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19 **STATE OF CALIFORNIA**
20 **WATER RESOURCES CONTROL BOARD**

21 In the Matter of Los Angeles Regional Water
22 Quality Control Board 13304 Order – Dominguez
23 Channel 400 Feet South of Carson Street, Carson,
24 California; The Petition of
25 **BP PIPELINES (NORTH AMERICA) INC.,**
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SWRCB FILE NO. _____
**VERIFIED PETITION FOR REVIEW AND
REQUEST FOR HEARING; REQUEST
FOR STAY**

INTRODUCTION

Pursuant to California Water Code sections 13267 and 13304 and California Code of Regulations (“CCR”) Title 23, sections 2050 *et seq.*, BP Pipelines (North America) Inc. (“Petitioner” or “BP”) respectfully petitions the State Water Resources Control Board (“State Board”) for review of a Water Code section 13304 Order (the “Order”) dated February 8, 2013 and issued to Petitioner by the Executive Officer of the Los Angeles Regional Water Quality Control Board (“Regional Board”) with regard to the assessment, monitoring, clean-up and abatement of the effects of waste

1 impacting a segment of the Dominguez Channel (“Channel”) in Carson, California. Light non-
2 aqueous phase liquids (“LNAPL”) have been observed within the Channel 400 feet south of Carson
3 Street. A copy of the Order is attached hereto as Exhibit 1. The Order was prepared pursuant to
4 Water Code sections 13267 and 13304.

5 Prior to the Order, on May 25, 2011, Petitioner sought State Board review of the Regional
6 Board’s April 26, 2011 investigative Order under Water Code section 13267 (“13267 Order”). *See*
7 SWRCB Case No. A2163(a). The majority of the issues in the 13267 Order have been resolved.
8 This Order pertains to a single pipeline that was owned by a BP predecessor and is now operated by
9 Plains All American Pipelines, L.P. (“Plains”). Prior to the Order, the Regional Board issued a draft
10 clean-up and abatement order in June 2012. Petitioner’s and Plains’ August 17, 2012 comments to
11 the draft order are attached as Exhibits 2 and 3, respectively.

12 **1. NAME AND ADDRESS OF PETITIONER**

13 Petitioner may be contacted through its counsel of record: Viviana L. Heger, Tropio &
14 Morlan, 21700 Oxnard Street, Los Angeles, California 91367 and Deborah P. Felt, BP America Inc.-
15 Legal Department, 2350 E. 223rd Street, 416D, Carson, California 90810.

16 **2. THE ACTION OR INACTION FOR WHICH PETITIONER SEEKS REVIEW**

17 This petition for review concerns the issuance of the Regional Board’s Order, entitled
18 “Cleanup and Abatement Order No. R4-2013-0007 Pursuant to California Water Code Section
19 13304,” dated February 8, 2013. Petitioner was named in the Order because prior to 1999 it
20 operated a pipeline in the vicinity of the Channel that carried crude oil. That line is known to
21 Petitioner as Line 93D and referred to in the Order as URS Line 15. Plains currently owns Line
22 93D. As explained further in Exhibits 2 and 3 and the Points and Authorities attached hereto, Line
23 93D is not known to have discharged any waste or contributed in any manner to the LNAPL and
24 petroleum hydrocarbons that have been observed within a segment of the Channel. The Order fails
25 to describe any basis for naming Petitioner as a discharger, except for the Order’s assertion that
26 Petitioner is a discharger merely based on the “operation of petroleum pipelines in the vicinity of the
27 Site.” *See* Exh. 1, Order, at ¶ 2. Both Petitioner and Plains and their expert consultants have
28

1 investigated Line 93D and found no evidence to substantiate the line as a source of the materials
2 observed in the Channel.

3 The Order defines the site involved broadly as “the Dominguez Channel and impacted areas
4 near it” (“Site”). *See* Exh. 1, Order, at 1. The Order depicts the Site on Exhibit A and describes the
5 location to include “approximately 400 feet south of East Carson Street, east of Recreation Road
6 (adjacent to the Go Kart World business at 21830 Recreation Road), and west of the former Active
7 RV business (located at 1152 East Carson Street).” *Id.* at ¶1. Active RV is a remediation site under
8 Regional Board oversight and is located near other active remediation sites.¹

9 Paragraph 7 of the Order states that “[s]ince January 2011, LNAPL has been appearing
10 within the Dominguez Channel in Carson, California, approximately 400 feet south of East Carson
11 Street. The LNAPL has been observed (1) entering into channel waters from sediments within the
12 bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within
13 both the west and east levees.” Paragraph 9c of the Order states that the “LNAPL seeping into the
14 Dominguez Channel is comprised primarily of intermediate hydrocarbon compounds predominantly
15 in the naptha-range (with less than 5% crude oil mixed in), suggesting that the LNAPL observed is
16 an intermediate blending stock used in the refining process with a small fraction of crude oil.” The
17 LNAPL observed in the Channel has been characterized as “a refinery intermediate (partially-refined
18 petroleum product) in the naptha range.” *See* Exh. 1, Order, at ¶ 6.

19 The Order names four responsible parties. Shell Oil Products US appears to be the only
20 potential source of naphtha-range hydrocarbons, which comprise 95 percent of the observed material
21 in the Channel. Shell has been undertaking investigations associated with the release. Additionally,
22 Petitioner understands that investigations of the Site have been carried out by the Resource
23 Environmental LLC (“RELLC”), which is partly owned by Shell/Motiva and Chevron. The Order
24 also names Petitioner, Chevron Corporation, and Phillips 66 because they operated crude oil
25

26 ¹ The Former Active RV site is adjacent to the area where LNAPL has been detected and is part of the Regional
27 Board’s Site Clean-up Program (“SCP”), SCP 1110A, as reflected in BP’s May 25, 2011 Petition for Review of the
28 13267 Order (Case No. A2163(a)). Other SCP or underground storage tank (UST) sites near Active RV include a former
Humble Oil Service Station (adjacent to the area where LNAPL has been detected), SCP 1110B; a former Texaco
Service Station, 1209 E. Carson Street, (north of Active RV), UST R-05994; and pipelines within Perry Street (beneath
Active RV and Channel), SCP 0490A and SCP 0490B.

1 pipelines near the Site. The Order omits certain parties, including Plains All American, the current
2 owner of Line 93D. Plains demonstrated that the line Petitioner's predecessor sold to it exhibited
3 integrity and could not be a source of release to the Channel. *See* Exh. 3.

4 Petitioner does not believe that the former pipeline identified in the Order (Line 93D) is a
5 source of the release in the Channel. It was used prior to 1999 to transport crude oil. Neither
6 Petitioner nor Plains, the current owner of Line 93D, has records of a leak from the line. Line 93D
7 passed a hydrotest in 1982, and a 1993 BP pipeline summary dated March 29, 1993 identifies no
8 leaks in Line 93D. A Plains pipeline summary provided to BP by the Regional Board in an April 4,
9 2012 email note indicates that Line 93D has no integrity test failures. Based on this and all
10 investigations and data reviewed, the former BP line is not believed to be a source of the Dominguez
11 Channel release.

12 **3. DATE THE REGIONAL BOARD ACTED OR FAILED TO ACT**

13 The date of the Regional Board's action that is subject to review is February 8, 2013, when
14 the Order was signed by the Executive Officer of the Regional Board.

15 **4. STATEMENT OF REASONS THE ACTION IS INAPPROPRIATE AND IMPROPER**

16 The issuance of the Order was beyond the authority of the Regional Board, inappropriate,
17 improper, or not supported by the record, for the following reasons:

18 a) The Order is unreasonable in that it seeks to impose burdensome and
19 unreasonable obligations, including, without limitation, assessments, workplans, remediation, and
20 continued investigation and studies, which are not authorized under the Water Code. A clean-up and
21 abatement order may be issued only to a person "who has caused or permitted, causes or permits, or
22 threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be,
23 discharged into the waters of the state and creates, or threatens to create, a condition of pollution of
24 nuisance." Cal. Water Code § 13304. Water Code section 13267(b)(1) allows the Regional Board
25 to issue a Water Code 13267 order to "any person who has discharged, discharges, or is suspected of
26 having discharged or discharging, or who proposes to discharge waste within its region." Petitioner
27 has not discharged and is not suspected of having discharged waste near the segment of the Channel
28 at issue. Neither Water Code section 13267 nor 13304 authorizes the Board to order Petitioner's

1 response simply by virtue of its operation of a pipeline, especially where, as here, there is no
2 substantial evidence of a crude oil release from the line.

3 b) The obligations under the Order are further unreasonable because they are not
4 supported by, or are inconsistent with, substantial evidence in the record. Available evidence does
5 not support the inclusion of Line 93D in the Order. Investigations of Petitioner and Plains have
6 found nothing showing any impact from Line 93D into the Channel. *See Exhs. 2 and 3.* The
7 Regional Board acted improperly by failing to cite credible, sufficient evidence that justifies
8 requiring Petitioner to perform the work requested in the Order. Petitioner is not a discharger or
9 threatened discharger subject to the requirements of Water Code sections 13304 or 13267.

10 Accordingly, Petitioner should not be named in the Order or, alternatively, should be named only as
11 a secondary responsible party.

12 c) The burden, including costs, of the directives set forth in the Order, including
13 without limitation, additional data, information and reports, do not bear a reasonable relationship to
14 the need for said data, information and/or reports, or the benefits to be obtained therefrom, and,
15 therefore, are contrary to California Water Code sections 13267(b)(1) and 13304. The burden, costs,
16 and directives set forth in the Order are largely, if not entirely, duplicative of other Regional Board
17 directives to nearby sites, which Petitioner itemized in its May 25, 2011 petition for review of the
18 13267 Order (SWRCB Case No. A2163(a)). Many of the items that the Regional Board seeks have
19 been or will be completed in conjunction with on-going investigations by Shell Oil Products and
20 RELLC. The subsurface areas beneath the segment of the Channel at issue have been or will be
21 sampled by Shell or other entities, and the additional costs of further sampling should be borne by
22 the entities currently undertaking remediation and assessment activities.

23 d) The Order is vague and ambiguous, including without limitation, its failure to
24 provide legally sufficient grounds for requiring Petitioner to engage in additional investigation
25 activities, complete and submit additional data, information and/or reports. The Order is vague and
26 ambiguous in the manner that it defines the Site. The Order is broad and unnecessarily burdensome
27 to the extent it is interpreted to require Petitioner to do anything more than provide existing
28 information concerning the location and operation of its former pipeline.

1 **5. PETITIONER IS AGGRIEVED**

2 Petitioner is aggrieved for the reasons set forth in section 4, above. Petitioner is
3 potentially subject to substantial regulatory requirements pursuant to an Order that is contrary to law
4 and that relates primarily to releases of refined petroleum products, which others, rather than
5 Petitioner, handled. Even if such costs were authorized, which they are not, they are largely
6 duplicative of existing studies and not tailored in a manner that will provide any benefit to regional
7 water quality, the environment or human health.

8 **6. PETITIONER'S REQUEST TO THE STATE BOARD**

9 Petitioner requests that the Order be vacated or amended to remove Petitioner as
10 among the responsible parties required to comply with its requirements.

11 Alternatively, Petitioner seeks a determination from the State Board that the Regional
12 Board's issuance of the Order, in part, was inappropriate and improper and should be modified so
13 that:

- 14 (i) The parties subject to, or carrying out, existing remediation and assessment
15 orders or activities are named as primarily responsible parties under the Order
16 and Petitioner is named as a secondary responsible party in light of the lack of
17 evidence of discharge from Line 93D;
- 18 (ii) Petitioner may fully satisfy the terms of the Order by completing a reasonable
19 search for records and analysis of existing data to demonstrate that
20 Petitioner's pipeline was not a source of release to the Channel; and
- 21 (iii) The deadlines under the Order be extended by at least 60 days with an option
22 for any aggrieved party to seek additional time.

23 In addition, Petitioner respectfully requests the Board to issue a stay in this matter so
24 that the status quo may be maintained until such time as the State Board has the opportunity to rule
25 on this matter.

26 **7. STATEMENT OF POINTS & AUTHORITIES**

27 Petitioner's statement of points and authorities is attached.

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1 **8. STATEMENT OF TRANSMITTAL OF PETITION TO THE REGIONAL BOARD**

2 A true and correct copy of this petition for review was transmitted to Samuel Unger,
3 Executive Officer of the Los Angeles Regional Board, on March 11, 2013.

4 **9. SUBSTANTIVE ISSUES RAISED BEFORE THE REGIONAL BOARD**

5 Petitioner has not yet been afforded a meaningful opportunity to be heard on the
6 substantive issues set forth in the Order. Petitioner diligently responded to requests from the
7 Regional Board following issuance of the April 2011 13267 Order in this action. Petitioner's key
8 communications are summarized in its August 17, 2012 comments to the draft clean-up and
9 abatement order in this matter, which are attached hereto as Exhibit 2. Pending efforts to resolve
10 disputed issues with Regional Board staff, Petitioner may be without an adequate remedy unless the
11 State Board grants this petition for review and a hearing with respect to the issues presented here.

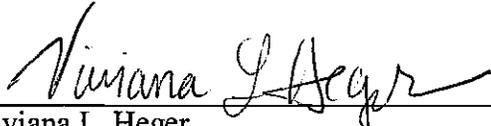
12 **10. REQUEST FOR HEARING**

13 In connection with any hearing in this matter, Petitioner reserves the right to present
14 additional evidence or testimony to the State Board and will submit to the State Board, if
15 appropriate, statements regarding evidence pursuant to Code of California Regulations, Title 23,
16 section 2050(b).

17
18 DATED: March 11, 2013

VIVIANA L. HEGER
TROPIC & MORLAN

DEBORAH P. FELT
BP AMERICA INC. LEGAL DEPARTMENT

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23 _____
24 Viviana L. Heger
25 Attorneys for Petitioner
26 BP PIPELINES (NORTH AMERICA) INC.
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VERIFICATION

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3 I, Timothy W. Hayes, am employed by BP Pipelines (North America) Inc. and am the
4 Pipelines Operations Manager primarily responsible for overseeing BP's response to the February 8,
5 2013 order from the Los Angeles Regional Water Quality Control Board ("Order") related to
6 property near the Dominguez Channel ("Site"). I have read the foregoing Verified Petition for
7 Review and Points and Authorities and believe that the statements therein are true and correct. If
8 called as a witness to testify with respect to the matters stated therein, I could and would
9 competently do so under oath.

10 I declare under penalty of perjury under the laws of the State of California that the foregoing
11 is true and correct and that this verification was executed in Long Beach, California on March 11,
12 2013.

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15 Timothy W. Hayes
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1 **MEMORANDUM OF POINTS AND AUTHORITIES**

2 **I. INTRODUCTION AND SUMMARY**

3 The Regional Board lacks substantial evidence to include Petitioner in the February 8, 2013
4 order, entitled "Cleanup and Abatement Order No. R4-2013-0007 Pursuant to California Water Code
5 Section 13304," dated February 8, 2013 ("Order"). The Order directs Petitioner to "cleanup waste
6 and abate the effects of the discharges of waste" without providing substantial evidence that
7 Petitioner's former pipeline – Line 93D (URS #15) – discharged petroleum hydrocarbons to the
8 Dominguez Channel or impacted soil, soil gas, and groundwater near the Dominguez Channel. It
9 fails to describe the basis for naming Petitioner as a discharger, except for the Order's assertion that
10 Petitioner is a discharger merely based on the "operation of petroleum pipelines in the vicinity of the
11 Site." *See* Exh. 1, Order, at ¶ 2.

12 Former BP Line 93D is currently operated by Plains All American, another pipeline
13 company. Plains, like Petitioner, invested substantial time and resources to investigate whether Line
14 93D could be the source of LNAPL in the Channel. Both Petitioner and Plains found no records
15 showing leaks from Line 93D. Additionally, Plains' August 17, 2012 comments to the Regional
16 Board in this matter detailed considerable evidence that only six of the 27 lines involved in the
17 13267 Order transported some combination of refinery intermediate, crude oil, and refined product
18 and, therefore, could be sources of the release in the Channel. Line 93D is not among the six lines
19 that could be sources. Because the same line is at issue for Petitioner and Plains, Petitioner should
20 be dismissed from the Order for the same reasons Plains is not a party to this Order. Petitioner
21 knows of no evidence of discharge to support the inclusion of Line 93D as a source of LNAPL or
22 petroleum hydrocarbons reported to be impacting the Channel.

23 Unsurprisingly, the Order cites no evidence (because there is none) that Petitioner discharged
24 any refined or crude oil petroleum products. The Regional Board, therefore, acted improperly by
25 failing to identify and cite evidence that justifies requiring Petitioner to perform the work requested
26 in the Order.

27 In light of the lack of substantial evidence, the Order is unreasonable and not authorized
28 under Water Code section 13304 or 13267. The Order is contrary to Water Code section 13304

1 because Petitioner has not “caused or permitted, . . . or threaten[ed] to cause or permit any waste to
2 be discharged or deposited where it is, or probably will be, discharged into the waters of the state[.]”
3 Water Code § 13304. The Order is also contrary to Water Code section 13267 because the burden
4 of the directives does not bear a reasonable relationship to the need for said data, information and/or
5 reports, or the benefits to be obtained therefrom. The subsurface areas beneath the segment of the
6 Channel at issue have been or will be sampled by other entities, and the additional costs of further
7 sampling should be borne by the entities currently undertaking remediation and assessment
8 activities, not by Petitioner. Accordingly, the parties subject to, or carrying out, existing
9 remediation and assessment orders or activities should be named as primarily responsible parties
10 under the Order. Petitioner should be dismissed from the Order. If Petitioner is named at all in the
11 Order, it should be as a secondary responsible party in light of the lack of evidence of discharge
12 from Line 93D.

13 The unreasonable burden associated with the Order also renders the scope of the Order
14 unnecessarily broad. The Board acknowledges in the Order that samples of product in the vicinity of
15 Dominguez Channel contain less than five percent crude oil. Unless substantial evidence implicates
16 Line 93D as a source, Petitioner should be dismissed from the Order or required to do nothing more
17 than analyze and provide existing information related to its former operation of Line 93D.

18 For these reasons, which are more fully discussed below, Petitioner requests that the Order be
19 vacated as to Petitioner or, alternatively, be modified (a) to make primarily responsible parties under
20 the Order the parties subject to, or carrying out, existing remediation and assessment orders or
21 activities and Petitioner secondarily responsible because there is no evidence of discharge from Line
22 93D; (b) to confirm that Petitioner’s obligations may be satisfied by providing to the Regional Board
23 existing data and analysis that has not already been provided, and (c) to extend the deadlines under
24 the Order by at least 60 days. Petitioner further requests that the Order be stayed pending the State
25 Board's review of this Petition.

26 **II. BACKGROUND**

27 In early 2011, light non-aqueous phase liquids (“LNAPL”) were entering a segment of the
28 Channel south of Carson Street from (i) the bottom of the Channel and (ii) horizontal, perforated

1 sub-drain pipe systems installed within both the west and east channel levees. Located near that area
2 is Line 93D, a 16-inch Plains underground crude oil pipeline. Crude oil has been observed as a
3 minor component of the release. See Exh. 1, Order, at ¶9c; Exh. 3 at 5-6.

4 In response to the release in January 2011, Plains assumed oil collection responsibility and
5 retained West Coast Environmental Services to undertake recovery efforts. See Exh. 3 at Exhibit A
6 at 1. Shortly thereafter, the Regional Board issued an investigative order under Water Code section
7 13267 to various parties, including Petitioner and Plains, the former and current operators of Line
8 93D, respectively. In May 2011, Petitioner, Plains, and other parties responded to the Regional
9 Board's April 25, 2011 investigative order pursuant to Water Code section 13267. Petitioner's key
10 responses to the April 2011 order are summarized in Exhibit 2.

11 Sometime after responding to the April 25, 2011 order, the Regional Board issued a draft
12 clean-up and abatement order on June 20, 2012. On August 17, 2012, Petitioner and Plains
13 submitted comments to a draft clean-up and abatement order that, among other things, demonstrated
14 that Line 93D is not a source of release to the Site. Copies of Petitioner's and Plains' comments are
15 attached respectively as Exhibits 2 and 3. Petitioner incorporates all reports and communications in
16 Exhibits 2 and 3 as part of the record in this proceeding.

17 Investigations by Plains found that six pipelines reportedly carried crude oil, refined
18 products, and partially refined products (*i.e.*, intermediate-range product) – URS #4, 5, 6, 8, 11 and
19 14. Line 93D is not among these six lines. See Exh. 3 at 4-5 and Exh. A at 3. Investigations also
20 found that the likely source area of the LNAPL was in the vicinity of monitoring well R-MW-6,
21 where up to 6.10 feet of product was found. That location is 100 feet from Line 93D. It is near URS
22 Line #18 (2 lines), 19, 20, and 27. See Exh. 3 at 5.

23 Petitioner's investigations found that:

- 24 1. ***Line 93D has no records of leaks.*** It passed a hydrotest in 1982, was identified as
25 having no leaks in a 1993 BP pipeline summary, and has had no integrity test failures
26 according to Plains, which has operated the line since 1999.
- 27 2. ***Releases from former underground storage tanks or other non-pipeline source are***
28 ***likely sources.*** Several samples contain a small amount of unleaded gasoline fuel

1 oxygenate. This information tends to support releases from former underground
2 storage tanks or other non-pipeline sources as potential sources. These sources are
3 detailed in Petitioner's May 25, 2011 petition to the April 2011 order based on Water
4 Code section 13267.

- 5 3. ***The naphtha portion of the release in the Channel appears to be recent, not***
6 ***historical.*** A lack of age-sensitive indicator data makes the age of the intermediate
7 stream product difficult to determine, but it appears to be from a recent release. The
8 Regional Board believes that a rising water table caused the appearance of LNAPL in
9 Dominguez Channel. This working model is contrary to Petitioner's conclusions and
10 the Order does not provide a technical basis for the working model. Even if the
11 model were accurate, a rising water table would have resulted in the intermediate
12 stream product being exposed to more oxygen and therefore aerobic degradation.
13 Normal paraffins in gasoline-range hydrocarbons are known to be biodegradation
14 sensitive; with this understanding of normal paraffin compounds and the resulting
15 more biologically active environment, an "altered" pattern of biodegradation sensitive
16 compounds would be expected in LNAPL chromatograms if the LNAPL has been in
17 the environment for a long time. Instead, an apparent "unaltered" pattern of
18 biodegradation sensitive compounds (*i.e.*, normal paraffins) is observed in the
19 intermediate stream product chromatograms of several samples, potentially indicating
20 a relatively recent release. *See* Exh. 2 at 7-8.

21 After these and other party investigations, the Regional Board concluded in the Order that the
22 release in the Channel is from historical, rather than recent, releases. *See* Exh. 1 at Responsiveness
23 Summary at 13. "It is the Regional Board's working model that the discharges to the Site are
24 historic, on the order of decades old, rather than 'relatively' recent." *Id.* The Regional Board's
25 working model of a historic release was the basis to exclude Plains from the Order. *Id.* at 18.
26 ("Based upon the model that the discharges at the Site are historic, . . . , the Regional Board
27 concur[red] that Plains All American Pipelines, L.P. likely did not contribute to the petroleum
28 discharges at the Site.") This working model is contrary to Petitioner's conclusions and the Order

1 does not provide a technical basis for the working model.

2 Based on this model, the Order names four responsible parties for the releases observed in
3 the Channel: Petitioner, Chevron Corporation, Phillips 66 and Shell Oil Products US. Phillips,
4 Chevron, and Petitioner were named because they operated crude oil pipelines near the Site.

5 **III. ARGUMENT**

6 **A. A Clean-up Order Is Not Proper Against Petitioner**

7 A clean-up and abatement order may be issued only to a person “who has caused or
8 permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited
9 where it is, or probably will be, discharged into the waters of the state and creates, or threatens to
10 create, a condition of pollution of nuisance.” Cal. Water Code § 13304. “There must be substantial
11 evidence to support a finding of responsibility for each party named. This means credible and
12 reasonable evidence which indicates the named party has responsibility.” *In the Matter of the*
13 *Petition of Exxon Company, USA et al.*, WQO No. 85-7 at 11-12, 1985 WL 20026 at *6 (Cal. St.
14 Wat. Res. Bd. 1985); *In the Matter of Stinnes-Western Chemical Corporation*, WQO No. 86-16 at
15 11-12, 1986 WL 25523 (Cal. St. Wat. Res. Bd. 1986).

16 The first requirement by law is that the Regional Board identifies a person who qualifies as a
17 discharger or a threatened discharger. Even investigative orders under Water Code section 13267
18 have a similar requirement, requiring that the Regional Board show a person is a discharger or
19 suspected discharger. *See In re Pacific Lumber Company & Scotia Pacific Co. LLC*, SWRCB/OCC
20 File A-1380 at 10 (Order WQ 2001-14) (“In reviewing a water quality monitoring and reporting
21 order entered by a Regional Water Quality Control Board pursuant to section 13267, the SWRCB
22 first must determine if the party to whom the monitoring order is directed has discharged, is
23 discharging, is suspected of discharging, or proposes to discharge waste.”) *See e.g., In re Chevron*
24 *Products Co.*, SWRCB/OCC File A-1343, at 2 (Order WQ 2004-0005). Here, there continues to be
25 no evidence that Petitioner discharged any contaminants or contributed to any discharge. This alone
26 requires that the Order be vacated as to Petitioner.

27 Further, liability under Water Code section 13304 attaches only where a party “took
28 affirmative steps directed toward the improper discharge” of waste or has either directly spilled or

1 released the contaminants into the environment or affirmatively and knowingly caused or permitted
2 the contamination to migrate. *Redevelopment Agency of the City of Stockton v. BNSF Railway Co.*,
3 643 F.3d 668, 674-674, 678 (9th Cir. 2011) (applying the law of nuisance to Water Code 13304).
4 Here, there is no evidence that Petitioner took any affirmative steps that led to a discharge. There is
5 also no evidence that Line 93D directly spilled or released contaminants into the environment and
6 caused or permitted contamination to migrate. Accordingly, the Order lacks support and must be
7 vacated.

8 To support the Order, the Regional Board points to *In The Matter Of The Petition Of The*
9 *BOC Group, Inc.*, Order No. WQ 89-13, 1989 WL 119003 (Cal.St.Wat.Res.Bd. 1989). The Board
10 contends that *BOC Group, Inc.*, found that the existence of a source, such as a tank, was enough to
11 support the Water Code 13304 finding of a release or threatened release. *See* Order, Responsiveness
12 Summary at 14. The *BOC Group, Inc.*, decision does not anywhere state this conclusion. To the
13 contrary, there, the State Board found liability under Water Code section 13304 where it had
14 physical evidence of leaking equipment and sample data confirming the release. The only issue in
15 the case was whether the regional board had to pinpoint the exact date of the release. The State
16 Board concluded it did not. Thus, *BOC* stands for the proposition that the exact date of release is not
17 needed to support an order under Water Code section 13304.

18 The *BOC* decision is instructive here. In that case, earth-moving equipment struck an
19 abandoned 1,000-gallon underground storage tank and nearly caused a spill of approximately 500
20 gallons of liquid chlorinated hydrocarbons from the tank. Sample data showed conclusively that the
21 soil surrounding the tank was contaminated with levels of the same chlorinated hydrocarbons in the
22 tank. After discovery of the leaking underground storage tank, the Regional Board found, and the
23 State Board affirmed, that:

24 [The] substances identified in the soil and ground water are the same type of
25 substances as those found in the tank. . . [¶] [T]he existence of the tank in the ground
26 and the fact that it was abandoned constitutes a threat to create a condition of
27 pollution or nuisance. Thus, even though the tank may not have leaked while BOC
28 still owned the property, BOC caused the discharge because the existence of the
abandoned tank threatened to cause and is still causing pollution. *Id.* at *3.

Here, the Regional Board does not have sufficient evidence like that in the *BOC* decision.

1 There is no physical evidence of a leaking line similar to the half-filled, abandoned underground
2 tank in *BOC*. Instead, there is ample evidence that Line 93D did not leak. Petitioner's predecessor
3 owned it until 1999 and has no records showing a leak. Plains owned Line 93D since 1999 and has
4 no records showing a leak. The presence of crude oil near Line 93D does not serve as evidence that
5 Line 93D is the source. Other lines – including the six lines Plains identified – are likely to be the
6 sources. *See* Exh. 3. The Regional Board presumes – without evidence – that Line 93D is a source,
7 and it presumes (again without evidence) that it was the source at a precise time – prior to 1999.
8 The presumption of a leak from Line 93D prior to 1999 is not credible. If the line leaked at all –
9 which records show it did not – then its lack of integrity would have been evident to Plains before
10 and after the 1999 purchase. Mere speculation and theory is not sufficient credible evidence to
11 sustain an order against Petitioner for a pre-1999 leak from Line 93D without a shred of evidence to
12 show that it leaked at such a time. The line has exhibited integrity based on Petitioner's and Plains'
13 investigations pre- and post-1999.

14 Further, Plains' investigations point to other lines as the primary sources of the release. *See*
15 Exh. 3. Line 93D is not among the six lines that are the most likely sources of the discharge(s) to the
16 Channel. Line 93D does not belong in the Order based on this evidence of two parties who have
17 investigated the line.

18 The Order is improper – and will continue to be improper – because the Regional Board
19 lacks substantial evidence that justifies requiring Petitioner to perform the work requested in the
20 Order. Substantial evidence continues to demonstrate that Petitioner is not a discharger or
21 threatened discharger subject to the requirements of Water Code section 13304.

22 **B. Evidence of Other Primarily Responsible Parties**

23 Not only is Petitioner not a discharger or threatened discharger, there is substantial evidence
24 in the record of other dischargers primarily responsible. As a result, the burden of the directives in
25 the Order upon Petitioner bears no reasonable relationship to the conditions at the Site. The Order
26 requires Petitioner to undertake work to determine the extent of petroleum impact that appears to be
27 largely, if not entirely, associated with sources other than Line 93D. To require Petitioner to
28 delineate the extent of LNAPL impacts that other parties are investigating is unreasonable where

1 neither the Regional Board, Petitioner, nor Plains has found any credible evidence that Petitioner is a
2 potential source. Additional costs of further sampling should be borne by the entities currently
3 undertaking remediation and assessment activities.

4 Petitioner believes that if it remains in the Order at all (which it should not), it should be as a
5 secondary responsible party. State Water Board orders have found secondary liability status
6 appropriate where, among other things, the discharger did not contribute to the discharge. *In The*
7 *Matter Of The Petition Of Ultramar, Inc.*, Order WQ No. 2009-0001, 2009 WL 6527505, *7 (Cal.
8 St. Wat. Res. Bd. 2009) (citing Orders WQ 89-8, *Arthur Spitzer et al.* and WQ 86-18, *Vallco Park,*
9 *Ltd.*) Here, there is no evidence that Petitioner contributed to the release in the Channel.
10 Accordingly, at most, Petitioner should be named as a secondary responsible party consistent with
11 other regional board cleanups under Water Code section 13304. It is appropriate to apply the
12 principles of secondary responsibility here because there is no substantial evidence of discharge and
13 the majority of the discharged materials are gasoline-range hydrocarbons, which are unrelated
14 entirely to the transport of crude oil. Distinguishing primary responsible parties from secondary
15 responsible parties would require the secondary responsible parties to act if the primary responsible
16 party fails to do so. *See id.*

17 **C. If Order is Vague and Ambiguous and Should Be Amended**

18 The Order is vague and ambiguous. It fails to define the Site at issue, other than to refer to a
19 segment of the Channel “and impacted areas near it.” *See* Exh. 1, Order, at 1. It fails to sufficiently
20 distinguish between primarily responsible parties that could be sources of LNAPL impacts and other
21 parties, such as Petitioner, that carried crude oil that comprises less than five percent of the product
22 observed in the vicinity of the Channel. It fails to describe the basis for naming Petitioner as a
23 discharger, except for the Order’s assertion that Petitioner is a discharger merely based on the
24 “operation of petroleum pipelines in the vicinity of the Site.” *See* Exh. 1, Order, at ¶ 2. If the Order
25 is not vacated as to Petitioner, it should be amended to address these ambiguities.

26 **D. The Order is Unreasonable and A Stay Should be Issued**

27 The Order is unreasonable in that the Regional Board has failed to provide Petitioner with a
28 meaningful opportunity to address or refute the Order’s alleged findings and directives with existing

1 information and data. Petitioner and Plains have undertaken a diligent investigation that
2 demonstrates Line 93D is not a source of the release observed in the Channel. The key portions of
3 these findings appear to have been largely disregarded, including most of Plains's comments related
4 the six primary lines at issue in this matter. See Exh. 3 at 5 and at 3 of Exhibit A. To allow the
5 Regional Board to continue to enforce the Order in this fashion denies Petitioner procedural due
6 process and results in substantial harm. Petitioner faces unjustified and inappropriate regulatory
7 requirements, costs, and potential civil liability for failure to comply with the Order. If the Order is
8 not vacated as to Petitioner, it should be amended to provide additional time to further demonstrate
9 to the Regional Board the lack of evidentiary support for imposing the extensive requirements of the
10 Order upon Petitioner.

11 Petitioner requests that the Board stay enforcement of the Order until the merits of this
12 Petition may be reviewed. A stay should be issued where, as here, a Petitioner establishes (1)
13 substantial harm to the Petitioner or to the public interest if a stay is not granted; (2) a lack of
14 substantial harm to other interested persons and to the public interest if a stay is granted; and (3)
15 substantial questions of law and fact regarding the disputed action. (Cal. Code Regs. tit. 23 § 2053.)

16 Should Petitioner be subject to the Order's requirement during the pendency of this Petition,
17 Petitioner would suffer substantial harm because the Order requires extensive environmental
18 investigation and remediation, the costs of which would be substantial. While Petitioner will suffer
19 substantial harm without issuance of a stay, neither the public interest nor any interested parties will
20 suffer harm in the event the stay is issued because other responsible parties, would remain subject to
21 the Order's requirements. Additionally, there is substantial doubt about the validity of the Order
22 (both on the facts and the law); the Order fails to cite evidence establishing that Petitioner has
23 discharged or is suspected of discharging waste; and, all the relevant evidence cited in the Order
24 points to other parties.

25 ///
26 ///
27 ///
28

1 For all the foregoing reasons, Petitioner requests that the State Board grant the relief
2 requested in this petition.

3
4
5 DATED: March 11, 2013

VIVIANA L. HEGER
TROPIC & MORLAN

6 DEBORAH P. FELT
7 BP AMERICA INC. LEGAL DEPARTMENT

8 

9

Viviana L. Heger
10 Attorneys for Petitioner
11 BP PIPELINES (NORTH AMERICA) INC.

EXHIBIT 1



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

February 8, 2013

Mr. Darrell Fah
BP p.l.c., BP Pipelines (North America) Inc., and/or other BP Entity
4 Centerpointe Drive
La Palma, CA 90623

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7011 3500 0003 5491 0681

Mr. Ben Terry
Chevron Corporation
c/o Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7011 3500 0003 5491 0698

Mr. Louis S. Mosconi
Phillips 66
3900 Kilroy Airport Way, Suite 210
Long Beach, CA 90806

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7012 1640 0000 6228 4830

Mr. Eugene Freed
Environmental Services
Shell Oil Products US
20945 S. Wilmington Avenue
Carson, CA 90810

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7012 1640 0000 6228 4892

**SUBJECT: CLEANUP AND ABATEMENT ORDER NO. R4-2013-0007
PURSUANT TO CALIFORNIA WATER CODE SECTION 13304**

**SITE/CASE: DOMINGUEZ CHANNEL, SOUTH OF CARSON STREET
CARSON, CALIFORNIA (SCP NO. 1264; FILE NO. 11-184)**

Dear Mr. Fah, Mr. Terry, Mr. Mosconi, and Mr. Freed:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles County and Ventura County, including the area referred to as the Dominguez Channel, in the vicinity of Carson Street in Carson, California (referred herein as the Site). Regional Board staff recently performed an evaluation of environmental conditions at the Site and identified areas requiring additional delineation and remediation. In accordance with the Regional Board's responsibilities for the protection of water quality and beneficial uses, enclosed is Cleanup and Abatement Order No. R4-2013-0007 (CAO), directing you to assess, monitor, cleanup, and abate the effects of wastes discharged to the soil, soil vapor, groundwater, and surface water at and near the Dominguez Channel (south of Carson Street) in Carson, California. This CAO was prepared pursuant to sections 13267 and 13304 of the California Water Code.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

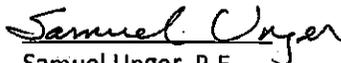
320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

A draft of this CAO (Draft CAO No. R4-2012-0103) was provided to you on June 20, 2012, inviting comments. The attached CAO R4-2013-0007 contains changes based upon the comments we received. Our responses to comments received are provided in the enclosed table, *Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103*.

Any person aggrieved by this action of the Regional 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, section 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.

Should you have any questions, please contact Mr. Greg Bishop at (213) 576-6727 or gbishop@waterboards.ca.gov.

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosure: *Responsiveness Summary – Draft Cleanup and Abatement Order R4-2013-0007*

cc: (via e-mail)

Mr. Larry Alexander, Crimson Pipeline, L.P.
Ms. Mary Jo Anzia, AECOM
Mr. Lalo Bakhoun, South Coast Air Quality Management District
Mr. Hector Bordas, Los Angeles County Department of Public Works/Flood Control District
Mr. Edward Boyes, California Dept. of Fish and Game
Mr. Jason Clark, Air Products and Chemicals, Inc.
Mr. Christian Corbo, California Dept. of Fish and Game
Ms. Adriana Crasnean, Cal Fire
Ms. Donna DiRocco, BP Pipelines
Mr. Matthew Dunne, Exxon-Mobil Corporation
Ms. Patricia Elkins, City of Carson
Mr. John Englehardt, Resource Environmental, LLC
Mr. Mark Fahan, Holguin, Fahan & Associates, Inc.
Mr. Dan Fischman, Phillips 66
Mr. Daniel Gabel, Tesoro Refining and Marketing Company
Ms. Amy Gaylord, Pillsbury Winthrop Shaw Pittman LLP
Mr. Julio Gonzalez, City of Carson
Mr. Bob Gorham, Cal Fire
Mr. Marc Greenberg, Keesal, Young & Logan
Mr. Ngiabi Gicuhi, Plains All American Pipeline, L.P.
Mr. John Hawkinson, Carson Estate Companies

Mr. Gary Hildebrand, Los Angeles County Department of Public Works/Flood Control District
Mr. Corey Kong, California Dept. of Fish and Game
Mr. Joe Liles, URS Corporation
Mr. Todd Littleworth, Chevron Corporation, Chevron Law Group
Mr. Chuck MacDonald, Cal Fire
Mr. Sean Moe, California Dept. of Fish and Game
Mr. George Phair, Resource Environmental, LLC
Mr. Martin Powell, USEPA
Mr. Ron Prowell, Prowell Family Trust
Mr. David Randall, URS Corporation - North Carolina
Mr. Ian Robb, Chevron Environmental Management Company
Ms. Adriane R. Simon, ExxonMobil Corporation c/o ExxonMobil Pipeline Company
Mr. Rob Speer, Chevron Environmental Management Company
Mr. Robert Stechmann, Stechmann Geoscience, Inc.
Mr. Fred Stroud, USEPA
Ms. Michelle Tsiebos, Los Angeles County Department of Environmental Health
Mr. Greg Vogelpohl, Resource Environmental, LLC
Ms. Diane Wachi, City of Carson
Mr. Barry White, City of Carson
Mr. Jerome Zimmerle, URS Corporation

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Submission	Author
1	Shell Oil Products US (Shell), July 12, 2012
2	City of Carson, August 14, 2012
3	Pillsbury Winthrop Shaw Pittman LLP (CEMC), August 17, 2012
4	ExxonMobil Pipeline Company (EMPCo), August 17, 2012
5	Atlantic Richfield Company (BP), August 17, 2012
6	Downey Brand Attorneys LLP (Plains), August 17, 2012

Author/ Comment No.	Comment	LARWQCB Response
Shell 1	<p><u>First Page, Second Paragraph, Definition of Site:</u> The definition of "Site" should reference the diagram on Figure 1 and be sufficiently precise and geographically limited for the CAO to be legally effective and efficiently administered. The "Site" description can be revised as necessary if and when release location(s) which have impacted the Dominguez Channel are discovered. The scope of this CAO should be limited to abating the impacts to the Dominguez Channel, rather than an area-wide pipeline investigation or groundwater cleanup.</p>	<p>The Regional Board's intent is that the waste constituents present in the Dominguez Channel, its infrastructure, and the surrounding area impacted by the same waste constituents are addressed by the CAO. We recognize that the full extent of impact is not yet defined, but definition of the plume extent is one of the goals of the CAO.</p> <p>The definition of "Site" has been revised in the second paragraph of the CAO.</p> <p>The scope of the CAO extends beyond simply abating the impacts to the Dominguez Channel, although the Regional Board considers the abatement of impacts to the Dominguez Channel to be a priority.</p>
Shell 2	<p><u>Background; Paragraph 1:</u> We understand that the Go Kart World is active, not a former business.</p>	<p>The word "former" has been removed.</p>
Shell 3	<p><u>Background; Paragraph 2:</u> It has yet to be determined that there has been a "discharge" from property or equipment owned or operated by Shell Oil Products US or Shell Oil Company; accordingly, SOPUS objects to the inclusion of Shell Oil Products US as a "Discharger" and the statement that it is a Responsible Party in this paragraph. For the same reason, there is no basis for the statement that Shell Oil Products US (as contained within the definition of "Dischargers") has "caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State" It would be more appropriate to say that the listed companies "may be" Dischargers and/or are "suspected to" have "caused or permitted to be discharged"</p>	<p>Comment noted. The information available to the Regional Board supports the conclusion that the named entities are responsible for at least some of the discharges of waste in the area of the Dominguez Channel.</p>
Shell 4	<p><u>Background; Paragraph 6:</u> We understand that 26, not 27, pipelines have been identified. Pipelines 1 and 3 refer to the same line.</p>	<p>This paragraph has been revised to indicate that 26 pipelines exist, with a footnote modification to indicate that Pipelines URS #01 and URS #03 are believed to be the same pipeline.</p>

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
Shell 5	<p><u>Background</u>; Paragraph 6. Section on Shell Oil Products US: SOPUS requests the Board strike the first paragraph under 6 as it contains multiple allegations that are overbroad ("every type of hydrocarbon produced or used at its refinery"), have not been demonstrated, are not in the administrative record, and are inaccurate. The Board cites as support a law firm's legal pleading that consists of allegations relating to a contested matter. It is inappropriate to base provisions in this CAO on legal advocacy by Watson Land Company's lawyers (Bright & Best) in an unrelated matter currently subject of a legal appeal before the State Water Resources Board. The Watson Industrial Center South (WICS) site is not relevant to this matter nor "near" the Site; it is located approximately one-half mile from the sheen location. Shell did not operate units that would have generated cracked naphtha until after the pipelines in question were re-routed away from the Dominguez Channel. SOPUS is agreeable with inclusion of the second paragraph as it acknowledges the naphtha material is "suspected" and it is generally consistent with the URS Report. SOPUS suggests a wording change to the last paragraph to insert the words "Material resembling" before "naphtha-range refinery intermediates".</p>	<p>The first paragraph on Shell Oil Products US has been revised to restate the Regional Board's position that the Shell Oil Company inter-refinery pipelines that were located near the Dominguez Channel Site likely contained naphtha-range refinery intermediates like those detected at the Site. These same lines extend across the WICS site and their contents are documented in the WICS case. The Regional Board believes that the contents of these lines, as alleged in the WICS case, are relevant to the Dominguez Channel Site.</p> <p>This is an important point because the Shell Oil Company inter-refinery pipelines present at or near the Dominguez Channel Site are the most likely of all the pipelines subject to the CAO to have transported naphtha-range refinery intermediates, which are the dominant waste constituent at the Site.</p> <p>We note Shell's acceptance of the final paragraph of this section. The words "Material resembling" have been inserted within its final sentence.</p>
Shell 6	<p><u>Discharger Liability</u>; Paragraph 17: Because of the overbroad definition of "Site" these statements cannot be supported throughout the Site. For example, it has not been shown that the presence of waste "at the Site" as a whole constitutes a "nuisance".</p>	<p>The information available to the Regional Board indicates that the use of properties in the vicinity of the Site have been affected by the discharge, resulting in likely nuisance conditions. Among the reasons is that discharges of the waste to surface waters has resulted in odor complaints from Site neighbors.</p> <p>As described in CAO Finding Paragraph 6, the information available to the Regional Board supports the conclusion that Shell Oil Products has operated pipelines in the vicinity of the discharges and that the discharges of waste contain constituents transported by Shell in those pipelines.</p>
Shell 7	<p><u>Discharger Liability</u>; Paragraph 18: It has not been found that SOPUS has caused or permitted waste to be discharged or deposited as alleged in this Paragraph. No SOPUS pipeline release has been located to date. The record of the Regional Board does not support that SOPUS owned and/or operated pipelines in a manner that resulted in the discharges of waste to the Dominguez Channel and in nearby groundwater.</p>	<p>See Response to Shell Comment 7.</p>
Shell 8	<p><u>Discharger Liability</u>; Paragraph 19: It has not been found, and the record does not support, that SOPUS has caused or permitted wastes to be discharged or deposited as described in this paragraph.</p>	<p>See Response to Shell Comment 7.</p>

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
Shell 9	<u>Discharger Liability, Paragraph 21:</u> Substantial evidence does not indicate SOPUS caused or permitted waste to be discharged into waters of the state, nor is SOPUS appropriately named as a responsible party for this CAO. SOPUS supports the Board in adding additional parties if they have liability for work under appropriate state law. SOPUS reserves its rights against responsible parties.	Comment noted. See Response to Shell Comment 7.
Shell 10	<u>Discharger Liability, Paragraph 22:</u> SOPUS is not responsible for the discharge of waste that has caused, or threatens to cause, pollution and nuisance.	Comment noted. See Response to Shell Comment 7.
Shell 11	<u>Required Actions, Paragraph 3:</u> SOPUS requests the Board replace the words "stop the discharge" with "minimize the discharge."	Comment noted. The Regional Board is required to oversee sites consistent with State Water Resources Control Board Resolution 92-49, <i>Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304</i> . Resolution 92-49 requires, among other things, that the cleanup be consistent with Resolution 68-16, <i>Statement of Policy with Respect to Maintaining High Quality of Waters in California</i> . Preventing degradation of water quality is the primary goal of Resolution 68-16. The CAO has been revised to require prevention of degradation of the surface water.
Shell 12	<u>Required Actions, Paragraph 4:</u> SOPUS requests that the Order Respondents be permitted to submit one or multiple Site Conceptual Models as reflects different potential source areas within the Site, hydrogeological and geological settings, and different involved pipeline owner/operator Respondents.	Separate Site Conceptual Models (SCM) for separate source areas would be permissible. However, Responsible Parties should collectively submit only a single SCM for each source area. The Regional Board is not seeking separate SCMs from each Responsible Party for the same or related source areas.

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
Shell 13	<p><u>Required Actions, Paragraphs 4, 5 & 7:</u> To be legally supportable and achieve timely abatement of Dominguez Channel sheens, the Site Conceptual Model and Delineation work should be focused on the suspected pipeline release sources that have impacted the Channel. Accordingly, it is overbroad to require an SCM for "lateral and vertical extent of each chemical of concern in groundwater" (4.a.iv); "Completely delineate the extent of petroleum hydrocarbons and other constituents of concern in soil, soil vapor and groundwater," (5); delineation of "full lateral (including off-Site) delineation and vertical delineation of waste constituents" (5.a.iii); or cleanup and abatement of "any remaining wastes in soil, soil vapor, and groundwater" (7). SOPUS suggests focusing these provisions by, e.g., inserting "As necessary to prevent future petroleum discharges to the Dominguez Channel" at the beginning of each paragraph. Additionally, Paragraph 5.a.iii should be revised as follows: "Delineation shall include full adequate lateral (including off Site) delineation and vertical delineation of waste constituents such that a complete 3-dimensional SCM of potential waste discharges to the Dominguez Channel at the Site can be generated."</p>	<p>See Response to Shell Comment No. 1. Specifically, note that "the scope of the CAO extends beyond simply abating the impacts to the Dominguez Channel, although the Regional Board considers the abatement of impacts to the Dominguez Channel to be a priority."</p> <p>Required Actions 1, 2, and 3 in the Dominguez Channel are intended to achieve timely abatement of the Dominguez Channel sheens, including requirements for work plans to (1) contain petroleum hydrocarbons and associated wastes discharging to the Dominguez channel, (2) remove and legally dispose of petroleum hydrocarbons and associated wastes within both channel sub-drain systems, and (3) provide an IRAP to stop the discharge of petroleum hydrocarbons and associated wastes to the surface waters of the Dominguez Channel.</p> <p>The additional Required Actions are part of the Regional Board's expectation of full assessment and remediation of the waste discharges which remain unassessed, but which may not be present only where Dominguez Channel waters are directly impacted.</p> <p>The language for Paragraph 5.a.iii has been reworded to make the intent more clear. Note that due to a typographic error, this item is now Paragraph 5.a.ii in the final CAO.</p>
Shell 14	<p><u>Required Actions, Paragraph 7:</u> SOPUS requests the Board insert the words "As necessary to prevent future petroleum discharges to the Dominguez Channel, the responsible Dischargers (Responsible Parties) shall" before "initiate a phased cleanup and abatement program" The Board only has legal authority to require cleanup and abatement from persons liable for such work under the California Water Code. Once the source(s) of the discharge(s) are identified, the appropriate Responsible Parties can be identified and should be responsible for implementing this section of the Order.</p>	<p>Resolution 92-49 and California Water Code §13304 require cleanup to background levels, or if not feasible, to an alternative level. Therefore, cleanup simply to prevent additional surface water discharge will not be sufficient without a demonstration of feasibility consistent with Resolution 92-49.</p> <p>If more specific information about the source(s) of discharge becomes available, the Regional Board will consider altering the Responsible Parties in the CAO.</p>
Shell 15	<p><u>Required Actions, Paragraph 9 and Exhibit D:</u> The attached time schedule is very accelerated. It may be achievable if the ordered Respondents use a single managing entity such as RELLC to respond. If multiple companies respond separately, more time would be necessary for the companies to coordinate separate work or to coordinate review and comment on plans and reports submitted by joint contractors; in particular additional time would be needed for a Master Work Plan (5a).</p>	<p>By issuing a single Order to multiple parties, it is the Regional Board's intent that all Responsible Parties will coordinate their efforts and respond as a single coordinated entity. The parties may choose to have one party conduct the work.</p> <p>The time schedule has been revised.</p>

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Author/ Comment No.	Comment	LARWQCB Response
Shell 16	<u>Required Actions, Paragraph 11:</u> Respondents can only provide access and consent to photograph, sample or monitor with respect to property they own or control. SOPUS will provide the required access for its properties and records and will endeavor to obtain access for the Board from third parties from whom access is requested to implement the Work; however, Respondents should not be subject to enforcement for any denial of access by third parties.	Comment noted. The Regional Board expects that the responsible parties will notify the Regional Board if there are difficulties with obtaining access.
Shell 17	<u>Required Actions, Paragraph 22:</u> This CAO is directed to multiple Respondents. Respondents should only be required to submit the requested statement for their own submittals (and will only have the knowledge necessary to certify for their own plans and reports). Accordingly, SOPUS requests the Board insert the words "by you" after "submitted" in the first sentence of this paragraph.	The words "by you" have been inserted. However, note the Regional Board's response to Shell Comment No. 15 indicating that it is our expectation that a single coordinated effort will be performed.
Shell 18	<u>Exhibit B, Table:</u> Basis for Naming Responsible Parties: Shell Oil Products US, line 17. SOPUS information indicates gasoline was the product type for this line.	Comment noted.
Shell 19	<u>Exhibit C, Map, General Area Around the Watson Center:</u> SOPUS objects to inclusion of this map, which appears to have been an exhibit in an unrelated contested litigation, and has not been attested as to accuracy or included in the administrative record in this matter.	Exhibit C has been removed.
City of Carson 1	The City of Carson adamantly supports the proposed Cleanup and Abatement Order No. R4-2012-0013 and is committed to facilitating a comprehensive assessment and remedy to the illicit discharges pursuant to California Water Code sections 13267 and 13304.	Comment noted.
CEMC 1	<u>Footnote 1, Page 1:</u> Chevron Environmental Management Company ("CEMC") does not challenge the issuance of the Draft Order to it on behalf of Unocal, however, as a point of clarification, the Draft Order erroneously identifies CEMC as a successor to Union Oil Company of California. See Draft Order pp. 4-1. CEMC is an independent company which manages certain historic liabilities, including the Unocal pipelines in issue. CEMC responds on behalf of Phillips 66 at Phillips' request.	The paragraph under Chevron Environmental Management Company within Item 6, Activities and Chemical Usage has been revised to more accurately describe Chevron's relationship. The Regional Board notes that CEMC is responding on behalf of Phillips 66 and, presumably, Chevron Corporation.

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Author/ Comment No.	Comment	LARWQCB Response
CEMC 2	Page 2: CEMC understands that actions taken by RELLC (which CEMC participated in funding) have largely eradicated the sheen on the Channel.	The RELLC actions and actions taken before them by the Los Angeles County Department of Public Works have largely eradicated the surface discharges through ongoing product recovery in the channel levees. If these actions were to cease, the sheen would likely return.
CEMC 3	Page 2: Unocal owned two pipelines running north-south along Perry Street from the Dominguez well-field, and then northeasterly along the access road adjacent to the Dominguez Channel. Pipeline 01 may have carried crude oil. Pipeline 02 was a wastewater line. These pipelines did not carry refined product, nor would they have carried refined product because they ran from the well-field, rather than from a refinery.	Sheen appearing through the bottom of the channel has ceased for unconfirmed reasons, but are believed to be due to reduced head pressure in the B-zone confined (or semi-confined) aquifer present below the bottom of the Dominguez Channel. Regional Board staff are concerned that if heavy rains return, the sheen from the bottom of the Dominguez Channel may also return due to increased groundwater recharge creating increased head pressure in the B-zone. Note that heavy rains occurred in the weeks and months prior to the initial January 2011 sheen appearing.
CEMC 4	Page 2: Pipeline 01 was sold to Tosco in 1997 and CEMC believes it was thereafter sold to Crimson California Pipeline in 2008.	Comment noted. However, one of the wastes identified in the CAO is crude oil.
CEMC 5	Footnote 2, Page 2: The Regional Board has inexplicably failed to name Crimson in the Draft Order or to acknowledge that this line is not presently owned by any of the Chevron entities.	Comment noted.
CEMC 6	Pipelines 01 and 03 (using the URS numbering scheme) are the same pipeline. Therefore, CEMC refers only to Pipeline 01.	Crimson Pipeline, L.P. was intentionally not named in the Draft Order because its pipelines near the Dominguez Channel Site were never operated by them. Instead, the prior owners, who did operate the lines, and/or the successors of the prior owners are named.
CEMC 7	Page 3: The hydrocarbon in the Channel and in monitoring wells nearby has been “determined to contain primarily naphtha-range hydrocarbons, with smaller fractions of crude oil (less than 5%).” The evidence demonstrates Pipelines 01 and 02 are not a source of the naphtha observed in the Dominguez Channel.	See Response to Shell Comment No. 4.
CEMC 8	Page 3: In spring of 2011, potholing activities were performed at the Active RV property to daylight Pipelines 01 and 02. There was no significant hydrocarbon contamination observed in soil surrounding the daylighted lines.	These lines carried crude oil, which has also been detected at the Dominguez Channel.
CEMC 8	The potholing was performed by USEPA to investigate whether LNAPL was traveling south along the pipeline corridor via abandoned pipelines or the pipeline trench backfill. The excavation provided a view of impacts at a single location. It did not investigate impacts below the pipelines nor at other locations along the pipeline run.	The potholing was performed by USEPA to investigate whether LNAPL was traveling south along the pipeline corridor via abandoned pipelines or the pipeline trench backfill. The excavation provided a view of impacts at a single location. It did not investigate impacts below the pipelines nor at other locations along the pipeline run.

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Author/ Comment No.	Comment	LARWQCB Response
CEMC 9	<p><u>Page 3:</u> Data collected by URS at varying depth and locations in soil and groundwater in and around the Dominguez Channel demonstrate a consistent ratio of TPHg/TPHd. Naptha-range hydrocarbons extend into both the TPHg and TPHd analytical limits, and a consistent TPHg/TPHd concentration ratio from samples collected over a large area indicates a single naptha-range hydrocarbon source, suggesting a single pipeline source.</p>	<p>The Regional Board suspects there are multiple releases due to (1) the presence of LNAPL along the western levee of the Dominguez Channel at a very shallow depth, (2) the presence of sheen along the eastern side of the Dominguez Channel (including Perry Street north of Carson Street), and (3) the presence of different materials: naptha-range hydrocarbons, crude oil, and refined products.</p>
CEMC 10	<p><u>Page 3:</u> Since Pipelines 01 and 03 did not carry refined product, they cannot be the single source of naptha-range hydrocarbons observed in the subsurface.</p>	<p>Naptha-range hydrocarbons are not the only discharged substance at the Dominguez Channel. Pipeline URS No. 01 (aka URS No. 03) carried crude oil, which has also been detected at the Dominguez Channel.</p> <p>It isn't clear to the Regional Board that there is just one release point for the waste constituents at the Dominguez Channel Site.</p>
CEMC 11	<p><u>Page 3:</u> Basing a CAO on ownership or operation of a pipeline without some evidence of a discharge from that line during the period of the responsible party's ownership or operation is not envisioned by Water Code § 13304 and is inconsistent with State Water Board decisions on point. The Water Code requires that to issue a CAO, there must be "substantial evidence" that the named party has <u>caused or permitted</u> waste to be discharged into the waters of the State.</p>	<p>The State Water Resources Control Board has issued several Orders interpreting the application of Water Code section 13304 to owners and has made it clear that the Regional Boards should be naming persons who own the facilities responsible for the discharges of waste. See, e.g., State Water Board Orders WQ 89-13 (In the Matter of the BOC Group, Inc.). Chevron or its predecessor pipelines carried crude oil which has been found at the Site.</p>
CEMC 12	<p><u>Page 4:</u> The Draft Order expressly admits that the Regional Board lacks sufficient evidence of a discharge from these pipelines:</p> <p>[P]ipeline operations at the Site date back at least 100 years, to 1912. Given the century-long pipeline activities at the Site, it is likely that materials transported through the pipelines at and near the Site may have changed over time and that records of such changes and the use of certain products may not exist. Therefore, the Regional Board considers all liquid petroleum pipelines at and near the Site, even those without documented products compatible with the naptha-range and crude oil materials, to be suspected discharge points.</p>	<p>While the quoted paragraph states the Regional Board's rationale for suspecting all pipelines of being discharge points, this suspicion is not the basis for the Regional Board naming Responsible Parties and Dischargers. Item 11 in the CAO, Rationale for Naming Responsible Parties, presents the Regional Board's basis for naming Responsible Parties.</p> <p>However, note that the Regional Board still maintains a perspective that due to a lack of complete records back to 1912, any of the liquid petroleum pipelines are suspected discharge points. If credible evidence appears that indicates that additional Responsible Parties and Dischargers should be named, the Regional Board will consider revising the CAO.</p>

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Author/ Comment No.	Comment	LARWQCB Response
CEMC 13	<p><u>Page 4:</u> The Board's issuance of the Draft Order based on a mere suspicion of discharge falls woefully short of the Water Code § 13304 requirement that there be "sufficient evidence" of discharge to order a cleanup:</p> <p>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. <u>This means credible and reasonable evidence which indicates the named party has responsibility.</u></p> <p><i>In re Exxon Company, et al., WQ 85-7, 1985 WL20026 (Cal.St.Wat.Res.Bd.) at *6 (emphasis added).</i> In rejecting a regional board's attempt to issue a CAO under Water Code § 13304 because there was insufficient evidence of ownership of the leaking tanks which caused the discharge, the State Board in Exxon expressly recognized that the regional board was placed in a tough predicament when trying to effectuate cleanups. But it nevertheless held the regional board to the standard imposed by Water Code § 13304 – there must be substantial evidence that the named party has caused or permitted a discharge.</p>	<p>The Regional Board disagrees with the comment. In this case, the Regional Board has evidence that Chevron or its predecessor owned and operated pipelines in the vicinity of the discharges of waste to the Dominquez Channel, that crude oil has been discharged at the Site, and that the pipelines owned by Chevron or its predecessor were used to transport crude oil. In the matter of Exxon Company, et. al., WQ 85-7, the State Board disagreed with the Regional Board's conclusion that Exxon actually owned the underground tanks that were the source of the discharge. In this case, Chevron or its predecessor owned the pipelines.</p>
CEMC 14	<p><u>Page 5:</u> The State Board has been consistent in upholding cleanup orders only where this is "substantial evidence" that the named party met Water Code § 13304 requirements of having caused or permitted the discharge. For example, it reasoned that if a party did not use or store contaminants in issue, it "obviously" could not have caused or permitted a discharge. <i>In re Sanmina Corporation, WQ 93-14, 1993 WL 456494 (Cal. St. Wat. Res. Bd., 1993)</i> (finding that "obviously if, as Sanmina claims, Sanmina did not use or store the VOCs, Sanmina could not have caused or permitted their discharge, and therefore, would not be responsible for their cleanup.")</p>	<p>The Regional Board disagrees with the application of the cited order to this matter. Chevron- or its predecessor-owned pipelines were used to transport crude oil, which has been detected at the Site.</p>

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Author/ Comment No.	Comment	LARWQCB Response
CEMC 15	<p>Page 5: In contrast, the State Board has upheld cleanup orders based on circumstantial evidence of discharge only when based on far more evidence than is present here. For example, a cleanup order was upheld where there was soil contamination of chemicals known to be stored at the site, the discharger was actively engaged in processes at the site, historic practices of waste handling supported the conclusion of a discharge, and there was testimony that spills occurred on the site. See <i>In re Stinnes-Western Chemical Corporation</i>, WQ 86-16, 1986 WL 25523 (Cal. St. Wat. Res. Bd.). Here, there is no direct evidence of release, and the circumstantial evidence does not point to a reasonable conclusion that any of the 26 pipelines identified by the Draft Order is a source.</p>	<p>The Regional Board agrees that circumstantial evidence may be used to support a determination to name responsible parties. In this matter, the Regional Board has found that Chevron or its predecessor owned and operated pipelines transporting crude oil, which has been found at the Site.</p>
CEMC 16	<p>Page 5, Footnote 4: The Draft Order identified 27 pipelines, but as stated in note 2, URS has concluded that Pipeline 01 and 02 are the same.</p>	<p>See Response to Shell Comment No. 4.</p>
CEMC 17	<p>Page 5: The Regional Board named CEMC (on behalf of Unocal) and Phillips in the Draft Order based on the ownership of inactive pipelines that formerly carried crude oil despite the facts that (1) there are numerous other potential sources, (2) Pipeline 01 and 02 did not carry naphtha-range hydrocarbons, and (3) the evidence points to the conclusion that there has not been a release from Pipelines 01 and 02, let alone during Unocal's or Phillips' ownership.</p>	<p>The Regional Board agrees that there are multiple potential sources. As noted in Regional Board response to CEMC Comment No. 3, the Unocal line(s) carried crude oil, which is a Site contaminant. The Regional Board has not ruled out URS Nos. 01 and 02 as sources.</p>
CEMC 18	<p>Page 6: The Draft Order is directed at remediating petroleum contamination in the Dominguez Channel. It defines the remedial area as the "Site", but uses differing vague definitions for the term which are not appropriately tailored to the contamination which the Order is directed.</p>	<p>See Response to Shell Comment No. 1.</p>
CEMC 19	<p>Page 6: The scope of the cleanup directed in the Draft Order is not sufficiently tailored to the discharge in the Dominguez Channel; it overreaches by including the remediation over a geographic scope that is undefined and overly broad given the failure to identify a source of the release.</p>	<p>See Response to Shell Comment No. 1 and Shell Comment No. 13.</p>

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Author/ Comment No.	Comment	LARWQCB Response
CEMC 20	<p><u>Page 6:</u> The Draft Order requires the named parties to cleanup properties which they do not own, and to which they do not have access, in an undefined radius from the actual release, which may be impacted by other unrelated historical releases. It is inappropriate to order a regional cleanup for a localized problem, especially when the source has not been identified.</p>	<p>State Water Board Resolution 92-49 is the applicable policy the Regional Board implements to oversee investigation and cleanup of sites. Consistent with Resolution 92-49, the Regional Board requires in the CAO that it is appropriate to order the full assessment and remediation of waste constituents in the subsurface resulting in surface water discharge and public nuisance. The Regional Board routinely assists in obtaining property access requests for offsite assessment and remediation and can order a third-party property owner to perform these tasks if they deny access to you. The Regional Board expects the parties to inform the Regional Board in the case of issues regarding access.</p> <p>If additional, unrelated, historical (or current) discharges are identified, the Regional Board will consider revising the CAO or issuing a new order to address the additional discharges.</p>
CEMC 21	<p><u>Page 6:</u> The Draft Order likewise overreaches by including groundwater within its scope. The Draft Order was issued to address contamination from releases in the Dominguez Channel. That is what has been investigated and is what is properly to be addressed by the Draft Order.</p>	<p>The scope of the CAO intentionally includes remediation of wastes in groundwater because the groundwater assessment performed so far has indicated that groundwater is impacted. See Response to Shell Comment No. 13.</p>
CEMC 22	<p><u>Page 7:</u> The Draft Order includes evidence of di-isopropyl ether (DIPE) detections in groundwater up to 1,400 ug/L as justification for requiring groundwater remediation. Because no evidence exists that refined product that may have contained DIPE was transported through Pipelines 01 and 02, there is no justification for including groundwater cleanup within the scope of any order directed at CEMC (on behalf of Unocal) or Phillips.</p>	<p>Pipeline URS No. 01 (aka URS No. 03) carried crude oil, which has also been detected at the Dominguez Channel. Note that it is not our working model that all of the substances at the Site resulted from a single discharge.</p>
EMPCo 1	<p><u>Page 1:</u> The name used in the Draft CAO – “ExxonMobil Corporation” is not the correct name of the corporation, nor the proper name of the ExxonMobil entity for this matter. Rather, the ExxonMobil entity for purposes of this matter is ExxonMobil Pipeline Company (EMPCo).</p>	<p>Comment noted. The CAO has been revised to address the comment.</p>
EMPCo 2	<p><u>Page 3 (Item A):</u> LARWQCB named EMPCo as a Responsible Party based on Mobil/General Petroleum’s former ownership of the pipelines that carried only amine, not evidence of any release of naphtha range hydrocarbons or crude oil.</p>	<p>Comment noted.</p>
EMPCo 3	<p><u>Page 3 (Item B):</u> A Regional Board order requires “Substantial Evidence” as to each named discharger.</p>	<p>ExxonMobil Corporation has been removed from the CAO since evidence indicates the ExxonMobil pipelines did not transport crude oil or naphtha-range petroleum.</p>
EMPCo 4	<p><u>Page 3 (Item C):</u> The evidence demonstrates that ExxonMobil entities owned only two, not four, of the pipelines identified in the Draft CAO.</p>	<p>Comment noted.</p>

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Author/ Comment No.	Comment	LARWQCB Response
EMPCo 5	<p><u>Page 6:</u> It is apparent that Shell Oil Company bought two amine pipelines from Mobil (the two lines are identified as URS #18), renumbered one as Owner ID “#22 Line” and the other as Owner ID “#21 Line”, cut the Owner ID “#21 Line” into two segments (which it designated Owner ID “#21 Line” and Owner ID “#29 Line”, and sold the Owner ID “#21 Line” to Tesoro.</p>	<p>Comment noted.</p>
EMPCo 5	<p><u>Page 7:</u> The Draft CAO and its Exhibit B incorrectly identify EMPCo as having historical ownership of 4 pipelines (URS #18 (two lines), URS #19, and URS #20). However, Mobil only owned two 8-inch pipelines in the vicinity of the Site (URS #18), and it quitclaimed them to Shell Oil Company in 1975. The lines were proprietary and carried amine – which is not a liquid petroleum product – in a loop between Mobil’s Torrance refinery and Stauffer/Hancock Chemical, a regeneration facility.</p>	<p>Comment noted.</p>
EMPCo 6	<p><u>Page 7 (Item D):</u> No credible and reasonable evidence supports the speculation in the Draft CAO that Mobil’s former amine lines could possibly have transported and leaked naphtha-range hydrocarbons or crude oil.</p>	<p>The Regional Board has opted to omit ExxonMobil Corporation/ExxonMobil Pipeline Company from the CAO.</p>
BP 1	<p><u>Pages 3 and 4 (Items 1 through 7):</u> BP pipelines in Recreation Road do not appear to be the source of LNAPL in the Dominguez Channel. Contaminants within Recreation Road are predominantly diesel fuel no. 2 with some kerosene and gasoline product, without oil-range organics (ORO). These products are inconsistent with current and historical BP pipeline usage (of crude oil). These products are also inconsistent with the naphtha-range and crude oil hydrocarbons detected in the Dominguez Channel.</p>	<p>The lines within Recreation Road have been removed as a basis for naming BP entities in the CAO.</p>
BP 2	<p><u>Page 4 (Item 8):</u> The prevalence of di-isopropyl ether (DIPE) in groundwater samples in the vicinity of the release area indicates that DIPE presence in BP monitoring well samples is likely due to an area-wide plume and is not a localized release.</p>	<p>The Regional Board concurs.</p>
BP 3	<p><u>Page 5:</u> “AECOM [on behalf of BP] concluded that a minimum of three types of petroleum hydrocarbons comprise Dominguez Channel release area product: (1) gasoline-range hydrocarbons, (2) ‘Crude Oil A’, and (3) a likely lubricant (identified by Zymax as ‘Crude Oil B’). Furthermore, ARC soil samples collected adjacent to the BP-owned pipelines in the near vicinity of the release area contained no forensic evidence of crude oil.”</p>	<p>None of the ARC soil samples referenced were collected within the Dominguez Channel. Sampling performed near Pipeline 93D (IRS ID #15), which underlies the Dominguez Channel and was previously owned and operated by ARCO (a BP entity), did indicate the presence of crude oil.</p>

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Author/ Comment No.	Comment	LARWQCB Response
BP 4	<p><u>Page 6, first bullet:</u> BP owned Line 93D from 1957 to 1999 and sold it to Plains in 1999. There are indicators that the line passed hydrotests in 1982 and 1993. The LARWQCB confirmed in an April 4, 2012, e-mail that Line 93D has no integrity test failures, based upon a Plains pipeline summary provided to BP by the LARWQCB.</p>	<p>There are no integrity test results submitted to the Regional Board for the 25-year period of ARCO's operation of Line 93D prior to 1982. There are no reports of integrity tests in the 11 years from 1982 to 1993. It is unclear what the status of the pipeline integrity was during these 36 years of Line 93D's operation by ARCO without reported integrity test results.</p> <p>The Regional Board did not confirm in April 4, 2012, correspondence to BP that there have been no integrity test failures on Line 93D. Instead, the Regional Board forwarded a pipeline information table to BP with questions about BP's omission of their ownership of Line 93D in prior pipeline information submittals to the Regional Board. The forwarded table, prepared by Plains, stated that there had not been an integrity test failure on Line 93D (presumably since they took ownership in 1999); however, the Regional Board never confirmed its accuracy.</p>
BP 5	<p><u>Page 6, first bullet:</u> BP disagrees that the transport of crude oil in Line 93D is sufficient evidence for the Regional Board to name BP as a Discharger.</p>	<p>The Regional Board believes that ARCO's transport of crude oil in a pipeline for 42 years directly below where crude oil has been detected in the subsurface is a reasonable basis for naming BP (ARCO's successor company) as a Discharger.</p>
BP 6	<p><u>Page 6, second bullet:</u> BP requests that LARWQCB clarify which of BP's lines is intended to be included as URS #21. The URS tables and map should be updated to accurately indicate that the line is abandoned.</p>	<p>The "Pipeline Status" column in URS Tables 1 and 2 both clearly identify the status of the pipeline as being abandoned. The "Notes" column of Table 1 clarifies which pipeline is referenced.</p>
BP 7	<p><u>Page 6, third bullet:</u> URS Table 1 incorrectly lists BP Line 6 (a.k.a. Line R266-6; URS ID #22) as containing "drained/water". BP records indicate that the line was a crude oil line that was abandoned in 1963.</p>	<p>The Regional Board did not rely upon the report of "drained/water" in naming BP as a discharger. We note BP's transport of crude oil in the line, which is one of the wastes identified in the CAO as a basis for naming BP.</p>
BP 8	<p><u>Pages 6 and 7:</u> BP records identify Line 211 (URS ID #23) as a 12-inch diameter natural gas line that was formerly used for crude oil transport until 1994. The line was idle from 1994 to 1999 and placed in service for natural gas transport in 1999.</p> <p>Hydrotests were conducted from 1983 through 1999 with a passed internal line inspection in 2007.</p>	<p>The line began operation in 1960. The Regional Board has no records of integrity tests being performed between 1960 and 1983. It is not clear from BP's submittal that Line 211 passed the hydrotests "performed from 1983 through 1999".</p> <p>We note that Hydrotests and other integrity tests represent the pipeline condition on the date and specific time when the test was being performed and not at any other time.</p>
BP 9	<p><u>Page 7, first bullet:</u> URS Line ID #24 may be a 10-inch line formerly used for the transport of crude oil, identified in BP records as Line 1 (a.k.a. Line 266-1). BP requests that LARWQCB clarify which of BP's lines is intended to be included as URS #24.</p>	<p>The "Pipeline ID Used in Reference Materials" column in URS Table 1 identifies the referenced pipelines.</p>
BP 10	<p><u>Page 7, second bullet:</u> BP requests clarification from the LARWQCB, as URS ID #25 (BP Line 6) appears to duplicate URS ID #22.</p>	<p>URS Table 1 identifies ID #25 as representing a segment of Line 6 that was abandoned below the Dominguez Channel. See the "Pipeline Status" column of Table 1 for both ID #22 and ID #25.</p>

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Author/ Comment No.	Comment	LARWQCB Response
BP 11	<p>Page 7, Item 2: Chromatogram patterns of the gasoline-range hydrocarbons in RELC samples vary, but they appear to be [the] same or similar type of product with dissimilarities likely the result of different degrees of alteration. Also noted is an absence of lead. Of the refined product in the channel, the predominant hydrocarbons are likely an intermediate product stream, such as naphtha.</p>	<p>This is consistent with other interpretations presented to the Regional Board.</p> <p>Also noteworthy is the presence of crude oil in many samples, which BP transported.</p>
BP 12	<p>Pages 7 to 8, Item 2: The presence of DIPE and iso-octane in some of the samples (MW-9C-23, in particular) suggests that finished oxygenated gasoline is a minor hydrocarbon component of the refined product in the channel. Therefore, the gasoline-range hydrocarbons are likely a mixture of predominantly gasoline-range refinery intermediate stream product and minor finished oxygenated gasoline. Releases from former underground storage tanks or other non-pipeline sources, in addition to pipeline releases, could represent a contribution to the release.</p>	<p>Regional Board staff reviewed data associated with nearby UST locations (specifically the former Texaco at 1209 E. Carson Street, Unocal at 1025 E. Carson Street, and former Humble Oil at 1216 E. Carson Street, all in Carson, California). No track to an A-Zone shallow source was identified. However, the Regional Board will consider adding additional Responsible Parties if convincing data emerges that identifies them as a source of the oxygenated gasoline.</p>
BP 13	<p>Page 8, Item 3: An “unaltered” pattern of biodegradation-sensitive compounds (i.e., normal paraffins) are observed in the intermediate stream product chromatograms of several samples, potentially indicating a relatively recent release.</p>	<p>Comment noted regarding the <i>potential</i> timing of a release. Note that, particularly if this pattern is observed in only “several samples” from the sample population, making an interpretation of the release age based upon this data would be inconclusive. Also note that it is possible that multiple discharges occurred at different times. It is the Regional Board’s working model that the discharges to the Site are historic, on the order of decades old, rather than “relatively” recent.</p>
BP 14	<p>Page 8, Item 4: BP questions the finding in Page 8, Item 19 of the draft CAO with regard to deposited wastes probably posing a potential human health threat. BP cites a June 26, 2012, RELC/URS report on subslab sampling performed at the Active RV site that had evaluated these risks.</p> <p>BP requests detailed information from the LARWQCB to support the position that hydrocarbons <u>are</u> posing a potential human health threat to building occupants.</p>	<p>See Plains Comment No. 12.</p> <p>The Regional Board notes that the extent of the plume is undefined and, therefore, the potential human health threat has not yet been determined. Relying upon subslab data for one building within the footprint of contamination is not likely to be representative of risks at all possible locations.</p> <p>The cited RELC/URS report did not conclude that cancer health risks under a <u>residential</u> scenario are acceptable.</p> <p>The statement that BP objected to actually reads “... are or <u>probably will</u> pose a <u>potential</u> human health threat to occupants ...” (emphasis added). One of the tasks of the CAO is to further evaluate whether the threat is actual.</p>
BP 15	<p>Page 8, Item 5: The draft CAO states “that LNAPL was observed in a limited number of wells adjacent to the Dominguez Channel and that several wells adjacent to the channel contained no LNAPL”. BP requests that the LARWQCB clarify this sentence.</p>	<p>There are many wells installed adjacent to the Dominguez Channel. Some of them contained LNAPL. Some of them did not contain LNAPL.</p>

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
BP 16	<p><u>Page 8, item 6:</u> BP requests that the LARWQCB clarify the following sentence within Item 9C on page 5 of the draft CAO to clearly indicate whether the reported crude oil portion of the “LNAPL observed is an intermediate blending stock used in the refining process”.</p>	<p>It is the Regional Board’s position that the crude oil portion of hydrocarbons detected in the Dominguez Channel likely originated from a different source than the naphtha-range intermediate blending stock. With revisions made to the final CAO, BP is named solely on the basis of its former operation of a crude oil pipeline located beneath the Dominguez Channel.</p>
BP 17	<p><u>Page 9, item 7:</u> We urge the Regional Board to remove BP from the Order altogether. Alternatively, we urge the board to delay issuance of the order until the State Board issues a decision on pending petitions to prior Regional Board orders.</p>	<p>The Regional Board has no control over when the State Water Board will act on pending petitions and does not think it is appropriate to wait while the discharges of petroleum hydrocarbons continue. The Regional Board intends to keep BP in the final Order, but has revised the basis for doing so. See Response to BP Comment No. 1, 18, and 19.</p>
BP 18	<p><u>Page 9, item 7, Bullet 1:</u> The draft CAO repeats evidentiary and legal flaws associated with the first three orders. There was and continues to be a lack of evidence that a BP line discharged products in the vicinity of the Site and there is strong evidence to the contrary.</p>	<p>The Regional Board disagrees with the comment. The evidence in the record indicates that ARCO, BP’s predecessor, owned and operated pipelines in the vicinity of the discharges of waste to the Dominguez Channel, that those pipelines were used to transport petroleum hydrocarbons, and that the type of petroleum hydrocarbons transported in those pipelines has been found at the Site. Naming BP is consistent with State Water Board orders interpreting Water Code section 13304, including State Water Board Order WQ 89-13 (In the Matter of the BOC Group, Inc.), which found a former owner and operator of a site that contained an underground storage tank because the tank contained volatile organic chemicals of the type found at the site and that the existence of the tank caused or threatened to cause pollution or nuisance. In this case, the existence of the pipeline (URS ID 15) in the vicinity of the discharge and the nature of the discharge supports the conclusion that the pipeline is either the cause of the discharge or threatened to cause the discharge resulting in pollution or nuisance.</p>
BP 19	<p><u>Page 9, item 7, Bullet 2:</u> Section 13304 liability attaches only where a party “took affirmative steps directed toward the improper discharge” of waste or has either directly spilled or released the contaminants into the environment or affirmatively and knowingly caused or permitted the contamination to migrate. <i>Redevelopment Agency of the City of Stockton v. BNSF Railway Co.</i>, 643 F.3d 668, 674-674, 678 (9th Cir. 2011) (applying the law of nuisance to Water Code 13304). Here there is no evidence that a BP line in the vicinity of the Site “caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited”.</p>	<p>The Regional Board disagrees that the cited case controls the situation in this matter. The evidence in the Regional Board’s record is that ARCO, BP’s predecessor, owned and operated the pipelines that are in the vicinity of the discharges and that those pipelines were used to transport waste of the type found at the site. In the case cited, the railroad was found not to be a source of the waste, but rather redirected it and, therefore, was not the cause of the nuisance. In addition, that case addressed a nuisance, but not whether an owner/operator of a facility has caused or permitted a discharge of waste that threatens to cause pollution or nuisance under Water Code section 13304. Pursuant to State Water Board Resolution 92-49, the Regional Board considers all evidence in determining whether to require actions under Water Code section 13304, including circumstantial evidence, to establish the sources of discharges of waste.</p>

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
BP 20	<u>Page 9, Item 7, Bullet 3:</u> Based on the foregoing, neither BP nor ARCO can be named in a cleanup and abatement order.	See Response to BP Comment Nos. 1 and 17. BP is named in the cleanup and abatement order.
BP 21	<u>Page 9, Item 7, Bullet 3:</u> The draft CAO names BP p.l.c., which is also incorrect.	Comment noted. The Regional Board has requested clarification from BP as to the ownership of pipelines it acquired from ARCO, but has used the available information in determining what BP entity to name in the CAO. The CAO has been revised to name "BP p.l.c., BP Pipelines (North America) Inc., and/or other BP entity".
BP 22	<u>Page 9, Item 7, Bullet 4:</u> We disagree with page 5 of the draft CAO, which states "The Regional Board considers all liquid petroleum pipelines at and near the Site, even those without documented products compatible with the naptha-range and crude oil materials detected, to be suspected discharge points." This finding is contrary to Water Code 13304 and technical data.	See Response to CEMC Comment 12.
BP 23	<u>Page 9, Item 7, Bullet 5:</u> Resolution 92-49 requires that the LARWQCB use the most cost-effective methods for detecting contamination or pollution and ensuring cleanup. The draft CAO is not a cost-effective means for many of the same reasons described in our petition. It imposes unreasonable costs on BP where the evidence supports that parties other than BP should bear those costs.	State Water Resources Control Board Resolution 92-49 sets forth policy and procedures that the Regional Board implements in overseeing sites. Pursuant to the Policy, the Regional Board requires dischargers to investigate sites in a phased manner, to develop work plans, and to propose cleanup actions. The dischargers have the flexibility to conduct these actions in the most cost-effective way so long as the efforts are adequate and have a likelihood of achieving compliance within a reasonable time period. The CAO is a legal document used to compel responsible parties to conduct investigations, submit work plans, and propose and implement cleanup actions. The Regional Board will review and concur with those actions that are adequate and have a reasonable likelihood of achieving compliance.
BP 24	<u>Page 10:</u> We urge the Regional Board to omit BP from the draft CAO. We also urge the Regional Board to delay issuance of the order until the State Board issues a decision on the pending petition.	The Regional Board will not address what share of the costs associated with complying with the CAO should be borne by BP versus the other Responsible Parties. This is a matter for the Responsible Parties to settle among themselves. See Response to BP Comment Nos. 1, 17, and 20. The issuance of the CAO is not being delayed until the State Board issues a decision on pending petitions.
Plains 1	<u>Page 2, Item A:</u> The release was discovered in January 2011 and response actions and investigations have taken place. Plains conducted several pressure tests, a nitrogen test, a dye-test, and a hydrostatic test of the pipeline (Plains Line 93), which all demonstrated that the pipeline was holding pressure and had not been compromised.	The Regional Board appreciates the prompt response by Plains to perform these tests when notified of the presence of the sheen near Plains Line 93. We note that the results of these tests are indicative of the condition of Line 93 on the dates they were performed and are not indicative of Line 93's state at any other time.

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Author/ Comment No.	Comment	LARWQCB Response
Plains 2	<p><u>Page 2 to 3, Item A:</u> DPW took over operations of containment in the channel after Plains conducted pipeline tests and was released by USEPA from responsibility for any active release or further response actions. The Regional Board issued investigative orders to non-Plains parties stating that petroleum containing primarily gasoline-range hydrocarbons entered the channel through sediments in the channel bottom.</p>	<p>Note that information learned as a result of these investigative orders have identified primarily naphtha-range hydrocarbons with some crude oil and refined product.</p>
Plains 3	<p><u>Pages 3 to 4, Item B:</u> With reference to <i>In the Matter of the Petition of Exxon Company, USA et al.</i>, WQO No. 85-7 at 11-12 and <i>In the Matter of the Petition of Stinnes-Western Chemical Corporation</i>, WQO No. 86-16 at 11-12, the Regional Board's decision to designate Plains as a responsible party under the CAO must be based upon substantial, reasonable, and credible evidence.</p>	<p>The Regional Board has opted to omit Plains from the CAO.</p>
Plains 4	<p><u>Page 4, Item C:</u> The evidence points to a release from an idle pipeline in the immediate vicinity of monitoring well R-MW-6. The consistent combination of refinery intermediate and crude oil suggests that a single pipeline that transported refinery intermediate, crude oil, and refined product is the source of the contamination.</p>	<p>The Regional Board concurs that a discharge likely occurred near R-MW-6 (which is near HA-2). However, it is our position that additional source areas exist and that the discharges are not necessarily only from an individual pipeline. Reference the Regional Board response to Plains Comment No. 11.</p>
Plains 5	<p><u>Page 4, Item C:</u> The one known source that has been identified is located in the immediate vicinity of monitoring well R-MW-6 near the western levee, with free product observed in the subsurface near R-MW-6 at up to 6 feet thick. The amount of petroleum contamination decreases away from R-MW-6.</p>	<p>See Response to Plains Comment Nos. 4 and 11.</p>
Plains 6	<p><u>Page 5, Item C:</u> Of the 27 pipelines in the general vicinity of the Site, six reportedly transported some combination of refinery intermediate, crude oil, and refined product (URS Nos. 4, 5, 6, 8, 11, and 14). This combination of transported materials corresponds to the contaminants found in the subsurface at the Site.</p> <p>Other pipelines may have also carried this combination or a similar combination of products. This hypothesis could apply to pipelines in the area of R-MW-6 (URS Nos. 18, 19, 20, and 27); however, this is unclear because the history of these pipelines could not be fully determined.</p>	<p>The suggestion that six pipelines were required to result in the combination of materials present at the Site appears to counter the claim in Plains Comment No. 4 that suggests a single pipeline source.</p> <p>The Regional Board recognizes that the referenced combination of pipelines could be responsible for the Dominguez Channel impacts, but these are not the only combination of pipelines that could have had the same result.</p> <p>The Regional Board accepts that the history of many of the pipelines, including URS Nos. 18, 19, 20, and 27, is unclear.</p>

Responsiveness Summary – Draft Cleanup and Abatement Order R4-2012-0103

Author/ Comment No.	Comment	LARWQCB Response
Plains 7	<p><u>Page 5, Item C:</u> The <i>URS Supplemental Site Assessment Report</i> (SSA Report) dated April 30, 2012, concluded that the likely source(s) of the released petroleum beneath the Dominguez Channel is a historical release from an inactive, idle, or abandoned pipeline.</p> <p>The pipelines that reportedly transported a combination of refinery intermediate, crude oil, and refined product (URS Nos. 4, 5, 6, 8, 11, and 14) are all inactive, idle, or abandoned. Furthermore, two pipelines operated in the immediate vicinity of R-MW-6 (URS Nos. 19 and 20) are also apparently inactive, idle, or abandoned.</p>	<p>The SSA report suggested that the LNAPL at the Dominguez Channel likely resulted from one or more historic discharges from one or more inactive/idle or abandoned pipelines. This interpretation referred to the naphtha-range hydrocarbons, and not the crude oil, since documentation of a pipeline transporting naphtha-range hydrocarbons was not identified by URS.</p> <p>URS Nos. 19 and 20 are included in the CAO. See Response to Plains Comment Nos. 4 and 11 stating that the Regional Board does not consider the immediate vicinity near R-MW-6 to be the only source area.</p>
Plains 8	<p><u>Page 5, Item D:</u> There is no evidence that a Plains pipeline contributed to the release. The two Plains lines (Line 6 [an inactive crude oil line] and Line 93 [an active crude oil line]) are both at least 100 feet away from R-MW-6.</p> <p>Sample results show free product only in the vicinity of R-MW-6.</p> <p>Petroleum concentrations decrease from R-MW-6 toward Plains Line 93.</p>	<p>The crude oil impact is not isolated to just R-MW-6, but is present beneath the Dominguez Channel where Plains (formerly ARCO) Line 93 is present.</p> <p>In addition to free product (LNAPL) present near R-MW-6, sheen has been detected below the Dominguez Channel and to the east of the Dominguez Channel, along the pipeline corridor through the former Active RV property and north of there in Carson Street and Perry Street.</p>
Plains 9	<p><u>Page 6, Item D:</u> Line 93 has carried crude oil continuously since Plains acquired it in 1999. Line 6 has been inactive for over 8 years and was exclusively in crude oil service since Plains acquired it. Neither Line 93 nor Line 6 have transported refinery intermediate, which is the principal component of the petroleum contaminant beneath the Dominguez Channel.</p>	<p>The Regional Board notes that both Line 6 and Line 93 carried crude oil, which is a minor component of the waste present at the Dominguez Channel site.</p>
Plains 10	<p><u>Page 6, Item D:</u> The consistent combination of refinery intermediate and crude oil, the amount of which varies as a function of weathering, indicates a single source of contamination. This points to a single pipeline source that transported refinery intermediate, crude oil, and refined product; it does not support separate pipeline sources for the crude oil portion, the refinery intermediate portion, and the refined product portion of the contamination.</p> <p>Since the Plains pipelines carried only crude oil, they cannot be the source of the contamination.</p>	<p>See Response to CEMC Comment No. 9.</p>

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Author/ Comment No.	Comment	LARWQCB Response
Plains 11	<u>Page 7, Item D:</u> The SSA Report concluded that petroleum contamination may be associated with historical releases from pipelines extending along the western levee, but are not from pipelines crossing the Channel near boring HA-2. Plains Line 93 is one of the pipelines that cross the Channel near HA-2. This conclusion rules out Line 93 as a potential source of the contamination.	The Regional Board agrees that the lines in the western levee, near HA-2, likely are a source. However, we don't consider this area to be the only source area.
Plains 12	<u>Page 7, Item D:</u> The time period of the release is not specified in the SSA Report; however, it is implied to be decades old. The weathered nature of the petroleum contamination also indicates that the release is not of recent origin. It is important to remember in this context that Plains began operations in the area in 1999. This chronology further supports that Plains did not contribute to the petroleum contamination.	See Response to BP Comment No. 13. Based upon the model that the discharges at the Site are historic, on the order of decades old, rather than "relatively" recent in the context of Plains ownership and operation of their pipelines in the Site vicinity beginning in 1999 (12 years prior to the surface discharge observed in 2011), the Regional Board concurs that Plains All American Pipelines, L.P. likely did not contribute to the petroleum discharges at the Site.
Plains 13	<u>Page 8, Item E:</u> The only evidence cited in the Draft CAO with respect to Plains is that Plains has operated crude oil pipelines in the general vicinity of the contamination. This circumstantial evidence does not constitute substantial evidence that Plains is responsible for the contamination or a portion of it. When the mere proximity of the Plains pipelines is weighed against the totality of the other Plains comments, the substantial weight of evidence demonstrates that Plains is not a responsible party.	Based on the information included in the Regional Board's record, the Regional Board has opted to omit Plains All American Pipelines, L.P. from the CAO.
Plains 14	<u>Pages 8 to 9:</u> If substantial, reasonable, and credible evidence that Plains is a responsible party were to come to light, the Regional Board could add Plains to the Order at that time.	Comment noted.

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2013-0007
REQUIRING

BP;
CHEVRON CORPORATION;
PHILLIPS 66; AND
SHELL OIL PRODUCTS US

TO ASSESS, CLEANUP, AND ABATE
WASTE DISCHARGED TO WATERS OF THE STATE
PURSUANT TO CALIFORNIA WATER CODE SECTIONS 13267 AND 13304

AT THE DOMINGUEZ CHANNEL
CARSON, CALIFORNIA

(CASE NO. 1264; FILE NO. 11-184)

This Cleanup and Abatement Order No. R4-2013-0007 (Order) is issued to BP; Chevron Corporation; Phillips 66; and Shell Oil Products US (hereinafter, the "Dischargers") based on provisions of California Water Code sections 13304 and 13267, which authorizes the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to issue a Cleanup and Abatement Order and require the submittal of technical and monitoring reports.

This Order requires the Dischargers to cleanup waste and abate the effects of the discharges of waste, specifically petroleum hydrocarbons, to the Dominguez Channel and observed within the sub-drain pipe system located in the Dominguez Channel levees located southeast of East Carson Street in Carson, California and of petroleum hydrocarbons within soil, soil gas, and groundwater near the Dominguez Channel (the Dominguez Channel and impacted areas near it are collectively referred to as the "Site").

The Regional Board herein finds:

BACKGROUND

1. **Location:** Petroleum hydrocarbons have discharged since at least January 2011, and continue to discharge, into a segment of the Dominguez Channel in Carson, California, approximately 400 feet south of East Carson Street, east of Recreation Road (adjacent to the Go Kart World business at 21830 Recreation Road), and west of the former Active RV business (located at 11S2 East Carson Street). The Site location is depicted on Figure 1 within Exhibit A.
2. **Dischargers:** BP p.l.c., BP Pipelines (North America) Inc., and/or other BP entity (BP); Chevron Corporation; Phillips 66; and Shell Oil Products US [hereinafter collectively called Dischargers or individually called Discharger] are Responsible Parties (RPs) based upon their operation of petroleum pipelines in the vicinity of the Site.

February 8, 2013

As detailed in this Order, the Dischargers have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State which creates, or threatens to create, a condition of pollution or nuisance.

- 3. Groundwater Basin:** The Site is located on the Torrance Plain of the West Coast Groundwater Basin (Basin), in the southwestern part of the Coastal Plain of Los Angeles County. Beneath the Site, the first encountered groundwater is at approximately 5 feet below ground surface (bgs). As described in the Basin Plan, the Basin is underlain by a series of aquifers, the deeper of which are used for drinking water production. These aquifers are with increasing depth, the Gage aquifer, Lynwood aquifer, Silverado aquifer, and Sunnyside aquifer.

As set forth in the *Water Quality Control Plan* for the Los Angeles Region (Basin Plan), which was adopted on June 13, 1994, the Regional Board has designated beneficial uses for groundwater, which include municipal, industrial, process, and agricultural supply uses in the Site area, and has established water quality objectives for the protection of these beneficial uses.

- 4. Surface Water Basin:** This Site is located in the Dominguez Channel, which is a surface water of the state and of the United States that flows to the Port of Los Angeles and the Pacific Ocean. The designated beneficial uses of the Dominguez Channel as set forth in the Basin Plan include contact and non-contact recreation and estuarine, marine, wildlife, and rare and endangered species habitat.
- 5. Site Description:** The Site is a section of the Dominguez Channel, approximately 400 feet south of the Carson Street bridge in Carson, California, and the surrounding area where discharges of petroleum hydrocarbons in the subsurface have occurred. The constituents found include light non-aqueous phase liquid (LNAPL) petroleum and dissolved phase petroleum which appear to have originated from petroleum pipelines in the vicinity of the Dominguez Channel.
- 6. Activities and Chemical Usage:** The LNAPL petroleum hydrocarbons discharging at the Dominguez Channel have been characterized as a mixture of (1) a refinery intermediate (partially-refined petroleum product) in the naptha range and (2) crude oil, with crude oil representing less than 5 percent in the least weathered samples (URS Corporation, 2012). Based upon its composition, the discharging LNAPL product appears to originate from one or more petroleum pipelines. Twenty-six (26) pipelines have been identified in the vicinity of the Dominguez Channel. A summary of the ownership and operational history of these pipelines is presented within *Pipeline Assessment Update*¹ by URS Corporation (2012); a copy of this report is included as Exhibit A.

¹ *Pipeline Assessment Update* uses a numbering system ("URS ID") sequentially from 1 to 27 to identify each identified pipeline. This Cleanup and Abatement Order references pipelines using the "URS ID" number defined in the *Pipeline Assessment Update* report. While *Pipeline Assessment Update* references pipelines URS #01 through URS #27, Pipelines URS #01 and URS #03 are believed to be the same pipeline.

The pipeline-related activities associated with each Discharger are summarized as follows.

BP

BP p.l.c., BP Pipelines (North America) Inc., and/or other BP entity (BP) and/or its predecessor companies own(ed) and operate(d) pipelines in the vicinity of the Site. The pipeline for which BP is named as a Discharger and Responsible Party and its contents is identified in Exhibit B. BP's pipeline reportedly transported crude oil. Crude oil has been identified at the Site.

Chevron Corporation

Chevron Corporation's (Chevron's) predecessor companies owned and operated pipelines in the vicinity of the Site. These pipelines and their contents are identified in Exhibit B. Chevron's pipelines reportedly transported crude oil and wastewater. Crude oil has been identified at the Site.

Phillips 66

Phillips 66's predecessor companies owned and operated pipelines in the vicinity of the Site. These pipelines and their contents are identified in Exhibit B. Phillips 66's pipelines reportedly transported crude oil. Crude oil has been identified at the Site.

Shell Oil Products US

Shell Oil Company operated a split refinery that consisted of two properties: a Wilmington Unit to the south of the Site and a Dominguez Unit to the north of the Site, approximately 3 miles apart. The split refinery properties were connected by multiple corridors of pipelines, some of which are adjacent to and crossed the Dominguez Channel near the Site. Because these lines connected a split refinery, they likely transported refinery intermediates, including the naptha-range LNAPL detected at the Site.

Shell Oil Products US (Shell) and its predecessor companies own(ed) and operate(d) pipelines in the vicinity of the Site. These pipelines and their contents are identified in Exhibit B. In addition to the suspected naptha-range LNAPL, Shell's pipelines reportedly transported gasoline, crude oil, hot oil, amine, diethanolamine (DEA), and water. Material resembling naptha-range refinery intermediates and crude oil have been identified at the Site.

EVIDENCE OF DISCHARGES OF WASTE AND BASIS FOR ORDER

7. **Waste Discharges:** Since January 2011, LNAPL has been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of East Carson Street. The LNAPL has been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees. The LNAPL within the sub-drain pipe systems has been observed discharging into the channel waters. The discharges occur primarily during low tides.

Samples of petroleum hydrocarbons entering channel waters from sediments below the bottom of the Dominguez Channel and from groundwater monitoring wells near the Dominguez Channel have been determined to contain primarily naptha-range hydrocarbons, with smaller fractions of crude oil (less than 5%). LNAPL has been observed within discharges from the bottom of the Dominguez Channel, in discharges from levee subdrains to the Dominguez Channel, and in groundwater monitoring wells adjacent to the Dominguez Channel.

8. **Source Elimination and Remediation Status:** LNAPL removal from subdrains within the levees of the Dominguez Channel has been occurring on an interim basis. LNAPL removal has also been occurring from one groundwater monitoring well located within the western levee of the Dominguez Channel. The combination of these efforts has been preventing additional LNAPL discharge to the surface of the Dominguez Channel; however, a more permanent and thorough recovery effort is needed to extract additional LNAPL to permanently eliminate the discharge. In addition, absorbent booms are installed across the Dominguez Channel to intercept any LNAPL discharges to the Dominguez Channel should they resume. These activities were previously performed by the Los Angeles County Flood Control District, which owns and operates the Dominguez Channel. They are now performed by Resource Environmental, LLC (RELLC).
9. **Summary of Findings from Subsurface Investigations:** Technical reports submitted by the Prowell Family Trust (Stechmann Geoscience, Inc., 2011), Tesoro Refining and Marketing Company (Orion Environmental, Inc., 2011), BP Pipelines (AECOM Environment, 2011), and RELLC (URS Corporation, 2011) (URS Corporation, 2012) indicate the following subsurface conditions:

- a. Three separate water-bearing zones have been encountered in the shallow subsurface near the Site during project investigations:

Zone	Top Depth (feet bgs)	Thickness (feet)	Composition	Flow Direction
A-Zone	0	35	Clays and silts with trace fine-grained sand	Toward channel (northeast or southwest)
B-Zone	35	15	Silty fine sands and silts with some interbedded clays	South
C-Zone	70	Unknown	Silty sands	Northwest

bgs – below the ground surface

Depths and thicknesses are approximate and generalized.

Between the C-Zone and the B-Zone, from approximately 50 to 70 feet bgs are interbedded sands, silts, and clays. Based upon flow directions, the A-Zone and B-Zone appear to be hydraulically connected to the Dominguez Channel. Of these zones, the B-Zone is the most laterally continuous and, therefore, appears to have the highest potential for fluid migration directly affecting the Dominguez Channel. All three of these zones are present within the Bellflower aquitard.

- b. The bed of the Dominguez Channel is constructed with a 5-foot-thick engineered clay layer that is believed to be native soil that was excavated, replaced, and compacted when the Dominguez Channel was deepened. The silty fine sands of the B-Zone are present beneath the clay layer.
 - c. The LNAPL seeping into the Dominguez Channel is comprised primarily of intermediate hydrocarbon compounds predominantly in the naphtha-range (with less than 5% crude oil mixed in), suggesting that the LNAPL observed is an intermediate blending stock used in the refining process with a small fraction of crude oil.
 - d. Detections of gasoline constituents, including di-isopropyl ether (DIPE), have been detected in the B-Zone wells, with relatively lower and less-frequent DIPE concentrations detected in the A- and C-Zone wells. DIPE was detected in groundwater at concentrations up to 1,400 µg/L.
10. **Regulatory Status:** Under orders from the Regional Board, site investigation work has been performed by the Prowell Family Trust, Tesoro Refining and Marketing Company, BP Pipelines, and Resource Environmental, LLC (RELLC). RELLC is serving as an agent for both Chevron Corporation and Shell Oil Products US. Chevron Corporation was representing itself and ConocoPhillips Company (now Phillips 66); therefore, by extension through Chevron Corporation, RELLC has also been representing Phillips 66. Crimson Pipeline, L.P., was also issued an order from this Regional Board to perform work; to date Crimson Pipeline, L.P., has not complied with any of the requirements to perform site investigation work.
11. **Rationale for Naming Responsible Parties:** The transport of refinery intermediate and/or crude oil petroleum products documented to have been transported through the Responsible Parties' pipelines is the basis for naming the Responsible Parties. These same materials have been detected at the Site.
12. **Sources of Information:** The sources for the evidence summarized herein include but are not limited to: reports and other documentation in Regional Board files; telephone calls and e-mail communication with Responsible Parties, their attorneys and consultants; and Site visits.

AUTHORITY – LEGAL REQUIREMENTS

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

"Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement 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. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the 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."

14. 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. . ."

15. 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."

16. The State Water Resources Control Board (hereafter 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. 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 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.

DISCHARGER LIABILITY

17. The constituents found at the Site as described in Findings 7 and 9 constitute "waste" as defined in Water Code section 13050(d). The Basin Plan states that "Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise affect beneficial uses". The discharge of petroleum hydrocarbons has caused a visible film or coating on the surface of the water and has resulted in the presence of odors. The discharge of waste has resulted in pollution, as defined in Water Code section 13050(l). The presence of petroleum hydrocarbons in the Dominguez Channel exceeds Water Quality Objectives for Inland Surface Waters in the Basin Plan, including the water quality objective for oil and grease. The concentration of waste constituents in soil and groundwater exceed water quality objectives contained in the Basin Plan, including maximum contaminant levels (MCLs). The presence of petroleum hydrocarbons is harmful to aquatic life and human health, resulting in impacts to the designated beneficial uses and pollution.

Multiple residents and other individuals in the vicinity of the Dominguez Channel have observed odors and other impacts due to the discharge of waste; therefore, the discharge to the Dominguez Channel may have resulted in a nuisance by impacting the use of the properties in the vicinity of the Dominguez Channel. The presence of waste at the Site constitutes a "nuisance" as defined in Water Code section 13050(m). The waste is present at concentrations and locations that *"is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property . . . and affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal."*

18. **Pollution of Waters of the State:** As described in Findings of this Order, the Dischargers are subject to an order pursuant to Water Code section 13304 because the Dischargers have 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 or nuisance. 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 Board.

As described in Findings in this Order, 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 Site. The technical reports required by this Order are necessary to assure compliance with Section 13304 of the Water Code and State Water Board Resolution 92-49, including to adequately investigate and cleanup the Site to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

As described in this Order and the record of the Regional Board, the Dischargers owned and/or operated pipelines in a manner that resulted in the discharges of waste to the Dominguez Channel and in nearby groundwater.

19. Due to the activities described in this Order, the Dischargers have caused or permitted wastes, including naphtha-range petroleum hydrocarbons, crude oil, and other hydrocarbons, to be discharged or deposited where the wastes are, or probably will be discharged into the waters of the State which creates a condition of pollution or nuisance. The Dischargers have caused or permitted naphtha-range petroleum hydrocarbons, crude oil, and other hydrocarbons, to be discharged or deposited where the wastes are or probably will pose a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air. The Dischargers, as the current owners and/or operators or former owners and/or operators of facilities at and near the Site, are responsible for complying with this Order.
20. This Order requires investigation and cleanup of the site in compliance with the Water Code, the applicable Basin Plan, State Water Board Resolution 92-49, and other applicable plans, policies, and regulations.
21. The Regional Board is declining to name additional potentially responsible parties (PRPs) for the Site in this Order at this time. Substantial evidence indicates that the Dischargers caused or permitted waste to be discharged into waters of the state and are therefore appropriately named as responsible parties in this Order. The Regional Board will continue to investigate whether additional PRPs caused or permitted the discharge of waste at the Site and whether these or other persons should be named as additional responsible parties to this Order. The Regional Board may amend this Order or issue a separate order or orders in the future as a result of this investigation and as more information becomes available. Although investigation concerning additional PRPs is ongoing, the Regional Board desires to issue this Order as waiting will only delay remediation of the Site.
22. **Need for Technical Reports:** This Order requires the submittal of technical or monitoring reports pursuant to Water Code section 13267². The Dischargers are required to submit the

² Water Code section 13267 authorized the Regional Board to require any person who has discharged, discharges, or is suspected of having discharged or discharging, waste to submit technical or monitoring program reports.

reports because, as described in the Findings in this Order, the Dischargers are responsible for the discharge of waste that has caused, or threatens to cause, pollution and nuisance. The reports are necessary to evaluate the extent of the impacts on water quality and public health and to determine the scope of the remedy.

CONCLUSION

23. Issuance of this Order is taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires the Dischargers to submit plans for approval prior to implementation of cleanup activities at the Site. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning the Dischargers' proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to Executive Officer approval of the applicable plan.
24. Pursuant to Water Code section 13304, the Regional Board may seek reimbursement for all reasonable costs to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action.
25. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (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 issued by the Executive Officer pursuant to authority delegated by the Regional Board. The Dischargers may seek reconsideration by the Regional Board. Note, however, that if the Dischargers fail to file a petition within 30 days, in accordance with the State Water Board regulations, the Dischargers will lose their right to review of this Order by the State Water Board.

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REQUIRED ACTIONS

THEREFORE, IT IS HEREBY ORDERED, pursuant to California Water Code sections 13304 and 13267, that the Dischargers shall cleanup the waste and abate the effects of the discharge of waste forthwith discharging at, from, and associated with the Site. "Forthwith" means as soon as reasonably possible but in any event no later than the compliance dates presented in the following sections. More specifically, the Dischargers shall:

1. Submit a work plan for the containment of petroleum hydrocarbons and associated wastes discharging into the Dominguez Channel³. The work plan shall provide a description of petroleum hydrocarbon containment activities at the channel surface. The work plan shall propose a schedule for submitting status reports on the operation of the containment systems to the Regional Board.

After approval by the Regional Board Executive Officer, implement the work plan and report results in accordance with the approved work plan schedule.

2. Submit a work plan to remove and legally dispose of petroleum hydrocarbons and associated wastes within both channel sub-drain systems⁴. The work plan shall be prepared with the goals of (a) preventing petroleum hydrocarbons within the sub-drain piping from entering the channel and (b) preventing migration of product within the sub-drain piping to other locations. The work plan shall include:

- a. a map indicating where petroleum hydrocarbons have been detected within the sub-drains;
- b. a map showing planned extraction locations;
- c. a description of how extraction will be performed; and
- d. a proposed schedule for periodic status report submittals to this Regional Board describing the sub-drain extraction activities.

After approval by the Regional Board Executive Officer, implement the work plan and report results in accordance with the approved work plan schedule.

At your discretion, a single work plan for Items 1 and 2 may be prepared or they may be prepared as separate work plans.

3. Submit an Interim Remedial Action Plan (IRAP) to control the discharge of petroleum hydrocarbons and associated wastes to prevent any degradation of the surface waters of the Dominguez Channel. The work plan shall include a proposed schedule for implementation of the proposed tasks and for submittal of reports for these tasks to the Regional Board. It shall also include a plan for compliance with the public participation requirements of CWC section 13307.S.

³ Containment booms on the channel surface are currently being operated by Resource Environmental, LLC. Pursuant to this CAO, this will be the collective responsibility of the Dischargers.

⁴ Absorbent materials for LNAPL recovery within the levee sub-drain systems are currently being maintained by Resource Environmental, LLC. Pursuant to this CAO, this will be the collective responsibility of the Dischargers.

After approval by the Regional Board Executive Officer, implement the work plan and report results in accordance with the approved work plan schedule.

4. **Develop and Update a Site Conceptual Model:** Submit a revised 3-dimensional illustration constituting a Site Conceptual Model (SCM). The SCM shall include a written presentation with graphic illustrations of the release scenario(s) and the distribution of wastes from the Site and vicinity. The SCM shall be constructed based upon actual data collected from the Site and any other relevant nearby sites that add to the accuracy of the SCM.
 - a. SCMs shall be submitted using existing data. At minimum, a SCM shall include information about:
 - i. The Site-specific hydrogeology and hydrostratigraphy with verified field data;
 - ii. The current groundwater monitoring network with screened intervals;
 - iii. The location of all water supply wells within one mile of the Site as well as other receptors that may be affected by the discharge and migration of waste constituents to the subsurface environment; and
 - iv. The lateral and vertical extent of each chemical of concern in groundwater.
 - b. The SCM shall be updated periodically as new information becomes available. Updates to the SCM shall be included in all future technical reports submitted.
5. **Complete Delineation of Wastes:** Completely delineate the extent of petroleum hydrocarbons and other constituents of concern in soil, soil vapor, and groundwater discharged at or from the Site.
 - a. A Master Work Plan shall be submitted to the Regional Board to provide for full assessment.
 - i. The initial Work Plan shall be a Master Work Plan that describes proposed general assessment techniques and initial sampling locations.
 1. Subsequent work plans, if necessary, may propose additional sampling locations, referencing the methodologies within the Master Work Plan. This structure is intended to streamline work plan preparation and review efforts.
 2. The Master Work Plan and any subsequent work plans shall include a proposed schedule for completing proposed work.
 3. Proposed initial sampling locations shall be provided with the Master Work Plan.
 - ii. Delineation shall include adequate lateral (including off-Site) delineation and vertical delineation of waste constituents such that a complete 3-dimensional SCM

can be generated for impacts to the Dominguez Channel and additional areas where the wastes have impacted the surface or subsurface.

- b. Additional work plans may be required if delineation efforts result in multiple iterations of work being necessary to complete full delineation.

After approval by the Regional Board Executive Officer, implement the Work Plan and report results in accordance with the approved work plan schedule.

6. **Prepare a Human Health Risk Assessment:** If requested by the Regional Board, prepare a human health risk assessment (HHRA), and if applicable an ecological risk assessment, considering all waste constituents in the soil matrix, soil gas, and groundwater, all exposure pathways and sensitive receptors and applying existing regulatory human health and ecological screening levels and/or acceptable risk assessment models. The due date for any HHRA reports will be provided if and when an HHRA is requested by the Regional Board.
7. **Conduct Remedial Action:** Initiate a phased cleanup and abatement program for the cleanup of any remaining wastes in soil, soil vapor, and groundwater, and the abatement of threats to beneficial uses of water and removal of sources of waste as highest priority. Specifically, you shall:
 - a. Develop a comprehensive Remedial Action Plan (RAP) for cleanup of waste in soil, groundwater, and soil vapor originating from the Site and submit it for Regional Board review and approval. The RAP shall include, at a minimum:
 - i. A description and evaluation of the effectiveness of proposed and alternative remediation options.
 - ii. A description of any pilot projects intended to be implemented.
 - iii. A program for preventing the spread of existing waste constituents in groundwater.
 - iv. A program to initiate remediation of off-site impact of petroleum constituents, if applicable.
 - v. Proposed cleanup goals with a protocol and schedule to reach them. The following information shall be considered when establishing preliminary cleanup goals.
 1. Preliminary cleanup goals for soil and groundwater shall be in compliance with State Water Board Resolution 92-49 (*"Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304"*). Resolution 92-49, Section III.G. requires cleanup to background, unless that is not reasonable. Alternative cleanup levels to background must comply with California Code of Regulations, Title 23, sections 2550.4, and be consistent with maximum benefit to the people of the state, protect beneficial uses, and result in compliance with the Basin Plan. Alternative cleanup levels for groundwater shall not exceed water quality objectives in the Basin Plan, including California's

MCLs and Notification Levels for drinking water as established by the State Department of Public Health. Alternative cleanup levels for soil and soil vapor shall not exceed levels that will result in groundwater exceeding water quality objectives in the Basin Plan, including California's MCLs and Notification Levels for drinking water as established by the State Department of Public Health.

2. Soil cleanup levels set forth in the Regional Board's Interim Site Assessment and Cleanup Guidebook, May 1996.
 3. Human health protection levels set forth in the current USEPA Region IX's RSLs.
 4. Protection from vapor intrusion and protection of indoor air quality based on the California EPA's January 2005 (or later version) Use of Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties. Soil vapor sampling requirements are stated in the Department of Toxic Substances Control (DTSC) and Regional Board April 2012 *Advisory - Active Soil Gas Investigations*, and the DTSC October 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*.
 5. Groundwater cleanup goals shall not exceed applicable water quality objectives or criteria necessary to protect the beneficial uses, including the Regional Board's Basin Plan water quality objectives (e.g., California's MCLs), Notification Levels for drinking water as established by the State Department of Public Health, State Water Board Ocean Plan water quality objectives, and the California Toxic Rule water quality criteria, at a point of compliance approved by the Regional Board.
- vi. A plan for compliance with the public participation requirements of CWC section 13307.5.
- b. Submit quarterly remediation progress reports to this Regional Board. The remediation progress reports shall document all performance data associated with remediation systems. Following one year of remediation activities, a request may be submitted to the Regional Board to reduce the reporting frequency to a semi-annual schedule.
 - i. Reports shall meet the requirements set forth in the Monitoring and Reporting Program (Exhibit C).
 - c. After approval by the Regional Board Executive Officer, implement the RAP and report results in accordance with the approved work plan schedule.
 - d. Revisions to the RAP or additional RAPs may be required by the Regional Board if the implemented measure does not completely achieve all Site cleanup goals.

The Regional Board will establish due dates for the RAP and remediation progress reports after sufficient assessment has been performed to enable a RAP to be prepared.

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8. **Conduct Groundwater Monitoring:** Initiate a groundwater monitoring program as set forth in the Monitoring and Reporting Program (Exhibit C).
9. **Time Schedule:** The Dischargers shall submit all required work plans and reports and complete work within the schedule in any approved work plan or RAP and the time schedule listed in Exhibit D attached hereto and incorporated herein by reference, which may be revised by the Executive Officer without revising this Order.
10. This Cleanup and Abatement Order applies only to impacts defined herein as the A-Zone and the B-Zone. C-Zone impacts, which appear to be from a gasoline origin, are recognized as having originated separate from the products in the A- and B-Zones. Therefore, investigation and remediation of the C-Zone (and deeper zones) is exempt under the Order, unless further investigation indicates that that A- and B-Zone impacts actually do impact the C-Zone or deeper intervals.
11. The Regional Board's authorized representative(s) shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
 - b. Access to copy any records that are maintained under the conditions of this Order;
 - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
12. **Contractor/Consultant Qualification:** As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a California registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals that reflects a license expiration date.
13. The Dischargers shall submit a 30-day advance notice to the Regional Board of any planned changes in name, ownership, or control of the Site and shall provide a 30-day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, the Dischargers also shall provide a 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Board.
14. Abandonment of any groundwater well(s) at the Site must be approved by and reported to the Regional Board at least 30 days in advance. Any groundwater wells removed must be replaced within a reasonable time, at a location approved by the Regional Board. With written justification, the Regional Board may approve the abandonment of groundwater wells

without replacement. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.

15. In the event compliance cannot be achieved within the terms of this Order, the Discharger has the opportunity to request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this Order are denied.
16. Reference herein to determinations and considerations to be made by the Regional Board regarding the terms of the Order shall be made by the Executive Officer or his/her designee. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Regional Board.
17. The Regional Board, through its Executive Officer or other delegate, may revise this Order as additional information becomes available. Upon request by the Discharger, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of the Discharger under this Order. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup, in addition to that described herein, is in no way limited by this Order.
18. This Order is not intended to permit or allow the Dischargers to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by this Regional Board or any other agency. Furthermore, this Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities, and it leaves unaffected any further restrictions on those facilities which may be contained in other statutes or required by other agencies. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and this Order has been rescinded.
19. Consistent with Water Code sections 13304 and 13365, reimburse the Regional Board for reasonable costs associated with oversight of the investigation and cleanup of the waste at or emanating from the Site. Provide the Regional Board with the name or names and contact information for the person(s) to be provided billing statements from the State Water Resources Control Board.
20. A Public Participation Plan shall be prepared and/or updated when directed by the Executive Officer as necessary to reflect the degree of public interest in the investigation and cleanup process.
21. The State Water Board adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker data management system. You are required not only to submit the reports required in this Order, but also to comply by uploading

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all reports and correspondence prepared to date and additional required data formats to the GeoTracker system if they have not already been uploaded. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

22. The Regional Board, under the authority given by Water Code section 13267(b)(1), requires you to include a perjury statement in all reports submitted by you under this Order. The perjury statement shall be signed by a senior authorized representative (not by a consultant). The perjury statement shall be in the following format:

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

23. Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with Sections 13268, 13308, and/or 13350, of the California Water Code, and/or referral to the Attorney General of the State of California.
24. None of the obligations imposed by this Order on the Dischargers are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of California intended to protect the public health, safety, welfare, and environment.

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

Date: February 8, 2013

WORKS CITED

- AECOM Environment. (2011, October 20). BP Pipelines (North America) Inc. Subsurface Investigation Report Dominguez Channel (approximately 400 feet south of Carson Street) Carson, California.
- Orion Environmental, Inc. (2011, October 20). Technical Report of Soil and Groundwater Investigation.
- Stechmann Geoscience, Inc. (2011, June 11). Additional Limited Phase II Environmental Site Assessment: 1152, 1202, and 1220 E. Carson Street.
- URS Corporation. (2011, October 20). Light Non-Aqueous Phase Liquid Release Assessment Report, Dominguez Channel South of Carson Street, Carson, California.
- URS Corporation. (2012, April 12). Pipeline Assessment Update, Dominguez Channel South of Carson Street, Carson, California.
- URS Corporation. (2012, April 30). Supplemental Site Assessment, Dominguez Channel South of Carson Street, Carson, California.

Atlantic Richfield Company

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August 17, 2012

Ms. Paula Rasmussen
Assistant Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Subject: BP Written Comments
Draft Cleanup and Abatement Order No. R4-2012-0103
Pursuant to California Water Code Section 13304

Site/Case: Dominguez Channel, South of Carson Street
Carson, California (SCP No. 1264; File No. 11-184)

Dear Ms. Rasmussen:

BP Pipelines (North America) Inc. (“BP”) is in receipt of the subject Regional Water Quality Control Board (“LARWQCB”) draft Cleanup and Abatement Order (“draft CAO”), dated June 20, 2012. BP continues to dispute the technical and legal basis of the draft CAO for many of the same reasons as those set forth in its May 25, 2011 petition for review of the board’s April 26, 2011 order under Water Code section 13267 (“April 25, 2011 Order” or “First Order”). We believe it is premature to issue a draft CAO in this matter and urge the board to reconsider its actions until the State Board rules on the pending May 25, 2011 petition for review of the Water Code 13267 order (“Petition”).

The draft CAO is related to discharges of petroleum hydrocarbons into a segment of Dominguez Channel, approximately 400 feet south of East Carson Street, in the City of Carson (the “Site”). Without a sound technical or legal basis, BP p.l.c. is named as a “Discharger” in the draft CAO along with five other parties [Chevron Environmental Management Company (“Chevron”); ExxonMobil Corporation (“ExxonMobil”); Phillips 66; Plains All American Pipeline, L.P. (“Plains”); and Shell Oil Products US (“Shell”)] based solely upon its “operation” of petroleum pipelines in the vicinity of the Site. The draft CAO asserts that the light non-aqueous phase liquid (“LNAPL”) petroleum and dissolved-phase petroleum at the Site appear to have originated from petroleum pipelines in the vicinity of Dominguez Channel. The draft CAO further concludes that the petroleum hydrocarbons

are a mixture of refinery intermediate in the naphtha range and crude oil, with crude oil representing less than 5 percent in the least weathered samples.

The draft CAO invited Dischargers to submit written comments and/or evidence by July 17, 2012. The comment period was extended to August 17, 2012 in a July 13, 2012 letter from the LARWQCB.

Atlantic Richfield Company (“ARC,” the entity that manages remediation activities for BP) has prepared and submits the written comments presented below.

Background

As described in our recent submittal on May 1, 2012, BP currently owns four pipeline segments (one active, three abandoned) located in proximity to the release area. The one active pipeline (Line 211) has transported natural gas since 2000 and was previously in crude oil service. Two former crude pipelines (Lines 1 and 6) were abandoned in the early 1960s, and one other former crude pipeline (Line 1R) was abandoned in 1994. Outside of the proximity of the release area, BP also currently owns and operates Line 29, a sulfuric acid line, and Line 81, a former gasoline line that at times was utilized for jet fuel and diesel. These lines are approximately one mile away from the release area. The currently-owned BP lines in the vicinity of the Site are not believed to be a source of the Dominguez Channel release based on all investigations and data reviewed.

Two lines formerly owned by BP are also located in the vicinity of the Site. Lines 63 and 93D are crude lines that were owned by BP from 1950 and 1957, respectively, until 1999 when they were sold to Plains (the current owner). Line 63 is located beneath Recreation Road in the area of currently owned BP lines investigated by BP under the Order. Investigation data indicate no crude release beneath Recreation Road. Line 93D travels beneath Dominguez Channel, south of Carson Street. BP records indicate that the line passed a hydrotest in 1982, and a 1993 BP pipeline summary dated March 29, 1993 identifies no leaks in Line 93. Furthermore, a Plains pipeline summary provided to BP by the LARWQCB in an April 4, 2012 email note indicates that 93D has no integrity test failures. Based on this and all investigations and data reviewed, the formerly-owned BP lines are not believed to be a source of the Dominguez Channel release.

Previously Submitted BP Documents

Over the past year, BP has complied with every board request for information and investigation despite its pending Petition and initial conclusion that BP could not be a source of the LNAPL and associated dissolved-phase constituents. In response to the April 25, 2011 Order, BP submitted a June 8, 2011 Investigation Work Plan (“Work Plan”). As BP implemented the Work Plan, BP submitted the following documents to the LARWQCB, each of which further demonstrate BP’s initial findings that it is not a source of LNAPL and associated dissolved-phase constituents at the Site. Information and associated conclusions presented in these documents are incorporated in this written response to the draft CAO. For convenience, we summarize our key findings below.

August 31, 2011 Soil Investigation Data Package¹

In response to a June 30, 2011 request from the LARWQCB, this document transmitted the data associated with the ARC soil investigation results only. Data evaluation and findings associated with these data as well as others were presented in the October 20, 2011 *Subsurface Investigation Report* described below.

October 20, 2011 Subsurface Investigation Report²

After submitting the August 31, 2011 investigation package, BP concluded the work itemized in the Work Plan and submitted an October 20, 2011 Subsurface Investigation Report. Among other things, the October 20, 2011 investigation report concluded:

“Based on the data collected by ARC, and the information received from the Other Parties during their investigations, ***the currently-owned BP pipelines are not a source of the LNAPL discovered within the Dominguez Channel.*** Multiple lines of evidence support this technical conclusion, including the following:

1. “Groundwater samples collected from the four ARC monitoring wells were found to contain only low levels of four detected compounds (i.e., DIPE, benzene, 1,2-dichloroethane, and diethyl phthalate). No separate phase product (i.e., LNAPL) was measured or observed in the ARC monitoring wells located near the BP pipelines. ***Groundwater sample results and a lack of detected LNAPL in ARC wells do not support the assertion in the Order that BP’s pipelines are the source of LNAPL in the Dominguez Channel release area.***
2. Forensics results indicate that the petroleum hydrocarbons in soil samples from ARC soil borings DC-3 and DC-4 are predominantly diesel fuel no. 2 with some kerosene and gasoline product. TPH and VOCs results for ARC soil boring samples also indicate predominantly diesel-range constituents with some gasoline compounds. The likely presence of varying product sources in the ARC soil samples collected from DC-3 and DC-4 may suggest multiple releases/sources from non-BP parties within that portion of Recreation Road. The likely product sources are not consistent with the current and past uses of the BP pipelines in that area; ***therefore, the BP pipelines do not appear to be the source of detected constituents in ARC soil and groundwater samples.***
3. Petroleum hydrocarbons detected in soil and groundwater samples contained only low levels of or no detected oil-range organics (ORO). ***The predominant absence of ORO supports the forensics conclusions that the petroleum hydrocarbons in the ARC soil and groundwater samples are not sourced from crude.***
4. The compliance and chemical fingerprinting analytical results were evaluated by an AECOM environmental forensics expert familiar with petroleum source fingerprinting to identify the likely sources of soil, water, and product petroleum hydrocarbons, and to compare the hydrocarbon patterns to determine similarities, if any, between the sources.

¹ AECOM, *BP US Pipelines & Logistics, Soil Investigation Data Package, Dominguez Channel (approximately 400 feet south of Carson Street), Carson, California.* August 31, 2011.

² AECOM, *BP US Pipelines & Logistics, Subsurface Investigation Report, Dominguez Channel (approximately 400 feet south of Carson Street), Carson, California.* October 20, 2011.

These forensics evaluation results indicate that it is unlikely that the hydrocarbons from the ARC soil samples originated from the same petroleum hydrocarbon source as the hydrocarbons in the manhole samples collected by ARC. ***Therefore, the petroleum in the area of the ARC soil samples appears unrelated to the LNAPL in the eastern levee manhole.***^[3]

5. When compared to the U.S. Coast Guard release area “spilled oil” sample, which is characterized as predominantly gasoline, ***the potential gasoline product in the soil and manhole samples collected by ARC does not appear related to the “spilled oil,”*** according to forensics evaluations.⁴
6. In addition to BP samples detecting only low levels of limited compounds, samples collected from the ***Tesoro wells (generally situated between the ARC Recreation Road monitoring wells DC-3, DC-4, and DC-5 and the Dominguez Channel) also detected low concentrations of petroleum compounds.*** This further demonstrates that the LNAPL discovered in the Dominguez Channel is not associated with nearby BP pipelines.
7. The presence of ***higher levels of groundwater impacts in the southernmost monitoring wells*** installed and sampled by RELLC on either side of the channel ***suggest the potential source(s) of channel impact may be located farther south*** than the initially depicted LARWQCB release area, and subsequently, ***a greater distance away from the nearby BP lines.***
8. The prevalence of ***DIPE*** in groundwater samples collected by ARC and others in the vicinity of the release area indicates that the DIPE present in ARC monitoring well samples ***is likely due to an area-wide plume and is not a localized release.***

Based on data collected and these conclusions, no further ARC investigation is warranted. ARC requests written authorization from the LARWQCB to properly abandon its four monitoring wells, and that the LARWQCB rescind the Order issued to ARC dated April 26, 2011.”

February 15, 2012 Technical Memorandum on Pipeline Inventory⁵

After submitting the October 20, 2011 Subsurface Investigation Report, the LARWQCB requested in a December 13, 2011 order (“Second Order”) that BP provide technical or monitoring reports to identify locations of BP pipelines. BP provided an inventory of currently-owned pipelines on January 31, 2012 (supplemented with formerly-owned pipeline information on April 20, 2012). In addition, ARC obtained and reviewed forensics data collected and presented by other parties investigating the

³ “Forensics results indicate that the petroleum hydrocarbons in soil samples from ARC soil borings DC-3 and DC-4 are predominantly diesel fuel no. 2 with some kerosene and gasoline product. These results are consistent with refined petroleum products, which BP did not handle in the vicinity of the release.” October 20, 2011 *Subsurface Investigation Report*, Executive Summary.

⁴ Detailed information related to the U.S. Coast Guard’s laboratory analyses will be needed to confirm this; several attempts have been made to contact the USCG and obtain this information.

⁵ Atlantic Richfield Company, letter from Mr. Darrell K. Fah to Mr. Samuel Unger, P.E., subject: *Requirement for Technical Report, Pursuant to California Water Code Section 13267 Order – Transmittal of Technical Report on Pipeline Inventory*. February 15, 2012.

Dominguez Channel release. The review was conducted by an AECOM petroleum forensics expert, Dr. Jun Lu, on behalf of ARC. The February 15, 2012 submittal included a Technical Memorandum that presented an updated and refined forensics evaluation completed by AECOM following receipt of additional forensics data submitted by other Dominguez Channel release area investigating parties. The key findings of this report were as follows:

“AECOM concluded that a minimum of three types of petroleum hydrocarbons comprise the Dominguez Channel release area product: (1) gasoline-range hydrocarbons, (2) ‘Crude Oil A’, and (3) a likely lubricant (identified by Zymax as ‘Crude Oil B’). Furthermore, *ARC soil samples collected adjacent to the BP-owned pipelines in the near vicinity of the release area contained no forensic evidence of crude oil.* The soil samples collected adjacent to the BP-owned pipelines showed predominantly diesel-range hydrocarbons, which are unrelated to the three release area petroleum sources, and, therefore, are not a source of the release area petroleum. In addition, the predominantly diesel-range hydrocarbons detected adjacent to the BP-owned pipelines are unrelated to the BP historical and current uses of those lines.”

*April 20, 2012 Second Pipeline Response*⁶

In further response to the December 13, 2011 Order, BP submitted an updated pipeline table to include lines (93D and 63) currently owned by Plains (and sold by ARC in 1999).

*May 1, 2012 Technical Report on Groundwater Monitoring Event*⁷

In response to a February 16, 2012 order (the “Third Order”) from the LARWQCB, BP Pipelines (North America) Inc. (BP) conducted groundwater monitoring in four existing wells on February 27, 2012. Key findings of this report were as follows:

“The groundwater sample analytical results of the February 2012 monitoring event are similar to those obtained in the initial October 2011 event, as described in the attached report. Therefore, *these support the prior conclusion that the currently-owned BP pipelines are not a source of the release in Dominguez Channel.*”

Pipelines Comments

1. Erroneous and incomplete information is included in Exhibit A, Table 1, of the draft CAO. The exhibit includes a pipeline report prepared by URS Corporation (“URS”) on behalf of Resource Environmental LLC (“RELLC”), which represents two of the draft CAO Dischargers – Shell and Chevron. The errors in Exhibit A are repeated in Exhibit B “Basis for Naming Responsible Parties” of the draft order. Specifically, six BP lines are listed in Exhibit B as the basis for identifying BP as a Discharger. The URS line depiction used as the basis for the draft CAO does not correlate to BP information

⁶ Email note from Mr. Darrell K. Fah, BP, to Mr. Greg Bishop, LARWQCB, re: *Dominguez Channel Pipeline Submittals by Plains and BP*, April 20, 2012.

⁷ AECOM, *BP Pipelines (North America) Inc., Groundwater Monitoring Report, Dominguez Channel (approximately 400 feet south of Carson Street), Carson, California*. May 1, 2012.

provided to the LARWQCB in prior submittals. The following list itemizes each of the URS lines and BP comments related to the information included in the draft CAO. BP requests that future references to BP lines by the LARWQCB use BP line identification numbers rather than URS numbers to allow certainty regarding the line in question.

- URS ID#15: BP records indicate that URS Line ID#15 may be a 16-inch line formerly used for the transport of crude oil, identified in BP records as Line Segment 93D. Information related to Line 93D was provided to the LARWQCB in April 20, 2012 and May 1, 2012 submittals. BP owned the line from 1957 to 1999 and sold it to Plains in 1999. BP records demonstrate that the line passed a hydrotest in 1982, and a 1993 BP pipeline summary dated March 29, 1993 identifies no leaks in Line 93. A passing hydrotest is a Federal and State requirement for new operation or return to service (see for example, 49 CFR 195.300, 49 CFR 192, and CA Govt. Code Section 51013.5), and a hydrotest result is an industry-standard indicator of the integrity of the line. Furthermore, the LARWQCB confirmed in an April 4, 2012 email that Line 93D has no integrity test failures, based not on BP data, but rather on a Plains pipeline summary provided to BP by the LARWQCB. Current information does not support a release from Line 93D as the source of crude oil at the Site. BP disagrees with the LARWQCB that the former transport of crude oil in this line is sufficient basis for naming BP as a Discharger.
- URS ID#21: BP records indicate that URS Line ID#21 may be a 10-inch line formerly used for the transport of crude oil, identified in BP records as Line 1R. The line was purged with nitrogen following abandonment in 1994. The URS tables and map should be updated to accurately indicate that the line is abandoned. BP requests that the LARWQCB clarify which of BP's lines is intended to be included as URS#21 as the basis for the draft CAO. BP disagrees with the LARWQCB that the former transport of crude oil in this line is sufficient basis for naming BP as a Discharger. Investigation data collected from borings installed adjacent to this line (i.e., borings DC-1, DC-3, DC-4, and DC-5) do not indicate a crude release from Line 1R.
- URS#22: BP records indicate that URS Line ID#22 is an 8-inch abandoned line formerly used for the transport of crude oil, identified in BP records as Line 6 (a.k.a., Line R266-6). The URS Table 1 incorrectly lists this line as containing product "drained/water." BP records indicate that the line was a crude oil line and was abandoned in 1963. BP disagrees with the LARWQCB that the transport of crude oil in this line is sufficient basis for naming BP as a Discharger. Investigation data collected from borings installed between this line and the channel (i.e., borings DC-3, DC-4, and DC-5) do not indicate a crude release from abandoned Line 6.
- URS#23: BP records indicate that URS Line ID#23 is a 12-inch natural gas line that was formerly used for crude oil, identified in BP records as Line 211. BP records indicate that the line was used for crude transport until 1994, was idle from 1994 to 1999, and was put in service for natural gas transport in 1999. BP records identify

hydrotests conducted from 1983 through 1999, and a passed internal line inspection in 2007. BP disagrees with the LARWQCB that the former transport of crude oil in this line in proximity to the Site is sufficient basis for naming BP as a Discharger. Investigation data collected from borings installed adjacent to this line (i.e., borings DC-1, DC-3, DC-4, and DC-5) do not indicate a crude release from Line 211 in the vicinity of the Site.

- URS#24: BP records indicate that URS Line ID#24 may be a 10-inch line formerly used for the transport of crude oil, identified in BP records as Line 1 (a.k.a. Line 266-1). Line 1 is an abandoned 10-inch line owned by BP that was formerly used for the transport of crude. The line was abandoned in 1963. BP requests that the LARWQCB clarify which of BP's lines is intended to be included as URS#24 as the basis for the draft CAO. BP disagrees with the LARWQCB that the former transport of crude oil in this line is sufficient basis for naming BP as a Discharger.
- URS#25: URS Line ID#25 is listed as an abandoned portion of Line 6. BP requests clarification from the LARWQCB, as this URS ID appears to duplicate URS's Line ID#22. Please correlate this line to BP line information provided in prior submittals and clarify which BP line/line segment serves as the basis for the draft CAO.

Additional Technical Comments

BP met with the LARWQCB on July 11, 2012 to discuss the draft CAO. Among other things, during that meeting the LARWQCB explained its current conceptual site model (CSM) for appearance of product in Dominguez Channel in January 2011. The CSM involves:

- Release(s) of product(s) from a pipeline prior to 2011 (at any time, even 50 or more years ago);
- Formation and migration of a subsurface product layer;
- Water table rise in recent years leading to high enough levels by January 2011 that product was forced into the subdrains and the base of the channel; and
- Potential that release(s) could be from any location in the vicinity – the exact location is currently unknown.

As a result of those discussions, BP offers the following technical comments in addition to those previously submitted in the BP documents reference above.

2. The chromatogram patterns of the gasoline-range hydrocarbons in the RELLC samples vary; but the hydrocarbons appear to be same or similar type of product based on data collected. Dissimilarities are likely the result of different degrees of alteration (e.g., evaporation and biodegradation). However, the chromatogram patterns show an absence of lead. Of the refined product identified in the channel, the predominant hydrocarbons are likely an intermediate stream product, like naphtha, based on the makeup of hydrocarbon compounds. The presence

of DIPE and isooctane (i.e., 2,2,4-trimethylpentane) in some of the samples (MW-9C-24, in particular) suggests that finished oxygenated gasoline is also a minor hydrocarbon component of the refined product in the channel. Therefore, the gasoline-range hydrocarbons are likely a mixture of predominantly gasoline-range refinery intermediate stream product and minor finished oxygenated gasoline. Based on this and other information, releases from former underground storage tanks or other non-pipeline sources, in addition to pipeline releases, could represent a contribution to the “spilled oil.”

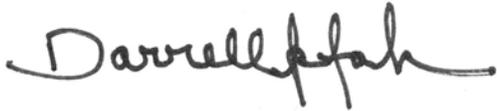
3. A lack of age-sensitive indicator data makes the age of the intermediate stream product difficult to determine, but it appears to be from a recent release. BP understands that the LARWQCB current CSM for the appearance of LNAPL in Dominguez Channel is the result of regional rising water table levels. Under that CSM, a rising water table would have resulted in the intermediate stream product being exposed to more oxygen and aerobic degradation as water levels rise. Normal paraffins in gasoline-range hydrocarbons are known to be biodegradation sensitive compounds; under the LARWQCB CSM and the resulting more biologically active environment, an “altered” pattern of biodegradation sensitive compounds would be expected in LNAPL chromatograms. Instead, apparent “unaltered” pattern of biodegradation sensitive compounds (i.e., normal paraffins) are observed in the intermediate stream product chromatograms of several samples, potentially indicating a relatively recent release.
4. Page 8, Item 19 of the draft CAO states: “The Dischargers have caused or permitted naphtha [sic] -range petroleum hydrocarbons, crude oil, and other hydrocarbons, to be discharged or deposited where the wastes are or probably will pose a potential human health threat to occupants of the building onsite through direct contact exposure to contaminated soil and/or groundwater or through vapor intrusion into indoor air.” BP does not see evidence to support this finding in the draft order. Meanwhile, BP is aware of a RELLC/URS June 26, 2012 report of subslab soil vapor sampling at the former Active RV site that found: “An evaluation of potential health risks associated with indoor air exposure due to vapor intrusion indicates that the cumulative cancer risks met acceptable thresholds under a commercial/industrial scenario, and noncancer health risks met acceptable thresholds under both the residential and commercial scenarios.” BP requests detailed information from the LARWQCB related to data that support the position that the gasoline-range and other hydrocarbons are posing a potential human health threat to building occupants, for each of the exposure pathways cited.
5. Page 4, Item 7 – The last sentence of the 2nd paragraph indicates that LNAPL was observed in a limited number of wells adjacent to the Dominguez Channel and that several wells adjacent to the channel contained no LNAPL. BP requests that the LARWQCB clarify this sentence.
6. Page 5, Item 9C: BP requests that the LARWQCB clarify this sentence to clearly indicate whether the reported crude oil portion of the “LNAPL observed is an intermediate blending stock used in the refining process.”

Legal Comments

7. The draft CAO would be the fourth LARWQCB order that in our view lacks a sufficient evidentiary basis that conforms to Water Code standards and recent case law. For the reasons set forth below, we urge the board to remove BP from the Order altogether. Alternatively, we urge the board to delay issuance of the order until the State Board issues a decision on the pending Petition.
 - The draft CAO repeats the evidentiary and legal flaws associated with the First, Second, and Third Orders. Water Code Section 13267 authorized the Regional Board to issue the First, Second, and Third Orders to those who have discharged, or are suspected of having discharged, wastes. There was and continues to be a lack of evidence of that a BP line discharged products in the vicinity of the Site that caused or contributed to the Release. There is strong evidence showing BP has not caused or contributed to the Release. BP has cooperated with every request and order from the board thus far but would be forced again to petition the state board for review of any clean-up abatement order in this matter.
 - A clean-up and abatement order may be issued only to a 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 of nuisance.” See Water Code § 13304. Section 13304 liability attaches only where a party “took affirmative steps directed toward the improper discharge” of waste or has either directly spilled or released the contaminants into the environment or affirmatively and knowingly caused or permitted the contamination to migrate. *Redevelopment Agency of the City of Stockton v. BNSF Railway Co.*, 643 F.3d 668, 674-674, 678 (9th Cir. 2011) (applying the law of nuisance to Water Code 13304). Here, there is no evidence that a BP line in the vicinity of the Site “caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited.”
 - Based on the foregoing, neither BP nor ARC can be named in a clean-up and abatement order. The draft CAO names BP p.l.c., which is also incorrect.
 - We disagreed with page 5 of the draft CAO, which states “The Regional Board considers all liquid petroleum pipelines at and near the Site, even those without documented products compatible with the naphtha-range and crude oil materials detected, to be suspected discharge points.” This finding is contrary Water Code 13304 and technical data.
 - Further, Resolution 92-49 requires that the LARWQCB use the most cost-effective methods for detecting contamination or pollution and ensuring clean up. The draft CAO is not a cost-effective means for many of the same reasons described in our Petition. It imposes unreasonable costs on BP where the evidence supports that parties other than BP should bear those costs.

- In light of the foregoing, we urge the board to omit BP from the draft CAO. We also urge the board to delay issuance of the order until the State Board issues a decision on the pending Petition.

Sincerely,

A handwritten signature in black ink that reads "Darrell K. Fah". The signature is written in a cursive style with a long horizontal stroke at the end.

Darrell K. Fah
Operations Project Manager

cc: Mr. Greg Bishop, P.G., LARWQCB
Ms. Donna DiRocco, BP Pipelines (North America) Inc.
Mr. Frank Muramoto, P.G., AECOM
Ms. Mary Jo Anzia, AECOM

August 17, 2012

VIA EMAIL [PRASMUSSEN@WATERBOARDS.CA.GOV] AND FEDEX

Paula Rasmussen
Assistant Executive Officer
Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: Draft Cleanup and Abatement Order No. R4-2012-0103
Dominguez Channel, South of Carson Street

Dear Ms. Rasmussen:

We represent Plains All American Pipeline, L.P. (“Plains”). We have reviewed draft Cleanup and Abatement Order No. R4-2012-0103 (the “Draft CAO”) and various submittals to the Regional Board. We have also retained Environ to review reports submitted by various parties and other relevant documents, and prepare a report analyzing the relevant information. Environ’s report is attached to this letter as Exhibit A (hereinafter “Environ Report”). We are submitting written comments and evidence regarding the Draft CAO, as you invited us to do in your letter of June 20, 2012.

We have located substantial evidence that Plains did not release petroleum products or crude oil into or near the Dominguez Channel south of Carson Street (the “Site”). This letter describes that evidence. Other than the proximity of a Plains crude oil pipeline to the Site, we have found no evidence that Plains caused or permitted petroleum products or crude oil to be discharged or deposited at the Site. In fact, the evidence suggests that Plains could not be the source of the petroleum products or crude oil at the Site. We have, therefore, concluded that Plains is not responsible for the release, or any portion of it. By this letter, we are seeking the Regional Board’s concurrence in that conclusion, and are specifically requesting that Plains not be named as a responsible party in the final CAO. We are also requesting the opportunity to meet with Regional Board staff to further discuss the evidence described in this letter.

A. The Release Was Discovered in January 2011, And Response Actions And Investigations Have Taken Place

The release was originally discovered on or about January 9, 2011 by the Los Angeles County Department of Public Works (“DPW”), when a visible hydrocarbon sheen was observed in the Dominguez Channel near 223rd Street. (Ecology & Environment Letter (February 2, 2012) (“E&E Letter”). DPW responded to the release by placing a sorbent boom in the Channel near the 223rd Street bridge. (*Id.*). After the release was discovered, the Department of Fish & Game, the Office of Oil Spill Preventions and Response and DPW formed a unified command to investigate the source of the release and facilitate response efforts. (*Id.*). On January 11, 2011, EPA mobilized to the Site under the direction of Federal On-Scene Coordinator (“FOSC”) Robert Wise. (*Id.*).

On January 17, 2011, FOSC Wise issued a Notice of Federal Interest (“NOFI”) to Plains. (*Id.*). By this time, Plains had been instructed by EPA to assume responsibility for the response because an active Plains crude oil pipeline was located within the spill zone. (*Id.*). Plains personnel arrived at the Site within an hour, and took immediate action to contain the release. (Plains Chronology, Exh. B). Plains retained West Coast Environmental Services to install and maintain hard and sorbent booms across the Channel and along the shoreline. (E&E Letter). Under the supervision of EPA and several California agencies, Plains installed numerous sorbent booms in strategic locations to catch as much of the release as possible. (Plains Chronology).

On January 20, 2011, a diver retained by Plains inspected the Channel and witnessed oil globules bubbling up from the Channel bottom and installed a sample collection device over what appeared to be an active seep. (E&E Letter). Plains conducted several pressure tests, as well as a nitrogen flush of the pipeline, a dye-test and, on January 24, 2011, a State Fire Marshall-approved a hydrostatic test of its pipeline (E&E Letter; Plains Chronology). The tests documented that the pipeline was holding pressure and had not been compromised. (E&E Letter). On January 25, 2011, FOSC Wise withdrew the NOFI issued to Plains, releasing Plains from responsibility for the release and from further response actions. (E&E Letter; Wise Email, Exh. C).

Also on January 25, 2011, FOSC Wise issued a NOFI to DPW, as the Channel operator. (E&E Letter; URS April 30, 2012 Supplemental Site Assessment Report (“SSA Report”). At that point, DPW took over containment operations in the Channel. (SSA Report). In addition to booms and absorbent pads, DPW extracted petroleum from subdrain piping systems on both side of the Channel at the request of the Regional Board. (*Id.*). The Regional Board also issued investigative orders requiring certain parties to provide information regarding pipelines in the area. (*Id.*). In the various investigative orders, the Regional Board stated that petroleum was

entering the Channel from sediments in the channel bottom that contain primarily gasoline-range hydrocarbons. (*Id.*) The Regional Board also required certain parties to complete assessments of soil, soil vapor and groundwater at and near the Site. (*Id.*)

The assessments reached a number of conclusions regarding the release: (1) localized detections of hydrocarbons in soil and groundwater suggest a pipeline source; (2) the petroleum seeping into the Channel appears to be a refinery intermediate mixed with a minor amount of crude oil (less than 5 percent) and a minor amount of refined product; and (3) the principal and only known source of the release appears to be in the vicinity of monitoring well R-MW-6, along the western levee of the Channel. (*Id.*) The SSA Report concluded that the likely source of the petroleum contamination in the Channel is a historical release from an inactive, idle or abandoned pipeline. Pipelines have existed in the immediate vicinity of R-MW-6 since the 1920s. (*Id.*)

B. The Legal Standard For Naming Responsible Parties

California Water Code Section 13304 prescribes the circumstances in which regional boards may issue cleanup and abatement orders, and states in relevant part:

“[A]ny person who has discharged ... 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 may be required to cleanup the discharge and abate the effects thereof ...”

State Water Resources Control Board Resolution No. 92-49 sets forth procedures applicable to cleanup and abatement orders. Resolution 92-49 directs regional boards to use “any relevant evidence” in determining who shall be named as a responsible party in a cleanup and abatement order.

While Resolution 92-49 confers discretion on regional boards to rely on broad categories of relevant evidence, the State Board has established the standard for determining liability under a cleanup and abatement order issued under California Water Code Section 13304 as follows:

“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 a 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, USA et al., WQO No. 85-7 at 11-12 (emphasis added); In the Matter of the Petition of Stinnes-Western Chemical Corporation, WQO No. 86-16 at 11-12.) Thus, the Regional Board's decision to designate Plains as a responsible party under the CAO must be based upon substantial, reasonable and credible evidence.

C. The Evidence Points To A Release From An Idle Pipeline In The Immediate Vicinity of Monitoring Well R-MW-6

The Draft CAO states all of the following regarding the release to the Dominguez Channel:

- The light non-aqueous phase liquid petroleum ("LNAPL") and dissolved phase petroleum appear to have been released from petroleum pipelines in the vicinity of the Dominguez Channel.
- The LNAPL product appears to originate from one or more petroleum pipelines based on its composition.
- The petroleum discharged to the Dominguez Channel has been characterized as a refinery intermediate (i.e., partially-refined petroleum product) in the naphtha range, mixed with a minor amount of crude oil (less than 5 percent) and a minor amount of refined product.

Assessment reports also state that localized detections of hydrocarbons in soil and groundwater suggest a pipeline source. (SSA Report). The amount of crude oil in the released petroleum appears to vary based on the amount of weathering, with the more weathered petroleum containing more crude oil due to the loss of the lighter ends. (SSA Report). Although the amount of crude oil varies due to the degree of weathering, crude oil is present in all 41 samples collected for analysis in the vicinity of R-MW-6. (SSA Report). The consistent combination of refinery intermediate and crude oil suggests that a single pipeline that transported refinery intermediate, crude oil, and refined product is the source of the contamination. (Environ Report).

The one known source that has been identified is located in the immediate vicinity of monitoring well R-MW-6 near the western levee. (SSA Report; Environ Report). Free product has been observed in the subsurface near R-MW-6 at thickness up to 6 feet. (SSA Report). The amount of petroleum contamination decreases with distance from the source area near R-MW-6. (SSA Report; Environ Report).

A total of 27 pipelines have been identified in the general vicinity of the Site. (URS Pipeline Assessment Update (April 12, 2012) (“PA Update”).) There are fewer pipelines in the immediate vicinity of R-MW-6. Of the 27 pipelines in the general vicinity of the Site, six reportedly transported some combination of refinery intermediate, crude oil and refined product (Pipeline Nos. 04, 05, 06, 08, 11 and 14). (PA Update; Environ Report) This combination of transported materials corresponds to the contaminants found in the subsurface at the Site. (Environ Report).

It is possible that other pipelines carried a similar combination of products, as the history of all of the pipelines—particularly the pipelines with a longer history—could not be fully determined. (Environ Report). None of the pipelines in the immediate vicinity of R-MW-6 (Pipeline Nos. 18, 19, 20 and 27) were reported to have transported a combination of refinery intermediate, refined product and crude oil. (PA Update; Environ Report). However, as stated above, the history of these pipelines could not be fully determined. (*Id.*)

The SSA Report concluded that the likely source(s) of the released petroleum beneath the Dominguez Channel is a historical release from an inactive, idle or abandoned pipeline(s). The pipelines that reportedly transported a combination of refinery intermediate, crude oil and refined product (Pipeline Nos. 04, 05, 06, 08, 11 and 14) are all inactive, idle or abandoned. These pipelines were operated until the early 1970s. (PA Update; Environ Report). Further, two of the pipelines in the immediate vicinity of R-MW-6 (Pipeline Nos. 18 and 20) are also apparently inactive, idle or abandoned. It is not clear when the operation of these two pipelines ceased.

D. There Is No Evidence That A Plains Pipeline Contributed To The Release

Plains owns two pipelines in the general vicinity of the Dominguez Channel: Line 93 and Line 6. (PA Update; Plains Technical Report on Pipeline Inventory (February 8, 2012) (“Plains PI”), Exh. D). Line 93 is an active 16-inch pipeline used to transport crude oil. (*Id.*) Line 6 is an inactive 8-inch pipeline that transported crude oil. (*Id.*) Plains acquired both pipelines from Arco/BP in 1999. (*Id.*)

Neither pipeline is close to the one known source area near monitoring well R-MW-6. Line 6 is located about 400 feet from the source area. (Environ Report). Given this distance from the source area, it is highly unlikely that a release from Line 6 would have resulted in the petroleum contamination located at and near monitoring well R-MW-6. (Environ Report). Line 93 is located approximately 100 feet from R-MW-6. (*Id.*) Sample results show free product only in the immediate vicinity of R-MW-6. (*Id.*) Concentrations of petroleum decrease as one moves from the source area near monitoring well R-MW-6 toward Line 93. (*Id.*)

Plains transports crude oil. (Plains Pipeline Inventory Addendum (April 3, 2012) (“Plain PI Addendum”). Line 93 has been in continuous use transporting crude oil since Plains acquired the line in 1999. (*Id.*) Line 6 has been inactive for over 8 years. (*Id.*) It was solely in crude oil service from the time of Plains’ acquisition of the line until its use was discontinued over 8 years ago. (*Id.*) Neither Line 93 nor Line 6 have transported refinery intermediate, which is the principal component of the petroleum contamination beneath and in the vicinity of the Dominguez Channel. (*Id.*)

Crude oil is a minor component of the petroleum contamination at the Site. (Environ Report). In addition, crude oil is co-located with the refinery intermediate in the contaminated area. (*Id.*) All samples of the petroleum contamination collected for analysis contained crude oil. (*Id.*; SSA Report). The consistent combination of refinery intermediate and crude oil, the amount of which varies as a function of weathering, indicates a single source of contamination. (Environ Report). The evidence points to a single pipeline source that transported refinery intermediate, crude oil and refined product; it does not support separate pipeline sources for the crude oil portion, the refinery intermediate portion, and the refined product portion of the contamination. (*Id.*) Because Plains’ pipelines transported only crude oil, Plains’ lines cannot be the source of the contamination.

In connection with its initial response actions, Plains tested Line 93 on multiple occasions. (E&E Letter; Environ Report). Plains conducted a high-pressure nitrogen test of Line 93 and no loss of pressure was indicated. (*Id.*) Plains also conducted a dye test of Line 93 and no coloration in the Dominguez Channel was observed. (*Id.*) Finally, Plains conducted a State Fire Marshall-approved hydrostatic test of Line 93. (*Id.*) Again, the test showed that Line 93 was tight and had not been compromised. (*Id.*) In reliance on these tests, EPA concluded that Plains was not a contributing source to the petroleum contamination. (*Id.*) There is no evidence that calls into question the integrity of Line 93 or EPA’s conclusion that Plains is not a responsible party.

The SSA Report concluded that the likely source of the petroleum contamination beneath and in the vicinity of the Dominguez Channel was a historical release from an inactive, idle or abandoned pipeline. Line 93 has been in continuous service transporting crude oil since at least the time of Plains’ acquisition of that line in 1999. (Plains PI Addendum; Environ Report). Line 93 is not an inactive, idle or abandoned pipeline and therefore does not fit the profile for the source of the release. (Environ Report).

The SSA Report also concluded that sampling results suggest that the petroleum contamination may be associated with historical releases from pipelines running along the western levee, but are not from pipelines crossing the Channel near boring HA-2. Plains Line 93 is one of the pipelines that cross the Channel near boring HA-2. This conclusion rules out Line 93 as a potential source of the contamination.

URS does not specify the time period during which the historical release would have taken place. (SSA Report). However, the assessment reports imply that the release is decades old. Reference is made to pipelines that were abandoned in the 1970s. In addition, the weathered nature of the petroleum contamination also indicates that the release is not of recent origin. It is important to remember in this context that Plains began operations in the area in 1999. This chronology is further evidence that Plains did not contribute to the petroleum contamination.

E. There Is Not Substantial Evidence That Plains Caused Or Contributed To The Contamination; Rather, The Evidence Indicates That Plains Is Not A Responsible Party

There must be substantial, reasonable and credible evidence that Plains discharged, or caused or permitted any waste to be discharged where it is discharged into the Dominguez Channel for Plains to be named a responsible party in a cleanup and abatement order. There is no such evidence.

Instead, the evidence shows that:

- Line 6 is located about 400 feet from the source area. Given this distance, it is highly unlikely that Line 6 contributed to the contamination.
- Lines 6 and 93 both transported crude oil. Crude oil is only a minor portion (5 percent or less) of the contamination. Further, the crude oil is co-located with the refinery intermediate that comprises the vast majority of the contamination. The consistent co-location of the crude oil, refined product, and the refinery intermediate demonstrates that a pipeline that transported crude oil, refined product and refinery intermediate is the source.
- Line 93 was tested several times in connection with the initial response actions at the Site and was determined to be tight and not leaking.
- The likely source of the contamination is an inactive, idle or abandoned pipeline. Line 93 is active and has been since Plains acquired it in 1999.

- The likely source is not pipelines crossing the channel near boring HA-2. Line 93 is one of the pipelines that crosses the channel near boring HA-2.
- The likely source is a historical release. Plains acquired Lines 6 and 93 in 1999, which is likely after the release occurred.
- Line 93 is located about 100 feet from the one known source area. The contamination decreases between the source area at well R-MW-6 and Line 93, which indicates that Line 93 did not contribute to the contamination.
- A number of pipelines in the area transported refinery intermediate, crude oil and refined product. These are the types of petroleum contamination found in the subsurface at the Site. Plains did not operate any of these pipelines.
- There are several pipelines in the immediate vicinity of the one known source area. Plains did not operate any of these pipelines. Two of these pipelines are inactive, idle or abandoned—the type of lines believed to be responsible for the release. Plains did not operate either of these pipelines. Because of the age of these two pipelines, the possibility that the lines transported refined intermediate, crude oil and refined product (as did other lines in the area) cannot be ruled out.

The only evidence cited in the Draft CAO with respect to Plains is that Plains has operated crude oil pipelines in the general vicinity of the contamination. The mere proximity of Plains pipelines to the release is one piece of circumstantial evidence. It does not constitute substantial evidence that Plains is responsible for the contamination or a portion of it. When the mere proximity of the Plains pipelines is weighed against the totality of the evidence outlined above, the substantial weight of evidence demonstrates that Plains *is not a responsible party*.

In sum, there is not substantial, reasonable and credible evidence that Plains is responsible for the contamination at the Site or any portion of it. Rather, there is substantial evidence that Plains is *not* responsible.

The Draft CAO states that the Regional Board will continue to investigate whether other parties were responsible for the contamination at the Site and whether those parties should be added to a cleanup and abatement order. It further states that the Regional Board may add additional parties to an order if more information becomes available. The evidence discussed above demonstrates that Plains is not a responsible party. It is difficult to imagine what potential new information could change that conclusion. Nonetheless, if substantial, reasonable and credible evidence that

Plains is a responsible party were to come to light, Plains could be added to the Order at that time.

F. Conclusion

For all the reasons stated above, Plains should not be named a responsible party in any cleanup and abatement order issued with respect to the Site. We are requesting the opportunity to meet with Regional Board staff to further discuss this letter, the attached Environ Report, and all other evidence referenced in this letter.

Respectfully submitted,

DOWNEY BRAND LLP



Clifton J. McFarland

CJM:cb

Enclosures

cc: Greg Bishop (via email) gbishop@waterboards.ca.gov

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Exhibit A

August 17, 2012

Via Electronic Mail

Ms. Paula Rasmussen
Assistant Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles CA 90013

**Re: Draft Cleanup and Abatement Order No. R4-2012-0103
Pursuant to California Water Code Section 13304
Dominguez Channel, South of Carson Street
Carson, California (SCP No. 1264; File No. 11-184)**

Dear Ms. Rasmussen:

Introduction

ENVIRON has been retained by Plains All American Pipeline, L.P. (Plains) to assist in responding to the Los Angeles Regional Water Quality Control Board (LARWQCB) Draft Cleanup and Abatement Order No. R4-2012-0103 issued to Plains on June 20, 2012 (Draft CAO).

The Draft CAO concerns the discharge of liquid non-aqueous phase liquid (LNAPL) petroleum hydrocarbons to the Dominguez Channel at a location approximately 400 feet south of East Carson Street, east of Recreation Road adjacent to the former Go Kart World business located at 21830 Recreation Road and west of the former Active RV business located at 1152 East Carson Street (Site). The Site location is shown in Figure 1.

ENVIRON has been asked to review materials prepared by various parties, analyze these materials, and identify the likely source(s) of the LNAPL observed in the Dominguez Channel.

Background

The LNAPL discharge at the Site was discovered on or about January 9, 2011 by the Los Angeles County Department of Public Works (LACDPW). At that time, a "visible hydraulic sheen" was observed in the Dominguez Channel approximately 300 feet south of the Carson Street overpass in Carson, California. The California Department of Fish and Game, Office of Oil Spill Prevention and Response and LACDPW formed a Unified Command to investigate the source of the petroleum release and facilitate response efforts.

As part of the response efforts, it was determined that a 16-inch Plains underground crude oil pipeline, identified as #93 (Line 93D), is located in the Dominguez Channel in the vicinity of the Site. Plains assumed oil collection responsibilities and retained West Coast Environmental Services to undertake recovery activities. On January 17, 2011, United States Environmental Protection Agency (USEPA) Federal On-Scene Coordinator (FOSC) Robert Wise issued a written Notice of Federal Interest (NOFI) to Plains.

Plains conducted a high-pressure nitrogen test of Line 93D, but no loss of pressure was noted. On January 24, 2011, Plains also conducted a State Fire Marshall, Division of Pipeline Safety-approved hydrostatic test of Line 93D. The results of the hydrostatic test indicated that the integrity of the pipeline had not been compromised.

On January 25, 2011, USEPA FOSC Wise withdrew the NOFI issued to Plains and issued a written NOFI to LACDPW.

On May 26, 2011, the LARWQCB issued Cleanup and Abatement Orders (CAOs) pursuant to Section 13267 of the Clean Water Act requiring potentially responsible parties (PRPs) to complete assessments and determine the extent to which their facilities may have contributed to the release. In response to the CAOs, RELLC undertook responsibility for investigation and cleanup activities on behalf of Chevron and Shell. Under contract with RELLC, URS has carried out investigations and submitted reports to LARWQCB (Ecology & Environment, 2012; Plains, 2011, 2012a and 2012b; URS, 2012).

Summary of Investigations

ENVIRON reviewed a number of reports concerning the Site. The April 30, 2012 Supplemental Site Assessment Report by URS (SSA Report) is the most recent submittal available. The SSA Report incorporates the findings of previous reports, including the April 12, 2012 Pipeline Assessment Update prepared by URS, which is included as an appendix of the SSA Report. Due to its comprehensive nature, the SSA Report receives the most attention here.

The Site is shown in Figure 2. As described in the Draft CAO and the SSA Report, the location of the LNAPL in the Dominguez Channel is as shown in Figure 2. LNAPL has been observed in the bed of Dominguez Channel as well as in the subdrains of both levees. LNAPL has also been observed in soil borings and groundwater monitoring wells along both levees.

URS identified 27 pipelines in the general vicinity of the Site from a variety of sources, including the National Pipeline Mapping System and the owners of the pipelines. However, a number of discrepancies were identified and URS determined that some of the identified pipelines do not, in fact, exist. The task of inventorying pipelines was further complicated by various sales and acquisitions of the pipelines, leasing arrangements among the owners and, apparently, incomplete records.

URS also attempted to inventory the contents of the pipelines. The pipelines reportedly contained the following products: crude oil, refined products, partially refined products, natural gas, amine, hydrogen gas, diethanolamine, water, and wastewater. The contents of some pipelines were also reported as unknown. It appears that the task of inventorying pipeline contents was likewise complicated by various sales and acquisitions, leasing arrangements, incomplete records, and the passage of time.

Non-pipeline PRPs are identified in the SSA Report. The non-pipeline PRPs are the former Active RV, Carson Air Harbor, former Texaco service station, and the 76 Union service station.

The locations of the pipelines and non-pipeline PRPs are shown in Figure 2. The pipelines are identified by a numbering system created by URS. Plains Lines 93D and 6A are identified as URS #15 and #22, respectively.

For purposes of characterizing the petroleum product observed in the Dominguez Channel, the SSA Report presents a review of the results of 41 soil, groundwater, and LNAPL sample analyses

(URS, 2012, p. 4-8). Based on its review, URS concluded that the LNAPL present in the Dominguez Channel contains “a mixture of a refinery intermediate in the naphtha range [‘cracked naphtha’] and crude oil. Crude oil represents less than 5% of the product samples that have been least weathered. The crude oil percentage is higher in samples where naphtha has been lost by weathering.” Due to the presence of an unleaded gasoline fuel oxygenate in some samples, it is also possible that the LNAPL contains a “minor” unleaded gasoline component (URS, 2012, p. 4-10).

Most of the pipelines inventoried by URS reportedly contain either crude oil or refined products. URS also identified six pipelines that reportedly carried crude oil, refined products, and partially refined products. The six pipelines are as follows (listed by URS identification numbers):

- URS #4
- URS #5
- URS #6
- URS #8
- URS #11
- URS #14

These are the only six pipelines identified to contain petroleum products of the type found in Dominguez Channel.

Based on its investigation, URS identified a “likely source area of LNAPL” along the western levee of the Dominguez Channel in the vicinity of monitoring well R-MW-6. This likely source area is shown in Figure 3. Between August 4, 2011 and March 30, 2012, URS reported that LNAPL was observed in R-MW-6 at thicknesses ranging from 0.01 to 6.10 feet. Comparable accumulations of LNAPL in other monitoring wells at the Site were not observed. Altogether, 257.05 gallons of LNAPL were removed from R-MW-6 during this period (URS, 2012, Table 5B and Table L-3).

As Figure 3 shows, R-MW-6 is located in the immediate vicinity of the following pipelines: URS #18, 19, 20 and 27.

In light of the LNAPL observed in R-MW-6, hand augers were advanced at locations HA-2 through HA-5 and soil samples were field screened for the presence of petroleum hydrocarbons. Field screening results showed the presence of petroleum hydrocarbons to decrease with distance from R-MW-6. Based on these results, URS concluded that the impacts at R-MW-6 “may be associated with historic releases from pipelines along the western levee and not from pipelines crossing the channel at HA-2” (URS, 2012, p. 5-6).

URS reported that previous and ongoing investigative work performed along the eastern levee did not reveal a similar LNAPL release area east of the Dominguez Channel.

URS also assessed non-pipeline PRPs. URS noted the presence of petroleum hydrocarbons at these sites, as well as the presence of “heavily impacted soil” as a result of historical releases in the pipeline corridor along S. Perry Street and along E. Carson Street. However, URS indicated that these historical releases do not appear to be contributing LNAPL to the Dominguez Channel (URS, 2012, p. 6-1).

Based on its investigations, URS concluded that “the LNAPL source is most likely from a pipeline that carried a gasoline blending stock in the form of ‘cracked naphtha’” and that a “source area appears to

be in the vicinity of Well R-MW-6.” URS concluded that “there is no indication that any existing pipelines in the area would have contributed to the LNAPL, but historic releases may have occurred from idle or abandoned pipelines” (URS, 2012, p. 5-8).

Analysis of Available Information

As shown in Figure 2, LNAPL has impacted the bed and banks of the Dominguez Channel at an area located approximately 300-400 feet south of the Carson Street bridge. LNAPL has also been observed in the subdrains as well as soil borings of both levees in this area.

URS concluded that there were no sources of LNAPL on the east levee of Dominguez Channel. URS also assessed non-pipeline PRPs in the area and concluded that these PRPs have not contributed to the LNAPL in Dominguez Channel. ENVIRON concurs with this assessment; the LNAPL in the Dominguez Channel likely resulted from a pipeline release west of the Dominguez Channel.

URS initially identified 27 pipelines in the area and attempted to summarize the operational histories of the pipelines. However, the operational histories of some pipelines are unclear. URS also encountered difficulties in creating an inventory of pipeline contents. Based on its review of the SSA Report, ENVIRON agrees that there are considerable uncertainties associated with the operational histories and contents of the pipelines based on the information available.

In the SSA Report, URS refers to 41 petroleum hydrocarbon analyses. At the time of writing, ENVIRON had not reviewed the results of the 41 analyses. However, URS indicated that the LNAPL is comprised of “cracked naphtha” with a small fraction of crude oil. Although the crude oil fraction varies due to the degree of weathering, URS indicated the crude oil is present in all 41 samples. The consistent combination of cracked naphtha and crude oil, the composition of which varies as a function of weathering, suggests a single source area of the LNAPL.

In addition, URS has identified a likely source area in the vicinity of R-MW-6. The persistent accumulation of LNAPL in R-MW-6 distinguishes this well from other wells at the Site. Moreover, in ENVIRON’s experience, such accumulation is consistent with a location in close proximity to a release or source area. Therefore, ENVIRON concurs with URS’s determination that a source area likely exists in the vicinity of R-MW-6.

URS investigated the area between R-MW-6 and Plains Line 93D and concluded that the hydrocarbon impacts observed at R-MW-6 are associated with the pipelines located in close proximity to R-MW-6 and not the pipelines crossing the Dominguez Channel at HA-2, including Plains Line 93D. ENVIRON concurs with URS’s conclusion.

To sum, ENVIRON concurs with URS’s determination that Plains Line 93D is not a source of the LNAPL observed in R-MW-6. As Figure 3 shows, Plains Line 93D is located approximately 100 feet from R-MW-6. Investigative results show that concentrations decrease as one moves from R-MW-6 to Line 93D. Investigative results do not show evidence of LNAPL extending continuously from R-MW-6 to Line 93D. In addition, Line 93D was pressure-tested on at least two occasions in early 2011 and was determined to be tight and not leaking on both occasions. These facts indicate that Line 93D is unlikely to be the source of the LNAPL at the Site.

Both the consistent composition of the LNAPL and the identification of a source area in the vicinity of R-MW-6 suggest a single source. In ENVIRON’s assessment, the observed composition of the LNAPL can best be explained by a pipeline(s) that released crude oil, refined products and partially refined products over a period of time at a location in the vicinity of R-MW-6.

As noted above, URS identified six pipelines that reportedly contained crude oil, refined product, and partially refined product. These six pipelines are as follows:

- URS #4
- URS #5
- URS #6
- URS #8
- URS #11
- URS #14

However, as shown in Figure 2, none of these six pipelines is located within 500 feet of R-MW-6. Instead, URS #18, 19, 20 and 27 are located in close proximity to R-MW-6. According to URS, none of pipelines URS #18, 19, 20, and 27 was reported to have carried crude oil, refined product, and partially refined product.

As noted above, the task of inventorying pipeline contents was complicated by various sales and acquisitions, leasing arrangements, incomplete records, and the passage of time. As URS acknowledged, the history of these pipelines, particularly the lines with long histories, could not be determined fully.

URS concluded that "the likely source(s) of LNAPL beneath the channel is from a historical release(s) of an inactive/idle or abandoned pipeline(s)." ENVIRON concurs with this conclusion. URS indicates that URS #20, which is located in the immediate vicinity of R-MW-6, is idle. URS also indicates that the operational status of URS #18, which is in the immediate vicinity of R-MW-6, is unknown.

Conclusions and Recommendations

1. The LNAPL in Dominguez Channel resulted from one or more pipeline releases.
2. The vicinity of R-MW-6 is a likely source area.
3. The consistent combination of cracked naphtha and crude oil, the composition of which varies as a function of weathering, suggests a single source area of the LNAPL.
4. There are considerable uncertainties associated with the operational histories of the pipelines.
5. The likely source of LNAPL beneath Dominguez Channel is a historical release(s) from an inactive, idle, or abandoned pipeline.
6. Based on available records, Plains Lines 6A and 93D carried only crude oil. ENVIRON is not aware of any information indicating that these lines carried refined products of any kind.
7. Based on investigations carried out by URS, Plains Line 93D does not appear to be a source of LNAPL in R-MW-6. Instead, the pipelines in close proximity to R-MW-6 appear to be the source of LNAPL observed in R-MW-6.
8. As part of its response to the discovery of petroleum hydrocarbons in the Dominguez Channel, Plains conducted pressure tests of Line 93D on at least 2 occasions. The results of these tests showed Line 93D to be tight and not leaking.
9. Plains Line 6A is located roughly 400 feet from the LNAPL. Given this location, it is highly unlikely that a release from Line 6A would have resulted in the LNAPL of concern in the Draft CAO.

10. USEPA FOSC Robert Wise withdrew the NOFI issued to Plains and issued a written NOFI to LACDPW.

11. Plains Lines 6A and 93D are not sources of LNAPL in the Dominguez Channel.

URS was able to determine that the likely source area of LNAPL at the site is located near R-MW-6. Pipelines reportedly carrying petroleum fractions of the type found in Dominguez Channel (crude oil, partially refined and refined products) were identified, but were also determined to be located at a distance of more than 500 feet from R-MW-6.

Given the uncertainties concerning operational histories and pipeline content as well as the reportedly matching contents of some pipelines in the area, it is possible that one or more of the pipelines in close proximity to R-MW-6 also carried contents that match the LNAPL. Therefore, it appears that the best way to determine the source of LNAPL in the Dominguez Channel is to perform additional research and reduce the uncertainties concerning the operational histories and contents of the pipelines located in the immediate vicinity of R-MW-6.

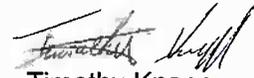
ENVIRON appreciates the opportunity to respond to the LARWQCB's Draft CAO. If you have any questions or would like to discuss any of the foregoing, please contact the undersigned.

Sincerely,


David K. Liu, PhD
Principal


Steven J. Luis, CE, PE
Senior Manager




Timothy Knapp
Senior Associate

SL:cet

P:\D\Downey Brand\Plains\Report\Plains Draft RAO Response 8-17-2012.docx

Figures

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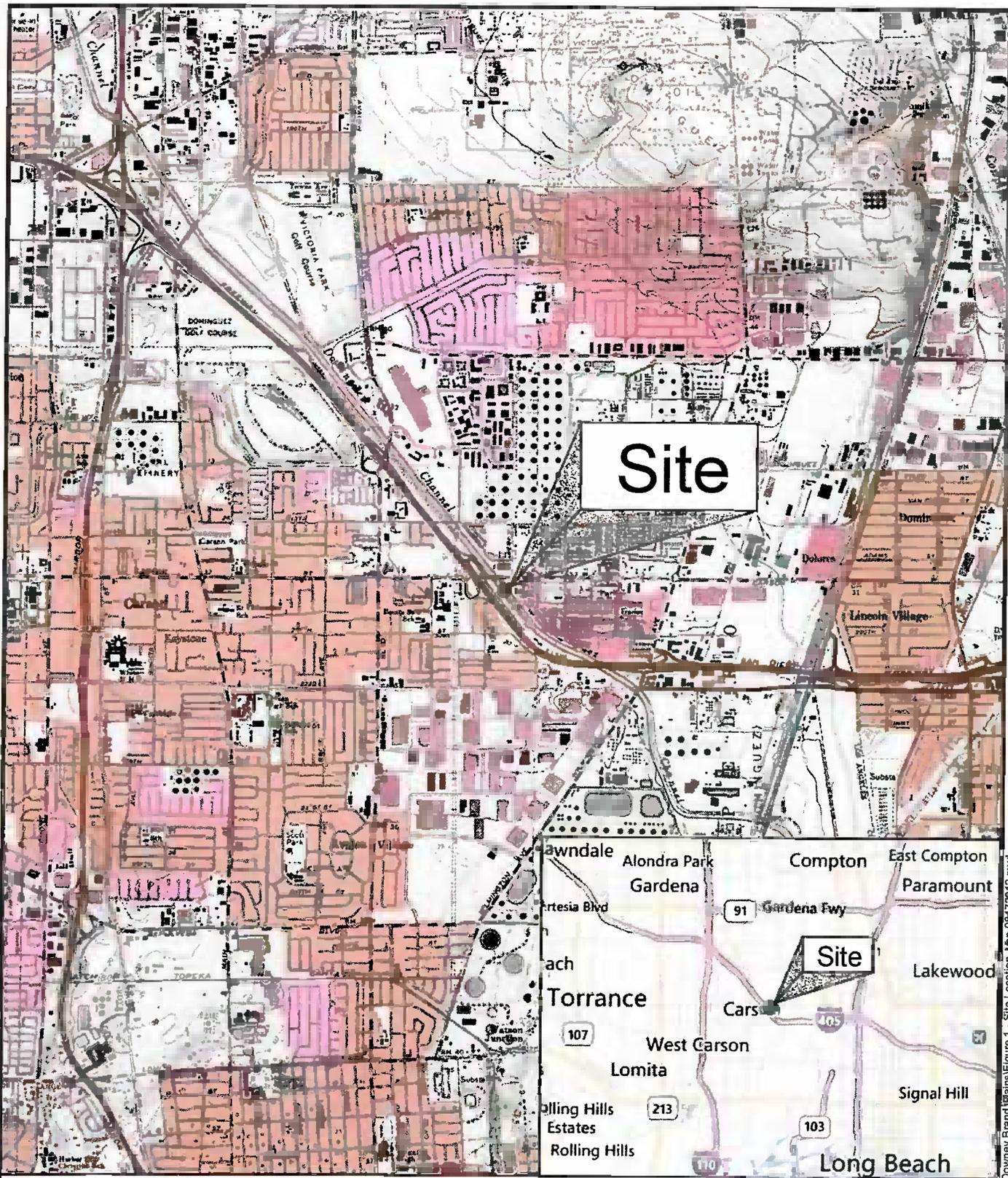
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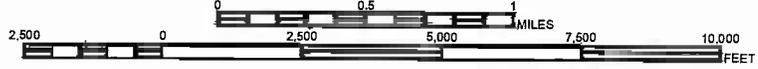
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Figures



SOURCE:
 U.S.G.S. 7.5 minute series (topographic)
 Long Beach (digital) / Torrance, CA Quadrangle
 National Geographic TOPOI
 Seamless, scanned images of
 USGS paper topographic maps
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Map Created with ESRI ArcMap and National Geographic TOPOI™ ©2001 National Geographic Holdings [www.topo.com]



CONTOUR INTERVAL 40 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929
 1:39,382.23



Path: Z:\01_Projects\Downey Brand\plans\Figure 1 - Site Location Map 08172012.mxd

DRAFTED BY: SShin

Site Location Map

Dominguez Channel Site

Figure
 1

PROJECT: 04-30552A

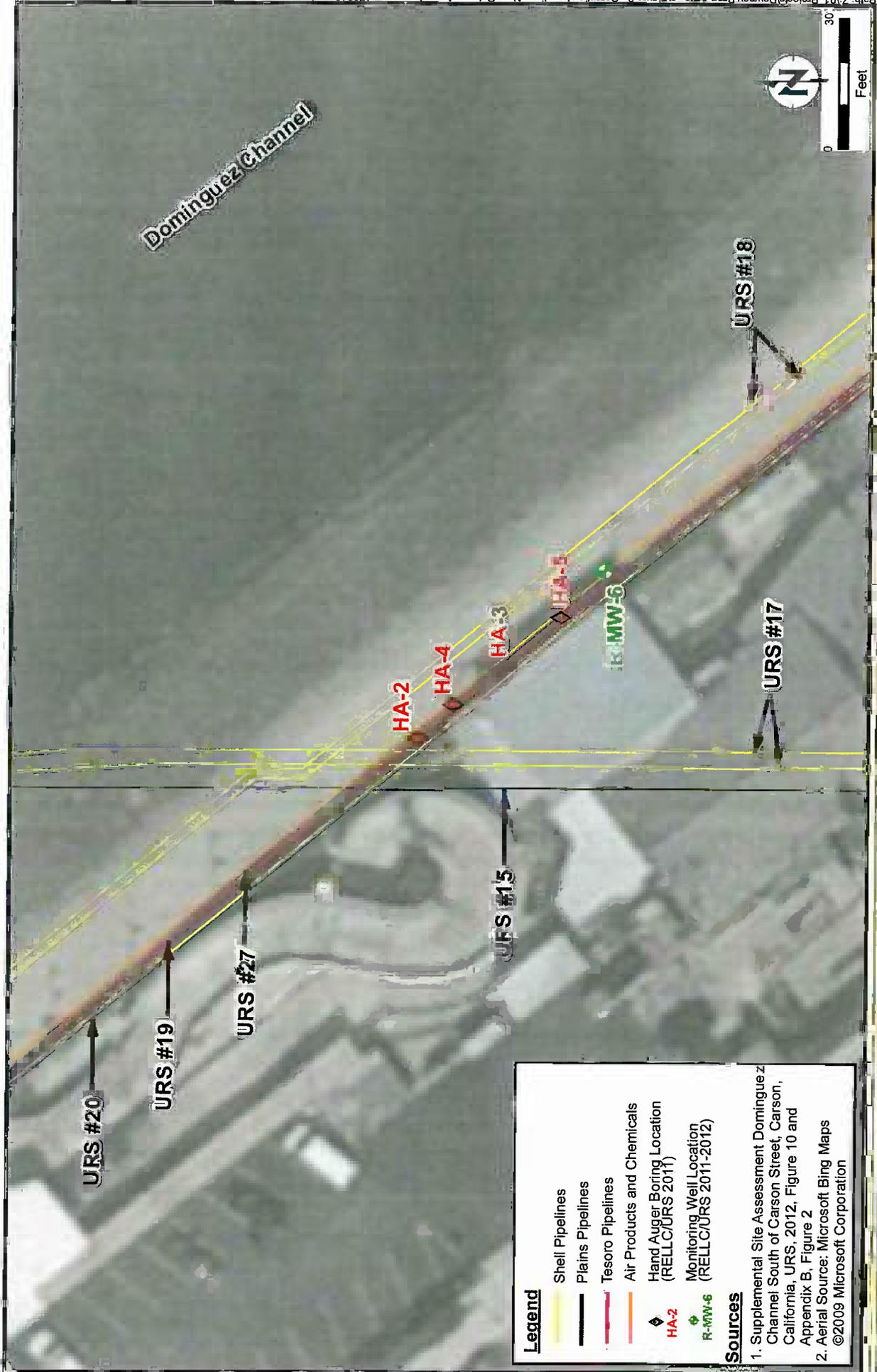


Figure 3

PROJECT: 04-30552A

Approximate Locations of Pipelines and Sampling Locations in Vicinity of R-MW-6

Dominguez Channel Site



DRAFTED BY: SShin Date: 8/17/2012

Exhibit B

Dominguez Channel Leak

John Rifilato's notes

Monday 1/10/11

430pm I was contacted by Steve Franks about a possible leak on a PT line running in the vicinity of the Dominguez Channel and 223rd. Once notified, I rolled out to the site to investigate and clear the pipeline for a shipment.

510pm, I arrived on site with Bob Sinclair, Andy Hall, and Steve Franks. We all noticed drops on the water of the Dominguez channel at approximately 1,000 feet south of Carson. After calling the control center it was determined that the pipeline had no pressure on the line and that it typically didn't have pressure due to our customers being at a lower elevation. No back pressure is maintained on this line. The line hadn't ran since around the 8th or 9th. Ed Boyes from Fish and Game was on site with Jorge Gudino and a few other Flood control operators. I contacted Lanny and Tom McLane. Tom spoke directly with Ed B. and Tom requested him to notify the NRC. Report Numbers were obtained from OES and NRC. Mark Olsen was also in town due to our Kickoff meeting so Steve, Mark and Rich were notified. The flood control channel operators had mobilized Coastal Blue(??) They had installed a boom at 223rd and Willmington. OES #11-0170, NRC # 964223 After our initial discussions and Line history review we decided to prepare to put pressure on the pipeline. . In order to do this we felt we needed to install more boom and I was instructed to contact WCES.

Over the next 2 hours, we had multiple discussions with and between Lanny, Tom, Bob S., Rafael Chavez, and other, we verbally reviewed the last two pig runs, the 2005 hydrotest, the OCC ran a pressure chart analysis on the line section for the last three months, we verbally reviewed the gain/loss on the pipeline for the last few shipments, and concluded that the pipeline should be tight, so we decided to put a few pounds of pressure on the pipeline

520 pm, I called WCES out to install boom for a slight pressure test to rule out our pipeline.

550pm, WCES (Pete) arrived and I requested them to assist Coastal Blue in installing the hard boom at 223rd and Willmington.

603 PM WCES to assist Coastal Blue on boom and install a hard boom to the north to prepare for tide change.

750pm WCES Deployed both booms and it was decided not to press up the pipeline at night. The goal was to control the current situation and regroup in the morning.

Product determined to be SJLB in the line.

Over the next few hours, we attempted to collect a product sample to run a Sulfur test. After two attempts, our WHY Operator got enough for a test and got an initial test of .2. I had him blend some of our SJLB with the channel water to simulate a washed down sample and he got a .48 on it.

Tuesday, 1/11/11

Line Still in Crude

Bob Sinclair and Steve Franks were onsite at first light to coordinate the pressure test.

Need Bob's and other notes for the morning activities.

Should include the insertion of an additional absorbent boom to the south.

Only a very small spots of sheen were report intermittently in the morning.

Get times from the OCC

After the first test procedures were prepared and approved by the CSFM, the pipeline was bumped up to 203psi and was to be held for a half hour. After the original half hour we went an additional ½ hour and then requested even more time to allow the line to stabilize.

Some regulators were on site, EPA, Fish and Game, Flood Control, LA County HazMat.

The pipeline dropped from 203 psi to 195 in the first half hour and then went to 193 in the next 30 minutes and then to 189 psi, it seemed to be dropping at about 2 PSI every half hour.

Based on this pressure test the regulators felt it was close but still inconclusive. We requested to hold the pressure over night and deployed additional hard boom to the south and absorbent booms to each side of the channel between the north and south booms. Our goal was not create a worse problem. It was also acknowledged at this time that it has to be a very small leak based on the amounts on the water being collected.

At this time, more product sheen was observed but not necessarily relative to a steady stream or liquid product. **We will look for the site notes during this time and others logs.**

A pipeline movement to someone was started through the Perry street manifold at about 7 or 8 pm.

Between 6pm and 0655am, the pipeline had dropped to 125 psi. Leaking valves were suspected

Wednesday, 1/12/11

Line Still in Crude

In the morning, No drops of sheen were appearing on the water.

At about 7am, when the shipment was completed Steve Franks was at the Perry Street Manifold and heard a fluid gush near the valve holding the test pressure and he saw the pressure on the Leak test section drop to about 80psi to equalize the two sections of lines. As suspected we did have valve problems.

At this point, we felt that the pressure test needs to be tighter so we decided to tighten up the pressure test plan to close off manual valves and make sure the section is double blocked and bleed off valves to check for blow by.

WCES continued to clean up and WCES(Pete) noticed the first real signs of the tidal influence as the tide switched from high to low.

Thursday, 1/13/11

Line Still in Crude

Today, we worked on the pressure test procedures, regulatory buy in and began preparations to gain access into BP to Blind off the pipeline to allow for the Conoco shipment.

The procedures were approved and it was decided to start at about 930 am.

The line was pressured up to 225psi initially at 0930 and dropped to 220psi to start the test at 1030am. Lanny sent out the official charts. I recorded the pressure test readings for overnight and they only lost 13psi over 17 hours from 1700 to 1000 on the 14th. It was observed that the BP DBB ball valve might be leaking due to product in the cavity and pressure increasing on the Conoco side, slightly.

The line held its pressure and the chart actually went up 2 psi between 11am and 12pm on the 14th.

No sheen or bubbles were observed Friday in the morning and only appeared as the tide went out and reached low tide later that day Friday as usual.

The ambient temperatures had fluctuated quite a bit and the line temps taken were inconclusive due to not being buried on the pipe.

Pete From WCES said he believes it's Tidally influenced.

Friday, 1/14/11

Line Still in Crude

The Pressure test only dropped 6 PSI from midnight to noon and no sheen was seen on the water in the morning. No drops we identified. There was a considerable amount on the secondary boom.

At 1300, we relived the pressure on the line and we saw the typical low tide event. We expressed to everyone that we had no pressure on the line during this time of the event, or sheen appearance. No sheen was seen in the morning other than a couple of small drops intermittently throughout the morning picking up as the tide went out.

1013am 6 drop locations seen at 1-5 drops per minute.

Approximate low tide was about 1235pm. Similar droplets and sheen as previous days.

Product levels and sheen were spotty and picked up at Low tide. Tidal influenced noticed by John Rifilato.

It was decided to flush the line with Nitrogen so that was being looked into and planned out. Access to BP was needed for the purge of oil and the flipping of the blinds for a nitrogen pressure test on Sunday.

WCES continued to mop up product sheen.

Get site logs

Saturday, 1/15/11

Purging line of oil with nitrogen and installing blinds at Perry Street and the BP refinery.

335am started up Mobil shipment down that line segment.

820am I arrived on site no activity on the water, no sheen.

830am contacted JR Chavez/OCC for the status and timing of the nitrogen purge.

Sent out an update to all managers on schedule.

900am WCES was authorized to install a new boom to the North tightening up the sheen area.

Recommended by the EPA/Fish and game.

910am first drop

Low tide due in at 1259pm, Sunday at 1:34pm

940am First pig Loaded

950am Almost lined up ready to go with the Nitrogen purge.

1000 Andy Chavez is ready, sitting on the last valve

1008 Bob Sinclair is ready at Perry Street

1013 OCC Ready and authorized to Start flush and call Andy Chavez

1035am Andy Chavez started the flush

1100am 1130bbbls so far 100psi at 2850bph ETA 12 noon

1145 WCES guys on the boat appear to see bubbles at east side northern location. Up to this point I had only been viewing things from the west side. The activity at the east bank bubble location was view as a sheen by me from the beginning. Bob Sinclair had been over there and nothing unusual was reported so it didn't seem to be anything extra to look at

1216 End of purging, Pigs arrived

1235pm Started blow down

145pm slight reduction of bubbles

2pm 20 PSI Bubbles still present.

Sunday 1/16/11

Line in Nitrogen – pressure testing in nitrogen

Low tide is due at 134pm

820am Zero activity

900 Safety meeting done

904 No activity

911 Bob S 1 drop on West side

925 1 drop middle 1 right

926 4 drops

930 middle right area 10 or so pops no sheen

933 2 drops

939 2 drops mid mid mid front

940 mm

945am – 1042 similar activity

1056 13 drops right

1057 100psi on the line checking the BP flanges

1121 No real changes

1129 pops to the right similar to the 930am event

1131 about 15 pops with sheen to the right

1230pm after the conference c all with HQ activity is increasing as expected with low tide coming in. Bubbles are staying on top of the water and accumulating about 30-50.

124pm Similar flows of drops seen from all areas as seen on previous days as it got close to low tide.

140pm Lanny and Rich are on the East bank and saw an increase of bubbles. At this time the nitrogen purge was called off and the line was bled down.

200pm Monitored bubbles

Monday, 1/17/11

7am Highest tide today

1317 on site to inspect. Similar to previous days possibly lighter but related to tidal flow rm, r. fm, m, lm

Bubble location east bank north 9 foot deep at low tide, 8.5 foot in the middle of the channel

(1525) in notes believed to be 1325hrs JJR, boat operators say larger more frequent bubbles

WCES instructed to take digital pictures on both sides every half hour and log tracking of bubbles and sheen.

1500hrs tide in lull, sheen spreads as usual

Crews cleaning as usual

Tuesday, 1/18/11

Air monitoring

1712 No bubbles/strong sheen

Linerider Sonny located line on both sides with expected depths and the Shell lines.

1730 on site and re-explained what we're looking for to monitor on both sides. I requested pictures and times of the start and stopping of bubbles and the North location on the east bank and sheen all over.

1730 hrs Sheen still coming up at the regular locations.

Contractors reported heavy activity and bubbles at peak low tide. Close to the most sheen they have seen to date. Boat operators reported larger bubbles.

Wednesday, 1/19/11

1011 on site with everyone, no sheen or bubbles.

Dye recommended and approved by all parties at the IC meeting

1052 first drops of sheen

1242 no drops/no sheen/no bubbles

100pm no drops, no sheen, no bubbles,

1400 sheen began as usual various small amounts

1515 Full sheen as expected

Thursday, 1/20/11

Same type of sheen

Diver on site see diver video and log

Friday, 1/21/11

Hydrotest prep

915 Onsite, IC meeting, proceed with hydrotest

1135 first drops

Helped WAR locate pipelines for placing temperature probes directly on the pipeline

Meter at Perry Street with Baker Tank

CSFM Notified of Hydrotest on Monday 1/24/11

Decon area moved to boat area

Saturday, 1/22/11

Per procedure, Filled pipeline segment with dyed water from Perry to the Blind in BP.

Sunday, 1/23/11

Monitored temperature probes on pipeline.

Monday, 1/24/11

Hydrotested the Pipeline to 1000PSI.

Hydrotest pressup initiated at 930am we had 145psi

At test pressure at 1430, test started 1000psi

Test completed at 2230 at 999psi. Test successful, waiting review as normal.

The line was bled down with the bleed down.

Tuesday, 1/25 and beyond...

Rafael Chavez will have the log for evacuating the pipeline of the dyed water.

Exhibit C

Laura K Hatton

From: Lanny E Kippes
Sent: Wednesday, January 26, 2011 8:16 AM
To: Araceli L Gudino
Subject: FW: Carson St. Channel Release - Open Items

Please file accordingly

Lanny E. Kippes
Long Beach District Manager

Plains All American Pipeline, L. P.

5900 Cherry Ave.
Long Beach, CA 90805
562/ 728-2342: Office
562/ 221-4510: Cell
lekippes@paalp.com

From: Thomas J McLane
Sent: Tuesday, January 25, 2011 6:59 PM
To: Lanny E Kippes; Steven M Caddell; Richard W Hartig
Subject: Fw: Carson St. Channel Release - Open Items

FYI

Sent using BlackBerry

From: Wise.Robert@epamail.epa.gov
To: Thomas J McLane
Sent: Tue Jan 25 20:12:52 2011
Subject: Re: Carson St. Channel Release - Open Items

Due to the hydro-test data, no further action under the January 17, 2011 NOFI is required @ this time.

Please provide all of the pressure test data, hydro-test and analytical data.

As far as the sampling plan, a hard copy will be fine.

Lastly, I have not contacted the NRC yet. I will take care of it tomorrow.

From: Thomas J McLane [TJMcLane@paalp.com]
Sent: 01/25/2011 03:33 PM CST
To: Robert Wise
Cc: Lanny E Kippes <LEKippes@paalp.com>
Subject: Carson St. Channel Release - Open Items

Rob,

Just to wrap up a few things from the morning meeting: You were going to send me an official letter or email documenting that the "Notice of Federal Interest" was recalled and that Plains is officially not responsible for the

Channel release. Second, you are looking for documentation from our response effort from the last two weeks. Could you specify what you need so I can pass it through Houston for approval and then get you what you need ASAP. Third, I reviewed the sediment sampling plan and you are welcome to have the document. Do you want a hard copy plus electronic or do you want to work directly with WGR? Finally, please send me confirmation that you contacted NRC with an update. I believe the original call did not specify who was the responsible party so this call may not be needed.

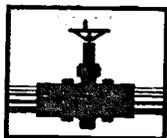
Tom

Thomas J. McLane



Western Division
Director - Environmental & RC
Office: 562-728-2358
Cell: 562-216-0120

Exhibit D



PLAINS

West Coast Terminals LLC

February 08, 2012

Mr. Greg Bishop, P.G.
Engineering Geologist
California Regional Water Quality Control Board - Los Angeles Region
320 W. 4th Street, Suite 200,
Los Angeles, CA 90013

RE: TECHNICAL REPORT ON PIPELINE INVENTORY (SCP CASE NO. 1264)

Dear Mr. Bishop:

This technical report on pipelines operated by our company Plains All American Pipeline, L.P. and its affiliates has been prepared to meet the requirements of the California Regional Water Quality Control Board (Regional Board) Clean Water Code (CWC) Order identified as SCP Case No. 1264. Copy attached.

This order has been issued because "since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street. At various times, the petroleum hydrocarbons have been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) with in horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees."

On January, 10, 2011, Plains noticed what appeared to be crude oil in the Dominguez Channel near 223rd Street and in the vicinity of a Plains pipeline. The National Response Center (NRC) was notified and Plains immediately took prompt actions to respond to the potential release. Plains proceeded to provide emergency response measures to mitigate any further movement, and to recover and dispose of the product. Under a U.S. Environmental Protection Agency (EPA) issued Notice of Federal Interest (NOFI) dated January 16, 2011, Plains officially assumed responsibility for the response actions of the release. A copy of the NOFI is attached.

Plains identified 8 line segments within the one-mile radius CWC Order investigation area. The line segments are 6A, 63V, 63W, 93D, 93E, 93F, 93J, and 535B. All line segments have historically only been in crude oil service, and the active ones remain only in crude oil service. Of the 8 lines only line segments 93D and 6A cross the channel in the immediate vicinity of the investigation location. Line 93D is an active line, while line 6A is an inactive line (for >8 years) that is filled with a water inhibitor. Segments 63V and 535B cross the channel down-gradient of the investigation location.

After hydro-testing of the active Plains pipeline (Line 93D) in the vicinity of the release site, it was concluded by both the EPA and the State Fire Marshall (SFM) that the Plains pipeline was not the cause of the release. In an email dated January 25, 2011, the EPA directed that no further action under the NOFI issued on January 16, 2011 was required. In other email correspondence also dated January 25, 2011, the State Fire Marshall concluded that the Plains pipeline crossing the channel in the subject area had successfully passed the hydro-test performed and that normal pipeline operations could be resumed. Copies of both emails are attached.

Further, laboratory fingerprint analysis of the released product versus Plains pipeline product concluded the following, *"The Dominguez Channel sample [released product] is a weathered crude oil that has sterane, terpane, and aromatic hydrocarbon distributions that are different from those in the L63 and SJLB crude oils [Plains crude oils carried in the active line]. This indicates that the Dominguez Channel oil is not the same oil as the L63 and SJLB crude oils. The Dominguez Seep sample is much lighter than the other samples, and contains a volatile product such as gasoline, gas condensate, or petroleum naphtha mixed*

with a small amount of oil similar to the Dominguez Channel oil." The text portion of this report has been attached.

Attached please find the pertinent records requested by this order, including a tabular pipeline inventory of the lines within a one-mile radius of the subject location with the following information:

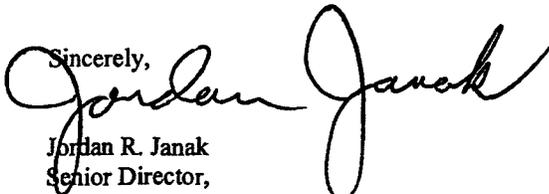
- a) ID No.
- b) Owner ID (name or identification number used by the pipeline owner)
- c) Current Owner (name of company currently owning the pipeline)
- d) Ownership History (list of all companies that ever owned the pipeline with years of ownership noted parenthetically)
- e) Size (pipeline diameter in inches)
- f) Material (material used for construction of pipeline - e.g., steel)
- g) Product" (list of all products ever transported through the pipeline with years of transport for each product noted parenthetically)
- h) Oxygenates (list of all fuel oxygenates ever transported through the pipeline with years of transport for each oxygenate noted parenthetically)
- i) Status (active or inactive)
- j) Integrity Test Failures} (indicate "yes" or "no" to indicate if the pipe line has failed any integrity tests within one mile of the Dominguez Channel and Carson Street)
- k) Contact (name, company name, address, telephone number, and e-mail address for the pipeline contact)
- l) Notes (any other relevant information regarding the pipeline)
- m) Source (source(s) of information describing the pipeline)

In addition, per the order, a scaled map clearly identifying the location of each identified pipeline and a Shape file, using the GCS NAD 83 system, for use with a geographic information system (GIS) containing the location of each pipeline identified above are also attached.

If you have any questions, or need additional information, please contact Ngiabi Gicuhi of my staff at (562) 728-2024 or ngicuhi@paalp.com.

I Jordan R. Janak, do hereby declare, under penalty or perjury under laws of State of California, that I am Senior Director, Environmental & Regulatory Compliance for Plains All American Pipeline, L.P., that I am authorized to attest, that veracity of the information contained in Technical Report on Pipeline Inventory (SCP Case No. 1264), dated February 7, 2012, is true and correct, and that this declaration was executed at Houston, Texas, on February 8, 2012.

Sincerely,



Jordan R. Janak
Senior Director,
Environmental & Regulatory Compliance
Plains All American Pipeline, L.P.

ATTACHMENTS:

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CWC 13267 ORDER BASED
CASE NO. 1264**



Matthew Rodriguez
Secretary for
Environmental Protection

California Regional Water Quality Control Board Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
<http://www.waterboards.ca.gov/losangeles>



Edmund G. Brown Jr.
Governor

December 13, 2011

Mr. Richard Hartig
Plains All American Pipeline, L.P.
5900 Cherry Avenue
Long Beach, CA 90805

**SUBJECT: REQUIREMENT FOR TECHNICAL REPORT ON PIPELINE INVENTORY –
PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER**

**SITE/CASE: DOMINGUEZ CHANNEL, SOUTH OF CARSON STREET
CARSON, CALIFORNIA**

Dear Mr. Hartig:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of groundwater and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura counties, including the referenced Site. To accomplish this, the Regional Board oversees the investigation and cleanup of discharges of waste adversely affecting the State's water, authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7).

Since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street. At various times, the petroleum product has been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees.

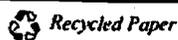
Assessment data indicate that the product entering the channel and affecting nearby shallow groundwater is primarily comprised of naphtha-range hydrocarbons, with smaller fractions of crude oil. The naphtha-range hydrocarbons and crude oil are assumed to have originated from one or more pipeline releases in the vicinity of the Dominguez Channel south of Carson Street.

A deeper groundwater zone has also been identified as having gasoline impacts, which may have originated from one or more pipeline releases, but which could have also originated from other sources.

In order to determine the source of the hydrocarbons and to protect the waters of the state for their beneficial uses, an inventory of pipelines is needed in the vicinity of the Dominguez Channel release.

Enclosed is a Regional Board Order requiring, pursuant to section 13267 of the CWC, that you provide this Regional Board with information regarding pipelines operated by your company or any affiliated companies for which you may have access to records in the vicinity of the Site.

California Environmental Protection Agency



Mr. Richard Hartig
Plains All American Pipeline, L.P.

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December 13, 2011

If you have any questions, please contact Mr. Greg Bishop at (213) 576-6727 or
gbishop@waterboards.ca.gov.

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosure

Cc: Mr. Larry Alexander, Crimson Pipeline
Ms. Mary Jo Anzia, AECOM
Mr. Lalo Bakhoun, South Coast Air Quality Management District
Mr. Hector Bordas, Los Angeles County Department of Public Works/Flood Control District
Mr. Edward Boyes, California Dept. of Fish and Game
Mr. Jojo Comandante, Los Angeles County Fire Department
Mr. Christian Corbo, California Dept. of Fish and Game
Ms. Adriana Crasnean, Cal Fire
Ms. Donna DiRocco, BP Pipelines
Mr. Matthew Dunne, Exxon-Mobil Corporation
Ms. Patricia Elkins, City of Carson
Mr. John Englehardt, Resource Environmental, LLC
Mr. Darrell Fah, Atlantic Richfield Company
Mr. Mark Fahan, Holguin, Fahan & Associates, Inc.
Mr. Dan Fischman, ConocoPhillips Company
Mr. Gene Freed, Shell Oil Products US
Ms. Rebecca Frend, URS Corporation
Mr. Daniel Gabel, Tesoro Refining and Marketing Corporation
Ms. Amy Gaylord, Pillsbury Winthrop Shaw Pittman LLP
Mr. James Glick, Air Products and Chemicals, Inc.
Mr. Bob Gorham, Cal Fire
Mr. Marc Greenberg, Keesal, Young & Logan
Mr. John Hawkinson, Carson Estate Companies
Mr. Gary Hildebrand, Los Angeles County Department of Public Works/Flood Control District
Mr. Matt Himmelstein, URS Corporation
Mr. Corey Kong, California Dept. of Fish and Game
Mr. Taras Kruk, URS Corporation
Mr. Jim Jacoby, Plains All American Pipeline, L.P.
Mr. Joe Liles, URS Corporation
Mr. Todd Littleworth, Chevron Corporation, Chevron Law Group
Mr. Ed Long, Ocean Blue Environmental
Mr. Chuck MacDonald, Cal Fire
Mr. Sean Moe, California Dept. of Fish and Game
Mr. Louis Mosconi, ConocoPhillips Company
Mr. George Phair, Resource Environmental, LLC
Mr. Martin Powell, USEPA

California Environmental Protection Agency

Mr. Richard Hartig
Plains All American Pipeline, L.P.

- 3 -

December 13, 2011

Mr. Courtland Prowell, Prowell Family Trust
Ms. Holly Quasem, ConocoPhillips Company
Mr. David Randall, URS Corporation - North Carolina
Mr. Ian Robb, Chevron Environmental Management Company
Mr. Bob Sinclair, Plains Pipeline
Mr. Rob Speer, Chevron Environmental Management Company
Mr. Robert Stechmann, Stechmann Geoscience, Inc.
Mr. Fred Stroud, USEPA
Mr. Ben Terry, Chevron Environmental Management Company
Mr. Greg Vogelpohl, Resource Environmental, LLC
Ms. Diane Wachi, City of Carson
Mr. Barry White, City of Carson
Mr. Jerome R. Zimmerle, URS Corporation



Matthew Rodriguez
Secretary for
Environmental Protection

California Regional Water Quality Control Board Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
<http://www.waterboards.ca.gov/losangeles>



Edmund G. Brown Jr.
Governor

REQUIREMENT TO PROVIDE A TECHNICAL REPORT ON PIPELINE INVENTORY (CALIFORNIA WATER CODE SECTION 13267¹)

DIRECTED TO "PLAINS ALL AMERICAN PIPELINE, L.P."

PIPELINES NEAR THE INTERSECTION OF
CARSON STREET AND THE DOMINGUEZ CHANNEL
CARSON, CALIFORNIA

(SCP CASE NO. 1264)

The Regional Water Quality Control Board, Los Angeles Region (Regional Board) makes the following findings and issues this Order pursuant to California Water Code section 13267.

1. California Water Code section 13267(b)(1) states, in part: In conducting an investigation. . . , 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.
2. Since January 2011, light non-aqueous phase liquids (LNAPL) have been appearing within the Dominguez Channel in Carson, California, approximately 400 feet south of Carson Street. At various times, the petroleum hydrocarbons have been observed (1) entering into channel waters from sediments within the bottom of the channel and (2) within horizontal, perforated sub-drain pipe systems installed within both the west and east channel levees.
3. Assessment data indicate that the petroleum hydrocarbons entering the channel and affecting nearby shallow groundwater is primarily comprised of naptha-range hydrocarbons, with smaller fractions of crude oil. The naptha-range hydrocarbons and crude oil are suspecting of having originated from one or more pipeline release in the vicinity of the Dominguez Channel south of Carson Street. A deeper groundwater zone has also been identified as having gasoline impacts, which may have originated from one or more pipeline releases, but which could have also originated from other sources.

4. This Order identifies **PLAINS ALL AMERICAN PIPELINE, L.P.** as the entity suspected of being responsible for the discharges of waste identified in paragraphs 2 and 3, because you own or operate pipelines within the vicinity of the Dominguez Channel release.
5. This Order requires the persons named herein to prepare and submit technical and/or monitoring reports to identify locations of the pipelines.
6. The burdens, including costs, of these reports bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The information is necessary to identify the sources of discharges of waste to the Dominguez Channel and to protect the waters of the state.
7. The issuance of this Order is an enforcement action by a regulatory agency and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321(a)(2), Chapter 3, Title 14 of the California Code of Regulations. This Order requires submittal of technical and/or monitoring reports that will not have adverse impacts on the environment.
8. Any person aggrieved by this action of the Regional Water Board may petition the State Water Resources Control Board (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.

Pursuant to section 13267(b) of the California Water Code (CWC), you are hereby directed to submit the following:

1. By **January 31, 2012**, an inventory of all pipelines ever owned or operated by your company or any affiliated company that you are able to reasonably obtain records from that are located within one mile of the intersection of Carson Street and the Dominguez Channel in Carson, California. The inventory shall be in tabular format containing the following columns:
 - a. ID No. (sequentially from 1: e.g., 1, 2, 3, ...)
 - b. Owner ID (name or identification number used by the pipeline owner)
 - c. Current Owner (name of company currently owning the pipeline)
 - d. Ownership History (list of all companies that ever owned the pipeline with years of ownership noted parenthetically)
 - e. Size (pipeline diameter in inches)
 - f. Material (material used for construction of pipeline – e.g., steel)
 - g. Product² (list of all products ever transported through the pipeline with years of transport for each product noted parenthetically)

² Pipeline product should be identified as one of the following: "gasoline", "crude oil", "diesel fuel", "jet fuel", "refinery intermediate", or "other". If "other" is used to identify a product, include a description of that product.

- h. Oxygenates (list of all fuel oxygenates ever transported through the pipeline with years of transport for each oxygenate noted parenthetically)
- i. Status (active or inactive)
- j. Integrity Test Failures³ (indicate "yes" or "no" to indicate if the pipeline has failed any integrity tests within one mile of the Dominguez Channel and Carson Street)
- k. Contact (name, company name, address, telephone number, and e-mail address for the pipeline contact)
- l. Notes (any other relevant information regarding the pipeline)
- m. Source (source(s) of information describing the pipeline)

The inventory shall be accompanied by a scaled map clearly identifying the location of each identified pipeline.

2. By January 31, 2012, a Shape file for use with a geographic information system (GIS) containing the location of each pipeline identified under Item 1 of this Order. The Shape file shall contain polyline data indicating the location of each pipeline. Each pipeline shall be a single polyline. The Shape file shall comply with the following specifications:
 - a. It shall be accompanied by a projection (.prj) file;
 - b. The Shape file data table shall include the following columns from Item 1 above:
 - i. ID No.
 - ii. Owner ID
 - iii. Current Owner
 - iv. Size
 - v. Status

Items 1 and 2 shall be e-mailed to:

Mr. Greg Bishop, P.G.
Engineering Geologist
Regional Water Quality Control Board – Los Angeles Region
320 W. 4th Street, Los Angeles, CA 90013
(213) 576-6727
gbishop@waterboards.ca.gov

Pursuant to section 13268(b)(1) of the CWC, failure to submit the required technical or monitoring report described in paragraph 1 above may result in the imposition of monetary civil liability by the Regional Board, without further warning, of up to \$1,000 per day for each day the report is not received after the due dates.

³ If a pipeline has failed an integrity test, indicate when the integrity test failed, provide a description of the integrity test methodology, and indicate what product was transported in the pipeline both immediately prior to the integrity test failure and immediately following its failure (if the pipeline was returned to service).

Mr. Richard Hartig
Plains All American Pipeline, L.P.

- 4 -

December 13, 2011

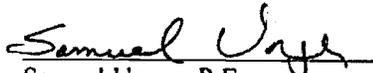
Please note that effective immediately, the Regional Board, under the authority given by California Water Code (CWC) section 13267, subdivision (b)(1), requires you to include a perjury statement in all reports submitted under the 13267 Order. The perjury statement shall be signed by a senior authorized Chevron Company representative (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], do hereby declare, under penalty of perjury under laws of State of California, that I am [JOB TITLE] for Chevron Company, that I am authorized to attest, that veracity of the information contained in [NAME AND DATE OF THE REPORT] is true and correct, and that this declaration was executed at [PLACE], [STATE], on [DATE]."

The State Water Resources Control Board (State Water Board) adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker data management system. You are required not only to submit electronic copy reports required in this Order, but also to comply by uploading all reports and correspondence prepared to date on to the GeoTracker data management system. The text of the regulations can be found at the URL:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal.

SO ORDERED.


Samuel Unger, P.E.
Executive Officer



Matthew Rodriguez
Secretary for
Environmental Protection

California Regional Water Quality Control Board Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6610
<http://www.waterboards.ca.gov/losangeles>



Edmund G. Brown Jr.
Governor

January 27, 2012

Mr. Richard Hartig
Plains All American Pipeline, L.P.
5900 Cherry Avenue
Long Beach, CA 90805

CERTIFIED MAIL
RETURN RECEIPT REQUEST
7010 0290 0002 1866 0987

SUBJECT: TIME EXTENSION TO SUBMIT TECHNICAL REPORT ON PIPELINE INVENTORY – PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER DATED DECEMBER 13, 2011

**SITE/CASE: DOMINGUEZ CHANNEL, SOUTH OF CARSON STREET
CARSON, CALIFORNIA**

Dear Mr. Hartig:

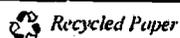
The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of groundwater and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura counties, including the referenced Site. To accomplish this, the Regional Board oversees the investigation and cleanup of discharges of waste adversely affecting the State's water, authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7).

On December 13, 2011, we sent an Order to you requiring submittals of information about pipeline operations. The Order included deadlines of January 31, 2012, for the submittal of a report on pipeline data (Item #1 in the order) and of a Shape file for use with a geographic information system (Item #2 in the order). Similar orders were sent to several companies with pipelines in the vicinity of the Dominguez Channel in Carson. Multiple representatives of the oil companies that received these orders have indicated that the January 31, 2012, deadline will be difficult to meet.

Therefore, we are extending the deadlines within the Order. The due date for Items 1 and 2 in the Order are hereby extended to **February 15, 2012**. These due date extensions are an amendment to the existing California Water Code (CWC) section 13267 Order issued by the Executive Officer of this Regional Board to you on December 13, 2011.

Failure to comply with the terms or conditions of the Order may result in imposition of civil liabilities, imposed either administratively by the Regional Board or judicially by the Superior Court in accordance with section 13304, 13308, and/or 13350 et seq. of the California Water Code, and/or referral to the Attorney General of the State of California for such action as he/she may deem appropriate.

California Environmental Protection Agency



Mr. Richard Hartig
Plains All American Pipeline, L.P.

- 2 -

January 27, 2012

Should you have any questions related to this project, please contact Mr. Greg Bishop at (213) 576-6727 or gbishop@waterboards.ca.gov.

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosure

Cc: Mr. Larry Alexander, Crimson Pipeline
Ms. Mary Jo Anzia, AECOM
Mr. Lalo Bakhoun, South Coast Air Quality Management District
Mr. Hector Bordas, Los Angeles County Department of Public Works/Flood Control District
Mr. Edward Boyes, California Dept. of Fish and Game
Mr. Jojo Comandante, Los Angeles County Fire Department
Mr. Christian Corbo, California Dept. of Fish and Game
Ms. Adriana Crasnean, Cal Fire
Ms. Donna DiRocco, BP Pipelines
Mr. Matthew Dunne, Exxon-Mobil Corporation
Ms. Patricia Elkins, City of Carson
Mr. John Englehardt, Resource Environmental, LLC
Mr. Darrell Fah, Atlantic Richfield Company
Mr. Mark Fahan, Holguin, Fahan & Associates, Inc.
Mr. Dan Fischman, ConocoPhillips Company
Mr. Gene Freed, Shell Oil Products US
Ms. Rebecca Frend, URS Corporation
Mr. Daniel Gabel, Tesoro Refining and Marketing Corporation
Ms. Amy Gaylord, Pillsbury Winthrop Shaw Pittman LLP
Mr. James Glick, Air Products and Chemicals, Inc.
Mr. Bob Gorham, Cal Fire
Mr. Marc Greenberg, Keesal, Young & Logan
Mr. John Hawkinson, Carson Estate Companies
Mr. Gary Hildebrand, Los Angeles County Department of Public Works/Flood Control District
Mr. Matt Himmelstein, URS Corporation
Mr. Corey Kong, California Dept. of Fish and Game
Mr. Taras Kruk, URS Corporation
Mr. Jim Jacoby, Plains All American Pipeline, L.P.
Mr. Joe Liles, URS Corporation
Mr. Todd Littleworth, Chevron Corporation, Chevron Law Group
Mr. Ed Long, Ocean Blue Environmental
Mr. Chuck MacDonald, Cal Fire
Mr. Sean Moe, California Dept. of Fish and Game
Mr. Louis Mosconi, ConocoPhillips Company
Mr. George Phair, Resource Environmental, LLC
Mr. Martin Powell, USEPA

California Environmental Protection Agency

Mr. Richard Hartig
Plains All American Pipeline, L.P.

- 3 -

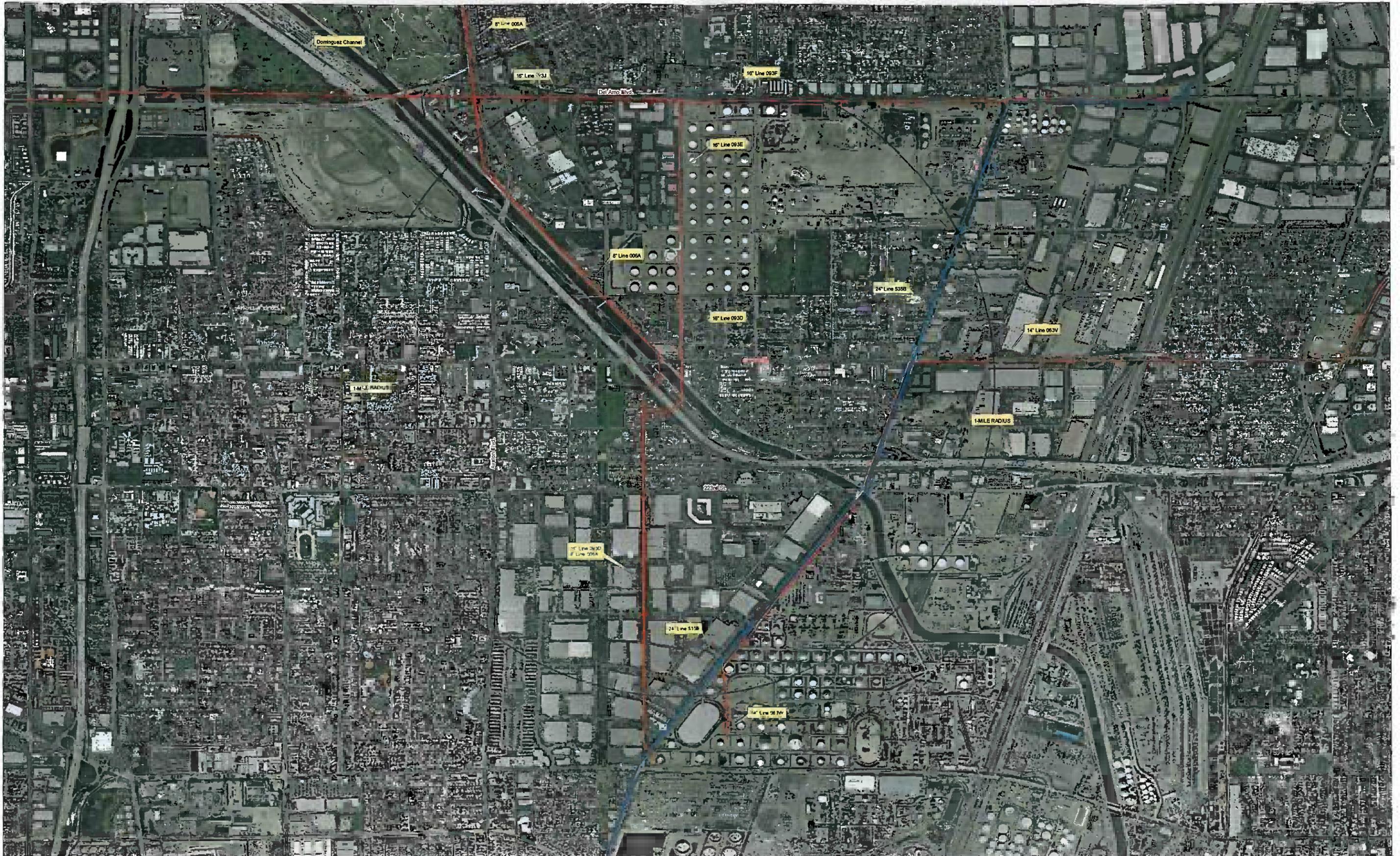
January 27, 2012

Mr. Courtland Prowell, Prowell Family Trust
Ms. Holly Quasem, ConocoPhillips Company
Mr. David Randall, URS Corporation - North Carolina
Mr. Ian Robb, Chevron Environmental Management Company
Mr. Bob Sinclair, Plains Pipeline
Mr. Rob Speer, Chevron Environmental Management Company
Mr. Robert Stechmann, Stechmann Geoscience, Inc.
Mr. Fred Stroud, USEPA
Mr. Ben Terry, Chevron Environmental Management Company
Mr. Greg Vogelpohl, Resource Environmental, LLC
Ms. Diane Wachi, City of Carson
Mr. Barry White, City of Carson
Mr. Jerome R. Zimmerle, URS Corporation

**PLAINS ALL AMERICAN PIPELINE
TABULAR PIPELINE INVENTORY
WITHIN A ONE-MILES RADIUS OF THE INTERSECTION OF
CARSON STREET & DOMINGUEZ CHANNEL**

ID NO.	OWNER ID	CURRENT OWNER	OPERATOR NAME	PREVIOUS OWNER	PREVIOUS OWNER	DIAMETER (INCHES)	MATERIAL	PRODUCT	OXYGENATES	STATUS	INTEGRITY TEST FAILURES (Y/N)	CONTACT	NOTES - CSFM NO.	SOURCE(S)
006A		PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE SYSTEM, LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	8	CARBON STEEL	CRUDE OIL	NONE	INACTIVE	OOS	Ngiabi Gicuhi, Environmental Engineer, 562-728-2024, ngicuhi@paalp.com	81	Plains Pipeline Inventory Database.
063V	L063 LA PUMP STA TO BP LOS ANGELES REF 14"	PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE SYSTEM, LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	14	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		125	
063W	L063 LINE 63 CONNECTION TO LINE 31 - 14"	PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE SYSTEM, LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	14	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		125	
093D	L093 PERRY STREET JCT TO SEPULVEDA 16"	PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE SYSTEM, LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	16	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		1103	
093E	L093 PERRY STREET JCT TO SEPULVEDA 16"	PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	16	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		1102	
093F,G,J,K,L,N	L093 WEST HYNES TO EL SEGUNDO EAST 16	PLAINS PIPELINE LP (2006-CURRENT)	PACIFIC PIPELINE SYSTEM, LLC	PACIFIC PIPELINE SYSTEM, LLC (1999-2006)	ARCO/BP (?-1999)	16	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		104	
535B	24" DOMINGUEZ HILLS TERMINAL TO EL REAL STATION	PLAINS MARKETING LP (2006-CURRENT)	PLAINS MARKETING LP	PACIFIC TERMINALS (2003-2006)	EDISON PIPELINE TERMINAL COMPANY (EPTC) (?-2003)	24	CARBON STEEL	CRUDE OIL	NONE	ACTIVE	N		1069	

SCALED MAP OF THE SUBJECT AREA



DOMINGUEZ CHANNEL - CARSON STREET
 LOS ANGELES COUNTY
 1-MILE RADIUS

Scale: 1:10,000
 Sheet No.: 1/1

U.S. EPA NOTICE OF FEDERAL INTEREST DATED JANUARY 16, 2011.

Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

NOTICE OF FEDERAL INTEREST

Issued To:
Plains All American Pipelines, L.P.
5900 Cherry Ave.
Long Beach, CA 90805

Date: 01/16/2011

LEGAL NOTICE TO SUSPECTED DISCHARGER

This legal notice is issued pursuant to the requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which appears at Title 40, Code of Federal Regulations, Part 300 (40 C.F.R. Part 300).

As the owner or operator of Plains All American Pipelines, L.P. (Plains), you have been identified as a Potentially Responsible Party for an oil discharge from the facility located at in the Dominguez Channel south of Carson Street (Latitude: 35.671, Longitude: -117.6485). The term "Responsible Party", as defined at 33 U.S.C. § 2701(32), includes any person owning or operating a vessel, onshore facility or offshore facility from which a discharge of oil has originated. The location of the oil discharge noticed herein is in the Dominguez Channel which is a tidal influence channel that drains to the Port of Los Angeles, navigable water. The U.S. Environmental Protection Agency ("EPA") has determined that the discharge of oil was created by a Plains pipeline beneath the Dominguez Channel on or about January 9, 2011 and currently ongoing.

The NCP encourages persons responsible for discharges to take prompt and proper action to remove the contaminant from the water and shorelines when possible and deemed necessary by the Federal On-Scene Coordinator (OSC). Such action is deemed necessary in this case.

If you are willing to undertake a cleanup, your actions may be monitored by EPA pursuant to an Administrative Order under the Clean Water Act, 33 U.S.C. § 1321 (c) and (e), as amended by the Oil Pollution Act Amendments of 1990. If you do not comply with the Order and conduct a proper removal action, the EPA will take the necessary action to remove the contaminant.

If the EPA conducts the clean-up, you are hereby advised that pursuant to Section 311(f) of the Clean Water Act, 33 U.S.C. § 1321(f), you may be liable to the United States for the actual costs incurred in the response action, including but not limited to costs of restoring damaged natural resources, and possible penalties.

The cleanup will include, but not be limited to the following measures:

1. Prepare an Incident Action Plan to be approved by the Unified Command.
2. Maintain oil collection activities as are currently in place. Prevent further.

- downstream or upstream migration of oil in the Channel. Maintain 24-hour boom watch until the cleanup is complete.
3. Conduct wildlife hazing operations in with the approval of the natural resources trustee.
 4. Immediately stop the release of oil into the environment from the pipeline.
 5. Repair or close the pipeline to prevent future discharges of oil into the environment.
 6. Conduct an assessment of the sediment to determine the horizontal and vertical extent of the oil contamination in the sediment on the bottom of the channel and along the banks of the channel.
 7. Remove all oil, oily debris, and oil contaminated sediment from the spill area.
 8. Provide the OSC with a written work plan describing how items 2-7 will be accomplished including a health and safety plan that complies with 29 CFR 1910.120 (b)(4): Hazardous Waste Operations and Emergency Response (HAZWOPER) and a Quality Assurance Project Plan (QAPP) for the sediment sampling required by item 6, no later than January 19, 2011. The QAPP must be consistent with EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5); Sampling and Analysis Plan Guidance and Template, Version 2 Private Analytical Services Used (Document Control No.: R9/QA 002 - March, 2000); and Guidance for the Data Quality Objectives Process (EPA QA/G-4).
 9. The All Plains employees and contractors working on the project must be in compliance with HAZWOPER and relevant OSHA and or U.S. Coast Guard regulations regarding working in the marine environment. Please provide proof of HAZWOPER compliance for all Plains employees, contractors and subcontractor including:
 - a. Written Safety and Health Program Plan pursuant to 29 CFR 1910.120(b)(1);
 - b. Proof of training pursuant to 29 CFR 1910.120(e);
 - c. Proof of medical surveillance pursuant to 29 CFR 1910.120(f);
 - d. The written personal protective equipment program pursuant to 29 CFR 1910.120(g)(5); and
 - e. Provide documents in the primary language of all employees working on-site. Failure to provide the proof of compliance with HAZWOPER documentation will result in EPA's disqualification of that contractor or Plains from conducting the cleanup.

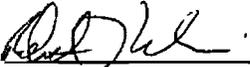
You should note that the application of dispersants, surface collecting agents, biological additives or miscellaneous oil spill control products is not permitted unless authorized by the OSC and the governing State Agency (California Department of Fish and Game). In addition, sinking agents shall not be authorized for application to oil discharges.

The OSC has evaluated the magnitude and severity of the discharge or threat to public health or welfare or the environment. Based upon this evaluation, you are requested to respond to this legal notice [immediately], [within 24 hours], [within 48 hours], or [by close of business on] to confirm your intent to (1) immediately perform the cleanup; or (2) enter into an agreement to conduct the clean-up. Failure to respond in a timely manner may result in the clean-up being performed

by EPA. If EPA does not receive a timely response, EPA will assume that you do not wish to negotiate a resolution of your liabilities in connection with the response, and that you have declined involvement in performing the response action. You may be held liable for the cost of the response action EPA performs at the Site and any potential penalties.

The factual and legal discussions contained in this letter are intended solely for notification and information purposes. They are not intended to be and cannot be relied upon as final EPA positions on any matter set forth herein. Your response to this notice should be sent or given to the signatory of this letter below. If you deny responsibility for the discharge of oil described above, you are requested to advise the EPA contact immediately of the specific basis for your denial of responsibility.

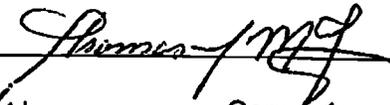
For the EPA:


_____, OSC January 16, 2011 (562) 889 - 2572
Robert L. Wise, CHMM Date Phone

On Behalf of

Jane Diamond
Director of Superfund Division

Acknowledgment of Receipt:

Received by  THOMAS J. MCLANE DIRECTOR ETRC
Date: 1/17/11 Copy 1 of 2

Cc: Andrew Helmlinger, ORC
File
LACoFD HHMD
CADFG
LACoPW

Copy

U.S. EPA EMAIL DATED JANUARY 25, 2011

Laura K Hatton

From: Lanny E Kippes
Sent: Wednesday, January 26, 2011 8:16 AM
To: Araceli L Gudino
Subject: FW: Carson St. Channel Release - Open Items

Please file accordingly

Lanny E. Kippes
Long Beach District Manager

Plains All American Pipeline, L. P.
5900 Cherry Ave.
Long Beach, CA 90805
562/ 728-2342: Office
562/ 221-4510: Cell
lekippes@paalp.com

From: Thomas J McLane
Sent: Tuesday, January 25, 2011 6:59 PM
To: Lanny E Kippes; Steven M Caddell; Richard W Hartig
Subject: Fw: Carson St. Channel Release - Open Items

FYI

Sent using BlackBerry

From: Wise.Robert@epamail.epa.gov
To: Thomas J McLane
Sent: Tue Jan 25 20:12:52 2011
Subject: Re: Carson St. Channel Release - Open Items

Due to the hydro-test data, no further action under the January 17, 2011 NOFI is required @ this time.

Please provide all of the pressure test data, hydro-test and analytical data.

As far as the sampling plan, a hard copy will be fine.

Lastly, I have not contacted the NRC yet. I will take care of it tomorrow.

From: Thomas J McLane [TJMcLane@paalp.com]
Sent: 01/25/2011 03:33 PM CST
To: Robert Wise
Cc: Lanny E Kippes <LEKippes@paalp.com>
Subject: Carson St. Channel Release - Open Items

Rob,

Just to wrap up a few things from the morning meeting: You were going to send me an official letter or email documenting that the "Notice of Federal Interest" was recalled and that Plains is officially not responsible for the

CALIFORNIA SFM EMAIL DATED JANUARY 25, 2011

Laura K Hatton

From: Lanny E Kippes
Sent: Tuesday, January 25, 2011 11:51 AM
To: Mark W Olson; Ronny C Davenport; Stephen Falgoust
Cc: Steven M Caddell; Richard W Hartig; Araceli L Gudino; Thomas J McLane
Subject: Fw: Plains hydrotest results for line 93 D & E -

Fyi - CSFM approval to resume operation immediately.

From: Gorham, Bob
To: Lanny E Kippes
Cc: MacDonald, Chuck ; Crasnean, Adriana
Sent: Tue Jan 25 13:47:12 2011
Subject: Plains hydrotest results for line 93 D & E -
Mr. Kippes:

RE: CSFM Test ID#11-03243 (Line#93E) & 11-03244 (Line#93 D)

My staff and I have reviewed the results of the Jan 24, 2011 hydrotest performed on your line sections 93D & E. This test included the portion of pipeline crossing the Dominguez Channel. We find it meets the requirements set forth in federal pipeline safety regulation CFR 49 Part 195 Subpart E as well as the testing requirements of Chapter 5.5 of the California Government Code. You have my approval to resume normal operations of your pipeline immediately. Please contact me if you have any questions.

Bob Gorham
Division Chief



Office of the State Fire Marshal
Pipeline Safety Division
3950 Paramount Blvd #210
Lakewood, CA 90712
Office: (562) 497-9102
Cell: (818) 419-0784
Email: bob.gorham@fire.ca.gov

OIL FORENSICS REPORT DATED APRIL 27, 2011



forensics

Dominguez Channel Report

Report Prepared for:

WGR Southwest Inc.
11021 Winners Circle
Los Alamitos, CA 90720

Report Prepared By:

Alan Jeffrey, PhD

ZymaX Forensics , 600 S. Andreasen Ave, Suite B, Escondido, CA 92029

27 April 2011

TABLE OF CONTENTS

INTRODUCTION	3
METHODOLOGY	3
CHARACTERIZATION AND COMPARISON OF OILS	4
CONCLUSIONS	5

Introduction

Two crude oil samples labeled L63 and Dominguez Channel were received at Zymax on January 13, 2011. Additional oil samples labeled SJLB Crude and Dominguez Seep were received on January 17 and 21, respectively. The oil samples were analyzed by a C₁₀-C₄₀ GC/MS Full Scan technique to characterize and compare petroleum products in the samples.

The complete laboratory data report is presented as an Appendix to this report.

Methodology

GC/MS Full Scan analysis

Water samples are extracted with methylene chloride solvent and the solvent extract concentrated. Soil samples are sonicated with methylene chloride solvent and the solvent extract concentrated. Extracts and products that are highly colored are cleaned by removing polar and asphaltene compounds in a silica gel column.

Extracts and product samples are directly injected into a GC equipped with a 60 meter DB1 column to separate the hydrocarbons, which are detected with a mass spectrometer (MS) in full scan mode, interfaced to the GC. Hydrocarbons in the range of C₁₀ to C₄₀ are identified. By scanning the ion fragments shown in the following table, chromatograms of a number of classes of hydrocarbons are generated. Aromatic hydrocarbons are identified by scanning over a large number of ion fragments, and the results are normalized in a bar diagram.

ION (M/Z)	COMPOUND CLASS
TIC	All Compounds
85	n-Alkanes
113	Iso-Alkanes and Isoprenoids
83	Alkylcyclohexanes
134	C ₄ -benzenes
123	Bicyclanes
191	Terpanes
217	Steranes
253	Monoaromatic Steranes
231	Triaromatic Steranes
Bar Diagram	Aromatic Hydrocarbon Distribution

Characterization and Comparison of Oils

The Total Ion Chromatograms (TIC), which provide the distribution or fingerprint of all the hydrocarbons in the samples are shown on the following pages. More detailed comparisons of the samples are provided by the distributions of the major hydrocarbon classes that are used to assess source and weathering characteristics of oils: n-alkanes, isoalkanes, alkylbenzenes, aromatic hydrocarbons, and bicyclane, sterane, and terpane biomarkers, which are included in the data appendix.

The TIC hydrocarbon distributions in the L63 and SJLB crude oils, displayed on the next page, are similar and show a broad hydrocarbon distribution from below C₈ to above C₃₀ that is dominated by n-alkanes and isoalkanes. This distribution is characteristic of relatively unaltered crude oil. The Dominguez Channel sample has a very different distribution in which almost all hydrocarbons below C₁₄ have been lost, probably by evaporation and other weathering processes. The distribution is dominated by isoalkanes; most of the n-alkanes have been lost, probably by biodegradation, where microbes preferentially degrade n-alkanes leaving the more resistant isoalkanes. Apart from the weathering loss, the oil has a relatively broad hydrocarbon distribution that is indicative of a weathered crude oil.

The most prominent differences between the Dominguez Channel oil and the L63 and SJLB crude oils could be ascribed to weathering. However, minor compounds in oils are more resistant to weathering and have been used to differentiate oils from different sources. Prime among these are sterane and terpane biological markers and certain aromatic hydrocarbons. Figure 1 shows a graph of two biological marker ratios: C₂₇-Cholestane/C₂₇-Diacholestane and C₃₀-Hopane/17 α -25-Norhopane. The graph shows that the Dominguez Channel oil has significantly different ratios of these steranes and terpanes. Similarly, the ratios of the aromatic hydrocarbons, C₂-Phenanthrene/C₂-Dibenzothiophene and C₃-Phenanthrene/C₃-Dibenzothiophene, shown in Figure 2, are significantly lower in the Dominguez Channel oil. The differences in the steranes, terpanes, and aromatic hydrocarbons are related to the differences in the source rock kerogen from which the oils were generated, and indicate that the Dominguez Channel oil is not the same oil as the L63 and SJLB crude oils.

The Dominguez Seep sample has a hydrocarbon distribution that is very different from the other three samples in that volatile hydrocarbons dominate, with very little material heavier than C₁₈. The volatile product extends from below C₈ to C₁₂, and could represent a product such as gasoline, gas condensate, or petroleum naphtha. The C₁₀-C₄₀ GC/MS analysis does not provide enough resolution in the volatile range to identify the product. The peaks above C₁₂ may represent a small amount of the heavier product in the Dominguez Channel oil.

Conclusions

The Dominguez Channel sample is a weathered crude oil that has sterane, terpane, and aromatic hydrocarbon distributions that are different from those in the L63 and SJLB crude oils. This indicates that the Dominguez Channel oil is not the same oil as the L63 and SJLB crude oils.

The Dominguez Seep sample is much lighter than the other samples, and contains a volatile product such as gasoline, gas condensate, or petroleum naphtha mixed with a small amount of oil similar to the Dominguez Channel oil.

COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

NOTICE OF FEDERAL INTEREST

Issued To:
Plains All American Pipelines, L.P.
5900 Cherry Ave.
Long Beach, CA 90805

Date: 01/16/2011

LEGAL NOTICE TO SUSPECTED DISCHARGER

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The NCP encourages persons responsible for discharges to take prompt and proper action to remove the contaminant from the water and shorelines when possible and deemed necessary by the Federal On-Scene Coordinator (OSC). Such action is deemed necessary in this case.

If you are willing to undertake a cleanup, your actions may be monitored by EPA pursuant to an Administrative Order under the Clean Water Act, 33 U.S.C. § 1321 (c) and (e), as amended by the Oil Pollution Act Amendments of 1990. If you do not comply with the Order and conduct a proper removal action, the EPA will take the necessary action to remove the contaminant.

If the EPA conducts the clean-up, you are hereby advised that pursuant to Section 311(f) of the Clean Water Act, 33 U.S.C. § 1321(f), you may be liable to the United States for the actual costs incurred in the response action, including but not limited to costs of restoring damaged natural resources, and possible penalties. The cleanup will include, but not be limited to the following measures:

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- downstream or upstream migration of oil in the Channel. Maintain 24-hour boom watch until the cleanup is complete.
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 7. Remove all oil, oily debris, and oil contaminated sediment from the spill area.
 8. Provide the OSC with a written work plan describing how items 2-7 will be accomplished including a health and safety plan that complies with 29 CFR 1910.120 (b)(4): Hazardous Waste Operations and Emergency Response (HAZWOPER) and a Quality Assurance Project Plan (QAPP) for the sediment sampling required by item 6, no later than January 19, 2011. The QAPP must be consistent with EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5); Sampling and Analysis Plan Guidance and Template, Version 2 Private Analytical Services Used (Document Control No.: R9/QA 002 - March, 2000); and Guidance for the Data Quality Objectives Process (EPA QA/G-4).
 9. The All Plains employees and contractors working on the project must be in compliance with HAZWOPER and relevant OSHA and or U.S. Coast Guard regulations regarding working in the marine environment. Please provide proof of HAZWOPER compliance for all Plains employees, contractors and subcontractor including:
 - a. Written Safety and Health Program Plan pursuant to 29 CFR 1910.120(b)(1);
 - b. Proof of training pursuant to 29 CFR 1910.120(e);
 - c. Proof of medical surveillance pursuant to 29 CFR 1910.120(f);
 - d. The written personal protective equipment program pursuant to 29 CFR 1910.120(g)(5); and
 - e. Provide documents in the primary language of all employees working on-site. Failure to provide the proof of compliance with HAZWOPER documentation will result in EPA's disqualification of that contractor or Plains from conducting the cleanup.

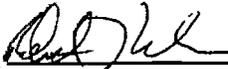
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For the EPA:


Robert L. Wise, CHMM, OSC January 16, 2011 (562) 889 - 2572
Date Phone

On Behalf of

Jane Diamond
Director of Superfund Division

Acknowledgment of Receipt:

Received by  THOMAS J. MCLANE DIRECTOR ETRC
Date: 1/17/11 Copy 1 of 2

Cc: Andrew Helmlinger, ORC
File
LACoFD HHMD
CADFG
LACoPW

Copy

U.S. EPA EMAIL DATED JANUARY 25, 2011

Laura K Hatton

From: Lanny E Kippes
Sent: Wednesday, January 26, 2011 8:16 AM
To: Araceli L Gudino
Subject: FW: Carson St. Channel Release - Open Items

Please file accordingly

Lanny E. Kippes
Long Beach District Manager

Plains All American Pipeline, L. P.

5900 Cherry Ave.
Long Beach, CA 90805
562/ 728-2342: Office
562/ 221-4510: Cell
lekippes@paalp.com

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Sent: Tuesday, January 25, 2011 6:59 PM
To: Lanny E Kippes; Steven M Caddell; Richard W Hartig
Subject: Fw: Carson St. Channel Release - Open Items

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Sent using BlackBerry

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As far as the sampling plan, a hard copy will be fine.

Lastly, I have not contacted the NRC yet. I will take care of it tomorrow.

From: Thomas J McLane [TJMcLane@paalp.com]
Sent: 01/25/2011 03:33 PM CST
To: Robert Wise
Cc: Lanny E Kippes <LEKippes@paalp.com>
Subject: Carson St. Channel Release - Open Items

Rob,

Just to wrap up a few things from the morning meeting: You were going to send me an official letter or email documenting that the "Notice of Federal Interest" was recalled and that Plains is officially not responsible for the

CALIFORNIA SFM EMAIL DATED JANUARY 25, 2011

Laura K Hatton

From: Lanny E Kippes
Sent: Tuesday, January 25, 2011 11:51 AM
To: Mark W Olson; Ronny C Davenport; Stephen Falgoust
Cc: Steven M Caddell; Richard W Hartig; Araceli L Gudino; Thomas J McLane
Subject: Fw: Plains hydrotest results for line 93 D & E -

Fyi - CSFM approval to resume operation immediately.

From: Gorham, Bob
To: Lanny E Kippes
Cc: MacDonald, Chuck ; Crasnean, Adriana
Sent: Tue Jan 25 13:47:12 2011
Subject: Plains hydrotest results for line 93 D & E -
Mr. Kippes:

RE: CSFM Test ID#11-03243 (Line#93E) & 11-03244 (Line#93 D)

My staff and I have reviewed the results of the Jan 24, 2011 hydrotest performed on your line sections 93D & E. This test included the portion of pipeline crossing the Dominguez Channel. We find it meets the requirements set forth in federal pipeline safety regulation CFR 49 Part 195 Subpart E as well as the testing requirements of Chapter 5.5 of the California Government Code. You have my approval to resume normal operations of your pipeline immediately. Please contact me if you have any questions.

Bob Gorham
Division Chief

CAL FIRE

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OIL FORENSICS REPORT DATED APRIL 27, 2011



forensics

Dominguez Channel Report

Report Prepared for:

WGR Southwest Inc.
11021 Winners Circle
Los Alamitos, CA 90720

Report Prepared By:
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27 April 2011

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Introduction

Two crude oil samples labeled L63 and Dominguez Channel were received at Zymax on January 13, 2011. Additional oil samples labeled SJLB Crude and Dominguez Seep were received on January 17 and 21, respectively. The oil samples were analyzed by a C₁₀-C₄₀ GC/MS Full Scan technique to characterize and compare petroleum products in the samples.

The complete laboratory data report is presented as an Appendix to this report.

Methodology

GC/MS Full Scan analysis

Water samples are extracted with methylene chloride solvent and the solvent extract concentrated. Soil samples are sonicated with methylene chloride solvent and the solvent extract concentrated. Extracts and products that are highly colored are cleaned by removing polar and asphaltene compounds in a silica gel column.

Extracts and product samples are directly injected into a GC equipped with a 60 meter DB1 column to separate the hydrocarbons, which are detected with a mass spectrometer (MS) in full scan mode, interfaced to the GC. Hydrocarbons in the range of C₁₀ to C₄₀ are identified. By scanning the ion fragments shown in the following table, chromatograms of a number of classes of hydrocarbons are generated. Aromatic hydrocarbons are identified by scanning over a large number of ion fragments, and the results are normalized in a bar diagram.

ION (M/Z)	COMPOUND CLASS
TIC	All Compounds
85	n-Alkanes
113	Iso-Alkanes and Isoprenoids
83	Alkylcyclohexanes
134	C ₄ -benzenes
123	Bicyclanes
191	Terpanes
217	Steranes
253	Monoaromatic Steranes
231	Triaromatic Steranes
Bar Diagram	Aromatic Hydrocarbon Distribution

Characterization and Comparison of Oils

The Total Ion Chromatograms (TIC), which provide the distribution or fingerprint of all the hydrocarbons in the samples are shown on the following pages. More detailed comparisons of the samples are provided by the distributions of the major hydrocarbon classes that are used to assess source and weathering characteristics of oils: n-alkanes, isoalkanes, alkylbenzenes, aromatic hydrocarbons, and bicyclane, sterane, and terpane biomarkers, which are included in the data appendix.

The TIC hydrocarbon distributions in the L63 and SJLB crude oils, displayed on the next page, are similar and show a broad hydrocarbon distribution from below C_8 to above C_{30} that is dominated by n-alkanes and isoalkanes. This distribution is characteristic of relatively unaltered crude oil. The Dominguez Channel sample has a very different distribution in which almost all hydrocarbons below C_{14} have been lost, probably by evaporation and other weathering processes. The distribution is dominated by isoalkanes; most of the n-alkanes have been lost, probably by biodegradation, where microbes preferentially degrade n-alkanes leaving the more resistant isoalkanes. Apart from the weathering loss, the oil has a relatively broad hydrocarbon distribution that is indicative of a weathered crude oil.

The most prominent differences between the Dominguez Channel oil and the L63 and SJLB crude oils could be ascribed to weathering. However, minor compounds in oils are more resistant to weathering and have been used to differentiate oils from different sources. Prime among these are sterane and terpane biological markers and certain aromatic hydrocarbons. Figure 1 shows a graph of two biological marker ratios: C27-Cholestane/C27-Diacholestane and C30-Hopane/17 α -25-Norhopane. The graph shows that the Dominguez Channel oil has significantly different ratios of these steranes and terpanes. Similarly, the ratios of the aromatic hydrocarbons, C2-Phenanthrene/C2-Dibenzothiophene and C3-Phenanthrene/C3-Dibenzothiophene, shown in Figure 2, are significantly lower in the Dominguez Channel oil. The differences in the steranes, terpanes, and aromatic hydrocarbons are related to the differences in the source rock kerogen from which the oils were generated, and indicate that the Dominguez Channel oil is not the same oil as the L63 and SJLB crude oils.

The Dominguez Seep sample has a hydrocarbon distribution that is very different from the other three samples in that volatile hydrocarbons dominate, with very little material heavier than C_{18} . The volatile product extends from below C_8 to C_{12} , and could represent a product such as gasoline, gas condensate, or petroleum naphtha. The C_{10} - C_{40} GC/MS analysis does not provide enough resolution in the volatile range to identify the product. The peaks above C_{12} may represent a small amount of the heavier product in the Dominguez Channel oil.

Conclusions

The Dominguez Channel sample is a weathered crude oil that has sterane, terpane, and aromatic hydrocarbon distributions that are different from those in the L63 and SJLB crude oils. This indicates that the Dominguez Channel oil is not the same oil as the L63 and SJLB crude oils.

The Dominguez Seep sample is much lighter than the other samples, and contains a volatile product such as gasoline, gas condensate, or petroleum naphtha mixed with a small amount of oil similar to the Dominguez Channel oil.

Exhibit E

Department of Homeland Security U.S. Coast Guard ATTN: CLAIMS ADJUDICATION NATIONAL POLLUTION FUNDS CENTER US COAST GUARD STOP 7100 4200 WILSON BLVD STE 1000 ARLINGTON VA 20598-7100	Optional OSLTF Claim Form CG NPFC-CA1 (Rev. April 03)
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PURPOSE: This form may be used for submitting claims to the U.S. Coast Guard, National Pollution Funds Center, for potential compensation from the Oil Spill Liability Trust Fund for uncompensated removal costs or damages resulting from an incident under the Oil Pollution Act of 1990 (OPA). You may use your own version of this form. PLEASE PRINT OR TYPE:

1. **Claimant Information:** Name: Plains All American Pipeline, L.P.
 Address: 333 Clay Street, Suite 1600
Houston, Texas 77002
 Home Tel. #: _____ Work Tel. #: 713-646-4224
 Fax Number: 713-646-4216 E-mail: mskelly@paalp.com

2. **Incident Information:** Date: 1/10/2011-1/25/2011 Time: began at 4:30 pm NRC Report #: 964223
 Name of vessel or facility causing damage: n/a unknown
 Geographic location of incident: Dominguez Channel (latitude: 35.671, longitude 117.6485)
 Brief description of the incident: Plains was alerted to the presence of a seepage on January 10, 2011. Plains mobilized a response and clean-up effort as well as conducted a series of tests to locate the source. It was ultimately concluded that Plains was not the responsible party

3. **Type(s) of claim(s) and total amount for costs and damage(s) claimed:**

		\$ <u>587,426.84</u>	Removal Costs
\$ <u>n/a</u>	Subsistence Use	\$ <u>n/a</u>	Profits & Earning Capacity
\$ <u>n/a</u>	Natural Resources	\$ <u>n/a</u>	Government Revenues
			Public Services
			Real or Personal Property
\$ <u>587,426.84</u>		<i>Total Amount Claimed</i>	

4. Has claimant communicated with the responsible party? No Yes
 5. Has the claim been submitted to the responsible party? No Yes Date Submitted: _____

6. If the claim has been submitted to the responsible party, what action has the responsible party taken?
 No Action Denied Other – Explain:
Responsible party unknown at this time.

7. Has claimant commenced an action in court to recover costs which are the subject of the claim?
 No Yes If yes, provide the name, address, phone number of your attorney, the court in which action is pending and the civil action number: n/a

Optional OSLTF Claim Form

CG NPFC-CA1

8. Has claimant submitted or planned to submit the loss to an insurer? No Yes Please provide the name, address, and phone number of your insurer, the policy number, and explain any compensation received: No policy coverage for this matter.

9. Description of the nature and extent of damages claimed (Attach additional information as necessary): See Attachment 1.

10. Description of how the incident caused the damage: See Attachment 1.

11. Description of actions taken by claimant/representative to avoid or minimize damages: See Attachment 1.

12. Witnesses:

Name: Paul Biren, City of Los Angeles Fire Dept. Tel. No.: (323)890-4067

Address: 5825 Rickenbacker Road
Commerce, California 90040

Name: Robert Wise, EPA Tel. No.: (562) 889-2572

Address: 2445 N. Palm Drive, Suite 100
Signal Hill, California 90755

13. List Documents or Attachments (Attach additional information as necessary):

- a. CD titled Dominguez Channel Release, 1/10/2011; CD contains PDFs of supporting documents.
- b. Timeline; Agency documents, permits, maps, Incident Action Plan, lab reports, scope of work and all invoices.
- c. CD titled Photos/Video of Dominguez Channel Release and clean-up dated January 10, 2011.
- d.
- e.

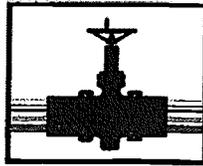
I, the undersigned, agree that upon acceptance of any compensation from the Fund, I will cooperate fully with the United States in any claim or action by the United States to recover the compensation. The cooperation shall include, but is not limited to, immediately reimbursing to the Fund any compensation received from any other source for the same costs and/or damages and, providing any documentation, evidence, testimony, and other support, as may be necessary for the Fund to recover such compensation.

I, the undersigned, certify that, to the best of my knowledge and belief, the information contained in this claim represents all material facts and is true. I understand that misrepresentation of facts is subject to prosecution under Federal law (including but not limited to 18 U.S.C. 287 & 1001 and 31 U.S.C. 3729).

14. Troy E. Valenzuela 1/26/2012
Plains All American Pipeline, L.P.
By PAA GP LLC, its General Partner
Claimant's Signature Date
Printed Name of Signer: Troy E. Valenzuela
Vice President-
Environmental, Health & Safety

15. Mike Kelly 1/26/2012
Plains All American Pipeline, L.P.
By PAA GP LLC, its General Partner
Legal Representative Date
Title/Legal Capacity: Mike Kelly
Sr. Attorney

Exhibit F



PLAINS
ALL AMERICAN
PIPELINE, L.P.

Mike Kelly
Attorney

Direct: (713) 646-4224
Facsimile: (713) 646-4216

Letter of Explanation

January 25, 2012

Attn: Claims Adjudication
National Pollution Funds Center
US Coast Guard Stop 7100
4200 Wilson Blvd., Suite 1000
Arlington, VA 20598-7100

Via Federal Express

Re: **Claimant Information: Plains All American Pipeline, L.P.**
NRC Report No. 964223
Incident Location: Dominguez Channel
(Plains File No. CL3026)

Dear Sir or Madam:

Plains is putting forth this claim to recover response and clean-up costs relating to the above described NRC Report.

On January, 10, 2011, Plains noticed what appeared to be crude oil drops in the Dominguez Channel near 223rd Street and in the vicinity of a Plains pipeline. The NRC was notified and Plains immediately took prompt actions to respond to the potential release. Plains also conducted tests on its pipeline at the direction of several agencies. Plains proceeded to provide emergency response measures to mitigate any further movement of the release and to recover and dispose of the product.

It was determined that the Plains pipeline was not the cause of the release. Plains was notified by the EPA that no further action is required under the January 17, 2011, NOFI issued by the EPA.

We have attached the OSLTF Claim Form together with a CD/PDF entitled Dominguez Channel Release January 10, 2011 and Photos/Video of Dominguez Channel Release fully documenting the emergency response and clean-up costs incurred by Plains.

Please contact the undersigned with any questions regarding the submittal.

Very truly yours,

Plains All American Pipeline, L.P.
By: PAA GP LLC
Its General Partner



Mike Kelly

Enclosures – CDs – Dominguez Channel Release dated January 10, 2011 and Photos/Video Dominguez Channel Release dated January 10, 2011

Optional OSLTF Claim Form

Attachment 1 – Plains' responses to questions 9-11

Question 9. Description of the nature and extent of damages claimed

Plains requests reimbursement for emergency response and removal costs associated with the spill in the Dominguez Channel, located about 1000 feet south of Carson, California. The Environmental Protection Agency (“EPA”) instructed Plains to conduct an emergency response and removal effort. Plains took immediate action to contain the release. Plains also took immediate action to remove and dispose of the product collected. Evidence of Plains’ emergency response can be further examined in documents provided in the CD enclosed herewith.

Question 10. Description of how the incident caused the damage

At this time, the source of the spill is unknown. The presence of oil and bubbles near Plains’ pipeline led authorities to initially assume that Plains was the responsible party. Plains handled the clean-up effort by hiring subcontractors as well as hiring divers to examine the pipe. A hydro-test completed on January 17, 2011, after a barrage of other tests, showed conclusively that Plains was not the source of the spill. EPA Federal On-Scene Coordinator Robert Wise released Plains from the Notice of Federal Interest on January 25, 2011. Detailed accounts on the cost of Plains’ response can be further examined in the documents provided in the CD enclosed herewith.

Question 11. Description of action taken by claimant/representative to avoid or minimize damage

Plains personnel arrived on the scene within an hour of being alerted to a possible leak. Personnel alerted both the National Response Center (NRC) and the California Office of Emergency Services (OES) and obtained report numbers for the incident. Plains commenced the emergency response under the supervision of the EPA and several Californian agencies, including the Emergency Operations Section of the Los Angeles Fire Department, the Office of Spill Prevention and Response with the Department of Fish and Game, and the County of Los Angeles Department of Public Works, The Department of Public Safety, and the Pipeline Safety Division of the Office of the State Fire Marshall. With the approval of these agencies, Plains installed numerous absorbent booms in strategic locations to catch as much of the spill as possible and conducted several pressure tests as well as a nitrogen flush of the line, a dye-test, and a hydro-test. Throughout the testing period, subcontractors hired by Plains handled the removal, cleanup, and disposal of the spilled product. More detailed discussion of Plains’ actions can be examined in the documents provided in the CD enclosed herewith.

Supplement to Question 12

Plains believes these witnesses can speak to the prompt and complete emergency response by Plains together with the appropriate action taken by Plains to clean-up the product and mitigate the incident from causing further damage.