. (*Id.*, ¶¶ 11-12, Exh. D.)

31. When the Regional Board circulated the Draft CAO in August 2011, however, there was no mention of the previously agreed-upon allocation of responsibility. (Dyer Decl., Exh. E.) Accordingly, in its comment letter dated August 5, 2011, Equilon reminded the Regional Board that Required Actions under the 2007 CAO had been allocated between Equilon and Big West, and confirmed that "Alon has accepted the environmental responsibilities of Big West and will be responsible for the tasks previously assigned to Big West, as well as respond [*sic*] to new releases and investigations." (*Id.*, Exh. F at 2.)

32. In a subsequent comment letter dated February 17, 2012, Equilon reiterated that the parties had reached agreement as to their respective responsibilities, stating that, "[a]s the [Regional Board] is aware, there is an agreement between [Equilon] and Alon as to which party will implement each task." (*Id.*, Exh. G at 1.) Unfortunately, when the Regional Board finally issued the CAO on May 3, 2012, it not only failed to incorporate the previous designation of responsibilities under the 2007 CAO, but even omitted the requirement previously included in the 2007 CAO that the parties notify the Regional Board regarding their internal allocation of responsibilities under the CAO.

33. There are very important safety and practical considerations supporting Equilon and Alon's contractual allocation of new corrective action work to Alon as the current owner and operator of this refinery. Requiring Equilon to conduct work in and around Alon's pipelines, process units and equipment, where the parties have agreed otherwise, is not in the interest of the environment or worker/public safety.

34. Consistent with the superseded 2007 CAO, the CAO should be revised to reflect the respective responsibilities of Alon and Equilon for the actions required therein. Indeed, in its current form, the CAO already recognizes that Equilon and Alon have different obligations

regarding the remediation of the Site. (CAO, ¶ 2 ("[P]ursuant to the terms of the bankruptcy proceedings that resulted in the sale of the Site to ALON, ALON assumed liability for the environmental remediation of the Site, except for certain liabilities that had been previously assumed by Equilon").) It is therefore appropriate that the CAO be revised to incorporate the previously agreed-upon allocation of specific responsibilities arising from the differing liabilities of Alon and Equilon. At a minimum, the CAO should be revised to include language similar to that in the 2007 CAO requiring Equilon and Alon to designate for the Regional Board the Required Actions for which each is responsible.

V. THE CAO WORK SCHEDULE SHOULD BE FLEXIBLY APPLIED TO ALLOW THE PARTIES TO PERFORM REQUIRED ACTIONS WITHIN AN OPERATING REFINERY ENVIRONMENT

35. Finally, the work schedule set forth in the CAO should be revised to allow sufficient time for the completion of each of the Required Actions. As the current owner and operator of the Bakersfield Refinery, Alon is in the best position to propose a specific timeline, and Equilon understands that Alon will be submitting an alternative work schedule in response to the CAO. While Equilon generally defers to Alon's assessment as to the timing, staging, and sequencing of work performed at the Site, Equilon requests that the Regional Board allow for flexibility in the scheduling and sequencing of specific tasks to allow Equilon to address issues associated with working in the proximity of active refinery operations without compromising the safety of the environmental teams and refinery personnel.

REQUEST FOR RELIEF

For the reasons set forth above, Equilon requests that the State Water Board issue an order holding this Petition in abeyance pursuant to California Code of Regulations, title 23, § 2050.5(d) to permit the Regional Board, Alon, and Equilon to engage in discussions in an attempt to informally resolve this matter. Should those discussions fail, Equilon will ask that this Petition be reinstated and respectfully request that the State Water Board grant Equilon the following relief:

1. That the State Water Board revise the CAO to clarify that Equilon is not responsible for any actions aimed at preventing or mitigating against future releases, including CAO Required Actions 20, 21, 22, 23, and 26.

2. That the State Water Board revise the CAO to clarify that Equilon bears no responsibility for reporting, investigating, or cleaning up discharges that first occurred after Equilon sold the Bakersfield Refinery to Big West in March 2005.

3. That the State Water Board modify the CAO to incorporate the allocation of responsibilities reflected in the 2007 CAO, or in the alternative, to add language requiring Alon and Equilon to designate in writing to the Regional Board their respective responsibilities under the CAO.

4. That the State Water Board modify the work schedule set forth in the CAO to allow Equilon the flexibility to coordinate its activities with Alon and to ensure the safety of the environmental teams and refinery personnel.

5. Such other relief as the State Water Board may deem just and proper.

DATED: June 4, 2012

CALDWELL LESLIE & PROCTOR, PC
MICHAEL R. LESLIE
DAVID ZAFT
ERIC S. PETTIT

By _____
MICHAEL R. LESLIE
Attorneys for Petitioner EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US

DECLARATION OF KEVIN DYER

DECLARATION OF KEVIN DYER

I, Kevin Dyer, declare and state:

1. I am a Principal Program Manager employed by Equilon Enterprises LLC dba Shell Oil Products US ("Equilon"). My duties include directing and managing environmental investigations and remediation projects. Based on my involvement in Equilon's activities at the Bakersfield Refinery, I have personal knowledge of the facts stated herein, or I have been informed and believe such facts, and could and would testify competently thereto if called as a witness in this matter.

2. Equilon's mailing address is 20945 South Wilmington Avenue, Carson, California 90810.

3. On May 3, 2012, the Executive Officer of the California Regional Water Quality Control Board, Central Valley region (the "Regional Board"), issued Cleanup and Abatement Order R5-2012-0701 ("CAO") pursuant to Water Code sections 13267 and 13304. A true and correct copy of the CAO is attached hereto as Exhibit A.

4. The CAO refers to Equilon and Alon Bakersfield Property, Inc. ("Alon") collectively as "Dischargers," and requires Dischargers to undertake certain remediation and abatement actions and to provide technical and monitoring reports for designated portions of the refinery located at 6451 Rosedale Highway, Bakersfield, Kern County. As shown in CAO Figure 1, the CAO subject area "consists of Area 1 (including, but not limited to, the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2" ("Bakersfield Refinery" or the "Site").

5. The CAO superseded and replaced the obligations contained in prior orders relating to the Bakersfield Refinery, including Cleanup and Abatement Order R5-2007-0728 ("2007 CAO"). A true and correct copy of the 2007 CAO is attached hereto as Exhibit B.

6. Equilon sold the Bakersfield refinery to Big West of California, LLC ("Big West") in March of 2005, and has not conducted any refinery operations on the Site since that date. Indeed, other than Equilon's ownership of the Sales Terminal, which it leases to Alon, Equilon's only activities at the Site have been focused exclusively on performance of the required environmental actions under the now superseded 2007 CAO. Although Equilon still

owns underground pipelines that transverse the Site, none of those pipelines are active, and all have either been purged or have never been used.

7. Under the terms of the Purchase and Sale Agreement and related agreements between Equilon and Big West (collectively the "PSA"), Big West was responsible for conducting any corrective action (including investigation) at its refinery other than ongoing MTBE plume remediation and reformate release remediation, for which Equilon assumed continuing responsibility. Big West expressly recognized under the PSA that it was solely responsible for reporting and responding to all releases occurring after the consummation of the sale in 2005.

8. As required under Paragraph 45 of the 2007 CAO, Equilon and Big West each submitted letters to the Regional Board in October 2007 in which they identified the specific items in the 2007 CAO for which they were responsible. True and correct copies of the letters from Big West and Equilon, respectively dated October 29, 2007 and October 30, 2007, are attached as Exhibit C.

9. As designated in those letters, Equilon accepted lead status for several of the required actions in the 2007 CAO, including: (1) startup of the vapor extraction system; (2) evaluation of remedial system performance (submitted with quarterly groundwater reports and in the annual report submitted each January); (3) additional assessment of groundwater downgradient/off-site from the Sales Terminal; (4) assessment of the lateral extent of separate phase hydrocarbons (SPH) in the vicinity of well B-109U in the Blending Area; (5) assessment of the source of SPH in the vicinity of wells ROW-2 and B-012 (Area 2 Refinery); and (6) definition of the lateral extent of diesel-impacted groundwater along the Calloway and Friant-Kern Canals.

10. Equilon thereafter performed its responsibilities in a manner consistent with the allocation of tasks identified pursuant to Paragraph 45 of the 2007 CAO.

11. On May 14, 2009, representatives of Equilon, Big West, and the Regional Board met to discuss the progress that had been made so far and to confirm the previously agreed upon allocation of responsibilities between Equilon and Big West.

12. Following this meeting, Equilon's consultant Trihydro sent a letter to the Regional Board on Equilon's behalf on May 19, 2009 summarizing the status of Equilon's remediation efforts. A true and correct copy of the May 19, 2009 letter is attached hereto as Exhibit D.

13. On July 7, 2011, the Regional Board sent Equilon and Alon a Draft Cleanup and Abatement Order ("Draft CAO"), which was intended to replace and update the 2007 CAO and had been prepared "to reflect an ownership change [from Big West to Alon] and work completed to date." A true and correct copy of the Draft CAO and accompanying cover letter is attached hereto as Exhibit E.

14. On August 5, 2011, URS Corporation sent a letter to the Regional Board on behalf of Equilon providing comments on the Draft CAO. A true and correct copy of the August 5, 2011 letter to the Regional Board is attached hereto as Exhibit F.

15. The Regional Board sent Equilon and Alon a revised Draft Cleanup and Abatement Order ("Revised Draft CAO") on January 26, 2012, but only permitted comments relating to due dates. URS Corporation provided comments to the Revised Draft CAO on behalf of Equilon by letter dated February 17, 2012. A true and correct copy of the February 17, 2012 letter to the Regional Board is attached hereto as Exhibit G.

16. Based on an earlier division of responsibilities between Equilon and Alon's predecessor that was submitted to the Regional Board as required under the 2007 CAO, Equilon and Alon are actively engaged in efforts to reach an agreement as to their respective responsibilities for the various actions required by the CAO. Equilon intends to meet its responsibilities under the CAO consistent with that understanding.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this Declaration was executed on June 01, 2012 in Glen Carbon, Illinois.

KEVIN DYER

CALDWELL LESLIE & PROCTOR

EXHIBIT A

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

3 May 2012

Alon Bakersfield Property, Inc. Entity C3294659
C/O C T Corporation System
818 W. Seventh Street
Los Angeles, CA 90017

CERTIFIED MAIL
7011047000004873311

Equilon Enterprises LLC Entity 199803510014
C/O C T Corporation
818 W. Seventh Street
Los Angeles, CA 90017

CERTIFED MAIL
7011047000004873335

CLEANUP AND ABATEMENT ORDER R5-2012-0701, ALON BAKERSFIELD PROPERTY, INC., AND EQUILON ENTERPRISES LLC, 6451 ROSEDALE HIGHWAY, BAKERSFIELD, KERN COUNTY

The enclosed Cleanup and Abatement Order is issued pursuant to Water Code sections 13267 and 13304, and requires that Alon Bakersfield Properties, Inc., and Equilon Enterprises LLC (collectively referred to as "Dischargers") investigate the discharge of wastes, cleanup the wastes, and abate the effects of the discharge of wastes, including to soil and/or groundwater at the Bakersfield Refinery site at 6451 Rosedale Highway, Bakersfield, Kern County.

Initial tasks in Order R5-2012-0701 include the requirements that the Dischargers submit a plan by 2 July 2012 to mitigate the threat posed to human health and safety in the Nurse's Station Building, a work plan for additional assessment of impacts to soil and soil vapor in the Blending Area by 13 July 2012, and a work plan for additional assessment of impacts to soil, soil vapor, and groundwater in the Mohawk Refinery and Mohawk Tank Farm by 1 August 2012.

If you have any questions about the technical aspects of the situation, please contact Jan Alfson at (559) 488-4345. In addition, please contact Jan Alfson at least 72 hours in advance of all significant field work to allow staff an opportunity for direct regulatory oversight.

Russell W. Walls

RUSSELL W. WALLS
Senior Engineer
RCE 43140

Enclosures: Order R5-2012-0701

cc: Joe Canas, Kern County Environmental Health Department, Fresno
Kevin Dyer, Equilon Enterprises LLC, 17 Junction Dr PMB #399, Glen Carbon, IL 62034
Alon Bakersfield Property Inc., 6451 Rosedale Highway, Bakersfield, CA 93302
David Dunbar, The DBD Group, 1257 Sanguinetti, No. 150, Sonora, CA 95370
Amalia Coffey, URS Corp., 130 Robin Hill Rd., Suite 100, Santa Barbara, CA 93117

EXHIBIT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER R5-2012-0701
FOR
ALON BAKERSFIELD PROPERTY, INC.
AND
EQUILON ENTERPRISES, LLC
BAKERSFIELD REFINERY
KERN COUNTY

This Order is issued to Alon Bakersfield Property, Inc., and Equilon Enterprises, LLC, hereafter collectively referred to as "Dischargers", pursuant to Water Code section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region, ("Central Valley Water Board" or "Board") to issue a Cleanup and Abatement Order ("CAO"), and pursuant to Water Code section 13267, which authorizes the Central Valley Water Board to require the preparation and submittal of technical and monitoring reports.

The Executive Officer finds, with respect to the Dischargers' acts, or failures to act, the following:

PROPERTY OWNERSHIP AND OPERATIONS

1. Alon Bakersfield Property, Inc. ("ALON"), a Delaware corporation, purchased the refinery site out of bankruptcy on 2 February 2010. The refinery consists of approximately 600 acres and contains various processing units within the refinery at 6451 Rosedale Highway in Bakersfield, California (properties hereafter referred to as the "Site", as shown on Figure 1). As Figure 1 shows, the Site consists of Area 1 (including, but not limited to the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2. The Sales Terminal is owned by Equilon Enterprises, LLC, a Delaware limited liability company ("Equilon"), and leased by ALON. The refinery historically processed approximately 70,000 barrels of crude oil daily. Refining was temporarily suspended in February 2009. ALON resumed refining in June 2011. Releases of petroleum substances were reported in 2010 and 2011 during ALON's ownership of the Site. Numerous pipelines exist above and below ground surface throughout the Site, including several pipelines owned by Equilon and others which traverse the Site, but are unassociated with refinery operations. Many aboveground storage tanks are also present at the Site. As summarized in more detail below, operations over the years have resulted in discharges of crude oil and various refinery products and additives, including, but not limited to, diesel and gasoline constituents, reformate, methyl tertiary butyl ether (MTBE), and other constituents from the processing facilities, blending operations, tanks and pipelines. These discharges have deposited petroleum hydrocarbons and other chemicals in soils. Once deposited in the soils, the petroleum hydrocarbons and other constituents have migrated to and polluted underlying groundwater as set forth in findings below. Monitoring of more than 250 groundwater monitoring and supply wells occurs regularly.

2. Big West of California, LLC ("Big West"), a Utah limited liability company, and a subsidiary of Flying J, Inc., purchased the refinery and Site from Equilon and owned the Site from March 2005 through May 2010. Big West operated the refinery until February 2009, when it temporarily suspended refining after Big West filed for Chapter 11 bankruptcy. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 2006, 2007, and 2009, and contributed to or created pollution or threat of pollution of groundwater. The Board issued CAO R5-2007-0716 to Big West, ordering Big West to address a specific petroleum hydrocarbon discharge reported in June 2007. The Board also issued CAO R5-2007-0728 to Big West and Equilon, ordering them to address impacts to soil and groundwater throughout the Site.

However, pursuant to the terms of the bankruptcy proceedings that resulted in the sale of the Site to ALON, ALON assumed liability for the environmental remediation of the Site, except for certain liabilities that had been previously assumed by Equilon. Big West is not named as a responsible party in this Order, as the existing cleanup liability is currently shared by ALON and Equilon.

3. Equilon owned the Site from 1998 to March 2005, and operated the refinery during that period. From 1998 through 2001, Equilon was a joint venture between Texaco Refining and Marketing, Inc. ("TRMI"), a Delaware corporation, and Shell Oil Company, a Delaware corporation. Shell Oil Company purchased TRMI and TRMI's interest in Equilon by stock purchase agreement dated 12 December 2001, and the refinery was then operated as Equilon Enterprises, LLC, doing business as Shell Oil Products US ("SOPUS"). SOPUS is a wholly-owned subsidiary of Shell Oil Company that is in the business of refining, transporting, and marketing petroleum. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 1999, 2000, 2001, 2003, and 2004 and contributed to or created pollution or threat of pollution of groundwater. As stated above, the Board issued CAO R5-2007-0728 to Big West and Equilon, ordering them to address impacts to soil and groundwater throughout the Site.

4. Equilon still owns underground pipelines that transverse the Site. Equilon is conducting groundwater monitoring, assessment, and remediation (soil vapor extraction and air sparging) at the Site in portions of the Area 2 Refinery, the Sales Terminal, the Blending Area, and the Mohawk Tank Farm.

5. Texaco, Inc., owned and operated the Area 2 refinery from 1986 to 1987 and Area 1 from 1984 to 1987. TRMI owned and operated the Area 2 refinery from 1988 to 1998 and Area 1 from 1987 to 1998. Discharges of petroleum hydrocarbons occurred at the Area 2 refinery in at least 1987 and 1993 and in Area 1 in at least 1993 and 1996 and contributed to or created pollution or threat of pollution of groundwater.

6. Area 1 was owned and operated by Mohawk Oil Company from 1932 to 1970, Reserve Oil and Gas Company from 1970 to 1980, and Getty Oil Company from 1980 to 1984. Area 2 was built and operated by the U.S. Government in 1942, and was owned by Lion Oil Company and then Tosco Oil Company from 1970 to 1986.

7. Drafts of this Order were presented to ALON and Equilon on 7 July 2011 and 26 January 2012, and ALON and Equilon were invited to submit comments on the drafts, as well as additional evidence. The Board has considered all of the materials submitted in response to those drafts. The Order may also be revised to name other responsible parties in the future.

BACKGROUND

8. The Site is within the boundaries of the Kern County Water Agency Improvement District 4 ("ID4"). The District recharges groundwater in the vicinity of the Site through seepage from the Calloway Canal and the Kern River. The quality of the water used for recharge has total dissolved solid concentrations ranging from 100 milligrams per liter (mg/L) to 400 mg/L. Groundwater pumped from ID4 is used as a supplemental supply for portions of metropolitan Bakersfield. Groundwater pumped from ID4 is drawn from water supply wells that are located approximately 1.5 miles west of the refinery and hydrogeologic and groundwater monitoring data indicate that pollution in groundwater at the Refinery does not pose a current threat to these water supply wells.

9. Active Private domestic and irrigation supply wells are present to the northwest of the refinery. Depth and well construction information for most of these wells is not available.

10. Groundwater impacted by diesel constituents underlies most of the Site. Groundwater beneath at least 200 acres of the Site is impacted with concentrations of gasoline constituents and/or MTBE exceeding water quality objectives.

11. The groundwater surface has historically fluctuated between 15 and 150 feet below ground surface ("bgs"). Water levels at the Site rose approximately 100 feet between 1993 and 1999. Water levels began declining during 2007 and in June 2010 were approximately 130 feet bgs. The upper 150 feet of soil beneath the Site consist of interbedded sands and silts. The large fluctuation of groundwater levels has led to smearing of petroleum hydrocarbons from first encountered groundwater to depths of greater than 150 feet bgs.

12. **Area 2 Refinery** – Historical discharges of petroleum hydrocarbons in the form of reformate (main reformate discharge) from an underground pipeline were discovered in March 1987 in the vicinity of the Area 2 refinery hydrocracker unit during ownership by TRMI. Estimates of the volume of that discharge range from 1.5 million to over 2.8 million gallons. A discharge of petroleum hydrocarbons in the form of diesel in the vicinity of monitoring well R6B was reported by Big West in May 2006. A separate discharge in the vicinity of well R3 and the mid-aromatic pipeline was reported by Big West in 2008. Liquid petroleum hydrocarbons have been detected in at least 12 monitoring wells in the Area 2 Refinery. Maximum detected concentrations of total petroleum hydrocarbons as gasoline (TPHG), total petroleum hydrocarbons as diesel (TPHD) and benzene in groundwater beneath this area in November 2011 were 96,000 micrograms per liter (ug/L), 180,000 ug/L, and 1,500 respectively. Assessment in portions of the Area 2 Refinery is ongoing. Ongoing remediation in the Area 2 Refinery consists of soil vapor extraction and air sparging programs being conducted by Equilon to address soil and groundwater contamination from historic sources and operations prior to Big West and ALON ownership and operation of the Refinery.

13. **Sales Terminal** – Discharges of petroleum hydrocarbons containing MTBE occurred in the Sales Terminal area in March 1999, December 2000, and April 2001 while operated by Equilon. Two groundwater extraction systems were installed downgradient of the discharge and vapor extraction wells were installed in the vicinity of the discharge by Equilon. Maximum detected concentrations of TPHG, TPHD, and benzene in groundwater beneath this area in November 2011 were 4,700 ug/L, 1,200 ug/L, and 12 ug/L, respectively.

14. **Blending Area** – A discharge of 2,300 gallons of MTBE from a railroad car occurred in July 1996 in the Blending area. Several smaller discharges were also reported in this area. Liquid petroleum hydrocarbons were detected in seven monitoring wells in November 2011. The source for the liquid petroleum hydrocarbons is unknown. Studies in the Blending Area indicate that some soils in this area contain elevated concentrations of chromium and arsenic, and elevated-to-hazardous concentrations of lead. Soils in the southeastern and southern portions of this area are impacted by gasoline and diesel. Soils had a maximum detected total lead concentration of 8,560 milligrams per kilogram (mg/kg) and a maximum detected total chromium concentration of 164 mg/kg. Maximum detected concentrations of TPHG, TPHD, and benzene in groundwater beneath this area in November 2011 were 140,000 ug/L, 23,000 ug/L, and 17,000 ug/L, respectively. Soil vapor samples were collected at selected soil vapor wells and monitoring wells in the Blending Area during early 2011. Total petroleum hydrocarbons as gasoline and benzene were detected in soil vapor at maximum concentrations of 57,000,000 and 2,018,000

micrograms per cubic meter, respectively. Total petroleum hydrocarbons as diesel was also detected in soil vapor in excess of 100,000 micrograms per cubic meter. Soil vapor extraction pilot tests conducted on several soil vapor wells in the Blending Area indicate that soil vapor extraction is a viable option for remediating soils impacted by volatile organic compounds.

15. **Mohawk Tank Farm** – This area is directly south of the Blending Area. A discharge of less than 500 barrels of residual gas oil from the RGO pipeline, located in the northwest corner of the area, was reported in January 2007. Big West reported greater than 20 feet of liquid petroleum hydrocarbons in monitoring well BWM-5U in June 2007. Assessment and remediation of the liquid petroleum hydrocarbons is ongoing. A discharge of an unknown amount of petroleum hydrocarbons was reported from a flange near 72P15 in January 2006. Initial assessment in the vicinity of the flange indicates impacts of petroleum hydrocarbons to deeper soils may be related to operation of other equipment in the area. A release of crude oil occurred in the southeast corner of the Mohawk Tank Farm in November 2010. Liquid petroleum hydrocarbons were detected in approximately 20 monitoring wells in the Mohawk Tank Farm area in November 2011. Groundwater in the northern and west central portions of this area has been impacted by high concentrations of gasoline and diesel constituents. Soils had a maximum detected total lead concentration of 5,670 mg/kg and maximum detected total chromium concentration of 6,920 mg/kg. A work plan submitted by Big West for further assessment of lead and/or chromium concentrations in the southern portion of the Mohawk Tank Farm was approved in a letter dated 12 December 2008. Big West declared bankruptcy in December 2008 and the work has not been completed. A work plan for remediation of lead- and chromium-impacted soil in the Mohawk Tank Farm was approved in a letter dated 18 March 2009, with completion of the remediation required by 18 March 2010. The remediation has not been started to date.

16. **Soil Vapor Extraction System** – A soil vapor extraction (SVE) system has been utilized at the Site to remove volatile petroleum hydrocarbons from the vadose zone. The majority of the SVE wells are in the vicinity of the Area 2 portion of the refinery and the Sales Terminal. Three SVE wells exist in the northern portion of the Mohawk Tank Farm and one in the Blending Area. The SVE system was shut down in March 2005 when Equilon sold the Bakersfield refinery to Big West, and was restarted in October 2007.

17. **Air Sparge System** – An air sparge (AS) system is operated at the Site by Equilon to add oxygen to the groundwater and enhance biodegradation. The system currently consists of 46 multi-level well clusters located principally in the vicinity of and to the west and north of the Area 2 refinery. In late 2010 to early 2011, Equilon installed 59 additional multi-level air sparge wells at 30 locations. Equilon is in the process of connecting the new sparge wells to the air sparge system.

LEGAL AUTHORITY

18. Petroleum hydrocarbons discharged to and deposited within soil at the Site will continue to migrate to groundwater, float as liquid on groundwater, and/or dissolve into groundwater. Petroleum hydrocarbons dissolved in groundwater will continue to disperse and migrate to unaffected and less affected waters. These petroleum hydrocarbons will continue to alter the quality of groundwater to a degree that unreasonably affects the waters for designated beneficial uses, continuing and expanding a condition of pollution, unless cleaned up.

19. Water Code section 13304(a) states that:

> Any person ... who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts.

20. Water Code section 13267(b)(1) states that:

> In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region .... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

21. Water Code section 13304(c)(1) states that:

> . . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . .

22. The Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (the "Basin Plan"), designates beneficial uses of the waters of the State and establishes water quality objectives ("WQOs") to protect those areas. The Site overlies groundwater within the Kern County Basin Hydrologic Unit, Detailed Analyses Unit 254. Present and potential future beneficial uses of this groundwater include municipal and domestic supply ("MUN"), agricultural supply ("AGR"), industrial service supply ("IND"), industrial process supply ("PRO"), water contact recreation ("REC 1"), non-contact water recreation ("REC 2"), and warm freshwater habitat ("WILD").

23. The Basin Plan contains a narrative WQO for chemical constituents which requires, in part, that groundwater not contain chemical constituents in concentrations that adversely affect any beneficial use. For groundwaters that are designated MUN, the Basin Plan incorporates by reference drinking water maximum contaminant levels ("MCLs") promulgated in the California Code of Regulations, title 22, chapter 15 ("Title 22"). The following constituents have numeric MCLs associated with them, and these numeric MCLs implement the narrative WQO for chemical constituents:

Constituent	Limits*	WQO	Reference
Benzene	1	Chemical	Primary MCL, Title 22
Toluene	150	Chemical	Primary MCL, Title 22
Ethylbenzene	300	Chemical	Primary MCL, Title 22
Xylene	1750	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	13	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	5	Chemical	Secondary MCL, Title 22

* In micrograms per liter (ug/L)

The concentrations of the waste constituents listed above that are currently found in groundwater (Findings Nos. 12, 13, 14, and 15), or are likely to be found in groundwater after migration from soils, significantly exceed the applicable WQOs.

24. The Basin Plan also contains narrative WQOs that apply to groundwater for tastes and odors and for toxicity. The taste and odor WQO requires, in part, that groundwater not contain substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes and odors to municipal and domestic water supplies. The toxicity WQO requires, in part, that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans.

25. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, ("WQO Policy") which provides that "[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives." Compliance with a narrative WQO requires consideration of site-specific information and relevant numerical criteria and guidelines developed or published by other agencies and organizations. Such numerical criteria and guidelines relevant to the waste constituents described in Findings 12, 13, 14, and 15, include the following:

Constituent	Limits*	WQO	Reference
TPHG	5	Taste and Odor	McKee & Wolf; *Water Quality Criteria*, SWRCB, p. 230 (2) USEPA Drinking Water Health Advisory
TPHD	100	Toxicity, Taste and Odor	1980 USEPA suggested no adverse response level
Toluene	42	Taste and Odor	Federal Register, Vol. 54, No. 97
Ethylbenzene	29	Taste and Odor	Federal Register, Vol. 54, No. 97
Xylene	17	Taste and Odor	Federal Register, Vol. 54, No. 97
Benzene	0.15	Toxicity	California Public Health Goal (OEHHA)

*in micrograms per liter (µg/L)

Consistent with the WQO Policy, the limits for the waste constituents listed above are relevant and appropriate to use to evaluate compliance with the narrative WQOs for taste and odor and for toxicity. The concentrations of the waste constituents listed above that are currently found in groundwater (Findings Nos. 12, 13, 14, and 15), or are likely to be found in groundwater after migration from soils, significantly exceed the applicable WQOs.

26. Pollution, as it is defined in Water Code section 13050(l)(1), means the alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either the waters for beneficial uses, or the facilities which serve these beneficial uses. The WQOs delineated in Findings Nos. 23 and 25 are designed to protect the beneficial uses of the groundwater underlying the Site. As the wastes discharged from the Site have caused groundwater to exceed

the applicable WQOs, which have been developed to protect the beneficial uses of the groundwater, a condition of pollution is present in the groundwater.

27. The State Water Resources Control Board ("State Water Board") has adopted Resolution 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304* ("Resolution 92-49"). Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site, and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California* ("Resolution 68-16"). Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigation proceed in a progressive sequence. To the extent practical, it directs the Central Valley Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

28. Chapter IV of the Basin Plan also contains a *Policy for the Investigation and Cleanup of Contaminated Sites.* The strategy generally outlines a process that includes site investigation, source removal or containment, information requirements for the consideration of establishing cleanup levels, and a basis for establishing soil and groundwater cleanup levels.

29. California Code of Regulations, title 22, section 66261.24, defines hazardous waste based on concentrations of constituents of concern. The hazardous total threshold limit concentration (TTLC) as included in section 66261.24 for lead is 1,000 mg/kg and the soluble threshold limit concentration (STLC) is 5 mg/L. The hazardous TTLC for chromium is 2,500 mg/kg and the STLC is 5 mg/L. Section 66261.24 states that any waste having concentrations equal or greater than the above stated concentrations is a hazardous waste. As established by Findings 14 and 15, metals at hazardous concentrations are present within the Blending Area and the Mohawk Tank Farm.

30. California Code of Regulations, title 23, sections 3890 through 3895, requires that the Dischargers submit analytical data electronically via the internet using electronically deliverable formats (EDF) designated by the State Water Board that are both non-proprietary and available as public domain. All EDF data must be submitted over the internet to the State Water Board Geographic Environmental Information Management System database (Geotracker). In addition, section 3895(b) allows the Central Valley Water Board to specify submittal in alternative forms provided the benefit or need for it bears a reasonable relationship to the burden of producing it.

31. Unauthorized discharges from operating aboveground tanks not equipped with either double bottoms or leak detection systems have resulted in releases to soils and groundwater at the Site.

DISCHARGER LIABILITY

32. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have discharged or deposited waste and caused

or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution. The meaning of the term "discharge", as interpreted by the State Water Board in precedential orders, including State Water Board Order WQ 86-2 (*In the Matter of the Petition of Zoecon Corporation*), includes the passive migration of waste from soils to groundwater. Discharges occurred during the time that each of the named Dischargers or their predecessors owned the Site, and, as stated in Finding 26, these discharges have resulted in a condition of pollution. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code section 13304 is appropriate and consistent with policies of the Central Valley Water Board.

33. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the Site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Dischargers named in this Order. The technical reports required by this Order are necessary to assure compliance with the Basin Plan, Resolution 92-49, and this Order, which require the prompt identification and abatement of waste sources and the investigation and cleanup of affected areas to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

34. Should the Dischargers fail to take any of the cleanup actions specified in this Order, the Central Valley Water Board may impose administrative civil liability pursuant to Water Code section 13350, which states, in relevant part:

> (a) Any person who (1) violates any cease and desist order or cleanup and abatement order hereafter issued, reissued, or amended by a regional board ... shall be liable civilly, and remedies may be proposed, in accordance with subdivision (d) or (e).
>
> (e) The state board or a regional board may impose civil liability administratively pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis or on a per gallon basis, but not both.
>
> (1) The civil liability on a daily basis may not exceed five thousand dollars ($5,000) for each day the violation occurs.
>
> (A) When there is a discharge, and a cleanup and abatement order is issued, except as provided in subdivision (f), the civil liability shall not be less than five hundred dollars ($500) for each day in which the discharge occurs and for each day the cleanup and abatement order is violated.
>
> (B) When there is no discharge, but an order issued by the regional board is violated, except as provided in subdivision (f), the civil liability shall not be less than one hundred dollars ($100) for each day in which the violation occurs.
>
> (2) The civil liability on a per gallon basis may not exceed ten dollars ($10) for each gallon of waste discharged.

35. Should the Dischargers fail to submit any of the technical or monitoring reports required by this Order, the Central Valley Water Board may impose administrative civil liability pursuant to Water Code section 13268, which states, in relevant part:

> (a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars ($1,000) for each day in which the violation occurs.

(c) Any person discharging hazardous waste, as defined in Section 25117 of the Health and Safety Code, who knowingly fails or refuses to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or who knowingly falsifies any information provided in those technical or monitoring program reports, is guilty of a misdemeanor, may be civilly liable in accordance with subdivision (d), and is subject to criminal penalties pursuant to subdivision (e).

(d)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (c) in an amount which shall not exceed five thousand dollars ($5,000) for each day in which the violation occurs.

CEQA

36. Issuance of this Order mandates further investigation and will compel the Dischargers to implement cleanup work that has been underway for many years. The Site is currently an operating refinery site, situated above contaminated soil and groundwater, and an extensive system of extraction and monitoring wells and other remediation equipment has already been installed. After reviewing and considering evidence in the Board's files regarding the existing environmental conditions at the Site, the Board can conclude that there is no possibility that issuance of this Order will have a significant effect on the environment, and therefore, issuance of the Order is not subject to the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15061(b)(3).

EFFECT OF PRIOR ORDERS

37. Several orders have already been issued by the Central Valley Water Board to parties legally responsible for environmental remediation at the Site. These orders require those responsible parties to perform cleanup actions and to submit technical and monitoring reports. These orders include CAO R5-2007-0716 and CAO R5-2007-0728. The obligations contained in this Order supersede and replace those contained in prior orders. However, the prior orders remain in effect for enforcement purposes; the Central Valley Water Board and/or the State Water Board may take enforcement actions (including, but not limited to, issuing administrative civil liability complaints) against responsible parties that have not complied with directives contained in previously-issued orders.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13304 and section 13267, the Dischargers shall:

1. **Forthwith** investigate the discharges of waste, cleanup the waste, and abate the effects of the discharge of waste, including petroleum hydrocarbons and hazardous waste, to soil and groundwater, in conformance with Resolution 92-49 and with the Basin Plan (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible without risk to health and safety. Staff,

when referenced below, means Central Valley Water Board technical staff. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

REMEDIATION SYSTEMS

2. Maintain continual operation of all remediation systems at the site including the soil vapor extraction, air sparge, and liquid petroleum hydrocarbon removal systems. The systems shall be operated so as to maximize the efficiency of remediation of impacted groundwater and soil at the Site. All remediation systems shall be expanded as necessary to treat all significantly impacted areas of the site. If significantly impacted areas of soil and/or groundwater are discovered that are not within the area of influence of existing remediation systems, a work plan shall be submitted proposing tasks to install remediation systems in those impacted areas.

3. **By 31 January of each calendar year**, submit an annual technical report providing a detailed evaluation of the operation and effectiveness of all remediation systems being operated at the Site. The report shall include recommendations for improvements to the systems to correct any deficiencies.

BLENDING AREA

4. **By 13 July 2012**, submit a work plan proposing tasks for additional assessment of impacts to soil and/or soil vapor in the Blending Area. The work plan needs to propose tasks that will assess soil/soil vapor sufficiently for the complete design of a soil vapor extraction system and installation of all soil vapor extraction wells necessary for the Blending Area. Soil vapor extraction wells and/or soil vapor probes need to be installed where feasible during the assessment.

5. Implement the work plan in Required Action 4 **within 30 days of submittal of the work plan**. **Beginning 1 October 2012**, submit monthly progress reports on progress of the assessment.

6. **By 1 December 2012**, submit a summary of the results of the assessment in Required Action 4.

7. **By 1 April 2013**, submit a remedial design for a soil vapor extraction system in the Blending Area. The submittal shall contain all equipment, extraction wells, and tasks necessary for installation, startup, and operation of the system. The report needs to include a schedule for installation and startup of the system. Beginning 1 November 2012, submit monthly reports summarizing progress on the design of the system required above. The progress reports need to include sufficient detail for evaluation of progress in design of system.

8. **Within 30 days of staff concurrence** of the remedial design required by Required Action 7, implement the work in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

MOHAWK TANK FARM

9. **By 1 August 2012**, submit a work plan proposing tasks for additional assessment of impacts to soil, soil vapor, and groundwater in the former Mohawk Refinery and Mohawk Tank Farm. The work plan shall propose tasks that will assess soil and/or soil vapor sufficiently for the complete design of a soil vapor extraction system in the former Mohawk Refinery and Mohawk Tank Farm. Soil vapor extraction wells and/or soil vapor probes need to be installed where feasible during the

assessment. The work plan shall also propose sufficient monitoring wells to assess the lateral and vertical extent of impacted groundwater in each of the groundwater zones.

10. Implement the work plan in Required Action 9 **within 30 days of submittal of the work plan.** Beginning 1 October 2012, submit monthly progress reports on progress of the assessment.

11. **By 2 January 2013**, submit a summary of the results of the assessment required in Required Action 9.

12. **By 1 April 2013**, submit a remedial design for a soil vapor extraction system in the Former Mohawk Refinery and Mohawk Tank Farm. The submittal shall contain all equipment, extraction wells, and tasks necessary for installation, startup, and operation of the system. The report needs to include a schedule for installation and startup of the system. This report can be combined with the report required in Required Action 7. Beginning 1 November 2012, submit monthly reports summarizing progress on the design of the system required above, which can be combined with the progress reports required in Required Action 7.

13. **Within 30 days** of staff concurrence of the remedial design required by Required Action 12, implement the work in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

14. **By 19 January 2013**, submit a report summarizing the results of an additional assessment of the extent of lead and chromium in the vicinity of the former Cooling Towers and Blowdown Ponds, and the former Soil Pile 7 areas as proposed in a work plan submitted by Big West dated 28 October 2008.

15. Implement the Remedial Action Work Plan for Lead in Soil in Study Section 4 dated 28 October 2008 and the addendum to the plan dated 18 February 2009 as approved by the Executive Officer in a letter dated 18 March 2009. The following due dates for this task shall apply:

    - **By 18 January 2013**, submit a report summarizing the results of the proposed geophysical survey and additional assessment of lead and/or chromium in the tank farm berm areas and proposed excavation areas.
    - **By 29 May 2013**, submit the proposed risk assessment regarding lead and chromium impacted soil in the tank berm and proposed excavation areas.
    - **By 16 October 2013**, submit a revised engineering work plan for excavation and/or capping of lead and/or chromium impacted soil.
    - Implement the plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.
    - **By 29 October 2014**, submit a report summarizing the completion of tasks for remediation of lead and/or chromium impacted soil.
    - **Beginning 1 September 2012,** submit monthly progress reports on the progress of tasks required in Required Action 15.

AREA 2 REFINERY

16. A report evaluating remedial options for impacted soil and groundwater in Study Section 5 (southern portion of Area 2 Refinery) is due by **4 February 2013**. The report needs to select preferred alternatives for remediation of impacted soil and groundwater in this area.

17. **Within 30 days of staff concurrence** of the work plan required by Required Action 16, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

18. **By 17 October 2012**, submit a work plan proposing tasks to delineate the source and lateral and vertical extent liquid and dissolved of petroleum hydrocarbons detected in the vicinity of and upgradient in Area 2 of well R3U, R3M and other wells in the vicinity.

19. **Within 30 days of staff concurrence** of the work plan required by Required Action 18, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

UNDERGROUND PIPELINES

20. Big West submitted and implemented the plan Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines dated 17 December 2007. The Big West plan shall continue to be implemented by the Dischargers until the Central Valley Water Board approves of any proposed amendments. Procedures for maintenance and testing of underground lines shall be done in accordance with all Federal and State of California regulations as well as following procedures detailed in the above document.

DISCHARGE RESPONSE

21. Big West submitted and implemented the Discharge Response Plan dated 17 December 2007. The Big West plan shall continue to be implemented by the Dischargers until the Central Valley Water Board approves of any proposed amendments. Responses to discharges at the facility shall be conducted following all Federal and State of California regulations as well as following procedures detailed in the above cited plan.

PUBLIC PARTICIPATION

22. Big West submitted and implemented a Public Participation Plan dated January 2008. The Big West plan shall continue to be implemented by the Dischargers until the Central Valley Water Board approves of any proposed amendments.

ABOVEGROUND STORAGE TANKS

23. Big West submitted a report dated 13 March 2008 proposing a schedule for installation of leak detection systems on aboveground storage tanks at the site, as required by CAO R5-2007-0728. The schedule called for installation of the systems or approved alternatives on all active tanks by the end of 2015. The report and proposed schedule were approved in a letter dated 14 April 2008. The approved leak detection systems or alternatives approved by the Central Valley Water Board have not been installed in accordance with the approved schedule. ALON submitted a table on 4 October 2011 indicating that only 38 of the existing tanks at the site will be

used in its operations. Twenty one of those tanks are equipped with double bottoms or leak detection systems and three tanks do not require leak detection systems based on their contents. The remaining tanks need to be retrofitted with double bottoms or leak detection systems in accordance with the following schedule:

2012 – two tanks to be retrofitted
2013 – two tanks to be retrofitted
2014 - two tanks to be retrofitted
2015 – two tanks to be retrofitted
2016 - three tanks to be retrofitted

All aboveground tanks in use for storage of petroleum hydrocarbon containing compounds or other chemicals or compounds that could pose a potential threat to groundwater quality shall be retrofitted by the end of 2016. All tanks not in use shall be inspected and cleaned prior to the end of 2015. An annual update on retrofitting of aboveground storage tanks and cleaning and inspection of unused tanks needs to be submitted by 15 January of each year.

ASSESSMENT OF THREAT TO HUMAN HEALTH AND SAFETY

24. A Human Health Risk Assessment Report submitted by Big West identified that petroleum hydrocarbon vapors, specifically benzene, originating from soil or groundwater may pose an exposure risk through inhalation in the Nurse Station Building. **By 2 July 2012**, the Dischargers shall submit a plan to mitigate the threat posed to human health and safety in the Nurse Station Building. The plan shall include a time schedule for its implementation and completion prior to occupancy of the building.

25. After staff concurrence of the plan required by Required Action 24, implement the plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

GENERAL REQUIREMENTS

The Dischargers shall:

26. The Central Valley Water Board shall be notified within 48 hours of any discharges of petroleum hydrocarbons, hazardous materials, or other materials that could pose a threat to soil or groundwater at the facility.

27. As required by the Business and Professions Code sections 6735, 7835, and 7835.1, have reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger(s) shall include a cover letter signed by the Discharger(s), or an authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the report is true, complete, and accurate. The Discharger(s) shall also state if they agree with any recommendations/proposals and whether they approved implementation of said proposals.

28. Conduct work only after Central Valley Water Board staff concurs with the proposed work.

29. Operate the remedial systems continually, except for brief shutdowns for maintenance and/or repair. The Dischargers shall at all times, properly operate and maintain all facilities and systems

of treatment and control (and related equipment) that are installed or used by the Dischargers to achieve compliance with the conditions of this Order. The Dischargers shall notify the Central Valley Water Board prior to any planned shutdown of any treatment or remediation system of more than three days. The Dischargers shall notify the Central Valley Water Board of any unplanned shutdown of any treatment or remediation that lasts more than three days and state the estimated time to restart the system(s) and the steps being taken to restart the system(s).

30. Notify Central Valley Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

31. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.

32. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient remediation has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.

33. Optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in quarterly reports.

34. Maintain a sufficient number of monitoring wells to completely define and encompass the above waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within thirty days of Central Valley Water Board staff approval, to define the new plume limits.

35. Comply with Monitoring and Reporting Program R5-2012-0701, which is attached to and made part of this Order. A violation of Monitoring and Reporting Program R5-2012-0701 is a violation of this Order.

36. Supply each of the other Dischargers herein named with timely updates on activities conducted under this Order and provide the other Dischargers with copies of reports, correspondence, and other documents produced to meet the requirements of this Order.

37. Reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the Site.

If, for any reason, the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. An extension may be granted by revision of this Order or by a letter from the Executive Officer.

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

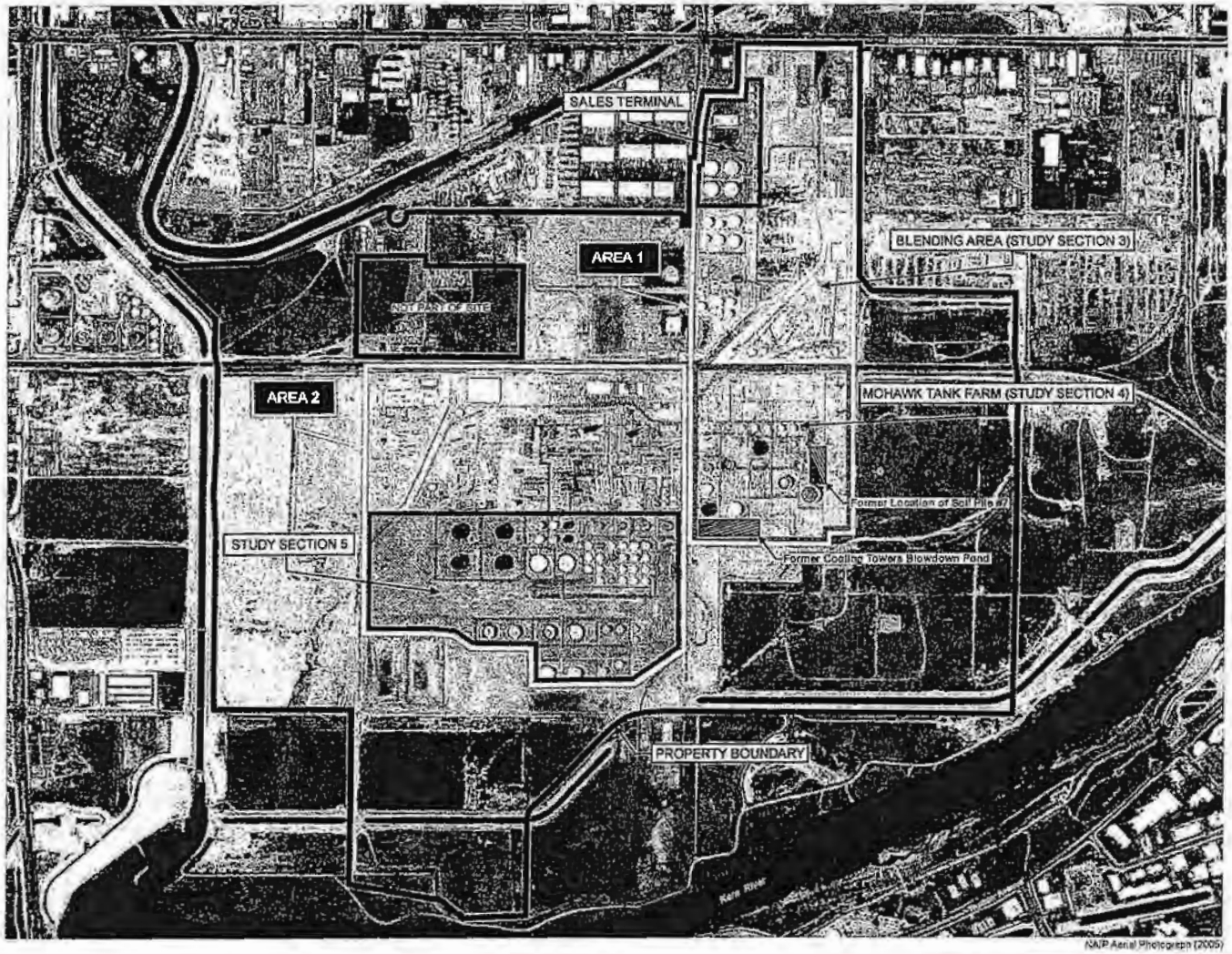
This Order is effective upon the date of signature.

Clay L. Rodgers

for PAMELA C. CREEDON, Executive Officer

5/3/2012

(Date)



BAKERSFIELD REFINERY

Feet
0 250 500 1,000

FIGURE 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-0701
FOR
ALON BAKERSFIELD PROPERTIES, INC.
AND
EQUILON ENTERPRISES, LLC
BAKERSFIELD REFINERY
KERN COUNTY

Compliance with this Monitoring and Reporting Program is required pursuant to Water Code section 13267 as ordered by Cleanup and Abatement Order R5-2012-0701 (the "CAO"). Failure to comply with this program constitutes noncompliance with the CAO and the Water Code, which can result in the imposition of civil liability. All sampling and analyses shall be by United States Environmental Protection Agency (USEPA) approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Central Valley Region ("Central Valley Water Board").

A complete list of substances which are tested for and reported on by the testing laboratory shall be provided to the Central Valley Water Board. All peaks must be reported. In addition, both the method detection limit and the practical quantification limit shall be reported. Detection limits shall equal or be more precise than USEPA methodologies. Water samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a California Department of Public Health certified laboratory.

The Dischargers shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Central Valley Water Board.

GROUNDWATER MONITORING

The Dischargers shall collect groundwater samples from groundwater monitoring wells (provided sufficient water exists in a well to be sampled) and nearby supply wells in accordance with the Groundwater Monitoring Schedule included as Attachment A. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled quarterly. The groundwater surface elevation (in feet and hundredths, mean seal level) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow. All wells with historical concentrations of total petroleum hydrocarbons as diesel (TPHD), total petroleum hydrocarbons as gasoline (TPHG), and/or other petroleum hydrocarbons greater than 3,000 micrograms per liter shall be measured for liquid petroleum hydrocarbons during each regular monitoring event.

The following shall constitute the analytical suite for groundwater.

Constituent	Detection Limit ug/L	EPA Method
Total petroleum hydrocarbons as gasoline	50	EPA 8015 modified
Total petroleum hydrocarbons as diesel	50	EPA 8015 modified
Benzene	0.5	EPA 8260

Constituent	Detection Limit ug/L	EPA Method
Toluene	0.5	EPA 8260
Ethylbenzene	0.5	EPA 8260
Xylenes	0.5	EPA 8260
Methyl tert-butyl ether	1	EPA 8260
Dissolved oxygen		Field*
pH		Field*
Electrical Conductivity		Field*
Temperature		Field*
Oxidation Reduction Potential		Field*

*Instrument calibration logs shall be included in the monitoring reports
ug/L – micrograms per liter.

REMEDIATION SYSTEMS

Reports on remediation systems at the site shall be included with the groundwater monitoring reports and submitted quarterly. The reports shall contain the following information regarding the site remediation systems:

1. Maps showing location of all remediation wells;

2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;

3. Air sparge well operating records including status of each well and volume and pressure of air being injected;

4. Soil vapor extraction well records including status of each well and PID readings or other acceptable methods of determining relative volatile concentrations taken at a minimum quarterly. Readings of volatile concentrations drawn from SVE wells need to be taken at a frequency that allows the efficient operation and evaluation of the SVE system;

5. The report needs to include an evaluation of the SVE system including the amount of petroleum hydrocarbons removed;

6. A written summary and a table showing the amount and frequency of removal of liquid petroleum hydrocarbons from all wells with liquid petroleum hydrocarbons present.

7. Daily field sheets shall document field activities conducted during each site visit and shall be included in the quarterly reports.

MONITORING FREQUENCIES

Monitoring frequencies are listed in Attachment A. Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be

adjusted or parameters and locations removed or added by the Executive Officer if site conditions indicate that the changes are necessary.

REPORTING REQUIREMENTS

1. The Dischargers shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Dischargers shall be deemed to be in noncompliance with the Monitoring and Reporting Program.

2. Quarterly groundwater monitoring and remediation system reports shall be submitted to the Central Valley Water Board according to the schedule below.

Monitoring Period	Report Due
January – March	April 30
April – June	July 31
July – September	October 31
October – December	January 31

Each quarterly report shall include the following minimum information:

(a) a description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume is fully treated by the existing remediation systems; If there are any deficiencies during the sampling event or if impacts to groundwater extend beyond recent historical boundaries, the report shall include an explanation and/or evaluation and propose options for addressing or correcting the deficiencies;

(b) field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.; Water quality parameters shall include electrical conductivity, temperature, pH, dissolved oxygen, and oxygen reduction potential;

(c) groundwater contour maps for all groundwater zones, if applicable;

(d) pollutant isoconcentration maps for all groundwater zones, if applicable. The maps shall include at a minimum plots of total petroleum hydrocarbons as diesel and gasoline, benzene, and MTBE for each of the groundwater zones monitored;

(e) a table showing well construction details that shall include at a minimum well number, groundwater zone being monitored, measuring point elevation, depth to top and bottom of screen, water level elevation, depth to water, and depth to product and product thickness, if present;

(f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;

(g) cumulative data tables containing all historical water quality analytical results and depth to groundwater;

(h) a copy of all laboratory analytical data reports;

(i) results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program or at other locations at the site shall be reported to the Central Valley Water Board;

(j) a summary of any spills/releases that occurred during the quarter and tasks undertaken in response to the spills/releases;

(k) an update and status on each of the outstanding tasks required by the CAO or Executive Officer;

(l) a map showing all wells on the facility;

(m) a table summarizing water quality parameters measured during the current quarter;

3. In reporting the monitoring data, the Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in an electronic form acceptable to the Executive Officer.

4. The Dischargers shall submit an annual report by 31 January of each year for the preceding year. The report can be combined with the Dischargers' fourth quarter report. The report shall contain:

    a. Both tabular and graphical summaries of all data obtained during the year;

    b. An in-depth evaluation of groundwater conditions at the site including short and long-term trends of the constituents of concern in each area of the site;

    c. An evaluation of the effectiveness of the groundwater monitoring network in delineating the lateral and vertical extent of impacts to groundwater in all affected areas of the site. This should include an identification of any data gaps and potential deficiencies in the monitoring system or reporting program. The report shall include recommendations to address any deficiencies in the monitoring and report program.

    d. An evaluation of the effectiveness of each of the remediation systems. The evaluation shall include the effectiveness of the systems in remediating impacted groundwater and each of the source areas or suspected source areas. The report shall include recommendations for improving or expanding the systems, if necessary.

    e. A summary of the performance of each remediation system including the amount and percentage of operating and downtime, and the amount of petroleum hydrocarbons removed.

    f. A summary of all spills/releases, if any, that occurred during the year, tasks undertaken in response to the spills, the results of the tasks undertaken.

5. For each required quarterly and annual report, one report shall be submitted containing all monitoring data collected at the site by all Dischargers and include all information cited in the above sections. A hard copy of all required reports on/or responses shall be submitted by the due date unless otherwise arranged with Central Valley Water Board staff.

6. The Dischargers shall maintain a data base containing historical and current monitoring data in an electronic form acceptable to the Executive Officer. The data base shall be updated quarterly and provided to the Central Valley Water Board in electronic format.

7. The Dischargers shall submit electronic copies of all workplans, reports, analytical results, and groundwater elevation data over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at *http://geotracker.swrcb.ca.gov*. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site. Uploads to Geotracker shall be completed on or prior to the due date. In addition, a hardcopy of each document shall be submitted to the Central Valley Water Board at 1685 E Street, Fresno, CA 93706, attention Cleanup Unit.

Clay L. Rodgers
for PAMELA C. CREEDON, Executive Officer

5/3/2012
(Date)

GROUNDWATER MONITORING AND REPORTING PROGRAM R5-2012-0701

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-001L	X		X
B-001M	X		X
B-001U	X		X
B-003	X		X
B-007	X	X	
B-008	X		X
B-009	X		X
B-010	X		X
B-011	X	X	
B-012	X	X	
B-013	X	X	
B-014	X		X
B-017	X		X
B-023	X	X	
B-024L	X		X
B-024U	X		X
B-030L	X	X	
B-030M	X	X	
B-030U	X	X	
B-037M	X	X	
B-037U	X	X	
B-041L	X	X	
B-041M	X	X	
B-041U	X	X	
B-042	X	X	
B-043	X	X	
B-044L	X	X	
B-044M	X	X	
B-044U	X		X
B-050L	X	X	
B-050M	X		X
B-050U	X		X
B-052L	X		X
B-052M	X		X
B-052U	X	X	
B-075L	X	X	
B-075M	X	X	
B-075U	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-076U	X	X	
B-081U	X	X	
B-081M	X		X
B-098L	X	X	
B-098M	X	X	
B-098U	X		X
B-099L	X	X	
B-099M	X	X	
B-099U	X	X	
B-100L	X		X
B-100M	X	X	
B-100U	X		X
B-102M	X	X	
B-102U	X	X	
B-103L	X	X	
B-103M	X	X	
B-103U	X	X	
B-104L	X	X	
B-104M	X	X	
B-104U	X	X	
B-105L	X		X
B-105M	X	X	
B-105U	X	X	
B-106L	X		X
B-106M	X		X
B-106U	X		X
B-107L	X	X	
B-107M	X	X	
B-107U	X		X
B-108L	X	X	
B-108M	X	X	
B-108U	X	X	
B-109L	X	X	
B-109M	X	X	
B-109U	X	X	
B-110L	X		X
B-110M	X		X
B-110U	X		X
B-111L	X		X
B-111M	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-111U	X		X
B-114L	X	X	
B-114M	X	X	
B-114U	X	X	
B-115L	X	X	
B-115M	X	X	
B-115U	X	X	
B-116L	X	X	
B-116M	X	X	
B-116U	X	X	
B-117L	X	X	
B-117M	X	X	
B-117U	X	X	
B-118L	X	X	
B-118M	X	X	
B-118U	X	X	
B-119L	X		X
B-119M	X		X
B-119U	X		X
B-120L	X	X	
B-120M	X		X
B-120U	X		X
B-121M	X		X
B-121U	X		X
B-124L	X		X
B-124M	X		X
B-124U	X		X
B-125L	X		X
B-125M	X		X
B-125U	X		X
B-126L	X	X	
B-126M	X	X	
B-126U	X	X	
B-127L	X		X
B-127M	X	X	
B-127U	X		X
B-128L	X	X	
B-128M	X		X
B-128U	X	X	
B-129L1	X		X

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-129L2	X		X
B-129M	X		X
B-129U	X		X
B-130L1	X	X	
B-130L2	X	X	
B-130M	X	X	
B-130U	X	X	
B-131L1	X	X	
B-131L2	X	X	
B-131M	X	X	
B-131U	X	X	
B-133	X	X	
B-134	X		X
B-143	X	X	
B-144	X	X	
B-145	X	X	
B-146	X	X	
B-150M	X		X
B-153	X		X
B-153M	X	X	
B-135U	X	X	
B-154	X	X	
B-156	X	X	
B-157	X	X	
B-158	X		X
B-159	X	X	
B-160M	X	X	
B-160U	X	X	
B-161M	X		X
B-161U	X	X	
B-162M	X	X	
B-162U	X	X	
B-163M	X	X	
B-163U	X	X	
B-164L	X		X
B-164M	X	X	
B-164U	X	X	
B-166L	X		X
B-166M	X		X
B-166U	X		X

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-167L	X	X	
B-167M	X	X	
B-167U	X	X	
B-168L	X	X	
B-168M	X	X	
B-169L	X		X
B-169M	X	X	
B-169U	X	X	
B-170L	X		X
B-170M	X		X
B-170U	X	X	
B-171L	X		X
B-171M	X		X
B-171U	X		X
B-172L	X		X
B-172M	X	X	
B-172U	X	X	
B-173L	X	X	
B-173M	X	X	
B-173U	X	X	
B-175L	X	X	
B-175M	X	X	
B-175U	X	X	
B-176L	X	X	
B-176M	X	X	
B-176U	X	X	
B-177U	X	X	
B-177M	X	X	
B-177L	X	X	
B-178M	X	X	
B-178U	X	X	
B-179U	X	X	
B-179M	X	X	
B-180U	X		X
B-180M	X	X	
B-180L	X	X	
B-181U	X	X	
B-181M	X	X	
B-181L	X	X	
B-182U	X	X	

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GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-182M	X	X	
B-183	X	X	
B-185U	X		X
B-185M	X	X	
B-185L	X	X	
B-186U	X		X
B-186M	X		X
B-186L	X		X
B-187U	X		X
B-187M	X	X	
B-187L	X	X	
B-188U	X	X	
B-188M	X	X	
B-188L	X	X	
B-195U	X	X	
B-195M	X		X
B-195L	X		X
B-196U	X	X	
B-196M	X		X
B-196L	X		X
B-201	X		X
B-202U	X	X	
B-202L	X		X
B-203 (Area 1)	X	X	
B-203 (Area 2)	X	X	
B-204 (Area 1)	X	X	
B-204 (Area 2)	X	X	
B-207M	X	X	
B-207U	X	X	
B-209M	X	X	
B-209U	X	X	
B-210M	X	X	
B-210U	X	X	
B-211M	X	X	
B-211U	X	X	
B-212M	X	X	
B-212U	X	X	
B-213L	X	X	
B-213M	X	X	
B-213U	X	X	

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GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
RWIP-W4BU	X	X	
RWIP-W4BM	X	X	
B-231	X	X	
B-232	X	X	
B-233	X	X	
B-234	X	X	
B-235	X	X	
B-236	X	X	
B-237	X	X	
BWM-1U	X	X	
BWM-2U	X	X	
BWM-3U	X	X	
BWM-4U	X	X	
BWM-5U	X	X	
BWM-6U	X	X	
BWM-7U	X	X	
BWM-8U	X	X	
BWM-9	X	X	
BWM-10	X	X	
BWM-11	X	X	
BWM-12	X	X	
BWM-13	X	X	
BWM-14	X	X	
BWM-15	X	X	
BWM-16	X	X	
BWM-17	X	X	
BWM-18	X	X	
BWM-19M	X		X
BWM-19U	X		X
BWM-20M	X		X
BWM-20U	X		X
BWM-21L	X	X	
BWM-21M	X	X	
BWM-21U	X	X	
BWM-22M	X	X	
BWM-22U	X	X	
BWM-23M	X	X	
BWM-23U	X	X	
BWM-24M	X	X	
BWM-24U	X	X	

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GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
BWM-25M	X	X	
BWM-25U	X	X	
BWM-26M	X	X	
BWM-26U	X	X	
BWM-27M	X	X	
BWM-27U	X	X	
BWM-28M	X	X	
BWM-28U	X	X	
BWM-29M	X	X	
BWM-29U	X	X	
BWM-30M	X	X	
BWM-30U	X	X	
BWM-31M	X	X	
BWM-31U	X	X	
BWM-32M	X	X	
BWM-32U	X	X	
BWM-33L	X	X	
BWM-34L	X	X	
BWM-35L	X	X	
D-1			X
D-2			X
D3	X	X	
D-3			X
D-4			X
D-6			X
DP2	X	X	
I-1			X
I-2			X
I-3			X
I-6			X
I-8			X
I-9			X
I-12			X
M14S	X	X	
MN1Z	X	X	
MN2AU	X	X	
MS2.5A	X	X	
PW-A	X	X	
PW-L23	X		X
PW-L26	X		X

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GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
PW-L28	X		X
PW-U4	X		X
R1	X	X	
R2	X	X	
R4	X	X	
R7	X	X	
R6B	X	X	
ROW-1	X	X	
ROW-2	X	X	
ROW-3	X		X
ROW-9	X	X	
RS-6A	X	X	
RS-BW4	X	X	
RS-DP4	X		X
RS-DP5	X		X
RS-DP6	X	X	
RS-DP7	X		X
RS-HC7	X	X	
RS-HC8	X	X	
RS-MN1Z	X	X	
RS-MN2B	X		X
RS-MS2.5C	X		X
RS-MS3A	X		X
RWIP-W4BM	X	X	
T10A	X		X
T16A	X	X	
T3B	X	X	
T8B	X		X
T9A	X	X	
T19M	X	X	
T19U	X	X	
T21M	X	X	
T21U	X	X	
TR2	X	X	
U4	X		X
WIP-W1	X	X	
WIP-W2	X	X	
WIP-W2A	X	X	
WIP-W3			
WIP-W3A	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
WIP-W4			
WIP-W4A	X	X	
5U-1	X	X	
5U-2	X	X	
5U-3	X	X	
5U-4	X	X	
5U-5	X	X	
5U-6	X	X	
5U-7	X	X	
5U-8	X	X	
5U-9	X	X	
5U-10	X	X	
5U-11	X	X	
5U-12	X	X	
5U-13	X	X	
5U-14	X	X	
5U-15	X	X	
6U-1	X	X	
6U-2	X	X	
6U-3	X	X	
RGO-1	X		
RGO-2	X		
RGO-3	X		
RGO-4	X		
RGO-5	X		
RGO-6	X		
RGO-7	X		
RGO-8	X		
RGO-9	X		

* Sample during first and third quarters

EXHIBIT B

Linda S. Adams
Secretary for Environmental Protection

California Regional Water Quality Control Board
Central Valley Region
Karl E. Longley, ScD, PE, Chair

Fresno Branch Office
1685 E Street, Fresno, California 93706
(559) 445-5116 • Fax (559) 445-5910
http://www.waterboards.ca.gov/centralvalley

Arnold Schwarzenegger
Governor

10 October 2007

Mr. Bill Chadick
Big West of California, LLC
6451 Rosedale Highway
Bakersfield, CA 93308

Mr. Gene Freed
Equilon Enterprises LLC
4607 Lakeview Canyon Rd, P.O. Box 168
Westlake Village, CA 91361

CLEANUP AND ABATEMENT ORDER NO. R5-2007-0728, BIG WEST OF CALIFORNIA LLC AND EQUILON ENTERPRISES LLC, 6451 ROSEDALE HIGHWAY, BAKERSFIELD, KERN COUNTY

The enclosed Cleanup and Abatement Order is issued pursuant to California Water Code Sections 13267 and 13304 and requires that your employers investigate the discharges of waste, cleanup the wastes and abate the affects of the discharge of wastes, including petroleum hydrocarbons and hazardous substances, to soil and groundwater at the Bakersfield Refinery, 6451 Rosedale Highway, Bakersfield, Kern County. We appreciate you meeting with staff to provide comment concerning facts, directives, and responsible parties on a draft of this order and your separate commitments to complete the necessary investigations and cleanup.

If you have any questions about the technical aspects of the situation, please contact Jan Alfson at (559) 488-4345. In addition, please contact Jan Alfson at least 72 hours in advance of all significant field work to allow staff an opportunity for direct regulatory oversight.

Pamela C. Creedon
Executive Officer

Enclosures: Order No. R5-2007-0728

cc: Joe Canas, Kern County Environmental Health Department, Bakersfield
Mark Passarini, Trihydro, 1290 N. Hancock, Suite 101, Anaheim, Ca 92807
Mr. Christopher McNevin, Pillsbury, Winthrop, Shaw, Pittman LLP, 725 S. Figueroa St., Suite 2800, Los Angeles, Ca 90017-5406

EXHIBIT B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2007-0728
FOR
BIG WEST OF CALIFORNIA, LLC
AND
EQUILON ENTERPRISES LLC
BAKERSFIELD REFINERY
KERN COUNTY

This Order is issued to Big West of California, LLC, and Equilon Enterprises LLC, hereafter referred to collectively as Dischargers, based on provisions of California Water Code section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) to issue a Cleanup and Abatement Order (Order), and on Water Code section 13267, which authorizes the Regional Water Board to require preparation and submittal of technical and monitoring reports.

The Executive Officer finds, with respect to the Discharger's acts or failures to act, the following:

PROPERTY OWNERSHIP AND OPERATIONS

1. Big West of California, LLC (Big West), a Utah limited liability company, currently owns and operates a refinery on 599 acres of properties it owns at 6451 Rosedale Highway in Bakersfield, California (properties hereafter referred to simply as Site, as shown on Figure 1). As Figure 1 shows, the Site consists of Area 1 (including but not limited to the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2. The properties and refinery, or parts and areas of them, have over the years been owned and operated by other parties. The refinery currently processes approximately 70,000 barrels of crude oil daily. Numerous pipelines exist above and below ground surface throughout the Site, including several pipelines unassociated with the refinery which transverse the Site. The Site includes many aboveground storage tanks. As summarized in more detail below, operations over the years have resulted in discharges of crude oil and various refinery products and additives, including but not limited to diesel, gasoline, reformate, and MBTE from the tanks and pipelines. These discharges deposited petroleum hydrocarbons in soils, from which the petroleum hydrocarbons then migrated to and polluted underlying groundwater as set forth in findings below. Monitoring of more than 250 groundwater monitoring and supply wells occurs regularly.

2. Big West purchased the refinery and Site from Equilon Enterprises LLC and began operating the refinery in March 2005. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 2006 and 2007 and contributed to or created pollution or threat of pollution of groundwater. As current Site owner and because the discharge of petroleum hydrocarbons to soil and groundwater occurred during its operations, Big West is a responsible party for the pollution caused by its discharges and for other pollution due to its current ownership of the Site, and subject to this Order. Big West has been engaged in cleanup and abatement actions concerning the

discharges. Big West was also issued Cleanup and Abatement Order No. R5-2007-0716 to address a specific petroleum hydrocarbons discharge reported in June 2007.

3. Equilon Enterprises LLC (Equilon), a Delaware limited liability company, owned the Site from 1998 to March 2005 and operated the refinery during this period. From 1998 through 2001, Equilon was a joint venture between Texaco Refining and Marketing, Inc. (TRMI), a Delaware corporation, and Shell Oil Company, a Delaware corporation. Shell Oil Company purchased TRMI and TRMI's interest in Equilon by stock purchase agreement dated 12 December 2001 and the refinery was then operated as Equilon Enterprises LLC, doing business as Shell Oil Products US (SOPUS). SOPUS is a wholly owned subsidiary of Shell Oil Company that does refining, transporting, and marketing of petroleum. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 1999, 2000 and 2001, 2003, and 2004 and contributed to or created petroleum hydrocarbons pollution or threat of pollution of groundwater. As an owner and operator during a period when petroleum hydrocarbons was discharged, Equilon is a responsible party for the pollution and subject to this Order. Shell Oil Company still owns underground pipelines that transverse the Site. At least one of the pipelines still continues to transport petroleum hydrocarbon products. Equilon is conducting groundwater monitoring, assessment and remediation (soil vapor extraction and air sparging) at the Site over portions of the Area 2 Refinery, the Blending Area, and the Mohawk Tank Farm.

4. Texaco Inc. owned and operated the Area 2 refinery from 1986 to 1987 and Area 1 from 1984 to 1987. TRMI owned and operated the Area 2 refinery from 1988 to 1998 and Area 1 from 1987 to 1998. Discharges of petroleum hydrocarbons occurred at the Area 2 refinery in at least 1987 and 1993 and in Area 1 in at least 1993 and 1996 and contributed to or created petroleum hydrocarbons pollution or threat of pollution of groundwater.

5. As Area 1 was also owned and operated by Mohawk Oil Company from 1932 to 1970, Reserve Oil and Gas Company from 1970 to 1980, and Getty Oil Company from 1980 to 1984, and as Area 2 was built and operated by the U.S. Government in 1942 and also subsequently owned by Lion Oil Company and then Tosco Oil Company from 1970 to 1986, these persons are all potentially responsible parties. However, no evidence is currently available that would justify naming them as responsible parties subject to this Order.

6. Big West, Equilon, and Texaco, Inc. received an opportunity to review a draft of this Order. Big West and Equilon have accepted responsibility for the necessary cleanup and abatement actions identified in this Order, which may be revised to name other responsible parties in the future should that prove necessary to obtain cleanup and abatement.

BACKGROUND

7. The Site is within the boundaries of the Kern County Water Agency Improvement District No. 4 (ID4). The District recharges groundwater in the vicinity of the Site through seepage from the Calloway Canal and the Kern River. The quality of the water used for recharge has total dissolved solid concentrations ranging from 100 milligrams per liter (mg/L) to 400 mg/L. Groundwater pumped from ID4 is used as a supplemental supply for portions of metropolitan Bakersfield.

8. Groundwater impacted by diesel constituents underlies most of the Site. Groundwater beneath approximately 200 acres of the Site is also impacted with significant concentrations of gasoline constituents and MTBE.

9. The groundwater surface has historically fluctuated between 50 and 150 feet below ground surface (bgs). Water levels at the Site rose approximately 100 feet between 1993 and 1999. The upper 100 feet of sediments beneath the Site consists of interbedded sands and silts. The large fluctuation of groundwater levels has led to smearing of petroleum hydrocarbons from first encountered groundwater to depths of greater than 140 feet bgs.

10. **Area 2 Refinery** - A discharge of petroleum hydrocarbons in the form of reformate (main reformate discharge) from an underground pipeline was discovered in March 1987 in the vicinity of the Area 2 refinery hydrocracker unit. Estimates of the volume of that discharge range from 1.5 million to over 2.8 million gallons. A discharge of petroleum hydrocarbons in the form of diesel in the vicinity of monitoring well R6B was reported in May 2006. The discharge was estimated at 1,000 barrels. Big West is currently removing liquid petroleum hydrocarbons from monitoring wells in the vicinity of this discharge. Liquid petroleum hydrocarbons were also recently detected in wells B-012 and ROW-2 in the southern portion of the Area 2 refinery. Maximum concentrations of MTBE, total petroleum hydrocarbons as gasoline (TPHG), and total petroleum hydrocarbons as diesel (TPHD) in groundwater beneath this area in February 2007 were 5,100 micrograms per liter (ug/L), 100,000 ug/L, and 30,000 ug/L, respectively. Maximum concentrations of benzene, toluene, ethylbenzene, and xylenes during February 2007 were 3,800 ug/L, 12,000 ug/L, 4,800 ug/L, and 24,100 ug/L, respectively. Big West submitted a work plan for additional assessment in the southern portion of the Area 2 Refinery dated 11 October 2006, which was approved by a Regional Water Board letter dated 16 November 2006. The area covered by the work plan includes the tank farm south of the high-tension power line corridor that traverses Area 2 from east to west. This area includes several former solid waste disposal sites, crude oil supply piping and metering stations, and the southern portion of the Area 2 tank farm. Assessment by Big West is ongoing.

11. **Sales Terminal** - Discharges of petroleum hydrocarbons containing MTBE occurred in the Sales Terminal area in March 1999, December 2000, and April 2001. Two groundwater extraction systems were installed downgradient of the discharge and

vapor extraction wells were installed in the vicinity of the discharge by Equilon. Maximum concentrations of MTBE, TPHG, and TPHD in groundwater beneath this area in February 2007 were 3,100 ug/L, 1,100 ug/L, and 64,000 ug/L, respectively. Maximum concentrations of benzene, toluene, ethylbenzene, and xylenes during February 2007 were 27 ug/L, 21 ug/L, 170 ug/L, and 1,120 ug/L, respectively. Petroleum hydrocarbons were detected during February 2007 to the west and offsite of the Sales Terminal at maximum concentrations of 420 ug/L, 2,100 ug/L, and 1,100 ug/L for MTBE, TPHD and TPHG, respectively.

12. **Blending Area** - A discharge of 2,300 gallons of MTBE from a railroad car occurred in July 1996 in the Blending area. Several smaller discharges were also reported in this area. Liquid petroleum hydrocarbons are routinely detected in monitoring well B-109. Five feet of petroleum hydrocarbons were detected in B-109U in July 2007. The source for the liquid petroleum hydrocarbons is unknown. Recent studies in the Blending Area indicate that some soils in this area are impacted by elevated concentrations of chromium and arsenic, and by elevated-to-hazardous concentrations of lead. Soils in the southeastern and southern portions of this area are impacted by gasoline and diesel. Soils had a maximum lead total threshold limit concentration (TTLC) of 8,560 milligrams per kilogram (mg/kg) and a maximum chromium TTLC of 164 milligrams per kilogram. Maximum concentrations of MTBE, TPHG and TPHD in groundwater beneath this area in February 2007 were 940 ug/L, 30,000 ug/L, and 13,000 ug/L, respectively. Maximum concentrations of benzene, toluene, ethylbenzene, and xylenes during Feburary 2007 were 2,400 ug/L, 2,100 ug/L, 1,100 u/L, and 10,400 ug/L, respectively. Big West submitted a work plan for additional assessment of soil and groundwater conditions in this area dated 11 October 2006 that was approved by a Regional Water Board letter dated 16 November 2007. Assessment of this area by Big West is ongoing.

13. **Mohawk** Tank Farm – This area is directly south of the Blending Area. A discharge of less than 500 barrels of residual gas oil from the RGO pipeline, located in the northwest corner of the area, was reported in January 2007. Big West reported greater than 20 feet of liquid petroleum hydrocarbons in monitoring well BWM-5U in June 2007. The liquid petroleum hydrocarbons are being assessed and removed under Cleanup and Abatement Order No. R5-2007-0716. A discharge of an unknown amount of petroleum hydrocarbons was reported from a flange near 72P15 in January 2006. Initial assessment in the vicinity of the flange indicates impacts of petroleum hydrocarbons to deeper soils may be related to operation of other equipment in the area. Liquid petroleum hydrocarbons have been detected in monitoring well BWM-4U in the northeastern portion of the area. The source of the petroleum hydrocarbons has not yet been identified. In the vicinity of BWM-6U, in the northwest corner of the area, groundwater has been impacted by MTBE, diesel and gasoline. Maximum concentrations of MTBE, TPHG, and TPHD in groundwater beneath this area in October 2006 were 94 ug/L, 40,000 ug/L, and 32,000 ug/L, respectively. Maximum concentrations of benzene, toluene, ethylbenzene, and xylenes in May 2006 were 950 ug/L, 1,900 ug/L, 4,100 ug/L, and 7,200 ug/L, respectively. Soil assessments in

the Mohawk Tank Farm have detected lead and chromium at elevated-to-hazardous concentrations. Soils had a maximum lead TTLC concentration of 5,670 milligrams per kilogram and maximum chromium TTLC of 6,920 mg/kg. Big West submitted a work plan dated 11 October 2006 proposing additional assessment in this area that was approved in Regional Water Board letter dated 16 November 2006. Big West submitted a work plan dated 16 April 2007 proposing assessment in the vicinity of a flange leak near 72P15 that was approved by a Regional Water Board letter dated 1 May 2007. Assessments by Big West are ongoing.

14. **Soil Vapor Extraction System** – A soil vapor extraction (SVE) system has been utilized at the Site to remove volatile petroleum hydrocarbons from the vadose zone. The majority of the SVE wells are in the vicinity of the Area 2 refinery and the Sales Terminal. Three SVE wells exist in the northern portion of the Mohawk Tank Farm and one exists in the Blending Area. The SVE system was shut down in March 2005 when Equilon sold the Bakersfield refinery to Big West and the system has not been restarted to date. SOPUS is rebuilding the SVE system to run independently from the refinery. SOPUS reported operation would resume in July 2007. The Regional Water Board requested an evaluation of the SVE and air sparge systems in October 2006. SOPUS submitted a proposed outline dated 12 July 2007 for the evaluation. The outline was approved with revisions by a Regional Water Board letter dated 16 August 2007.

15. **Air Sparge System** – An air sparge (AS) system is operated at the Site by SOPUS to add oxygen to the groundwater and enhance biodegradation. The system consists of 46 multi-level well clusters located principally in the vicinity of and to the west and north of the Area 2 refinery.

16. Diesel constituents have been detected in western and northwestern perimeter monitoring wells and/or offsite monitoring wells. The lateral extent of diesel-impacted groundwater is not delineated along the western and northwestern borders of the Site.

AUTHORITY – LEGAL REQUIREMENTS

17. Section 13304(a) of the California Water Code provides that:

> *Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the regional board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.*

18. Section 13267(b)(1) of the California Water Code provides that:

> *In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*

19. Section 13304(c)(1) of the California Water Code provides that:

> *. . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . .*

20. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigation proceed in a progressive sequence. To the extent practical, it directs the Regional Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

21. Chapter IV of the Basin Plan contains the policy for *Investigation and Cleanup of Contaminated Sites*, based on Water Code Sections 13000 and 13304; Title 27, CCR, section 20005, et seq. (Title 27); and State Water Board Resolution Nos. 68-16 and 92-49. The strategy includes site investigation, source removal or containment, information required for consideration in establishing cleanup levels, and the basis for establishment of soil and groundwater cleanup levels.

22. The State Water Board's *Water Quality Enforcement Policy* states, in part, that spills that result in adverse impact to beneficial uses of groundwater or violate water quality objectives are priority violations. The policy states that, if any violation continues, the enforcement response should be quickly escalated to increasingly more formal and serious actions until compliance is achieved.

23. The Water Quality Control Plan for the Tulare Lake Basin, Second Edition, (hereafter Basin Plan) designates beneficial uses of the waters of the State and establishes water quality objectives to protect those areas. The Site overlies groundwater within the Kern County Basin Hydrologic Unit, Detailed Analyses Unit No. 254. Present and potential future beneficial uses of the groundwater as designated by the Basin Plan for Unit No. 254, include municipal and domestic supply (MUN).

24. The Basin Plan contains numerical water quality objectives (WQOs) that apply to surface water and groundwater, including, for example, drinking water maximum contaminant levels (MCLs) promulgated in Title 22, CCR, Division 4, Chapter 15 (hereafter Title 22) that the Basin Plan applies directly to waters designated as MUN. Waste constituents discharged by the Dischargers for which there is a numerical WQO are as follows:

Constituent	Limits*	WQO	Reference
Benzene	1	Chemical	Primary MCL, Title 22
Toluene	150	Chemical	Primary MCL, Title 22
Ethylbenzene	300	Chemical	Primary MCL, Title 22
Xylene	1750	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	13	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	5	Chemical	Secondary MCL, Title 22

* In micrograms per liter (ug/L)

25. The concentrations in groundwater (Findings 10, 11, 12 and 13) of the waste constituents listed in Finding 24 significantly exceed the numerical WQOs for the constituents. As the Dischargers have discharged or deposited waste where it has caused exceedence of numerical WQOs, they have created a condition of pollution, as defined in California Water Code Section 13050(l)(1).

26. Petroleum hydrocarbons discharged to and deposited within soil will continue to migrate to groundwater, float as liquid on groundwater, and/or dissolve into groundwater. Petroleum hydrocarbons dissolved in groundwater will continue to disperse and migrate to unaffected and less affected waters. These petroleum hydrocarbons will continue to alter the quality of groundwater to a degree that unreasonably affects the waters for designated beneficial uses, continuing and expanding a condition of pollution unless cleaned up.

27. The Basin Plan contains narrative WQOs that apply to both surface and groundwater for tastes and odors, toxicity, and chemical constituents. The taste and odor WQO requires, in part, that, groundwater and surface water not contain substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes and odors to municipal and domestic water supplies. The toxicity WQO requires, in part, that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans. The chemical constituent WQO requires, in part, that groundwater not contain chemical constituents in concentrations that adversely affect any beneficial use.

28. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, (WQO Policy) which provides that "[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Regional Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives." Compliance with narrative WQO requires consideration of site-specific information and of relevant numerical criteria and guidelines developed or published by other agencies and organizations. Such numerical criteria and guidelines relevant to the waste constituents described in Findings 10, 11, 12 and 13 include the following:

Constituent	Limits*	WQO	Reference
TPHG	5	Taste and Odor	McKee & Wolf, *Water Quality Criteria*, SWRCB, p. 230 (2) USEPA Drinking Water Health Advisory
TPHD	100	Toxicity, Taste and Odor	1980 USEPA suggested no adverse response level
Toluene	42	Taste and Odor	Federal Register, Vol. 54, No. 97
Ethylbenzene	29	Taste and Odor	Federal Register, Vol. 54, No. 97
Xylene	17	Taste and Odor	Federal Register, Vol. 54, No. 97
Benzene	0.15	Toxicity	California Public Health Goal (OEHHA)

*in micrograms per liter (µg/L)

29. Consistent with the WQO Policy, the limits for the waste constituents listed in Finding 28, above, are relevant and appropriate to use to evaluate compliance with the narrative WQOs for taste and odor, and for toxicity. The concentrations of waste constituents in groundwater, or likely to occur in groundwater after migration from soils, significantly exceed the groundwater limits set forth in Finding 28. Therefore, the Dischargers have created a situation that exceeds the narrative taste and odor and toxicity WQOs and creates a condition of pollution.

30. Title 22, CCR, section 66261.24, defines hazardous waste based on concentrations of constituents of concern. The hazardous TTLC as included in section 66261.24 for lead is 1,000 mg/kg and the soluble threshold limit concentration (STLC) is 5 milligrams per liter (mg/L). The hazardous TTLC for chromium is 2,500 mg/kg and the STLC is

5 mg/L. Section 66261.24 states that any waste having concentrations equal or greater than the above stated concentrations is a hazardous waste. As established by Finding 12, hazardous waste has been discharged within the Blending Area, and as indicated in Finding 13, hazardous waste has also been discharged in the Mohawk Tank Farm.

31. Title 23, California Code of Regulations (CCR), Division 3, Chapter 30, Articles 1 and 2, sections 3890 through 3895, require that the Dischargers submit analytical data electronically via the internet using electronically deliverable formats (EDF) designated by the State Water Board that are both non-proprietary and available as public domain. All EDF data must be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (Geotracker). In addition, section 3895(b) allows the Regional Water Board to specify submittal in alternative forms provided the benefit or need for it bears a reasonable relationship to the burden of producing it.

32. Sections 25270 to 25270.13 of the California Health and Safety Code regulate aboveground storage tanks to protect natural resources from discharges of petroleum hydrocarbons. The regulations became effective 1 January 1990. The regulations in general require owners or operators of aboveground storage tanks to register the tanks with the State, provide secondary containment, install and maintain a system for detection of leaks, and implement measures to prevent discharges.

33. Section 13350 of the California Water Code states, in part, that any person who violates a cleanup and abatement order may be liable civilly in accordance with subdivision (d) or (e) thereof. Section 13268 of the California Water Code states, in part, that any person failing or refusing to furnish a technical or monitoring report, or falsifying any information provided therein, may be liable civilly in accordance with subdivision (b) thereof. The Regional Water Board may impose civil liability administratively in accordance with California Water Code Section 13323, et seq.

DISCHARGER LIABILITY

34. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have discharged or deposited waste and caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code section 13304 is appropriate and consistent with policies of the Regional Water Board. If additional parties are determined to be responsible for this discharge of waste, this Order may be amended and issued to those parties and the Dischargers.

35. This Order requires investigation and cleanup of the Site in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, Title 27, and other applicable plans, policies, and regulations.

36. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the Site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Dischargers named in this Order. The technical reports required by this Order are necessary to assure compliance with section 13304 of the Water Code, including prompt identification and abatement of the source and investigation and cleanup of the affected area to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

37. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, section 21000, et seq.), pursuant to Title 14 CCR section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, section 21000, et seq.), in accordance with Title 14 CCR, sections 15308 and 15330.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13000, section 13304 and section 13267, the Dischargers shall:

1. Forthwith investigate the discharges of waste, cleanup the waste, and abate the effects of the discharge of waste, including petroleum hydrocarbons and hazardous waste, to soil and groundwater, in conformance with State Water Board Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Water Board's *Water Quality Control Plan for the Tulare Lake Basin* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible without risk to health and safety. Staff when referenced below means Regional Water Board technical staff. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

REMEDIATION SYSTEMS

2. Start full operation of the soil vapor extraction system and the air sparge system as soon as practicable but no later than **1 November 2007**. The systems shall be operated so as to maximize the efficiency of remediation of impacted groundwater and soil at the Site.

3. **By 3 December 2007**, submit a technical report containing a performance evaluation report on the Site remedial systems acceptable to the Executive Officer. The evaluation should be prepared in accordance with the outline as approved by a

Regional Water Board letter dated 16 August 2007. Using existing data available to Big West and/or Equilon, the report shall evaluate the systems efficiency in remediating impacted groundwater and sources of impact or potential impact to groundwater. The report shall propose expansion of the existing systems or other remedial options if it is found that the SVE and/or AS systems are not efficiently treating impacted groundwater and/or source areas in all areas of the Site.

4. **By 31 January of each calendar year**, submit an annual technical report providing a detailed evaluation of the operation and effectiveness of all remediation systems being operated at the Site.

SALES TERMINAL

5. **By 30 November 2007**, submit a technical report containing a work plan for assessment of the lateral and vertical extent of petroleum hydrocarbon impacted groundwater downgradient from and offsite of the Sales Terminal. The work plan needs to propose sufficient sampling points to delineate the extent of impacted groundwater. The assessment needs to provide sufficient data to allow design of a remediation system to cleanup impacted groundwater offsite of refinery property and provide hydraulic control to prevent offsite migration of impacted groundwater. The work plan needs to include a time schedule for completion of the assessment.

6. Within **30 days** of staff concurrence with the Assessment Work Plan, but no later than **60 days** from submittal of the plan, implement the work plan in accordance with the approved time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

7. Within **120 days** of staff concurrence with the assessment report, submit a technical report evaluating effective cleanup and abatement options and proposing a preferred cleanup and abatement alternative for the offsite impacted groundwater and the preferred option for preventing offsite migration of impacted groundwater. The report needs to include a timetable for implementation of the proposed remedial option(s).

8. Within **30 days** of staff concurrence, implement the approved alternative in accordance with a time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

BLENDING AREA

9. **By 1 November 2007**, submit a technical assessment report on soil and groundwater with elevated and/or hazardous concentrations of petroleum hydrocarbons and metals in accordance with the approved workplan dated 15 September 2006.

10. Within **150 days** of staff concurrence with the assessment report, submit a technical report evaluating effective cleanup and abatement options and proposing a preferred

cleanup and abatement alternative. The report needs to include a timetable for implementation of the proposed remedial options.

11. Within **30 days** of staff concurrence, implement the approved alternative in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

12. **By 15 November 2007**, submit an Assessment Work Plan for assessment of the source and the lateral extent of liquid petroleum hydrocarbons in the vicinity of monitoring well B-109U. The work plan shall propose a sufficient number of borings and samples to accomplish the goal of the assessment. The work plan shall include a time schedule for implementing the work.

13. Within **30 days** of staff concurrence with the Assessment Work Plan, but no later than **60 days** from submittal of the plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

14. Submit a technical Assessment Report defining the source and lateral extent of liquid petroleum hydrocarbons in accordance with the approved time schedule. The report shall propose remedial options for removal of liquid petroleum hydrocarbons and include a time schedule for installation of equipment required for the preferred remedial option.

15. Within **30 days** of staff concurrence, implement the approved alternative in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

MOHAWK TANK FARM

16. **By 1 October 2007,** submit a technical report on the assessment of elevated and/or hazardous concentrations of metals as proposed in Big West's work plan dated 11 October 2006 and approved by a Regional Water Board letter dated 16 November 2006. The report needs to include an evaluation of the potential impacts to groundwater, health and safety, and the environment posed by the metal impacted soils being assessed.

17. If data from the assessment report indicate that metal impacted soils pose a threat or potential threat to health and safety, or the environment, submit a technical report evaluating remedial options for cleanup of soils impacted by metals within **120 days** of staff concurrence with the assessment report. The report needs to include a timetable for implementation of the proposed remedial options.

18. Within **30 days** of staff concurrence with the report evaluating remedial options, implement the approved alternative(s) in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

19. By **23 November 2007,** submit a technical report on the additional assessment of soil impacted by petroleum hydrocarbons in the vicinity of the flange leak near 72P15 as proposed in a Big West work plan dated 16 April 2007 and approved in a Regional Water Board letter dated 1 May 2007. The report needs to include an evaluation of the potential impacts to groundwater, health and safety, and the environment posed by the impacted soil.

20. If data from the assessment report indicate that petroleum hydrocarbon impacted soils pose a threat or potential threat to groundwater, health and safety, or the environment, submit a technical report evaluating remedial options for cleanup of soils within **180 days** of staff concurrence with the assessment report. The report needs to include a timetable for implementation of the proposed remedial options.

21. Within **30 days** of staff concurrence with the technical report, implement the approved alternative(s) in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this order.

22. **By 3 December 2007** submit a technical report containing a work plan for assessment of the source and the lateral extent of liquid petroleum hydrocarbons in the vicinity of monitoring well BWM-4U. The work plan shall propose a sufficient number of borings and samples to accomplish the goal of the assessment. The work plan shall include a time schedule for implementing the work.

23. Within **30 days** of staff concurrence with the work plan, but no later than **60 days** from submittal of the plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

24. Submit an technical report defining the source and lateral extent of liquid petroleum hydrocarbons in the vicinity of BWM-4U in accordance with the approved time schedule. The report shall propose remedial options for removal of liquid petroleum hydrocarbons and include a time schedule for installation of equipment required for the preferred remedial option.

25. Within **30 days** of staff concurrence, implement the approved alternative in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

26. **By 3 December 2007** submit a technical report containing a work plan for assessment of the lateral and vertical extent of petroleum hydrocarbon impacted groundwater in the vicinity of and downgradient of BWM-6U. The work plan shall propose a sufficient

number of borings and samples to accomplish the goal of the assessment. The work plan shall include a time schedule for implementing the work.

27. Within **30 days** of staff concurrence with the work plan, but no later than **60 days** from submittal of the plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

AREA 2 REFINERY

28. The Dischargers shall continue routine removal of liquid petroleum hydrocarbons in the vicinity of monitoring well RB6 in a manner that allows removal of the liquid petroleum hydrocarbons in the shortest practicable period of time. When liquid petroleum hydrocarbons is removed to a point where feasible methods of removal are no longer effective, the Dischargers shall submit a request to the Executive Officer for cessation of liquid petroleum hydrocarbons removal in the affected wells. Liquid petroleum hydrocarbons removal shall be continued until cessation is approved by the Executive Officer. The Dischargers shall summarize the status of liquid petroleum hydrocarbon levels and removal in quarterly reports.

29. By **2 January 2008,** submit a technical report containing a work plan for assessment of the source of liquid petroleum hydrocarbons and impacts to groundwater in the vicinity of monitoring wells ROW-2, B-12 and in any other wells in the vicinity of these wells where liquid petroleum hydrocarbons and/or high concentrations of petroleum hydrocarbons are detected in groundwater. The work plan shall propose a sufficient number of borings and samples to accomplish the goal of the assessment. The work plan shall include a time schedule for implementing the work.

30. Within **30 days** of staff concurrence with the work plan, but no later than **60 days** from submittal of the plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

31. If data from the assessment report indicate that petroleum hydrocarbon impacted soils pose a threat or potential threat to groundwater, health and safety, or the environment, submit a technical report evaluating remedial options for cleanup of soils within **120 days** of staff concurrence with the assessment report. The report needs to include a timetable for implementation of the proposed remedial option(s).

32. Within **30 days** of staff concurrence with the report, implement the approved alternative(s) in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this order.

33. By **14 November 2007,** submit a technical report on the additional assessment of soil impacted by metals and petroleum hydrocarbons in the southern portion of the Area 2 Refinery as proposed in a Big West work plan dated 11 October 2006 and approved by

a Regional Water Board letter dated 16 November 2006. The report needs to include an evaluation of the potential impacts to groundwater, health and safety, and the environment posed by the impacted soil.

34. If data from the assessment report indicate that impacted soils pose a threat or potential threat to groundwater, health and safety, or the environment, submit a technical report evaluating remedial options for cleanup of soils within **180 days** of staff concurrence with the assessment report. The report needs to include a timetable for implementation of the proposed remedial options.

35. Within **30 days** of staff concurrence with the report, implement the approved alternative(s) in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this order.

WESTERN PLUME PERIMETER

36. **By 15 December 2007,** submit a technical report containing a work plan for defining the lateral extent of diesel impacted groundwater along the western edge of the Site west of the Area 2 Refinery and along the Calloway Canal. The work plan needs to propose a sufficient number of monitoring points to allow the assessment of the western edge of impacted groundwater originating from the Site and include a time schedule for implementation.

37. Within **30 days** of staff concurrence with the work plan and by **60 days** from submittal of the plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

UNDERGROUND PIPELINES

38. **By 17 December 2007**, submit a technical report documenting the facility plan for routine maintenance and testing of underground pipelines used to convey petroleum hydrocarbons and/or other hazardous liquid materials. The plan should include a time schedule for implementation of the plan.

39. Within 30 **days** of staff concurrence with the pipeline maintenance and testing plan, but no later than **60 days** from submittal of the plan, implement the plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

DISCHARGE RESPONSE

40. **By 17 December 2007** submit a technical report proposing procedures for reporting, response to, and assessment of future discharges of petroleum hydrocarbons and other hazardous liquids and solids.

ABOVEGROUND STORAGE TANKS

41. **By 2 January 2008,** submit a technical report that accounts for each AST and documents that each AST is either equipped or fitted, or proposes that it be equipped or retrofitted, with a reliable method of detecting a leak or discharge as soon after the event as feasible to prevent and minimize future impacts to groundwater. The plan shall include a proposed time schedule for beginning and completing implementation at all ASTs where additional measures are required.

42. Within **90 days** of staff concurrence with the detection plan, implement the plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

PUBLIC PARTICIPATION

43. **By 7 January 2008** submit and implement a Public Participation Plan. The Public Participation Plan shall describe how the Dischargers will solicit the public's concerns and disseminate information to the public regarding the investigation and proposed cleanup activities at the site. The Public Participation Plan shall be updated as necessary to reflect any significant changes in the degree of public interest as the site investigation and cleanup process moves toward completion.

ASSESSMENT OF THREAT TO HUMAN HEALTH AND SAFETY

44. **By 7 January 2008,** submit a work plan to assess whether soil and/or groundwater impacted by petroleum hydrocarbons, metals and/or other constituents pose a threat to human health and safety. The proposed assessment must evaluate all potential exposure pathways and use the Office of Environmental Health Hazard Assessment (OEHHA) toxicity data (California cancer slopes). The initial assessment may be based primarily on existing site data. Additional site assessment shall be proposed as necessary to collect data needed to fully assess the threat to human health and safety. The initial assessment shall be submitted within 90 days of approval of the work plan.

GENERAL REQUIREMENTS

45. **By 31 October 2007,** the Dischargers shall notify the Regional Water Board in writing of which individual Discharger named herein will be lead for each required action in this Order.

46. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, have reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger(s) shall include a cover letter signed by the Discharger(s), or an authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the

report is true, complete, and accurate. The Discharger(s) shall also state if they agree with any recommendations/proposals and whether they approved implementation of said proposals.

47. Conduct work only after Regional Water Board staff concurs with the proposed work.

48. The Dischargers shall operate the remedial systems continually except for brief shutdowns for maintenance and/or repair. The Dischargers shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related equipment) that are installed or used by the Dischargers to achieve compliance with the conditions of this Order. The Dischargers shall notify the Regional Water Board prior to any planned shutdown of any treatment or remediation system of more than three days. The Dischargers shall notify the Regional Water Board of any unplanned shutdown of any treatment or remediation that lasts more than three days and state the estimated time to restart the system(s) and the steps being taken to restart the system(s).

49. Notify Regional Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

50. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.

51. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient remediation has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.

52. Optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in quarterly reports.

53. Maintain a sufficient number of monitoring wells to completely define and encompass the above waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within thirty days of Regional Water Board staff approval, to define the new plume limits.

54. The Dischargers shall comply with Monitoring and Reporting Program No. R5-2007-0728, which is attached to and made part of this Order. A violation of Monitoring and Reporting Program No. R5-2007-0728 is a violation of this Order.

55. Each individual Discharger shall supply each of the other Dischargers herein named with timely updates on activities conducted under this Order and shall provide the other

Dischargers with copies of reports, correspondence, and other documents produced to meet the requirements of this Order.

56. If, for any reason, the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. An extension may be granted by revision of this Order or by a letter from the Executive Officer.

57. Reimburse the Regional Water Board for reasonable costs associated with oversight of the investigation and remediation of the Site.

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Any person affected by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with section 13320 of the Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P. O. Box 100, Sacramento 95812, within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request and are available at www.waterboards.ca.gov.

Any person affected by this action of the Regional Water Board may also request an evidentiary review by the Executive Officer or the Regional Water Board. The review request should specify whether an evidentiary hearing is being requested. The request for review should be sent to Mr. Bert Van Voris, California Regional Water Quality Control Board, Central Valley Region, 1685 E Street, Fresno, CA 93706. Mr. Van Voris must receive the review request within 30 days of the date of this Order. Failure to request a review may prevent you from submitting new evidence in support of a State Water Board petition. A review request under this paragraph does not extend the 30-day period to file a petition with the State Water Board.

This Order is effective upon the date of signature.

Pamela C. Creedon

PAMELA C. CREEDON, Executive Officer

October 19 2007

(Date)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0728

BIG WEST OF CALIFORNIA, LLC
AND EQUILON ENTERPRISES LLC
BAKERSFIELD REFINERY
KERN COUNTY

Compliance with this Monitoring and Reporting Program is required pursuant to the California Water Code section 13267 as ordered by Cleanup and Abatement Order No. R5-2007-0728 (CAO). Failure to comply with this program constitutes noncompliance with the CAO and California Water Code, which can result in the imposition of civil monetary liability. All sampling and analyses shall be by USEPA approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the Regional Water Quality Control Board, Central Valley Region (Regional Water Board).

A complete list of substances which are tested for and reported on by the testing laboratory shall be provided to the Regional Water Board. All peaks must be reported. In addition, both the method detection limit and the practical quantification limit shall be reported. Detection limits shall equal or be more precise than USEPA methodologies. Water samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a California Department of Health Services certified laboratory.

The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Water Board.

GROUNDWATER MONITORING

The Dischargers shall collect groundwater samples from groundwater monitoring wells (provided sufficient water exists in a well to be sampled) and nearby supply wells in accordance with the Groundwater Monitoring Schedule included as Attachment A. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled quarterly. The groundwater surface elevation (in feet and hundredths, M.S.L.) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow. All wells with historical concentrations of total petroleum hydrocarbons as diesel (TPHD), total petroleum hydrocarbons as gasoline (TPHG), and/or other petroleum hydrocarbons greater than 3,000 micrograms per liter shall be measured for liquid petroleum hydrocarbons during each regular monitoring event.

The following shall constitute the monitoring program for groundwater.

Constituent	Detection Limit ug/L	EPA Method
Total petroleum hydrocarbons as gasoline	50	EPA 8015 modified
Total petroleum hydrocarbons as diesel	50	EPA 8015 modified
Benzene	0.5	EPA 8260
Toleune	0.5	EPA 8260
Ethylbenzene	0.5	EPA 8260
Xylenes	0.5	EPA 8260
Methyl tert-butyl ether	1	EPA 8260
Dissolved oxygen		Field*
pH		Field*
Electrical Conductivity		Field*

*Instrument calibration logs shall be included in the monitoring reports
ug/L – micrograms per liter

REMEDIATION SYSTEMS

Reports on remediation systems at the site shall be included with the groundwater monitoring reports and submitted quarterly. The reports shall contain the following information regarding the site remediation systems:

1. Maps showing location of all remediation wells;
2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;
3. Air sparge well operating records including status of each well and volume and pressure of air being injected;
4. Soil vapor extraction well records including status of each well and PID readings or other acceptable methods of determining relative volatile concentrations taken at a minimum quarterly. Readings of volatile concentrations drawn from SVE wells need to be taken at a frequency that allows the efficient operation and evaluation of the SVE system.
5. The report needs to include an evaluation of the SVE system including the amount of petroleum hydrocarbons removed.
6. Daily field sheets shall document field activities conducted during each site visit and shall be included in the quarterly reports.

MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted or parameters and locations removed or added by the Executive Officer if site conditions indicate that the changes are necessary.

REPORTING REQUIREMENTS

1. The Dischargers shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Dischargers shall be deemed to be in noncompliance with the Monitoring and Reporting Program.

2. Quarterly groundwater monitoring and remediation system reports shall be submitted to the Regional Water Board according to the schedule below.

Monitoring Period	Report Due
January – March	April 30
April – June	July 31
July – September	October 31
October – December	January 31

Groundwater monitoring reports shall include a contour map showing groundwater elevations at the site and the groundwater flow direction. The quarterly groundwater monitoring reports shall include tables summarizing the historical depth-to-water, groundwater elevations and historical analytical results for each monitoring well. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Water Board. Field monitoring well sampling sheets shall be completed for each monitoring well sampled and included in the report.

3. The Dischargers shall submit an annual report by January 31 of each year for the preceding year. The report can be combined with the Dischargers' fourth quarter report. The report shall contain:

    a. An in depth evaluation of groundwater conditions at the site including trends of the constituents of concern in each area of the site;
    b. An evaluation of the effectiveness of each of the remediation systems. The evaluation shall include the effectiveness of the systems in remediating impacted groundwater and each of the significant source areas or suspected source areas.
    c. A summary of the performance of each remediation systems including the amount and percentage of operating and downtime, and the amount of petroleum hydrocarbons removed.

4. In reporting the monitoring data, the Discharger's shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in electronic form in a form acceptable to the Regional Water Board.

5. The Dischargers shall maintain a data base containing historical and current monitoring data in a electronic form acceptable to the Executive Officer. The data base shall be updated quarterly and provided to the Regional Water Board in electronic format.

6. The Dischargers shall submit electronic copies of all workplans, reports, analytical results, and groundwater elevation data over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at *http://geotracker.swrcb.ca.gov*. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site. In addition, a hardcopy of each document shall be submitted to the Regional Water Board at 1685 E Street, Fresno, CA 93706, attention Cleanup Unit.

Order by: Pamela C Creedon
PAMELA C. CREEDON, Executive Officer

October 10, 2007
(Date)

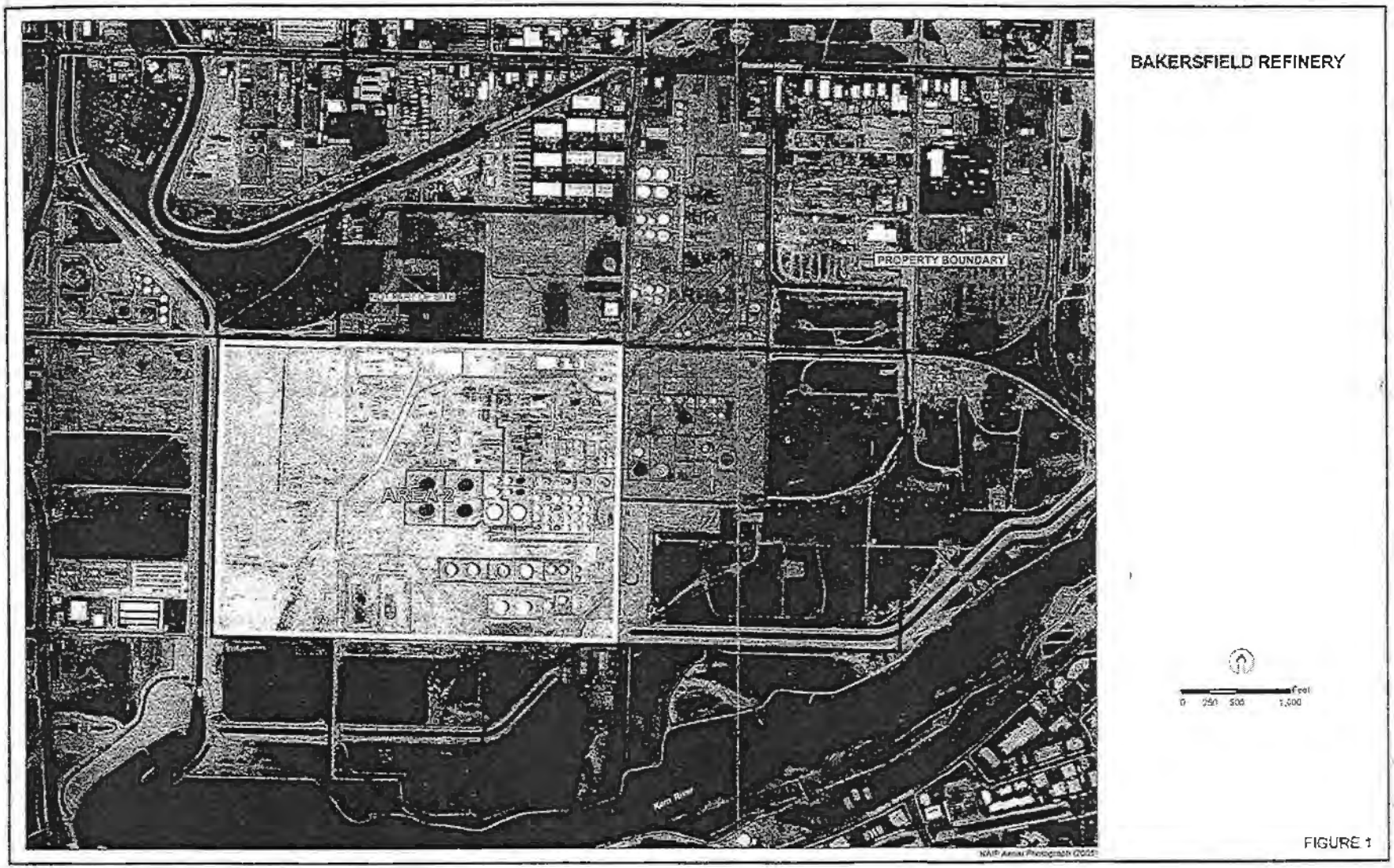
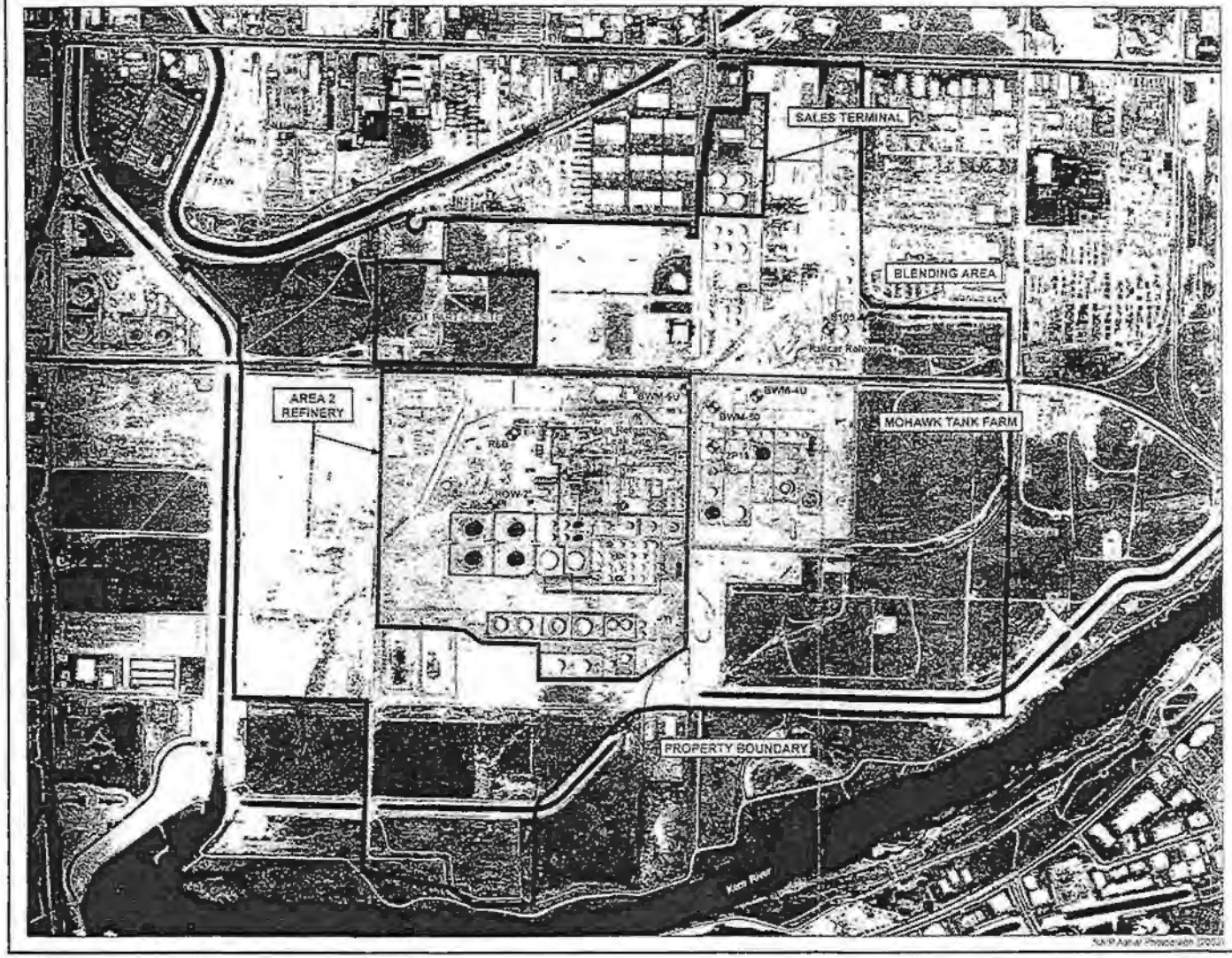

BAKERSFIELD REFINERY
PROPERTY BOUNDARY
AREA 2
Kern River
0 250 500 1,000 Feet
NAIP Aerial Photograph (2005)

FIGURE 1



BAKERSFIELD REFINERY

FIGURE 2

GROUNDWATER MONITORING AND REPORTING PROGRAM NO. R5-2007-0728

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-001L	X		X
B-001M	X		X
B-001U	X		X
B-003	X		X
B-007	X		
B-008	X	X	
B-009	X		X
B-010	X		
B-011	X	X	
B-012	X	X	
B-013	X	X	
B-014	X	X	
B-017	X	X	
B-023	X	X	
B-024L	X		X
B-24M	X		X
B-024U	X		X
B-030L	X	X	
B-030M	X	X	
B-030U	X	X	
B-037M	X	X	
B-037U	X	X	
B-041L	X	X	
B-041M	X	X	
B-041U	X	X	
B-042	X	X	
B-043	X	X	
B-044L	X	X	
B-044M	X	X	
B-044U	X		X
B-050L	X	X	
B-050M	X		X
B-050U	X		X
B-052L	X	X	
B-052M	X	X	
B-052U	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-075L	X	X	
B-075M	X	X	
B-075U	X	X	
B-076U	X	X	
B-081U	X	X	
B-081M	X		X
B-098L	X	X	
B-098M	X	X	
B-098U	X		X
B-099L	X	X	
B-099M	X	X	
B-099U	X	X	
B-100L	X		X
B-100M	X	X	
B-100U	X		X
B-102M	X	X	
B-102U	X	X	
B-103L	X	X	
B-103M	X	X	
B-103U	X	X	
B-104L	X	X	
B-104M	X	X	
B-104U	X	X	
B-105L	X		X
B-105M	X	X	
B-105U	X	X	
B-106L	X		X
B-106M	X		X
B-106U	X		X
B-107L	X		X
B-107M	X	X	
B-107U	X		X
B-108L	X		X
B-108M	X	X	
B-108U	X	X	
B-109L	X	X	
B-109M	X	X	
B-109U	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-110L	X		X
B-110M	X		X
B-110U	X		X
B-111L	X		X
B-111M	X	X	
B-111U	X		X
B-114L	X	X	
B-114M	X	X	
B-114U	X	X	
B-115L	X	X	
B-115M	X	X	
B-115U	X	X	
B-116L	X	X	
B-116M	X		X
B-116U	X	X	
B-117L	X	X	
B-117M	X	X	
B-117U	X	X	
B-118L	X	X	
B-118M	X	X	
B-118U	X	X	
B-119L	X		X
B-119M	X		X
B-119U	X		X
B-120L	X	X	
B-120M	X		X
B-120U	X		X
B-121L	X		X
B-121M	X		X
B-121U	X		X
B-124L	X	X	
B-124M	X		X
B-124U	X		X
B-125L	X		X
B-125M	X	X	
B-125U	X		X
B-126L	X	X	
B-126M	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-126U	X	X	
B-127L	X		X
B-127M	X		X
B-127U	X		X
B-128L	X		X
B-128M	X	X	
B-128U	X	X	
B-129L1	X		X
B-129L2	X		X
B-129M	X	X	
B-129U	X		X
B-130L1	X	X	
B-130L2	X	X	
B-130M	X	X	
B-130U	X	X	
B-131L1	X	X	
B-131L2	X	X	
B-131M	X	X	
B-131U	X	X	
B-133	X	X	
B-134	X		X
B-143	X	X	
B-144	X	X	
B-145	X	X	
B-146	X	X	
B-150M	X		X
B-153	X		X
B-154	X	X	
B-155	X	X	
B-156	X	X	
B-157	X		
B-158	X		X
B-159	X	X	
B-160M	X	X	
B-160U	X	X	
B-161M	X	X	
B-161U	X	X	
B-162L	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-162M	X	X	
B-162U	X	X	
B-163L	X	X	
B-163M	X	X	
B-163U	X	X	
B-164L	X	X	
B-164M	X	X	
B-164U	X	X	
B-166L	X	X	
B-166M	X		X
B-166U	X		X
B-167L	X	X	
B-167M	X	X	
B-167U	X	X	
B-168L	X	X	
B-168M	X	X	
B-168U	X	X	
B-169L	X		X
B-169M	X	X	
B-169U	X	X	
B-170L	X		X
B-170M	X	X	
B-170U	X	X	
B-171L	X		X
B-171M	X		X
B-171U	X		X
B-172L	X		
B-172M	X	X	
B-172U	X	X	
B-173L	X		
B-173M	X		
B-173U	X	X	
B-175L	X	X	
B-175M	X	X	
B-175U	X	X	
B-176L	X		X
B-176M	X		
B-176U	X	X	

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
B-177U	X	X	
B-177M	X	X	
B-177L	X		X
B-178M	X	X	
B-178U	X	X	
B-179U	X	X	
B-179M	X	X	
B-180U	X	X	
B-180M	X	X	
B-180L	X	X	
B-181U	X	X	
B-181M	X	X	
B-181L	X	X	
B-182U	X	X	
B-182M	X	X	
B-183	X	X	
B-185U	X	X	
B-185M	X	X	
B-185L	X	X	
B-186U	X		X
B-186M	X		X
B-186L	X		X
B-187U	X		X
B-187M	X	X	
B-187L	X	X	
B-188U	X	X	
B-188M	X	X	
B-188L	X	X	
B-195U	X	X	
B-195M	X	X	
B-195L	X	X	
B-196U	X	X	
B-196M	X	X	
B-196L	X	X	
B-201	X		X
B-202U	X	X	
B-202M	X		X
B-202L	X		X

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
BWM-1U	X	X	
BWM-2U	X	X	
BWM-3U	X	X	
BWM-4U	X	X	
BWM-5U	X	X	
BWM-6U	X	X	
BWM-7U	X	X	
D-1		X	
D2	X	X	
D-2			
D3	X	X	
D-3		X	
D-6		X	
DP2	X	X	
I-1		X	
I-12		X	
I-2		X	
I-3		X	
I-6		X	
I-8		X	
I-9		X	
M14S	X	X	
MN1Z	X	X	
MN2AU	X	X	
MS2.5A	X	X	
PW-L23	X		X
PW-L26	X		X
PW-L28	X		X
PW-U4	X		X
R1	X	X	
R2	X	X	
R3	X	X	
R4	X	X	
R7	X	X	
R6B	X	X	
ROW-1	X	X	
ROW-2	X	X	
ROW-3	X		X

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample**
ROW-9	X	X	
RS-6A	X	X	
RS-BW4	X		X
RS-DP4	X	X	
RS-DP5	X		X
RS-DP6	X	X	
RS-DP7	X		X
RS-HC7	X	X	
RS-HC8	X	X	
RS-MN1Z	X	X	
RS-MN2B	X		X
RS-MS2.5C	X		X
RS-MS3A	X		X
T10A	X		X
T16A	X	X	
T3B	X	X	
T8B	X		X
T9A	X	X	
TR2	X	X	
U4	X		X
WIP-W1	X	X	
WIP-W2	X	X	
WIP-W2A	X	X	
WIP-W3			
WIP-W3A	X	X	
WIP-W4			
WIP-W4A	X	X	

* Sample during second quarter
** Sample during second and fourth quarters

EXHIBIT C

BIG WEST OF CALIFORNIA, LLC
A FLYING J Company
6451 Rosedale Highway • Bakersfield, CA 93308 • Phone 661.326.4200 • www.flyingj.com

Certified Mail
7005 3110 0000 2607 9883

October 29, 2007

Mr. Jan Alfson
California Regional Water Quality Control Board
Central Valley Region
1685 "E" Street
Fresno, California 93706

RE: **Designation of Lead for Required Actions**
Cleanup and Abatement Order R5-2007-0728
Big West of California, LLC, Bakersfield Refinery

Dear Mr. Alfson:

This letter serves to satisfy Item No. 45 in the General Requirements section of Cleanup and Abatement Order R5-2007-0728 (CAO), from the California Regional Water Quality Control Board – Central Valley Region (RWQCB), issued on October 10, 2007. Item No. 45 requires the individual dischargers to notify RWQCB which party will be lead for each required action item in the CAO. It is the understanding of Big West of California, LLC (Big West) that Equilon Enterprises, LLC (dba Shell Oil Products US) is submitting a separate letter to the RWQCB as notification of specific required actions in which they intend to take the lead.

Big West is taking, and will continue to take, steps necessary to fulfill the Required Action and General Requirements of the CAO, and in such will take the lead on the items listed below.

Blending Area
- Items 9, 10, and 11

Mohawk Tank Farm
- Items 16, 17 and 18
- Items 19, 20 and 21
- Items 22, 23, 24 and 25
- Items 26 and 27

Area 2 Refinery
- Item 28
- Items 33, 34 and 35

Underground Pipelines
- Items 38 and 39

EXHIBIT C

Discharge Response
- Item 40

Aboveground Storage Tanks
- Items 41 and 42

Public Participation
- Item 43

Assessment of Threat to Human Health and Safety
- Item 44

Big West believes that no one party can take the lead on Required Action Item No. 1, but rather a joint effort between all responsible dischargers is necessary to fulfill this requirement. Therefore, it is Big West's objective to work cooperatively with other named parties for addressing this particular required action.

Please contact Bill Chadick, HSE Director, Big West Bakersfield Refinery, at (661) 326-4412 or Melinda Hicks, Environmental Engineer, Big West Bakersfield Refinery at (661) 326-4422 with any questions.

Sincerely,

Bill Chadick, HSE Director
Big West of California

cc Joe Canas, Kern County Environmental Health Services
Gene Cotton, Big West of California, LLC
Marney DeVroom, Flying J Inc.
Brett Bailey, Flying J Inc.
Melinda Hicks, Big West of California, LLC
Gene Freed, Shell Oil Products US

MLH
File: 740,632
V:ehs\private\remediation\rwqcb\Site Wide CAO\Lead Discharger Letter 102907.doc

MLH

RECEIVED

NOV – 5 2007

Per.....

Shell Oil Products US
HSEQ Science & Engineering
20945 S. Wilmington Avenue
Carson, CA 90810

Mr. Jan Alfson
California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, CA 93706-2020

October 30, 2007

RE: Cleanup and Abatement Order R5-2007-0728
Big West of California LLC and Equilon Enterprises LLC
6451 Rosedale Highway, Bakersfield
Required Action Item #45 – Notification of Leads for Required Actions

Dear Mr. Alfson:

This letter provides notification from Equilon Enterprises LLC dba Shell Oil Products US (Shell) regarding the subject matter and Required Action Item #45 – Notification of Leads for Required Actions. Big West will provide a similar notification is on their Required Actions.

Recognizing that Item 1 is the responsibility of both parties, Shell will address the following issues directly with the Board and will adhere to the General Requirements:

Item 2: Shell
Item 3: Shell report on the VES, the Air Sparge, and the Pump/Treat unit.
Item 4: Shell will submit reports for the remedial activities conducted by Shell.
Item 5 (and 6, 7, 8): Shell
Item 12 (and 13, 14, 15): Shell
Item 29 (and 30, 31, 32): Shell
Item 36 (and 37): Shell

Please call me at (818) 991-5556, if you have any questions.

Sincerely,

Gene Freed

cc: Bill Chadick, Big West of California LLC

EXHIBIT D

Trihydro
CORPORATION

May 19, 2009

Pamela Creedon
Executive Officer
California Regional Water Quality Control Board
1685 E Street
Fresno, CA 93706

RE: Summary of May 14, 2009 Meeting, Equilon Enterprises LLC Cleanup and Abatement Order No. R5-2007-0728, Big West Refinery, 6451 Rosedale Highway, Bakersfield, Kern County, California

Dear Ms. Creedon:

This letter has been prepared by Trihydro Corporation (Trihydro) on behalf of Shell Oil Products, US (Shell). On March 18, 2009, Shell had requested a meeting with the California Regional Water Quality Control Board (CRWQCB) in response to the CRWQCB's request for further investigation and remedial options evaluations for the Blending Area (also referred to as Study Section 3) and Area 2 (well R3-M). The meeting took place on May 14, 2009. Attendees included Jan Alfson, Russell Walls, and Lonni Wass (CRWQCB); Gene Freed (Shell), Keith Marcott and Ron Halpern (Trihydro representing Shell); and Melinda Hicks (Big West) and Dave Dunbar (Dunbar and Associates, representing Big West). The purpose of this letter is to summarize items discussed during the meeting, and to discuss Shell's position as it relates to the items discussed.

Big West, LLC currently owns the refinery located at 6451 Rosedale Highway in Bakersfield, California (the Site). Shell retains responsibility for cleanup of MTBE releases from the Sales Terminal (1999, 2000, and 2001) and Blending Area (1996), the reformate release in the northeast corner of the former Mohawk refinery area (1993), and the reformate release in Area 2 (1987). Shell maintains and operates a vapor extraction system (VES) with vapor extraction wells (VEWs) in the Sales Terminal area, the Blending Area, the Mohawk Refinery area, and in Area 2. Approximately 12,362,352 pounds of total hydrocarbons have been extracted and treated by the VES as of the end of March 2009. In addition, Shell operates and maintains an air sparging system with a total of 46 wells downgradient of the Blending Area and in Area 2. A groundwater extraction and treatment system, installed downgradient of the Sales Terminal, extracted and treated over 313,000,000 gallons of water between 2001 and 2008 prior to shut down upon the successful cleanup of the MTBE plume in that area.

Signal Hill Office | 1918 East 29th Street | Signal Hill, CA 90755 | phone 562/453.3536 | fax 562/453.3555
Home Office | 1252 Commerce Drive | Laramie, WY 82070 | phone 307/745.7474 | fax 307/745.7729 | www.trihydro.com

EXHIBIT D

Site-Wide Approach

One of the main purposes of the meeting was to outline Shell's position that, given the Site's history and current status, a more holistic approach to investigating and remediating the Site is practical and warranted. Recent requirements imposed by the CRWQCB have been based on addressing increases in apparent product thickness, and the identification of "new" impacts, however localized, on an individual, case-by-case basis rather than as part of a large operating facility. Thus the CRWQCB has called for additional delineation, investigation of vertical and lateral extent, evaluation of remedial options, and aggressive remediation efforts even for impacts that are not migrating off-site and do not have the potential to directly impact sensitive receptors.

The Site has been a refinery for approximately 70 years and, although temporarily not in operation, will likely continue as a refinery in the future. Given the size of the Site (over 600 acres), its past history, and future, it is likely that releases will continue to be an issue in the future, despite the best efforts of all parties involved. Any new releases are likely to overlap or co-mingle with historical impacts, as evidenced by the recent releases at the Site. It is unlikely that cleanup will be complete as long as refinery operations continue on Site.

The holistic approach proposed by Shell includes monitoring the Site perimeter and selected interior wells, continuing with current remediation activities, and undertaking an evaluation of measures to augment existing systems. Evaluation of measures to enhance Shell's ongoing remediation efforts will be focused in the areas of the 1987 and 1993 reformate releases and to ensure mitigation of potential off-site migration of contaminants. In addition, Shell recommends establishing and following a set of pre-defined decision trees for various activities including leak detection, investigation, and recovery. This pre-approved plan would be similar to a Discharge Response Plan.

Shell will continue to operate and maintain the existing vapor extraction and air sparging systems and the associated VEWs and air sparging wells; gauge and sample groundwater monitoring wells at the Site (excluding Big West wells) in accordance with the CRWQCB approved sampling and analysis plan;, and where responsibility is found with Shell, perform investigations and develop remedial options. Big West will continue to be responsible for those tasks assigned to them, as well as be first responder for new releases and investigations. We understand the CRWQCB's position on not choosing sides when it comes to the environmental issues at the Site. Legal and binding language in the purchase sales agreement however, must be followed for the internal allocation of responsibility between Big West and Shell.

Shell's Position under the Purchase and Sale Agreement

Under the term of the purchase and sale agreement (PSA) between Shell and Big West, Big West is responsible for conducting **any** corrective action (including investigation) at its refinery other than the MTBE plume remediation and the reformate release remediation that Shell is conducting. Big West is responsible for all investigations and clean up of releases occurring after finalization of the sale in 2005. If contamination identified during the investigation is determined to have been pre-existing, unless it is in the reformate spill or MTBE plume area, Big West is to conduct any corrective action but may be able to recover costs subsequently from Shell.[1] Shell understands this term of the sale agreement may conflict with some of the CRWQCB recent directives; however, it is a legally binding agreement and makes sense where, as here, the buyer has possession and control of the property needing investigation or remediation. Assigning responsibility to the current owner/operator is also consistent with applicable California law. The CRWQCB has worked with Shell and Big West to respect the parties' contractual allocation of responsibility when assigning tasks under the current Cleanup and Abatement Order. All further requests for investigations of releases or source evaluation should be directed to Big West.

Investigation of the Vertical and Lateral Extent of Petroleum Hydrocarbons near well B-108

Two of the CRWQCB's requests have directed "the dischargers" to perform additional investigations, provide remedial options to clean up contamination in "Study Section 3" (or the Blending Area) in vicinity of well B-108, and in vicinity of well R3-M, in Area 2. During the May 14, 2009 meeting, members of the CRWQCB had requested that more aggressive remediation be implemented in these areas. This was further clarified as increasing vapor extraction efforts in these areas.

Shell performed investigations and implemented remedial options in these areas. Subsequent to the release of MTBE in the Blending Area in 1996 and the reformate release in the northwest portion of the former Mohawk refinery, Shell installed four VEWs in the source areas. These VEWs (LBA, RVE-1, RVE-2, and RVE-3) are connected to the operating VES. Wells LBA and RVE-2 are currently operating, with vapors being extracted and treated by the VES. Recent releases of reformate and residual gas oil (RGO) (2008 and 2007, respectively) have occurred in the Blending Area (near well B-108) and down gradient of the Blending Area (RGO release), respectively. In Area 2, a hydrocracker charge release and middle aromatic diesel release occurred, also in 2007 and 2008. As Shell has already implemented

[1] Not all historic contamination is Shell's responsibility under the PSA. For example, releases associated with prior operators such as Tosco are Big West's responsibility both legally (as the current owner/operator) and under the contract terms of the PSA.

remedial activities in the areas of question (since 1993), additional efforts to "aggressively" remediate these areas should be the burden of those responsible for the recent releases, which occurred since Big West took over facility operations. Shell is willing to support these efforts – if Big West installs the requested vapor extraction wells, Shell will allow Big West to connect the VEWs to the existing VES.

Investigating the Vertical and Lateral Extent of Gasoline Range Organics Found in Well R3-M

Subsequent to the 2007 hydrocracker charge release and the 2008 mid-aromatic diesel release, Big West performed investigations to evaluate the source of these releases, the lateral extent of separate-phase hydrocarbons (SPH), and the identification of the released hydrocarbon. A product sample collected in 2007 and early 2008 indicated the product in well R3 was in the diesel range. Big West later installed some shallow product recovery wells and is performing weekly product recovery. Subsequent to the replacement of well R3 with wells R3-U and R3-M, Big West resampled SPH in well R3-M and found it to consist of gasoline range organics (GRO). The CRWQCB then directed "the dischargers" to perform an investigation to define the source; define the vertical and lateral extent of the GRO, and evaluate remedial options. According to Jan Alfson, his use of the term "source" refers to the extent of contamination in soil above groundwater that may serve as a source of dissolved-phase impacts to groundwater. It is our understanding Big West defined the lateral extent of contamination in soil and groundwater in this area, based on Leighton Consulting, Inc's 2008 report, *Final Draft Technical Report, Subsurface Investigation near Well R3*, dated May 2008.

It is Shell's contention that (1) Big West has already performed an investigation to define the lateral extent of SPH associated with the releases of 2007 and 2008, (2) Shell, Equilon, and Texaco had performed extensive investigations into the vertical and lateral extent of the 1987 release of reformate in the area, (3) further investigation in this area is unnecessary, but if required, is the responsibility of Big West, (4) the area in question is adjacent to and upgradient of the vapor extraction well network and air sparging network currently operating at the Site, maintained by Shell, and (5) any burden to "aggressively" remediate this area belongs to Big West. As the SPH in well R3-M has apparently been identified as GRO, it is susceptible to both vapor extraction and air sparging. Shell is willing to support this effort by allowing Big West to install and hook up VEWs to the existing and operating VES.

Summary of Deliverables

During the meeting, RWQCB provided a handout listing "current tasks" outstanding related to additional work at the Big West Refinery, along with due dates, and an indication of the "Responsible Discharger." With respect to those tasks for which Shell is identified as the Responsible Discharger and those for which the Responsible Discharger is in question (as indicated by a "?" on the handout), Shell's position is as follows:

- Source of LPH in Well R3-M Work Plan - investigate the vertical and lateral extent of GRO in vicinity of well R3-M, and providing a remedial options evaluation – responsibility of Big West.
- Area 2 Soil and Groundwater RAP this was part of the February 23, 2009 letter sent by the CRWQCB to Shell and Big West, titled *Supplemental Subsurface Investigation Near Well R3, Big West Refinery*. Shell will perform an evaluation of measures to augment existing systems as necessary to ensure adequate remediation of impacts attributable to the reformate plume in Area 2 for which Shell is responsible. However, Shell maintains that it is the responsibility of Big West to evaluate remedial options for the GRO detected in well R3-M, the diesel fuel beneath well R6B, the hydrocracker charge release of 2007, the middle aromatic diesel release of 2008, and the RGO in the eastern portion of Area 2.
- Western Perimeter Monitoring Well Investigation responsibility of Shell. The work plan for this investigation was approved on April 1, 2009. Procurement of access agreements and well installation permits are in progress. Field activities are anticipated for early to mid June. A report is due July 17, 2009.
- SS3 RAP Groundwater - Investigate the vertical and lateral extent of petroleum hydrocarbons in the vicinity of well B-108, and providing a remedial options evaluation – responsibility of Big West
- Investigation of the vertical extent of petroleum hydrocarbons in the B-043 area. Trihydro, on behalf of Shell, addressed this issue in our response dated February 23, 2009 to the Notice of Violation issued on January 27, 2009. In our response Trihydro indicated that wells B-43 and B-23 straddle the 2006 diesel release near R6B, and should be the responsibility of Big West. No further communication was received from the CRWQCB on this issue since February 2009.
- Increasing the flow rate to the VES (not on the list) – responsibility of Shell. The Air Pollution Control District (APCD) had recommended waiting until receipt of the authorization to operate (ATO) prior to submitting the permit modification request. The ATO was received on May 5, 2009. An application to modify the permit has been prepared and will be submitted to the APCD by May 22, 2009. According to APCD, the "expedited" turn-around time for the modification is approximately 90 days.

If you have any questions regarding this correspondence, please contact me at (714) 399-1560, extension 224 with questions or comments.

Sincerely,
Trihydro Corporation

Ronald Halpern, PG
Project Manager

077-003-009

cc: Mr. Gene Freed, Shell Oil Products, US
Mr. Jan Alfson, RWQCB
Ms. Melinda Hicks, Big West of California, LLC
Mr. Joe Canas, Kern County Environmental Health
Mr. David Dunbar, DBD Consulting (electronic)

EXHIBIT E

CT Corporation

Service of Process Transmittal

07/11/2011
CT Log Number 518815010

TO: Diane G Bowman, Legal Assistant
Shell Oil Company
One Shell Plaza, 910 Louisiana St., Room 4873
Houston, TX 77002-

RE: **Process Served in California**

FOR: Equilon Enterprises LLC (Domestic State: DE)

ENCLOSED ARE COPIES OF LEGAL PROCESS RECEIVED BY THE STATUTORY AGENT OF THE ABOVE COMPANY AS FOLLOWS:

TITLE OF ACTION:	RE: 6451 Rosedale Highway, Bakersfield, Kern County // To: Equilon Enterprises, LLC *Name discrepancy noted.*
DOCUMENT(S) SERVED:	Letter(s), Attachment(s)
COURT/AGENCY:	California Regional Water Quality Control Board, CA Case # None Specified
NATURE OF ACTION:	Draft cleanup and abatement order
ON WHOM PROCESS WAS SERVED:	C T Corporation System, Los Angeles, CA
DATE AND HOUR OF SERVICE:	By Certified Mail on 07/11/2011 postmarked on 07/07/2011
JURISDICTION SERVED :	California
APPEARANCE OR ANSWER DUE:	August 8, 2011
ATTORNEY(S) / SENDER(S):	Lonnie M. Wass California Regional Water Quality Control Board 1685 E Street Fresno, CA 93706 559-445-5116
ACTION ITEMS:	CT has retained the current log, Retain Date: 07/12/2011, Expected Purge Date: 07/17/2011 Image SOP Email Notification, Diane G Bowman DIANE.BOWMAN@SHELL.COM Email Notification, Simon Bolanos simon.bolanos@shell.com
SIGNED:	C T Corporation System
PER:	Nancy Flores
ADDRESS:	818 West Seventh Street Los Angeles, CA 90017
TELEPHONE:	213-337-4615

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EXHIBIT E

California Regional Water Quality Control Board
Central Valley Region
Katherine Hart, Chair

1685 E Street, Fresno, California 93706
(559) 445-5116 • FAX (559) 445-5910
http://www.waterboards.ca.gov/centralvalley

Linda S. Adams
Acting Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

7 July 2011

Alon Bakersfield Property, Inc.
Entity No. C3294659
c/o C T Corporation System
818 West Seventh Street
Los Angeles, CA 90017

Certified Mail
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✓ Equilon Enterprises LLC
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DRAFT CLEANUP AND ABATEMENT ORDER, BAKERSFIELD REFINERY, 6451 ROSEDALE HIGHWAY, BAKERSFIELD, KERN COUNTY

The Site Cleanup Unit of the Central Valley Regional Water Quality Control Board ("Central Valley Water Board" or "Board") has prepared the enclosed draft Cleanup and Abatement Order (the "CAO") and is proposing that Assistant Executive Officer Ken Landau issue the CAO pursuant to authority delegated to him by the Central Valley Water Board. The draft CAO will replace and update the current CAO for this facility and has been prepared to reflect an ownership change and work completed to date.

The draft CAO directs Alon Bakersfield Property, Inc., and Equilon Enterprises, LLC (referred to as "Dischargers") to:

1. Investigate and/or remediate numerous areas of the refinery that have had discharges
2. Maintain and test underground pipelines
3. Continue implementation of the *Discharge Response Plan*
4. Continue implementation of the *Public Participation Plan*
5. Install leak detection systems on all active aboveground storage tanks by the end of 2015
6. Submit a plan to mitigate the threat posed to human health and safety in the Nurse Station Building and implement the plan once approved

The Site Cleanup Unit is inviting all parties named in the draft CAO to comment on the draft CAO. Comments may include additional evidence that is not already in the Board's files. Comments must be submitted to this office by **5 pm on 8 August 2011** in order to receive full consideration.

Following the close of the comment period, the Site Cleanup Unit may revise the draft CAO, will respond to relevant comments, and will provide a recommendation to Mr. Landau regarding the issuance of the draft CAO.

If you should have any questions regarding this matter, please call Jan Alfson at (559) 488-4345 or Russell Walls at (559) 488-4392.

Lonnie M. Wass

LONNIE M. WASS
Supervising Engineer

cc: Joe Canas, Kern County Environmental Health Department, Bakersfield
Gordon Leaman, Alon Bakersfield Property, Inc., Bakersfield
Kevin Dyer, Equilon Enterprises LLC, 17 Junction Dr. PMB #399, Glen Carbon, IL 62034
Byron Gee, Nossaman LLP, 445 S Figueroa St, 31st Floor, Los Angeles, CA 90071
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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER R5-2011-XXXX
FOR
ALON BAKERSFIELD PROPERTY, INC.
AND
EQUILON ENTERPRISES, LLC
BAKERSFIELD REFINERY
KERN COUNTY

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This Order is issued to Alon Bakersfield Property, Inc., and Equilon Enterprises, LLC, hereafter collectively referred to as "Dischargers", pursuant to Water Code section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region, ("Central Valley Water Board" or "Board") to issue a Cleanup and Abatement Order ("CAO"), and pursuant to Water Code section 13267, which authorizes the Central Valley Water Board to require the preparation and submittal of technical and monitoring reports.

The Executive Officer finds, with respect to the Dischargers' acts, or failures to act, the following:

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PROPERTY OWNERSHIP AND OPERATIONS

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1. Alon Bakersfield Property, Inc. ("ALON"), a Delaware corporation, purchased and currently owns and operates a refinery on approximately 600 acres at 6451 Rosedale Highway in Bakersfield, California (properties hereafter referred to as the "Site", as shown on Figure 1). As Figure 1 shows, the Site consists of Area 1 (including, but not limited to the Mohawk Tank Farm, Sales Terminal, and Blending Area) and Area 2. The refinery historically processed approximately 70,000 barrels of crude oil daily, but has been shut down since February 2009. ALON restarted the refinery in June 2011. Numerous pipelines exist above and below ground surface throughout the Site, including several pipelines which traverse the Site but are unassociated with refinery operations. Many aboveground storage tanks are also present at the Site. As summarized in more detail below, operations over the years have resulted in discharges of crude oil and various refinery products and additives, including, but not limited to, diesel, gasoline, reformate, and methyl tertiary butyl ether (MTBE), from the tanks and pipelines. These discharges have deposited petroleum hydrocarbons in soils. Once deposited in the soils, the petroleum hydrocarbons have migrated to and polluted underlying groundwater as set forth in findings below. Monitoring of more than 250 groundwater monitoring and supply wells occurs regularly.

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2. Big West of California, LLC ("Big West"), a Utah limited liability company, and a subsidiary of Flying J, Inc., purchased the refinery and Site from Equilon Enterprises, LLC, a Delaware limited liability company ("Equilon"), and owned the Site from March 2005 through May 2010. Big West operated the refinery until February 2009, when it was shut down after Big West entered bankruptcy. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 2006, 2007, and 2009, and contributed to or created pollution or threat of pollution of groundwater. The Board issued CAO R5-2007-0716 to Big West, ordering Big West to address a specific

petroleum hydrocarbon discharge reported in June 2007. The Board also issued CAO R5-2007-0728 to Big West and Equilon, ordering them to address impacts to soil and groundwater throughout the Site. However, pursuant to the terms of the bankruptcy proceedings that resulted in the sale of the Site to ALON, ALON assumed liability for the environmental remediation of the Site, except for certain liabilities that had been previously assumed by Equilon. Big West is not named as a responsible party in this Order, as the existing cleanup liability is currently shared by ALON and Equilon.

3. Equilon owned the Site from 1998 to March 2005, and operated the refinery during that period. From 1998 through 2001, Equilon was a joint venture between Texaco Refining and Marketing, Inc. ("TRMI"), a Delaware corporation, and Shell Oil Company, a Delaware corporation. Shell Oil Company purchased TRMI and TRMI's interest in Equilon by stock purchase agreement dated 12 December 2001, and the refinery was then operated as Equilon Enterprises, LLC, doing business as Shell Oil Products US ("SOPUS"). SOPUS is a wholly-owned subsidiary of Shell Oil Company that is in the business of refining, transporting, and marketing petroleum. Discharges of petroleum hydrocarbons to soil and/or groundwater occurred in at least 1999, 2000, 2001, 2003, and 2004 and contributed to or created pollution or threat of pollution of groundwater. As stated above, the Board issued CAO R5-2007-0728 to Big West and Equilon, ordering them to address impacts to soil and groundwater throughout the Site.

   Shell Oil Company still owns underground pipelines that transverse the Site. At least one of the pipelines continues to transport petroleum hydrocarbon products. Equilon is conducting groundwater monitoring, assessment, and remediation (soil vapor extraction and air sparging) at the Site over portions of the Area 2 Refinery, the Sales Terminal, the Blending Area, and the Mohawk Tank Farm.

4. Texaco, Inc., owned and operated the Area 2 refinery from 1986 to 1987 and Area 1 from 1984 to 1987. TRMI owned and operated the Area 2 refinery from 1988 to 1998 and Area 1 from 1987 to 1998. Discharges of petroleum hydrocarbons occurred at the Area 2 refinery in at least 1987 and 1993 and in Area 1 in at least 1993 and 1996 and contributed to or created pollution or threat of pollution of groundwater.

5. Area 1 was owned and operated by Mohawk Oil Company from 1932 to 1970, Reserve Oil and Gas Company from 1970 to 1980, and Getty Oil Company from 1980 to 1984. Area 2 was built and operated by the U.S. Government in 1942, and was owned by Lion Oil Company and then Tosco Oil Company from 1970 to 1986. These parties are not named in this Order because the Board does not currently have evidence that would justify naming them as responsible parties.

6. ALON and Equilon received an opportunity to review a draft of this Order. ALON and Equilon have accepted responsibility for the cleanup and abatement actions identified in this Order.

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BACKGROUND

7. The Site is within the boundaries of the Kern County Water Agency Improvement District No. 4 ("ID4"). The District recharges groundwater in the vicinity of the Site through seepage from the Calloway Canal and the Kern River. The quality of the water used for recharge has total dissolved solid concentrations ranging from 100 milligrams per liter (mg/L) to 400 mg/L. Groundwater pumped from ID4 is used as a supplemental supply for portions of metropolitan Bakersfield.

8. Groundwater impacted by diesel constituents underlies most of the Site. Groundwater beneath approximately 200 acres of the Site is impacted with concentrations of gasoline constituents and/or MTBE exceeding water quality objectives.

9. The groundwater surface has historically fluctuated between 50 and 150 feet below ground surface ("bgs"). Water levels at the Site rose approximately 100 feet between 1993 and 1999. Water levels began declining during 2007 and in June 2010 were approximately 130 feet bgs. The upper 150 feet of soil beneath the Site consist of interbedded sands and silts. The large fluctuation of groundwater levels has led to smearing of petroleum hydrocarbons from first encountered groundwater to depths of greater than 150 feet bgs.

10. **Area 2 Refinery** - A discharge of petroleum hydrocarbons in the form of reformate (main reformate discharge) from an underground pipeline was discovered in March 1987 in the vicinity of the Area 2 refinery hydrocracker unit. Estimates of the volume of that discharge range from 1.5 million to over 2.8 million gallons. A discharge of petroleum hydrocarbons in the form of diesel in the vicinity of monitoring well R6B was reported in May 2006. A separate discharge in the vicinity of well R3 and the mid-aromatic pipeline was reported in 2008. Liquid petroleum hydrocarbons have been detected in wells B-012, B-43, and ROW-2 in the southern portion of the Area 2 refinery, and in wells R3M, B42, BWM-34L, BWM-35L, and B-175U in the eastern portion of the Area 2 Refinery. Maximum detected concentrations of total petroleum hydrocarbons as gasoline (TPHG) and total petroleum hydrocarbons as diesel (TPHD) in groundwater beneath this area in November 2010 were 100,000 micrograms per liter (ug/L) and 83,000 ug/L, respectively. Maximum detected concentrations of benzene, toluene, ethylbenzene, and xylenes in November 2010 were 4,300 ug/L, 3,400 ug/L, 4,900 ug/L, and 29,000 ug/L, respectively. Liquid petroleum hydrocarbons are present on groundwater in several locations. Assessment in portions of the Area 2 Refinery is ongoing.

11. **Sales Terminal** - Discharges of petroleum hydrocarbons containing MTBE occurred in the Sales Terminal area in March 1999, December 2000, and April 2001. Two groundwater extraction systems were installed downgradient of the discharge and vapor extraction wells were installed in the vicinity of the discharge by Equilon. Maximum detected concentrations of MTBE, TPHG, and TPHD in groundwater beneath this area in February 2007 were 3,100 ug/L, 1,100 ug/L, and 64,000 ug/L,

respectively. Shallow zone monitoring wells in the Sales Terminal, where the majority of impacts in this area have occurred, were dry in December 1010.

12. **Blending Area** - A discharge of 2,300 gallons of MTBE from a railroad car occurred in July 1996 in the Blending area. Several smaller discharges were also reported in this area. Liquid petroleum hydrocarbons are routinely detected in monitoring well B-109. Approximately two and one half feet of petroleum hydrocarbons were detected in B-109L in February 2010. The source for the liquid petroleum hydrocarbons is unknown. Studies in the Blending Area indicate that some soils in this area contain elevated concentrations of chromium and arsenic, and elevated-to-hazardous concentrations of lead. Soils in the southeastern and southern portions of this area are impacted by gasoline and diesel. Soils had a maximum detected total lead concentration of 8,560 milligrams per kilogram (mg/kg) and a maximum detected total chromium concentration of 164 milligrams per kilogram. Maximum detected concentrations of TPHG and TPHD in groundwater beneath this area in November 2010 were 49,000 ug/L and 20,000 ug/L, respectively. Maximum detected concentrations of benzene, ethylbenzene, and xylenes were 1,400 ug/L, 26,300 ug/L,and 15,000 ug/L, respectively. The majority of monitoring wells in the shallow zone, the most heavily impacted zone, were dry in December 2010. A Central Valley Water Board letter dated 18 January 2011 requests submittal of a report summarizing a proposed geophysical survey of the site and proposed assessments of lead and/or hydrocarbons in soil by 12 September 2011, and completion of excavation and/or capping of shallow impacted soils by 1 August 2012.

13. **Mohawk Tank Farm** – This area is directly south of the Blending Area. A discharge of less than 500 barrels of residual gas oil from the RGO pipeline, located in the northwest corner of the area, was reported in January 2007. Big West reported greater than 20 feet of liquid petroleum hydrocarbons in monitoring well BWM-5U in June 2007. Assessment and remediation of the liquid petroleum hydrocarbons is ongoing. A discharge of an unknown amount of petroleum hydrocarbons was reported from a flange near 72P15 in January 2008. Initial assessment in the vicinity of the flange indicates impacts of petroleum hydrocarbons to deeper soils may be related to operation of other equipment in the area. Liquid petroleum hydrocarbons have been detected in monitoring well BWM-4U in the northeastern portion of the area and in BWM-23M in the eastern portion. The source of the petroleum hydrocarbons has not yet been identified. Groundwater in the northwestern portion of this area has been impacted by high concentrations of gasoline and diesel constituents. The majority of monitoring wells in this area were dry in December 2010. Soils had a maximum detected total lead concentration of 5,670 mg/kg and maximum detected total chromium concentration of 6,920 mg/kg. A work plan submitted by Big West for further assessment of lead and/or chromium concentrations in the southern portion of the Mohawk Tank Farm was approved in a letter dated 12 December 2008. Big West declared bankruptcy in December 2008 and the work has not been completed. A work plan for remediation of lead- and chromium-impacted soil in the Mohawk Tank Farm was approved in a letter dated 18 March 2009, with completion of the remediation

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required by 18 March 2010. The remediation has not been started to date because of Big West's bankruptcy.

14. **Soil Vapor Extraction System** – A soil vapor extraction (SVE) system has been utilized at the Site to remove volatile petroleum hydrocarbons from the vadose zone. The majority of the SVE wells are in the vicinity of the Area 2 refinery and the Sales Terminal. Three SVE wells exist in the northern portion of the Mohawk Tank Farm and one in the Blending Area. The SVE system was shut down in March 2005 when Equilon sold the Bakersfield refinery to Big West, and was restarted in October 2007. Equilon is currently evaluating the SVE system for expansion.

15. **Air Sparge System** – An air sparge (AS) system is operated at the Site by Equilon to add oxygen to the groundwater and enhance biodegradation. The system consists of 46 multi-level well clusters located principally in the vicinity of and to the west and north of the Area 2 refinery.

LEGAL AUTHORITY

16. Petroleum hydrocarbons discharged to and deposited within soil at the Site will continue to migrate to groundwater, float as liquid on groundwater, and/or dissolve into groundwater. Petroleum hydrocarbons dissolved in groundwater will continue to disperse and migrate to unaffected and less affected waters. These petroleum hydrocarbons will continue to alter the quality of groundwater to a degree that unreasonably affects the waters for designated beneficial uses, continuing and expanding a condition of pollution, unless cleaned up.

17. Water Code section 13304(a) states that:

> Any person ... who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts.

18. Water Code section 13267(b)(1) states that:

> In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region .... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

19. Water Code section 13304(c)(1) states that:

> . . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . .

20. The *Water Quality Control Plan for the Tulare Lake Basin*, Second Edition, revised January 2004 (the "Basin Plan"), designates beneficial uses of the waters of the State and establishes water quality objectives ("WQOs") to protect those areas. The Site overlies groundwater within the Kern County Basin Hydrologic Unit, Detailed Analyses Unit No. 254. Present and potential future beneficial uses of this groundwater include municipal and domestic supply ("MUN"), agricultural supply ("AGR"), industrial service supply ("IND"), industrial process supply ("PRO"), water contact recreation (REC 1), non-contact water recreation (REC 2), and warm freshwater habitat (WILD).

21. The Basin Plan contains a narrative WQO for chemical constituents which requires, in part, that groundwater not contain chemical constituents in concentrations that adversely affect any beneficial use. For groundwaters that are designated MUN, the Basin Plan incorporates by reference drinking water maximum contaminant levels ("MCLs") promulgated in the California Code of Regulations, title 22, chapter 15 ("Title 22"). The following constituents have numeric MCLs associated with them, and these numeric MCLs implement the narrative WQO for chemical constituents:

Constituent	Limits*	WQO	Reference
Benzene	1	Chemical	Primary MCL, Title 22
Toluene	150	Chemical	Primary MCL, Title 22
Ethylbenzene	300	Chemical	Primary MCL, Title 22
Xylene	1750	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	13	Chemical	Primary MCL, Title 22
Methyl Tert-butyl Ether	5	Chemical	Secondary MCL, Title 22

* In micrograms per liter (ug/L)

The concentrations of the waste constituents listed above that are currently found in groundwater (Findings Nos. 10, 11, 12, and 13), or are likely to be found in groundwater after migration from soils, significantly exceed the applicable WQOs.

22. The Basin Plan also contains narrative WQOs that apply to groundwater for tastes and odors and for toxicity. The taste and odor WQO requires, in part, that groundwater not contain substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes and odors to municipal and domestic water supplies. The toxicity WQO requires, in part, that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans.

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23. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, ("WQO Policy") which provides that "[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives." Compliance with a narrative WQO requires consideration of site-specific information and relevant numerical criteria and guidelines developed or published by other agencies and organizations. Such numerical criteria and guidelines relevant to the waste constituents described in Findings 10, 11, 12, and 13, include the following:

Constituent	Limits*	WQO	Reference
TPHG	5	Taste and Odor	McKee & Wolf, *Water Quality Criteria*, SWRCB, p. 230 (2) USEPA Drinking Water Health Advisory
TPHD	100	Toxicity, Taste and Odor	1980 USEPA suggested no adverse response level
Toluene	42	Taste and Odor	Federal Register, Vol. 54, No. 97
Ethylbenzene	29	Taste and Odor	Federal Register, Vol. 54, No. 97
Xylene	17	Taste and Odor	Federal Register, Vol. 54, No. 97
Benzene	0.15	Toxicity	California Public Health Goal (OEHHA)

*in micrograms per liter (µg/L)

Consistent with the WQO Policy, the limits for the waste constituents listed above are relevant and appropriate to use to evaluate compliance with the narrative WQOs for taste and odor and for toxicity. The concentrations of the waste constituents listed above that are currently found in groundwater (Findings Nos. 10, 11, 12, and 13), or are likely to be found in groundwater after migration from soils, significantly exceed the applicable WQOs.

24. Pollution, as it is defined in Water Code section 13050(l)(1), means the alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either the waters for beneficial uses, or the facilities which serve these beneficial uses. The WQOs delineated in Findings Nos. 21 and 23 are designed to protect the beneficial uses of the groundwater underlying the Site. As the wastes discharged from the Site have caused groundwater to exceed the applicable WQOs, which have been developed to protect the beneficial uses of the groundwater, a condition of pollution is present in the groundwater.

25. The State Water Resources Control Board ("State Water Board") has adopted Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304*. ("Resolution 92-49") Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site, and requires that cleanup levels be consistent with State Water Board Resolution No. 68-16, the *Statement of Policy With*

Respect to Maintaining High Quality of Waters in California ("Resolution 68-16"). Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigation proceed in a progressive sequence. To the extent practical, it directs the Central Valley Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

26. Chapter IV of the Basin Plan also contains a policy for the *Investigation and Cleanup of Contaminated Sites*. The strategy generally outlines a process that includes site investigation, source removal or containment, information requirements for the consideration of establishing cleanup levels, and a basis for establishing soil and groundwater cleanup levels.

27. California Code of Regulations, title 22, section 66261.24, defines hazardous waste based on concentrations of constituents of concern. The hazardous total threshold limit concentration (TTLC) as included in section 66261.24 for lead is 1,000 mg/kg and the soluble threshold limit concentration (STLC) is 5 mg/L. The hazardous TTLC for chromium is 2,500 mg/kg and the STLC is 5 mg/L. Section 66261.24 states that any waste having concentrations equal or greater than the above stated concentrations is a hazardous waste. As established by Finding No. 12, hazardous waste is present within the Blending Area, and as indicated in Finding No. 13, hazardous waste is also present in the Mohawk Tank Farm.

28. California Code of Regulations, title 23, sections 3890 through 3895, require that the Dischargers submit analytical data electronically via the internet using electronically deliverable formats (EDF) designated by the State Water Board that are both non-proprietary and available as public domain. All EDF data must be submitted over the internet to the State Water Board Geographic Environmental Information Management System database (Geotracker). In addition, section 3895(b) allows the Central Valley Water Board to specify submittal in alternative forms provided the benefit or need for it bears a reasonable relationship to the burden of producing it.

DISCHARGER LIABILITY

29. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have discharged or deposited waste and caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution. The meaning of the term "discharge", as interpreted by the

State Water Board in precedential orders, including State Water Board Order WQ 86-2 (*In the Matter of the Petition of Zoecon Corporation*), includes the passive migration of waste from soils to groundwater. Discharges occurred during the time that each of the named Dischargers owned the Site, and, as stated in Finding No. 24, these discharges have resulted in a condition of pollution. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code section 13304 is appropriate and consistent with policies of the Central Valley Water Board.

30. As described in the above Findings, the Dischargers are subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the Site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Dischargers named in this Order. The technical reports required by this Order are necessary to assure compliance with the Basin Plan, Resolution 92-49, and this Order, which require the prompt identification and abatement of waste sources and the investigation and cleanup of affected areas to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

31. Should the Dischargers fail to take any of the cleanup actions specified in this Order, the Central Valley Water Board may impose administrative civil liability pursuant to Water Code section 13350, which states, in relevant part:

> (a) Any person who (1) violates any cease and desist order or cleanup and abatement order hereafter issued, reissued, or amended by a regional board ... shall be liable civilly, and remedies may be proposed, in accordance with subdivision (d) or (e).
>
> ...
>
> (e) The state board or a regional board may impose civil liability administratively pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis or on a per gallon basis, but not both.
>
> > (1) The civil liability on a daily basis may not exceed five thousand dollars ($5,000) for each day the violation occurs.
> >
> > > (A) When there is a discharge, and a cleanup and abatement order is issued, except as provided in subdivision (f), the civil liability shall not be less than five hundred dollars ($500) for each day in which the discharge occurs and for each day the cleanup and abatement order is violated.
> > >
> > > (B) When there is no discharge, but an order issued by the regional board is violated, except as provided in subdivision (f), the civil liability shall not be less than one hundred dollars ($100) for each day in which the violation occurs.
> >
> > (2) The civil liability on a per gallon basis may not exceed ten dollars ($10) for each gallon of waste discharged.

32. Should the Dischargers fail to submit any of the technical or monitoring reports required by this Order, the Central Valley Water Board may impose administrative civil liability pursuant to Water Code section 13268, which states, in relevant part:

> (a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).
>
> (b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars ($1,000) for each day in which the violation occurs.
>
> (c) Any person discharging hazardous waste, as defined in Section 25117 of the Health and Safety Code, who knowingly fails or refuses to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or who knowingly falsifies any information provided in those technical or monitoring program reports, is guilty of a misdemeanor, may be civilly liable in accordance with subdivision (d), and is subject to criminal penalties pursuant to subdivision (e).
>
> (d)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (c) in an amount which shall not exceed five thousand dollars ($5,000) for each day in which the violation occurs.

CEQA

33. Issuance of this Order mandates further investigation and will compel the Dischargers to implement cleanup work that has been underway for many years. The Site is currently an operating refinery site, situated above contaminated soil and groundwater, and an extensive system of extraction and monitoring wells and other remediation equipment has already been installed. After reviewing and considering evidence in the Board's files regarding the existing environmental conditions at the Site, the Board can conclude that there is no possibility that issuance of this Order will have a significant effect on the environment, and therefore, issuance of the Order is not subject to the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15061(b)(3).

EFFECT OF PRIOR ORDERS

34. Several orders have already been issued by the Central Valley Water Board to parties legally responsible for environmental remediation at the Site. These orders require those responsible parties to perform cleanup actions and to submit technical and monitoring reports. These orders include CAO R5-2007-0716 and CAO R5-2007-0728. The obligations contained in this Order supersede and replace those contained in prior orders. However, the prior orders remain in effect for enforcement purposes; the Central Valley Water Board and/or the State Water Board may take enforcement

actions (including, but not limited to, issuing administrative civil liability complaints) against responsible parties that have not complied with directives contained in previously-issued orders.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13304 and section 13267, the Dischargers shall:

1. Forthwith investigate the discharges of waste, cleanup the waste, and abate the effects of the discharge of waste, including petroleum hydrocarbons and hazardous waste, to soil and groundwater, in conformance with Resolution 92-49 and with the Basin Plan (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible without risk to health and safety. Staff, when referenced below, means Central Valley Water Board technical staff. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

REMEDIATION SYSTEMS

2. Maintain continual operation of all remediation systems at the site including the soil vapor extraction, air sparge, and liquid petroleum hydrocarbon removal systems. The systems shall be operated so as to maximize the efficiency of remediation of impacted groundwater and soil at the Site. All remediation systems shall be expanded as necessary to treat all significantly impacted areas of the site. If significantly impacted areas of soil and/or groundwater are discovered that are not within the area of influence of existing remediation systems, a work plan shall be submitted proposing tasks to install remediation systems in those impacted areas.

3. **By 31 January of each calendar year**, submit an annual technical report providing a detailed evaluation of the operation and effectiveness of all remediation systems being operated at the Site. The report shall include recommendations for improvements to the systems to correct any deficiencies.

BLENDING AREA

4. **By (120 days after CAO is signed),** submit a work plan for installation of a soil vapor extraction system and additional soil vapor extraction wells in the Blending area. The work plan needs to include details of the proposed system including everything necessary to installation of the system and connection of the proposed and/or existing soil vapor extraction wells to the system. The system needs to be designed so that additional vapor extraction wells can be added and explain how the size of the system was calculated. The work plan needs to include a schedule for installation of the system.

5. Within 30 days of the approval of the work plan required in Required Action No. 4, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

MOHAWK TANK FARM

6. **By 12 October 2011**, submit a work plan proposing tasks to implement the Study Section 4 (Mohawk Tank Farm) Remedial Options Report for TPH, VOCs, and SVOCs dated 8 July 2009. Proposed assessment tasks need to include assessment of the extent of gasoline constituents as well as those proposed in the report.

7. Within **30 days** of staff concurrence of the work plan required by Required Action No. 6, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

8. There are insufficient existing monitoring wells in the former Mohawk Refinery and Mohawk Tank Farm area for assessment of groundwater conditions in each of the groundwater zones. **By (90 days after Order is final)**, submit a work plan proposing additional monitoring wells in the former Mohawk Refinery and Mohawk Tank Farm. The work plan shall include sufficient monitoring wells to assess the lateral and vertical extent of impacted groundwater in each of the groundwater zones. The work plan needs to include a schedule for installation of the wells.

9. Within **30 days** of staff concurrence of the work plan required by Required Action No. 8, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

10. **By 12 March 2012**, submit a report summarizing the results of an additional assessment of the extent of lead and chromium in the vicinity of the former Cooling Towers and Blowdown Ponds, and the former Soil Pile 7 areas as proposed in a work plan submitted by Big West dated 28 October 2008.

11. Implement *the Remedial Action Work Plan for Lead in Soil in Study Section 4* dated 28 October 2008 and the addendum to the plan dated 18 February 2009 as approved by the Executive Officer in a letter dated 18 March 2009. A report summarizing the completion of the tasks for remediation of lead and/or chromium impacted soil in Study Section 4 is due **by 4 January 2013.**

AREA 2 REFINERY

12. A report evaluating remedial options for impacted soil and groundwater in Study Section 5 (southern portion of Area 2 Refinery) is due **by 1 March 2012**. The report needs to select preferred alternatives for remediation of impacted soil and groundwater in this area.

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13. **By (90 days after Order is final)**, submit a work plan proposing tasks to delineate the source and extent of gasoline range petroleum hydrocarbons detected in well R3M. The work plan was originally requested in a Central Valley Water Board letter dated 23 February 2009.

14. Within **30 days** of staff concurrence of the work plan required by Required Action No. 13, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

UNDERGROUND PIPELINES

15. Big West submitted and implemented the plan *Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines* dated 17 December 2007. The plan shall continue to be implemented by the Dischargers. Procedures for maintenance and testing of underground lines shall be done in accordance with all Federal and State of California regulations as well as following procedures detailed in the above document.

DISCHARGE RESPONSE

16. Big West submitted and implemented the *Discharge Response Plan* dated 17 December 2007. The Dischargers shall continue implementation of the plan. Responses to discharges at the facility shall be conducted following all Federal and State of California regulations as well as following procedures detailed in the above cited plan. The Central Valley Water Board shall be notified within 48 hours of any discharges of petroleum hydrocarbons, hazardous materials, or other materials that could pose a threat to soil or groundwater at the facility.

PUBLIC PARTICIPATION

17. Big West submitted and implemented a Public Participation Plan dated January 2008. The Dischargers shall continue to implement the plan.

ABOVEGROUND STORAGE TANKS

18. Big West submitted a report dated 13 March 2008 proposing a schedule for installation of leak detection systems on aboveground storage tanks at the site, as required by CAO R5-2007-0728. The schedule called for installation of the systems or approved alternatives on all active tanks by the end of 2015. The report and proposed schedule were approved in a letter dated 14 April 2008. The approved leak detection systems or alternatives approved by the Central Valley Water Board have not been installed in accordance with the approved schedule. ALON submitted a letter dated 31 January 2011 stating that only 48 of the existing tanks at the site will be used in its operations. Twenty one of those tanks are equipped with double bottoms or leak detection systems. The remaining tanks need to be retrofitted with double bottoms or leak detection systems in accordance with the following schedule:

2011 - eight tanks to be retrofitted
2012 – five tanks to be retrofitted
2013 – five tanks to be retrofitted
2014 - five tanks to be retrofitted
2015 – four tanks to be retrofitted.

All aboveground tanks in use for storage of petroleum hydrocarbon containing compounds or other chemicals or compounds that could pose a potential threat to groundwater quality shall be retrofitted by the end of 2015. All tanks not in use shall be inspected and cleaned prior to the end of 2015. An annual update on retrofitting of aboveground storage tanks and cleaning and inspection of unused tanks needs to be submitted by 15 January of each year.

ASSESSMENT OF THREAT TO HUMAN HEALTH AND SAFETY

19. A Human Health Risk Assessment Report submitted by Big West identified that petroleum hydrocarbon vapors, specifically benzene, originating from soil or groundwater may pose an exposure risk through inhalation in the Nurse Station Building. **By (60 days after Order is final and before building is occupied),** the Dischargers shall submit a plan to mitigate the threat posed to human health and safety in the Nurse Station Building. The plan shall include a time schedule for its implementation and completion prior to occupancy of the building.

20. After staff concurrence of the plan required by Required Action No. 19, implement the plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.

GENERAL REQUIREMENTS

The Dischargers shall:

21. As required by the Business and Professions Code sections 6735, 7835, and 7835.1, have reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger(s) shall include a cover letter signed by the Discharger(s), or an authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the report is true, complete, and accurate. The Discharger(s) shall also state if they agree with any recommendations/proposals and whether they approved implementation of said proposals.

22. Conduct work only after Central Valley Water Board staff concurs with the proposed work.

23. Operate the remedial systems continually, except for brief shutdowns for maintenance and/or repair. The Dischargers shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related equipment) that are

installed or used by the Dischargers to achieve compliance with the conditions of this Order. The Dischargers shall notify the Central Valley Water Board prior to any planned shutdown of any treatment or remediation system of more than three days. The Dischargers shall notify the Central Valley Water Board of any unplanned shutdown of any treatment or remediation that lasts more than three days and state the estimated time to restart the system(s) and the steps being taken to restart the system(s).

24. Notify Central Valley Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

25. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.

26. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient remediation has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.

27. Optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in quarterly reports.

28. Maintain a sufficient number of monitoring wells to completely define and encompass the above waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within thirty days of Central Valley Water Board staff approval, to define the new plume limits.

29. Comply with Monitoring and Reporting Program R5-2011-XXXX, which is attached to and made part of this Order. A violation of Monitoring and Reporting Program R5-2011-XXXX is a violation of this Order.

30. Supply each of the other Dischargers herein named with timely updates on activities conducted under this Order and provide the other Dischargers with copies of reports, correspondence, and other documents produced to meet the requirements of this Order.

31. Reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the Site.

If, for any reason, the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include

justification for the delay. An extension may be granted by revision of this Order or by a letter from the Executive Officer.

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

This Order is effective upon the date of signature.

KENNETH D. LANDAU, Assistant Executive Officer

(Date)

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2011-XXXX

ALON BAKERSFIELD PROPERTIES, INC.
AND
EQUILON ENTERPRISES, LLC
BAKERSFIELD REFINERY
KERN COUNTY

Compliance with this Monitoring and Reporting Program is required pursuant to Water Code section 13267 as ordered by Cleanup and Abatement Order R5-2011-XXXX (the "CAO"). Failure to comply with this program constitutes noncompliance with the CAO and the Water Code, which can result in the imposition of civil liability. All sampling and analyses shall be by United States Environmental Protection Agency (USEPA) approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Central Valley Region ("Central Valley Water Board").

A complete list of substances which are tested for and reported on by the testing laboratory shall be provided to the Central Valley Water Board. All peaks must be reported. In addition, both the method detection limit and the practical quantification limit shall be reported. Detection limits shall equal or be more precise than USEPA methodologies. Water samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a California Department of Public Health certified laboratory.

The Dischargers shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Central Valley Water Board.

GROUNDWATER MONITORING

The Dischargers shall collect groundwater samples from groundwater monitoring wells (provided sufficient water exists in a well to be sampled) and nearby supply wells in accordance with the Groundwater Monitoring Schedule included as Attachment A. Any monitoring wells installed in the future shall be added to the groundwater monitoring program and sampled quarterly. The groundwater surface elevation (in feet and hundredths, mean seal level (M.S.L.) in all monitoring wells shall be measured and used to determine the gradient and direction of groundwater flow. All wells with historical concentrations of total petroleum hydrocarbons as diesel (TPHD), total petroleum hydrocarbons as gasoline (TPHG), and/or other petroleum hydrocarbons greater than 3,000 micrograms per liter shall be measured for liquid petroleum hydrocarbons during each regular monitoring event.

The following shall constitute the analytical suite for groundwater.

Constituent	Detection Limit ug/L	EPA Method
Total petroleum hydrocarbons as gasoline	50	EPA 8015 modified
Total petroleum hydrocarbons as diesel	50	EPA 8015 modified
Benzene	0.5	EPA 8260
Toluene	0.5	EPA 8260
Ethylbenzene	0.5	EPA 8260
Xylenes	0.5	EPA 8260
Methyl tert-butyl ether	1	EPA 8260
Dissolved oxygen		Field*
pH		Field*
Electrical Conductivity		Field*
Temperature		Field*
Oxidation Reduction Potential		Field*

*Instrument calibration logs shall be included in the monitoring reports
ug/L – micrograms per liter

REMEDIATION SYSTEMS

Reports on remediation systems at the site shall be included with the groundwater monitoring reports and submitted quarterly. The reports shall contain the following information regarding the site remediation systems:

1. Maps showing location of all remediation wells;
2. Status of each remediation system including amount of time operating and down time for maintenance and/or repair;
3. Air sparge well operating records including status of each well and volume and pressure of air being injected;
4. Soil vapor extraction well records including status of each well and PID readings or other acceptable methods of determining relative volatile concentrations taken at a minimum quarterly. Readings of volatile concentrations drawn from SVE wells need to be taken at a frequency that allows the efficient operation and evaluation of the SVE system;
5. The report needs to include an evaluation of the SVE system including the amount of petroleum hydrocarbons removed;
6. A written summary and a table showing the amount and frequency of removal of liquid petroleum hydrocarbons from all wells with liquid petroleum hydrocarbons present.

7. Daily field sheets shall document field activities conducted during each site visit and shall be included in the quarterly reports.

MONITORING FREQUENCIES

Monitoring frequencies are listed in Attachment A. Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted or parameters and locations removed or added by the Executive Officer if site conditions indicate that the changes are necessary.

REPORTING REQUIREMENTS

1. The Dischargers shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be REJECTED and the Dischargers shall be deemed to be in noncompliance with the Monitoring and Reporting Program.

2. Quarterly groundwater monitoring and remediation system reports shall be submitted to the Central Valley Water Board according to the schedule below.

Monitoring Period	Report Due
January – March	April 30
April – June	July 31
July – September	October 31
October – December	January 31

Each quarterly report shall include the following minimum information:

(a) a description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume is fully treated by the existing remediation systems; If there are any deficiencies during the sampling event or if impacts to groundwater extend beyond recent historical boundaries, the report shall include an explanation and/or evaluation and propose options for addressing or correcting the deficiencies;

(b) field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.; Water quality parameters shall include electrical conductivity, temperature, pH, dissolved oxygen, and oxygen reduction potential;

(c) groundwater contour maps for all groundwater zones, if applicable;

(d) pollutant isoconcentration maps for all groundwater zones, if applicable. The maps shall include at a minimum plots of total petroleum hydrocarbons as diesel and gasoline, benzene, and MTBE for each of the groundwater zones monitored;

(e) a table showing well construction details that shall include at a minimum well number, groundwater zone being monitored, measuring point elevation, depth to top and bottom of screen, water level elevation, depth to water, and depth to product and product thickness, if present;

(f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;

(g) cumulative data tables containing all historical water quality analytical results and depth to groundwater;

(h) a copy of all laboratory analytical data reports;

(i) results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program or at other locations at the site shall be reported to the Central Valley Water Board;

(j) a summary of any spills/releases that occurred during the quarter and tasks undertaken in response to the spills/releases;

(k) an update and status on each of the outstanding tasks required by the CAO or Executive Officer;

(l) a map showing all wells on the facility;

(m) a table summarizing water quality parameters measured during the current quarter;

3. In reporting the monitoring data, the Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in an electronic form acceptable to the Executive Officer.

4. The Dischargers shall submit an annual report by 31 January of each year for the preceding year. The report can be combined with the Dischargers' fourth quarter report. The report shall contain:
    a. Both tabular and graphical summaries of all data obtained during the year;

    b. An in-depth evaluation of groundwater conditions at the site including short and long-term trends of the constituents of concern in each area of the site;

c. An evaluation of the effectiveness of the groundwater monitoring network in delineating the lateral and vertical extent of impacts to groundwater in all affected areas of the site. This should include an identification of any data gaps and potential deficiencies in the monitoring system or reporting program. The report shall include recommendations to address any deficiencies in the monitoring and report program.

d. An evaluation of the effectiveness of each of the remediation systems. The evaluation shall include the effectiveness of the systems in remediating impacted groundwater and each of the source areas or suspected source areas. The report shall include recommendations for improving or expanding the systems, if necessary.

e. A summary of the performance of each remediation system including the amount and percentage of operating and downtime, and the amount of petroleum hydrocarbons removed.

f. A summary of all spills/releases, if any, that occurred during the year, tasks undertaken in response to the spills, the results of the tasks undertaken.

5. For each required quarterly and annual report, one report shall be submitted containing all monitoring data collected at the site by all Dischargers and include all information cited in the above sections.

6. The Dischargers shall maintain a data base containing historical and current monitoring data in an electronic form acceptable to the Executive Officer. The data base shall be updated quarterly and provided to the Central Valley Water Board in electronic format.

7. The Dischargers shall submit electronic copies of all workplans, reports, analytical results, and groundwater elevation data over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at *http://geotracker.swrcb.ca.gov*. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site. In addition, a hardcopy of each document shall be submitted to the Central Valley Water Board at 1685 E Street, Fresno, CA 93706, attention Cleanup Unit.

Ordered by: _____
KENNETH D. LANDAU, Assistant Executive Officer

_____
(Date)

GROUNDWATER MONITORING AND REPORTING PROGRAM NO. R5-2011-XXXX

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-001L	X		X
B-001M	X		X
B-001U	X		X
B-003	X		X
B-007	X	X	
B-008	X		X
B-009	X		X
B-010	X		X
B-011	X	X	
B-012	X	X	
B-013	X	X	
B-014	X		X
B-017	X		X
B-023	X	X	
B-024L	X		X
B-024U	X		X
B-030L	X	X	
B-030M	X	X	
B-030U	X	X	
B-037M	X	X	
B-037U	X	X	
B-041L	X	X	
B-041M	X	X	
B-041U	X	X	
B-042	X	X	
B-043	X	X	
B-044L	X	X	
B-044M	X	X	
B-044U	X		X
B-050L	X	X	
B-050M	X		X
B-050U	X		X
B-052L	X		X
B-052M	X		X
B-052U	X	X	
B-075L	X	X	
B-075M	X	X	

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-075U	X	X	
B-076U	X	X	
B-081U	X	X	
B-081M	X		X
B-098L	X	X	
B-098M	X	X	
B-098U	X		X
B-099L	X	X	
B-099M	X	X	
B-099U	X	X	
B-100L	X		X
B-100M	X	X	
B-100U	X		X
B-102M	X	X	
B-102U	X	X	
B-103L	X	X	
B-103M	X	X	
B-103U	X	X	
B-104L	X	X	
B-104M	X	X	
B-104U	X	X	
B-105L	X		X
B-105M	X	X	
B-105U	X	X	
B-106L	X		X
B-106M	X		X
B-106U	X		X
B-107L	X	X	
B-107M	X	X	
B-107U	X		X
B-108L	X	X	
B-108M	X	X	
B-108U	X	X	
B-109L	X	X	
B-109M	X	X	
B-109U	X	X	
B-110L	X		X
B-110M	X		X
B-110U	X		X

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-111L	X		X
B-111M	X	X	
B-111U	X		X
B-114L	X	X	
B-114M	X	X	
B-114U	X	X	
B-115L	X	X	
B-115M	X	X	
B-115U	X	X	
B-116L	X	X	
B-116M	X	X	
B-116U	X	X	
B-117L	X	X	
B-117M	X	X	
B-117U	X	X	
B-118L	X	X	
B-118M	X	X	
B-118U	X	X	
B-119L	X		X
B-119M	X		X
B-119U	X		X
B-120L	X	X	
B-120M	X		X
B-120U	X		X
B-121L	X		X
B-121M	X		X
B-121U	X		X
B-124L	X		X
B-124M	X		X
B-124U	X		X
B-125L	X		X
B-125M	X		X
B-125U	X		X
B-126L	X	X	
B-126M	X	X	
B-126U	X	X	
B-127L	X		X
B-127M	X	X	
B-127U	X		X

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-128L	X	X	
B-128M	X		X
B-128U	X	X	
B-129L1	X		X
B-129L2	X		X
B-129M	X		X
B-129U	X		X
B-130L1	X	X	
B-130L2	X	X	
B-130M	X	X	
B-130U	X	X	
B-131L1	X	X	
B-131L2	X	X	
B-131M	X	X	
B-131U	X	X	
B-133	X	X	
B-134	X		X
B-143	X	X	
B-144	X	X	
B-145	X	X	
B-146	X	X	
B-150M	X		X
B-153	X		X
B-153M	X	X	
B-135U	X	X	
B-154	X	X	
B-155	X	X	
B-156	X	X	
B-157	X	X	
B-158	X		X
B-159	X	X	
B-160M	X	X	
B-160U	X	X	
B-161M	X		X
B-161U	X	X	
B-162L	X	X	
B-162M	X	X	
B-162U	X	X	
B-163L	X	X	

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-163M	X	X	
B-163U	X	X	
B-164L	X		X
B-164M	X	X	
B-164U	X	X	
B-166L	X		X
B-166M	X		X
B-166U	X		X
B-167L	X	X	
B-167M	X	X	
B-167U	X	X	
B-168L	X	X	
B-168M	X	X	
B-168U	X	X	
B-169L	X		X
B-169M	X	X	
B-169U	X	X	
B-170L	X		X
B-170M	X		X
B-170U	X	X	
B-171L	X		X
B-171M	X		X
B-171U	X		X
B-172L	X		X
B-172M	X	X	
B-172U	X	X	
B-173L	X	X	
B-173M	X	X	
B-173U	X	X	
B-175L	X	X	
B-175M	X	X	
B-175U	X	X	
B-176L	X	X	
B-176M	X	X	
B-176U	X	X	
B-177U	X	X	
B-177M	X	X	
B-177L	X	X	
B-178M	X	X	

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-178U	X	X	
B-179U	X	X	
B-179M	X	X	
B-180U	X		X
B-180M	X	X	
B-180L	X	X	
B-181U	X	X	
B-181M	X	X	
B-181L	X	X	
B-182U	X	X	
B-182M	X	X	
B-183	X	X	
B-185U	X		X
B-185M	X	X	
B-185L	X	X	
B-186U	X		X
B-186M	X		X
B-186L	X		X
B-187U	X		X
B-187M	X	X	
B-187L	X	X	
B-188U	X	X	
B-188M	X	X	
B-188L	X	X	
B-195U	X	X	
B-195M	X		X
B-195L	X		X
B-196U	X	X	
B-196M	X		X
B-196L	X		X
B-201	X		X
B-202U	X	X	
B-202M	X	X	
B-202L	X		X
B-203	X	X	
B-204	X	X	
B-207M	X	X	
B-207U	X	X	
B-209M	X	X	

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
B-209U	X	X	
B-210M	X	X	
B-210U	X	X	
B-211M	X	X	
B-211U	X	X	
B-212M	X	X	
B-212U	X	X	
B-213L	X	X	
B-213M	X	X	
B-213U	X	X	
RWIP-W4BU	X	X	
RWIP-W4BM	X	X	
B-231	X	X	
B-232	X	X	
B-233	X	X	
B-234	X	X	
B-235	X	X	
B-236	X	X	
B-237	X	X	
BWM-1U	X	X	
BWM-2U	X	X	
BWM-3U	X	X	
BWM-4U	X	X	
BWM-5U	X	X	
BWM-6U	X	X	
BWM-7U	X	X	
BWM-8U	X	X	
BWM-9	X	X	
BWM-10	X	X	
BWM-11	X	X	
BWM-12	X	X	
BWM-13	X	X	
BWM-14	X	X	
BWM-15	X	X	
BWM-16	X	X	
BWM-17	X	X	
BWM-18	X	X	
BWM-19M	X		X
BWM-19U	X		X

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ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
BWM-20M	X		X
BWM-20U	X		X
BWM-21L	X	X	
BWM-21M	X	X	
BWM-21U	X	X	
BWM-22M	X	X	
BWM-22U	X	X	
BWM-23M	X	X	
BWM-23U	X	X	
BWM-24M	X	X	
BWM-24U	X	X	
BWM-25M	X	X	
BWM-25U	X	X	
BWM-26M	X	X	
BWM-26U	X	X	
BWM-27M	X	X	
BWM-27U	X	X	
BWM-28M	X	X	
BWM-28U	X	X	
BWM-29M	X	X	
BWM-29U	X	X	
BWM-30M	X	X	
BWM-30U	X	X	
BWM-31M	X	X	
BWM-31U	X	X	
BWM-32M	X	X	
BWM-32U	X	X	
BWM-33L	X	X	
BWM-34L	X	X	
BWM-35L	X	X	
D-1			X
D-2			X
D3	X	X	
D-3			X
D-4			X
D-6			X
DP2	X	X	
I-1			X
I-2			X

DRAFT

ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
I-3			X
I-6			X
I-8			X
I-9			X
I-12			X
M14S	X	X	
MN1Z	X	X	
MN2AU	X	X	
MS2.5A	X	X	
PW-L23	X		X
PW-L26	X		X
PW-L28	X		X
PW-U4	X		X
R1	X	X	
R2	X	X	
R3	X	X	
R4	X	X	
R7	X	X	
R6B	X	X	
ROW-1	X	X	
ROW-2	X	X	
ROW-3	X		X
ROW-9	X	X	
RS-6A	X	X	
RS-BW4	X	X	
RS-DP4	X		X
RS-DP5	X		X
RS-DP6	X	X	
RS-DP7	X		X
RS-HC7	X	X	
RS-HC8	X	X	
RS-MN1Z	X	X	
RS-MN2B	X		X
RS-MS2.5C	X		X
RS-MS3A	X		X
RWIP-W4BM	X	X	
T10A	X		X
T16A	X	X	
T3B	X	X	

DRAFT

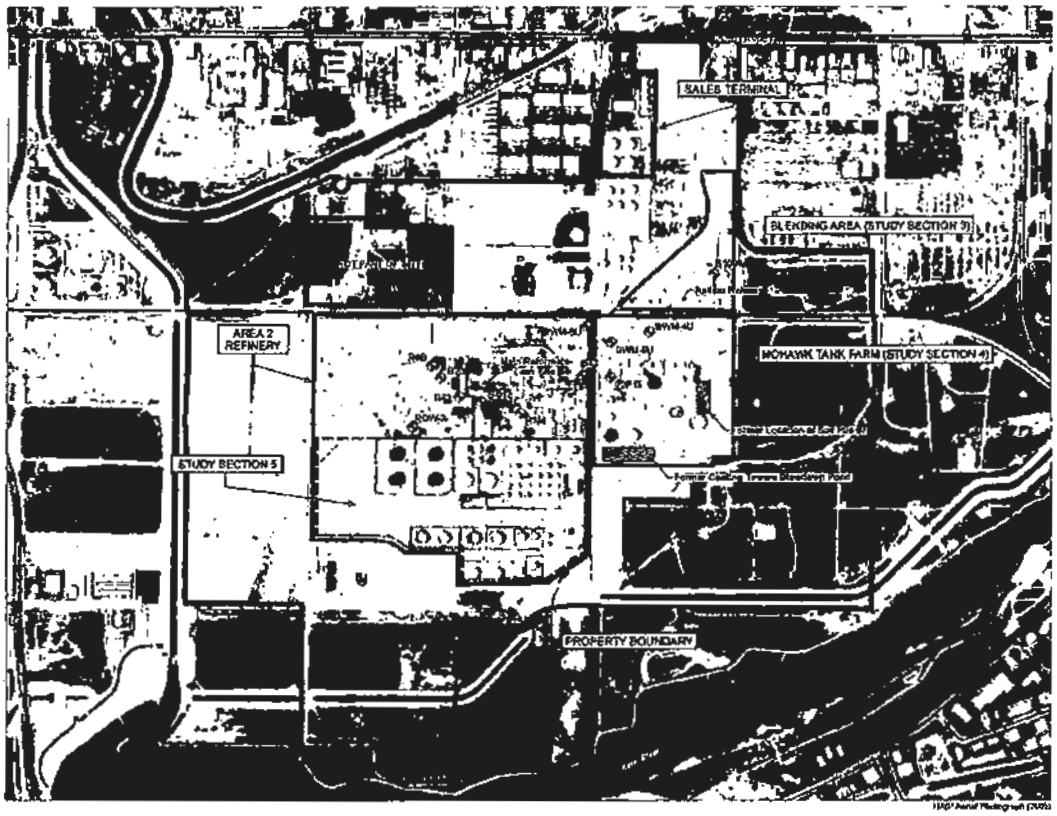
ATTACHMENT A

GROUNDWATER MONITORING SCHEDULE

Well Number	Quarterly Fluid Levels	Quarterly Sample	Semi-Annual Sample*
T8B	X		X
T9A	X	X	
T19M	X	X	
T19U	X	X	
T21M	X	X	
T21U	X	X	
TR2	X	X	
U4	X		X
WIP-W1	X	X	
WIP-W2	X	X	
WIP-W2A	X	X	
WIP-W3			
WIP-W3A	X	X	
WIP-W4			
WIP-W4A	X	X	

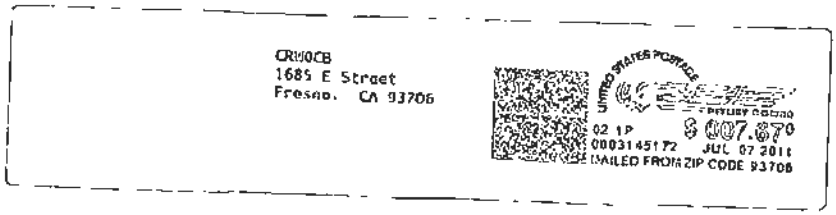
* Sample during first and third quarters

DRAFT



BAKERSFIELD REFINERY

FIGURE 2



Equilon Enterprises, LLC
Entity No. 199803510014
c/o C T Corporation System
818 West Seventh Street
Los Angeles, CA 90017

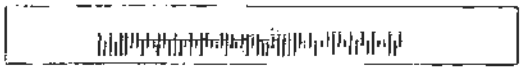


EXHIBIT F

URS

August 5, 2011

Lonnie M. Wass

California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, California 93706

SUBJECT: COMMENTS ON DRAFT CLEANUP AND ABATEMENT ORDER
BAKERSFIELD REFINERY
6451 ROSEDALE HIGHWAY
BAKERSFIELD, KERN COUNTY, CALIFORNIA

Dear Mr. Wass,

URS Corporation (URS) on behalf of Equilon Enterprises, LLC (doing business as Shell), has prepared this comment letter in response to the "Draft Cleanup and Abatement Order, Bakersfield Refinery, 6451 Rosedale Highway, Bakersfield, Kern County" letter (the Draft CAO) issued by the California Regional Water Quality Control Board, Central Valley Region (CRWQCB) on July 7, 2011. The Draft CAO is intended to replace and update the existing order, CAO R5-2007-0728, issued by the CRWQCB on October 10, 2007 and was prepared to reflect an ownership change and work completed to date under the existing CAO.

The Draft CAO directs Alon Bakersfield Property, Inc. (Alon) and Equilon Enterprises, LLC (Equilon and Shell), therein jointly referred to as the Dischargers, to conduct or continue conducting six general tasks that address clean up and abatement activities for petroleum hydrocarbons in soil and groundwater currently impacting the subject property, as follows (quoting from your transmittal letter):

1. Investigate and/or remediate numerous areas of the refinery that have had discharges
2. Maintain and test underground pipelines
3. Continue implementation of the *Discharge Response Plan*
4. Continue implementation of the *Public Participation Plan*
5. Install leak detection systems on all active aboveground storage tanks by the end of 2015
6. Submit a plan to mitigate the threat posed to human health and safety in the Nurse Station Building and implement the plan once approved

Responsibilities were previously discussed between Shell and Big West during response to the October 2007 CAO and in a subsequent meeting held on May 14, 2009 with representative of Shell, Big West, their various consultants, and CRWQCB. The May 14, 2009 meeting was summarized in a letter to CRWQCB from Trihydro dated May 19, 2009. As described in that letter, Shell will continue to conduct the tasks identified as "Shell Lead" items. As described in

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EXHIBIT F

that letter, Shell retains responsibility for the cleanup of MTBE releases from the Sales Terminal (1999, 2000, and 2001) and Blending Area (1996), the reformate release in the northeast corner of the former Mohawk Refinery Area (1993), and the reformate release in Area 2 (1987). Shell continues to maintain and operate a vapor extraction system (VES) with vapor extraction wells (VEWs) in the Sales Terminal Area, the Blending Area, and in Area 2. In addition, Shell operates and maintains an air sparging system with wells down gradient of the Blending Area and in Area 2. Shell recently installed an additional 59 air sparge wells at 30 locations and an additional four vapor extraction wells at two locations and connection of these new wells is pending.

Shell accepted lead status for several of the required actions in the existing 2007 CAO, including: (1) startup of the vapor extraction system (done and operating); (2) evaluation of remedial system performance (submitted with quarterly groundwater reports and in the annual report submitted each January); (3) additional assessment of groundwater down gradient/off-site from the Sales Terminal; (4) assessment of the lateral extent of separate phase hydrocarbons (SPH) in the vicinity of well B-109U in the Blending Area; (5) assessment of the source of SPH in the vicinity of wells ROW-2 and B-012 (Area 2 Refinery); and, (6) definition of the lateral extent of diesel-impacted groundwater along the Calloway and Friant-Kern Canals.

Big West of California LLC (Big West) purchased the refinery from Equilon in March 2005 and operated it until February 2009, when it was shut down after Big West entered bankruptcy. Alon purchased the refinery in June 2010 and has restarted refining operations in June 2011. The refinery consists of three operating areas known as Areas 1, 2, and 3. Areas 1 and 2 are located south of Rosedale Highway in the city of Bakersfield, Kern County, California (Figure 1). Areas 1 and 2 together encompass approximately 600 acres of land. Area 3 is located approximately 1.5 miles northeast of Area 1, north of Rosedale Highway and is not a part of the existing CAO or this Draft CAO.

As stated above, it is our understanding that Alon restarted operations at portions of the refinery that include the reformer, hydrocracker, mild-hydrocracker, hydrogen unit, wastewater treatment system, and saturated gas plant; loading tank cars for transport with vacuum gasoil (VGO), diesel, and gasoline; and producing ethanol and premium gasoline.

Shell will continue to operate and maintain the existing VES and AS systems, and gauge and sample groundwater monitoring wells at the Site (excluding wells sampled by Alon), in accordance with the CRWQCB approved sampling and analysis plan. Alon has accepted the environmental responsibilities of Big West and will be responsible for the tasks previously assigned to Big West, as well as respond to new releases and investigations. Legal and binding language in the purchase and sale agreement (PSA) must be followed for the internal allocation of responsibility between Alon (previously Big West) and Shell.

Shell's Position under the Purchase and Sales Agreement

As described in the May 19, 2009 letter from Trihydro to CRWQCB:

> Under the terms of the PSA between Shell and Big West (now Alon), Big West (now Alon) is responsible for conducting **any** corrective action (including investigation) at its refinery other than the MTBE plume remediation and the reformate release remediation that Shell is conducting. Big West (now Alon) is responsible for all investigations and cleanup of releases occurring after finalization of the sale in 2005. If contamination identified during the investigation is determined to have been pre-existing, unless it is in the reformate spill or MTBE plume area, Big West (Alon) is to conduct any corrective action, but may be able to recover costs subsequently from Shell.[1] Shell understands this term of the sale agreement may conflict with some of the CRWQCB's directives under the CAO; however, it is a legally binding agreement and makes sense where, as here, the buyer has possession and control of the property needing investigation or remediation. Assigning responsibility to the current owner/operator is also consistent with applicable California law.

COMMENTS ON REQUIRED ACTIONS LISTED IN THE DRAFT CAO

Listed below are the action items from the draft CAO that have been identified as "Shell lead" in italics and the Shell response.

PROPERTY OWNERSHIP AND OPERATIONS

Draft CAO Item 3, Second Paragraph. *Shell Oil Company still owns underground pipelines that traverse the Site. At least one of the pipelines continues to transport petroleum hydrocarbon products. Equilon is conducting groundwater monitoring, assessment, and remediation (soil vapor extraction and air sparging) at the Site over portions of the Area 2 Refinery, the Sales Terminal, the Blending Area, and the Mohawk Tank Farm.*

Response. Shell Pipeline does not have any active pipelines going through the refinery. The lines that exist on the Bakersfield Refinery property and their current status are as follows:

8K168 - 8" pipe (Idle/Purged)
8K169 - 8" pipe (Idle/Purged)
8K173 – 8" pipe (Idle/never been used)
10K151 – 10" pipe (Idle/Purged)

[1] Not all historic contamination is Shell's responsibility under the PSA. For example, releases associated with prior operators such as Tosco are Big West's (Alon's) responsibility both legally (as the current owner/operator) and under the contract terms of the PSA.

10K152 -- 10"pipe (Idle/Purged)

BACKGROUND

Draft CAO Item 14, Soil Vapor Extraction System. *A soil vapor extraction (SVE) system has been utilized at the Site to remove volatile petroleum hydrocarbons from the vadose zone. The majority of the SVE wells are in the vicinity of the Area 2 refinery and the Sales Terminal. Three SVE wells exist in the northern portion of the Mohawk Tank Farm and one in the Blending Area. The SVE system was shut down in March 2005 when Equilon sold the Bakersfield refinery to Big West, and was restarted in October 2007. Equilon is currently evaluating the SVE system for expansion.*

Response. The SVE Expansion Evaluation Report dated February 25, 2011 was prepared to evaluate the need for additional SVE wells due to a decline in groundwater levels. As of the date of the report, water levels had risen and have continued to rise through the second quarter of 2011. Based on historical water level fluctuations, water levels will likely continue to rise for up to several years. Two new dual nested vapor extraction wells were installed in November 2010, but both the middle and lower zone screens in the these two locations are now submerged.

Draft CAO Item 15, Air Sparge System. *An air sparge (AS) system is operated at the Site to add oxygen to the groundwater and enhance biodegradation. The system consists of 46 multi-level well clusters located principally in the vicinity of and to the west and north of the Area 2 refinery.*

Response. In late 2010 to early 2011, Equilon installed 59 additional multi-level air sparge wells at 30 locations. These wells were installed to target greater depths due to water levels having dropped below many of the existing sparge wells. As of the second quarter 2011, water levels had risen substantially. Bids are currently being solicited from contractors and the new sparge wells will be connected to the AS system in 2011.

REQUIRED ACTIONS

Draft CAO Required Actions Item 1. *Forthwith investigate the discharges of waste, cleanup the waste, and abate the effects of the discharge of waste, including petroleum hydrocarbons and hazardous waste, to soil and groundwater, in conformance with Resolution 92-49 and with the Basin Plan (in particular the Policies and Plans listed with the Control Action Considerations portion of Chapter IV. "Forthwith" means as soon as it is reasonably possible without risk to health and safety. Staff, when referenced below, means Central Valley Water Board technical staff. Compliance with this requirement shall include, but not be limited to, completing the tasks below.*

Response. Investigation of newly discovered discharges in the future should be the responsibility of the current owner/operator Alon, not Shell. The Board lacks legal basis to compel a former owner/operator to investigate or remediate releases that occurred after its ownership/operation.

REMEDIATION SYSTEMS

Draft CAO Required Action 2. *Maintain continual operation of all remediation systems at the site including the soil vapor extraction, air sparge, and liquid petroleum hydrocarbon removal systems. The systems shall be operated so as to maximize the efficiency of remediation of impacted groundwater and soil at the Site. All remediation systems shall be expanded as necessary to treat all significantly impacted areas of the site. If significantly impacted areas of soil and/or groundwater are discovered that are not within the area of influence of existing remediation systems, a work plan shall be submitted proposing tasks to install remediation systems in those impacted areas.*

Response. Shell continues operate and maintain SVE and AS treatment systems with the purpose of remediating soil and groundwater at the Site in the areas of Shell's responsibility. Shell also continues to conduct quarterly groundwater monitoring and recover SPH in those wells where it is Shell's responsibility and SPH is present. Shell has recently installed additional air sparge and vapor extraction wells with the intent of increasing the effectiveness of the remediation system in light of falling water levels at the site. As previously stated, per the terms of the Purchase and Sales Agreement, Alon is responsible for conducting investigations and cleanups of new releases and if contamination is determined to have been pre-existing, unless it is in the reformate spill or MTBE plume area, Alon may be able to recover costs subsequently from Shell (see previous footnote 1). Shell is willing to support additional investigations and installation of a vapor extraction system by Alon in the Blending Area, by allowing Alon to connect new vapor extraction wells to the existing VES to the extent the current system is able to accept additional flow and/or loading. Shell is not legally responsible for expanding remediation systems to address new releases or areas outside of those where it retained responsibility to conduct work.

Draft CAO Required Action 3. By January 31 of each calendar year, *submit an annual technical report providing a detailed evaluation of the operation and effectiveness of all remediation systems being operated at the Site. The report shall include recommendations for improvements the systems to correct any deficiencies.*

Response. Shell has been providing these Annual Remedial System Evaluation Reports, as required by the current 2007 CAO. However, it is Shell's opinion that these reports should be

submitted by property owner and operator, Alon. Shell can provide its groundwater monitoring and system operability data to them for incorporation into their report.

BLENDING AREA

Draft CAO Required Actions 4 and 5. *...submit a work plan for the installation of a soil vapor extraction system and additional soil vapor extraction wells in the Blending Area and ...within 30 days of the approval of the work plan, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.*

Response. Installation of the SVE system in the Blending Area is the responsibility of Alon. However, Shell will allow Alon to connect the new vapor extraction wells to the existing VES to the extent the current system is able to accept additional flow and/or loading.

MOHAWK TANK FARM

Draft CAO, Required Actions 6 and 7. *Item references 8 July 2009 Remedial Options Report for Impacted Soils (prepared by Kennedy Jenks for Big West).*

Response. The document referenced was submitted by Big West. This item will be the responsibility of Alon.

Draft CAO, Required Actions 8 and 9. *There are insufficient groundwater monitoring wells in the former Mohawk Tank Farm area for assessment of groundwater conditions in each of the groundwater zones.* ***By (90 days after Order is final),*** *submit a work plan proposing additional monitoring wells in the former Mohawk Refinery and Mohawk Tank Farm. The work plan shall include sufficient monitoring wells to assess the lateral and vertical extent of impacted groundwater in each of the groundwater zones. The work plan needs to include a schedule for installation of the wells.*

Within ***30 days*** *of staff concurrence of the work plan required by the Required Action No. 8, implement the work plan in accordance with the time schedule as approved or directed by the Executive Officer, which shall become part of this Order.*

Response. Shell submitted a Ground Water Remedial Options Report for Study Section 4 on March 4, 2009 (prepared by Trihydro). As stated in that report, it is Shell's opinion that these responsibilities belonged to Big West and thereby subsequently Alon.

Draft CAO, Required Actions 10 and 11. *The CRWQCB is requesting that the Responsible Parties implement and report on the extent of lead and chromium in accordance with Big West's work plan dated October 28, 2011.*

Response. Completion of required Actions 10 and 11 to complete task described in a Big West work plan will be completed by Alon, as successor to Big West.

AREA 2 REFINERY

Draft CAO, Required Action 12. *A report evaluating remedial options for impacted soil and groundwater in Study Section 5 (southern portion of Area 2 refinery) is due by* ***1 March 2012****. The report needs to select preferred alternatives for remediation of impacted soil and groundwater in this area.*

Response. Big West investigated soil and groundwater in Study Section 5 and submitted a report dated September 15, 2008. Based on the results of this work, CRWQCB subsequently requested a Remedial Options technical document be prepared. Completion of this item should be Alon's responsibility, as successor to Big West.

Draft CAO, Required Actions 13 and 14. By (90 days after Order is final), *submit a work plan proposing tasks to delineate the source and extent of gasoline range petroleum hydrocarbons detected in well R3M. The work plan was originally requested in a Central Valley Water Board letter dated 23 February 2009.*

Response. As discussed during the May 14, 2009 meeting between Shell, Big West, their respective consultants, and CRWQCB, Shell believes that Big West already performed an investigation to define the lateral extent of SPH associated with 2007 and 2008 releases of hydrocracker charge and middle aromatic diesel, as described in Leighton Consulting's May 2008 report, *Final Draft Technical Report, Subsurface Investigation Near Well R3.* Shell and Texaco had performed extensive investigations regarding vertical and lateral extent of the 1987 reformate release in this area. If further investigation in this area is necessary, it would be the responsibility of Alon, as successor to Big West, per the Purchase and Sales Agreement and as the current owner/operator of the refinery.

UNDERGROUND PIPELINES

Underground Pipelines; Required Action 15. *Big West submitted and implemented the plan Routine Maintenance and Testing of Underground Petroleum and other Hazardous Liquid Material Lines dated 17 December 2007. The plan shall continue...etc.*

Response. Routine maintenance and testing underground petroleum pipelines should be conducted by Alon, as the refinery operator.

DISCHARGE RESPONSE

Draft CAO, Required Action 16. *Big West submitted and implemented the Discharge Response Plan dated 17 December 2007. The dischargers shall continue implementation of the plan. Etc.*

Response. This item is Alon's responsbility as the refinery operator.

PUBLIC PARTICIPATION

Draft CAO, Required Action 17. *Big West submitted and implemented a Public Participation Plan dated January 2008. The Dischargers shall continue to implement the plan.*

Response. This item should continue to be implemented by Alon as the refinery operator.

ABOVEGROUND STORAGE TANKS

Draft CAO, Required Action 18. *Big West submitted a report dated 13 March 2008 proposing a schedule for installation of leak detection systems on aboveground storage tanks at the site, as required by CAO R5-2007-0728....etc.*

Response. Aboveground storage tank retrofitting is the responsibility of Alon in accordance with their correspondence with the CRWQCB.

ASSESSMENT OF THREAT TO HUMAN HEALTH AND SAFETY

Draft CAO, Required Actions 19 and 20. *A Human Health Risk Assessment Report submitted by Big West identified that petroleum hydrocarbon vapors, specifically benzene, originating from soil or groundwater may pose an exposure risk through inhalation in the Nurse Station Building.* ***By (60 days after Order is final and before building is occupied),*** *the Dischargers shall submit a plan to mitigate the threat posed to human health and safety in the Nurse Station Building. The plan shall include a time schedule for its implementation and completion prior to occupancy of the building. ...and implement plan, etc.*

Response. The work plan to mitigate human health and safety risks at the Nurse Station Building is the responsibility of Alon, the current owner/operator. Shell will coordinate operation of air sparge wells in this area with Alon to reduce potential impacts to indoor air quality caused by remediation system operation to allow Alon time to develop and implement their plan to mitigate any issues at the Nurses Station Building.

MONITORING AND REPORTING PROGRAM

Draft CAO, Reporting Requirements Item 2. *Each quarterly report shall include the following minimum information: (f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;*

Response. Based on our understanding that this requests only general flow and gradient information, and will begin with current information and go forward, we have no comment on Item 2 f.

If you have any questions or need additional information, please contact Amalia Coffey at (805) 692-0609.

Sincerely,
URS

Amalia Cross Coffey, PG 5463
Project Manager

cc: Kevin Dyer, Shell Oil Products US
Helen Ordway, Alon USA
Gordon Leaman, Alon Bakersfield Property, Inc.
Jan Alfson, CRWQCB
Russell Walls, CRWQCB
Joe Canas, Kern County Environmental Health Department

EXHIBIT G

URS

February 17, 2012

Russell Walls
California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, California 93706

SUBJECT: **COMMENTS ON DUE DATES OF REQUIRED ACTIONS IN DRAFT CLEANUP AND ABATEMENT ORDER NO. R5-2012-0701 BAKERSFIELD REFINERY 6451 ROSEDALE HIGHWAY BAKERSFIELD, KERN COUNTY, CALIFORNIA**

Dear Mr. Walls:

URS Corporation (URS) on behalf of Shell Oil Products US is submitting this response letter and Gantt chart schedule regarding the due dates contained in the revised "Draft Cleanup and Abatement Order, Bakersfield Refinery, 6451 Rosedale Highway, Bakersfield, Kern County" (the Draft CAO) sent via email from the California Regional Water Quality Control Board, Central Valley Region (CRWQCB) on January 26, 2012. The January 26, 2012 email stated that any comments on the proposed due dates for the required actions in the Draft CAO could be provided by February 9, 2012. Subsequently, extensions for submittal of comments on the due dates were granted by CRWQCB to February 15, 2012 and then February 17, 2012 to allow an opportunity to coordinate with Alon to prepare a detailed Gantt chart schedule showing tasks and milestones that pertain to each of the required actions in the Draft CAO.

The attached Gantt chart shows the detailed steps and projected time needed to complete each required action in the Draft CAO. We have based this schedule on our experience on similar projects involving site characterization, planning, engineering design, contracting, permitting and system installation. The Gantt chart addresses the listed required actions contained in the Draft CAO except for Required Actions 13, 14, 15, and 16. These Required Actions pertain either to assets and/or plans that are unquestionably the responsibility of Alon. As the CRWQCB is aware, there is an agreement between Shell and Alon as to which party will implement each task. Our proposed schedule incorporates some initial input from Alon, but was completed independently. Our schedule does not address Alon's potential need for contracting consultants/contractors to conduct certain tasks, nor does it address potential timing and staging issues associated with working around active refinery operations, or coordination with refinery activities that we have may have no knowledge of and/or that we have no control over. By submittal of these schedules, Shell is not agreeing that Alon has no responsibility for completion of the tasks in the Draft CAO.

EXHIBIT G

URS Corporation
130 Robin Hill Road, Suite 100
Santa Barbara, California 93117
Tel: 805.964.6010
Fax: 805.964.0259

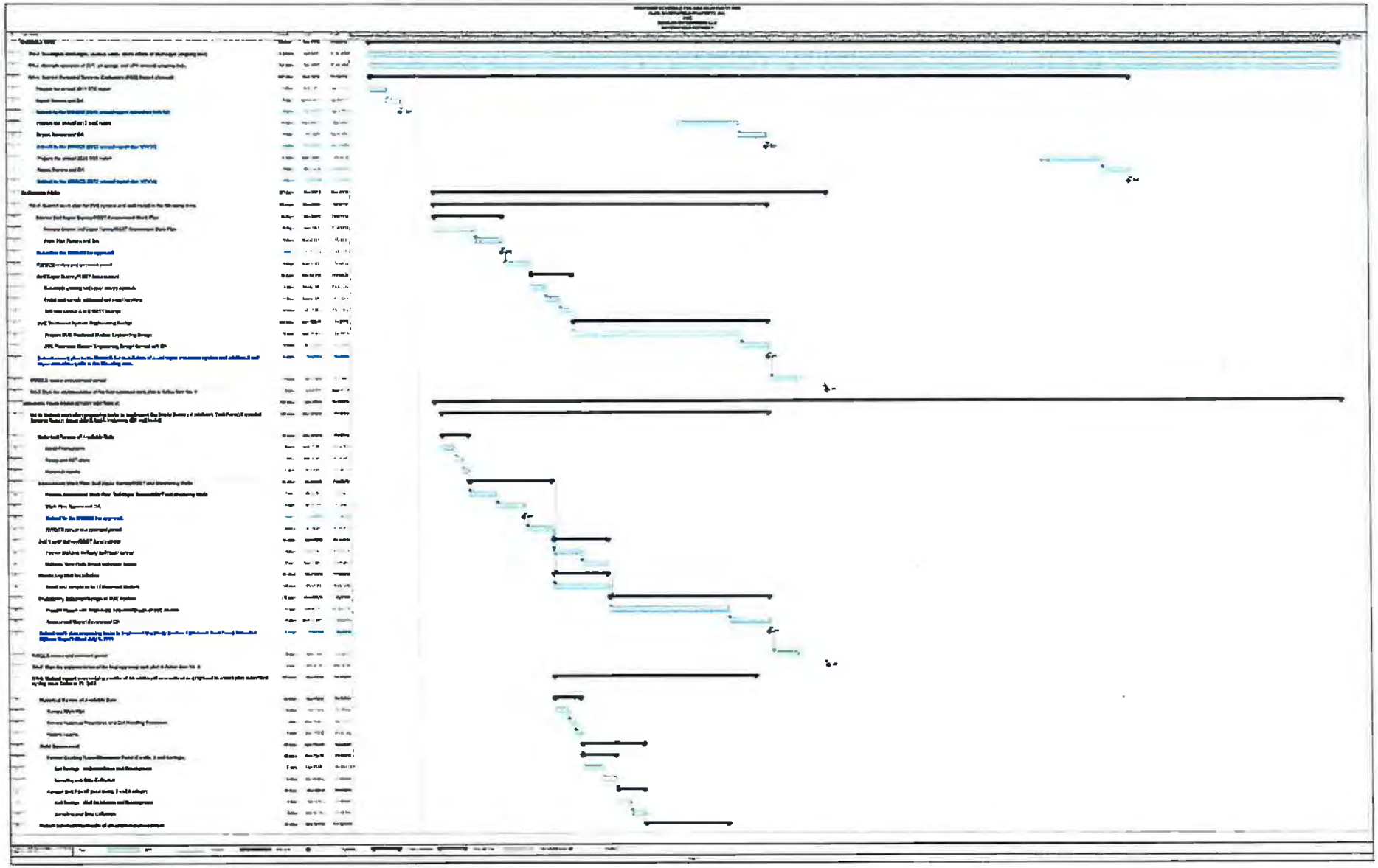
Shell would like to discuss this schedule further with CRWQCB and answer your questions after you have had time to review it.

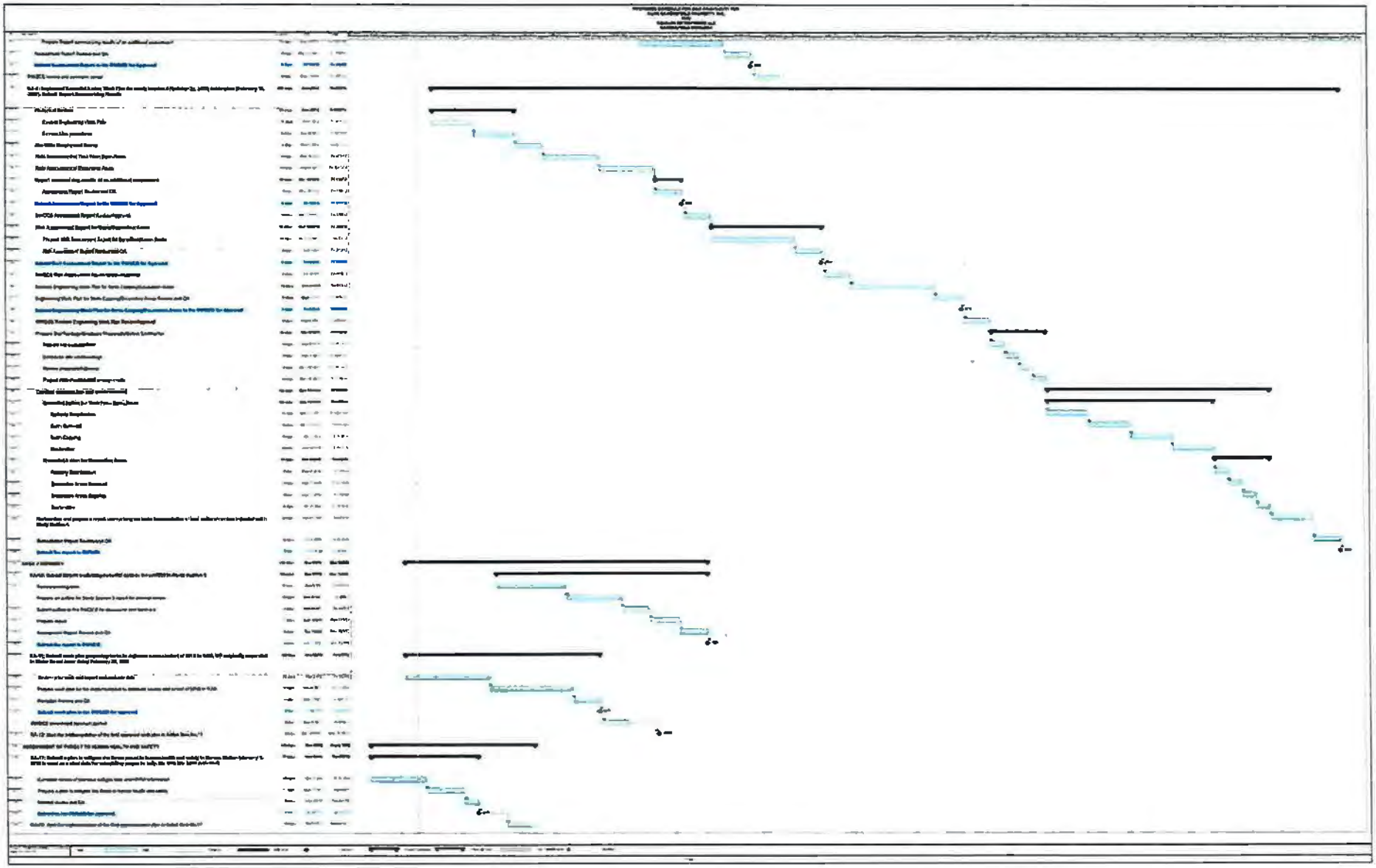
Thank you for your consideration of our request. If you have any questions or need additional information, please contact Amalia Coffey of URS at (805) 692-0609 or Kevin Dyer of Shell at (618) 288-7237.

Sincerely,
URS

Amalia Cross Coffey, PG 5463
Project Manager

cc: Kevin Dyer, Shell Oil Products US
Helen Ordway, Alon USA
Jan Alfson, CRWQCB
Lonnie Wass, CRWQCB
Joe Canas, Kern County Environmental Health Department





PROOF OF SERVICE

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

At the time of service, I was over 18 years of age and **not a party to this action**. I am employed in the County of Los Angeles, State of California. My business address is 1000 Wilshire Boulevard, Suite 600, Los Angeles, California 90017-2463.

On June 4, 2012, I served true copies of the following document(s) described as **PETITION FOR REVIEW AND REQUEST FOR HEARING** on the interested parties in this action as follows:

SEE ATTACHED SERVICE LIST

BY E-MAIL OR ELECTRONIC TRANSMISSION: I caused a copy of the document(s) to be sent from e-mail address odanaka@caldwell-leslie.com to the persons at the e-mail addresses listed in the Service List. I did not receive, within a reasonable time after the transmission, any electronic message or other indication that the transmission was unsuccessful.

BY OVERNIGHT DELIVERY: I enclosed said document(s) in an envelope or package provided by the overnight service carrier and addressed to the persons at the addresses listed in the Service List. I placed the envelope or package for collection and overnight delivery at an office or a regularly utilized drop box of the overnight service carrier or delivered such document(s) to a courier or driver authorized by the overnight service carrier to receive documents.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on June 4, 2012, at Los Angeles, California.

Margie Odanaka

Margie Odanaka

SERVICE LIST
Bakersfield Cleanup and Abatement Order
Case No. R5-2012-0701

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Counsel for ALON BAKERSFIELD PROPERTY, INC.