



Linda S. Adams
Secretary for
Environmental Protection

California Regional Water Quality Control Board San Diego Region

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Arnold Schwarzenegger
Governor

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
7005 1160 0000 4217 5560

January 22, 2007

Mr. Richard Solomon
ConocoPhillips
3611 Harbor Boulevard, Suite 200
Santa Ana, CA 92704

In reply refer to:
TSMC:50-1499.05:spease

Dear Mr. Solomon,

**RE: INVESTIGATIVE ORDER NO. R9-2007-0016 FOR SOIL AND GROUND
WATER INVESTIGATION, CORRECTIVE ACTION PLAN, AND INTERIM
REMEDIAL ACTION**

This letter is being sent to you because you are identified as the party (Discharger) responsible for the leaking underground storage tank case located at 1510 East 8th Street in National City, San Diego County, California. Enclosed with this letter is Investigative Order No. R9-2007-0016, issued by the California Regional Water Quality Control Board, San Diego Region (Regional Board). The enclosed Order directs you to provide the Regional Board with technical reports for ground water monitoring, site conceptual model, workplan for soil and ground water investigation, a corrective action plan, and document interim remedial actions you conduct for the case referenced above.

Beginning January 1, 2005, Dischargers are required to electronically submit all technical reports and monitoring reports generated to comply with requirements of the California Code of Regulations- CCR Title 23, Chapter 16, Article 11; and regulated by the Regional Board's Underground Storage Tanks Program. Order R9-2007-0016 requires you to comply with the applicable electronic reporting into the web-based Geotracker database, in compliance with requirements found in CCR Title 23, section 3890 *et seq.* You may wish to review these regulations on-line at www.calregs.com.

You should be aware that the San Diego Regional Board staff is not responsible for the maintenance and administration of the Geotracker database. For information on how to access and use the Geotracker database, please contact the State Water Resources Control Board staff Mr. Hamid Foolad at (916) 341-5791, or the "Geotracker Help Desk" at (866) 480-1028 and via their web site: Geotracker@waterboards.ca.gov.

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Mr. Solomon, ConocoPhillips
1540 East 8th Street
National City, CA

January 22, 2007

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For your convenience, a link to the Geotracker and Electronic Reporting web page can be found on the State Water Board's web site at:

http://www.waterboards.ca.gov/ust/cleanup/electronic_reporting/

Any person failing or refusing to furnish information required under the authority of California Water Code (CWC) section 13267 or falsifying information submitted to the Regional Board pursuant to such a directive is guilty of a misdemeanor and may be subject to civil liability. Under CWC section 13268, a civil liability may be imposed administratively by the Regional Board in an amount of up to \$1,000 per day of violation (i.e., for each day of delay in submitting all information requested, or for each day that false information remains uncorrected).

If you wish to dispute the factual basis of, or the legal conclusions set forth in this order, you must submit all evidence and argument supporting rescission or modification of the order to the Regional Board within 14 days of the date of the order (February 26, 2007). Within 14 days the Regional Board will respond to your submission in writing, or advise you when a written response upholding, modifying, or rescinding the investigative order will be issued. You would have 30 days from the date of such response to file a petition for administrative review under Water Code section 13320 with the State Water Resources Control Board.

If you have any questions, or require additional assistance, please contact Ms. Sue Pease of my staff at (858) 637-5596.

Respectfully,



John H. Robertus
Executive Officer
San Diego Regional Water Quality Control Board

JHR:jro:sjp

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cc: Mr. Jerome Jaminet Jr., TRC Environmental Consultants, 9471 Ridgehaven Court, Suite 3, San Diego, CA 92123

California Environmental Protection Agency

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

INVESTIGATIVE ORDER NO. R9-2007-0016

**FORMER AZTEC GAS STATION
1540 EAST 8TH STREET
NATIONAL CITY, CALIFORNIA**

The California Regional Water Quality Control Board, San Diego Region (herein after Regional Board) finds:

- 1. Unauthorized Discharge of Waste:** In 1989, an unauthorized discharge of petroleum hydrocarbon waste to soil and ground water was discovered at the gasoline station located at 1510 East 8th Street in National City, San Diego County, California. The waste was discharged from the station's leaking underground storage tank (LUST) system creating a condition of pollution in the underlying ground water aquifer, and creating a threatened condition of contamination and nuisance to the ground water and nearby surface water.
- 2. Parties Responsible for the Discharge:** ConocoPhillips (hereinafter the Discharger) is the party responsible for the discharge. At the time of the unauthorized discharge of waste, ConocoPhillips owned and operated the underground storage tank system on the property. As the owner and operator of the underground storage tank system, the Discharger caused the initial discharge of petroleum waste to soil and ground water at the station discovered in 1989.
- 3. Waste Discharges:** Petroleum fuel related constituents have been detected in ground water beneath the site. Light Nonaqueous Phase Liquid - LNAPL (or free phase) petroleum hydrocarbon has been detected in several groundwater monitoring wells since 2002. Dissolved phase petroleum hydrocarbons are summarized as follows:

Constituent	Water Quality Objectives (micrograms per liter or µg/L)	Maximum Groundwater Concentration (µg/L)¹
Benzene	1	7,200
Toluene	150	7,100
Ethylbenzene	300	1,500
Xylenes	1750	11,000
TBA ^A	12 ²	2,600
MTBE ^B	13	<12 ³
DIPE ^C	0.8 ⁴	53

A = TBA is tertiary butyl alcohol
B = MTBE is methyl-tertiary-butyl ether
C = DIPE is Di-isopropyl ether

The fuel related constituents tabulated above are present in ground water in concentrations exceeding applicable water quality objectives.

4. **Condition of Pollution:** The site is located in the National City hydrologic area (HA 908.30) of the Pueblo Hydrologic Unit of the San Dieguito River watershed. This subarea has designated beneficial uses for both surface and ground waters. Designated beneficial uses of ground water resources include municipal supply.

The concentrations of waste constituents (tabulated in Finding 3 of this Order) exceed the water quality objectives prescribed by the Regional Board Water Quality Control Plan (Basin Plan) and primary maximum contaminant levels (MCL), for the protection of public drinking water supplies, established by the California Department of Health Services. The discharge of petroleum hydrocarbon constituents degrade the quality of ground water resources, impair the designated beneficial uses of the waters as identified in the Basin Plan, and create a condition of pollution in ground water.

¹ *Third Quarter 2006, September 29, 2006, Quarterly Groundwater Monitoring Report*, prepared by TRC Env.

² **California Notification Level** -- Notification levels are published by the California Department of Health Services (DHS) for chemicals for which there is no drinking water MCL. Notification levels are based mainly on health effects - an incremental cancer risk estimate of 10⁻⁶ for carcinogens and a threshold toxicity limit for other constituents. When they are purely health-based, notification levels may also be used to interpret narrative water quality objectives that prohibit toxicity to humans that beneficially use the water resource. California Department of Health Services, Division of Drinking Water and Environmental Management, *Drinking Water Notification Levels*, <http://www.dhs.ca.gov/ps/ddwem/chemicals/AL/notificationlevels.htm>.

³ Result due to dilution of sample.

⁴ California Taste & Odor Threshold.

- 5. Regulatory Authority and Necessity:** California Water Code section 13267 authorizes the Regional Board to investigate the quality of any water of the state within its region. The Regional Board may require Discharger to submit technical and monitoring program reports. These findings provide the Discharger with a written explanation with regard to the need for the reports and identify the evidence that supports the requirement to submit the reports. The associated costs bear a reasonable relationship to the need for the actions, specifically the protection of water quality and beneficial uses.
- 6. Legal and Regulatory Authority:** This Order is based on (1) section 13267 of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000); (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies and regulations, including State Water Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*) Resolution No. 88-63 (*Sources of Drinking Water*); California Code of Regulations (CCR) Title 23, Chapter 16, Article 11; CCR Title 23, section 3890 *et. seq.*, and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.
- 7. California Environmental Quality Act (CEQA):** This action is an order to enforce the laws and regulations administered by the Regional Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act pursuant to section 15308 of the California Public Resources Code.

IT IS HEREBY ORDERED, pursuant to section 13267 of the California Water Code, that the Discharger must report results from field investigations on the effects of the discharge and comply with the following directives:

A. TASKS

- 1. Ground Water Monitoring:** The Discharger must implement a quarterly ground water monitoring program at the site, as specified in Enclosure 1. Results must be reported commencing with a quarterly report due on **April 30, 2007**.

- 2. Site Conceptual Model:** The Discharger must submit a site conceptual model (SCM) no later than **April 30, 2007**. The SCM is a written or pictorial representation of the release scenario and the likely distribution of waste at the site, as well as potential pathways and receptors. The SCM must identify and describe the types of wastes present including their distribution in space and time, and how the wastes are changing in space and time.

The SMC also must identify the potential, current and future receptors in the area; link potential sources to potential receptors through transport of wastes in the air, soil and water; and identify the fate and transport characteristics of the site. It should describe or show the physical characteristics and properties of the subsurface and identify the environmental issues that need to be investigated (and those issues that do not need to be addressed). The initial SCM must include data interpretations, a discussion of the level of uncertainty of conclusions, outline data gaps remaining in the conceptual model, and describe the additional work needed to fill identified data gaps and make recommendations for the next phase of the cleanup.

The SCM must be refined and updated as site characterization data becomes available. Updates to the SCM should be included in all future technical and quarterly monitoring reports submitted.

- 3. Workplan for Soil and Ground Water Investigation:** A workplan is due no later than **April 30, 2007**. A complete soil and ground water investigation must be performed to fully delineate the extent of fuel wastes in soil and the ground water. The performance goals in the workplan should address the data gaps identified in the SCM (see Task A.2 above) including:
- a. Identify all wastes associated with the discharge and the horizontal and vertical extent of the wastes both on and off site to background levels in both the ground water and soil.
 - b. Characterize the geology and hydrogeology of the site with respect to transport of the wastes.
 - c. Determine the source(s), and nature of the discharge in the subsurface, and evaluate the impacts of the wastes on all existing and future sensitive receptors that could be affected by the wastes.

Based on the SCM, submit an adequate workplan and schedule for the next phase of this investigation. The workplan must propose tasks needed to obtain data to fill the data gaps identified in the SCM. An adequate workplan must be submitted to the Regional Board no later than **April 30, 2007**.

The Discharger shall provide a technical report with the results from full implementation of the workplan. Implementation of the workplan will commence no later than 60 days after submission of the workplan. Within 60 days of the conclusion of the investigation the Discharger must submit a technical report including an adequate characterization of the source(s), nature and extent (both laterally and vertically) of the discharge, and addresses any pollutants that have migrated off-site. The information in the report must provide an adequate basis for determining subsequent cleanup and abatement actions.

- 4. Corrective Action Plan:** The Discharger must prepare a Corrective Action Plan (CAP) and submit it to the Regional Board no later than **September 30, 2007**. The CAP must satisfy the provisions of section 2725 of the regulations governing underground storage tanks (CCR, Title 23, Chapter 16 section 2600, *et seq.*). The CAP must identify and discuss a range of remedial action alternatives that may be implemented to cleanup petroleum fuel wastes and include a schedule for implementing the preferred remediation alternative. The CAP must consider mitigation of the following constituents in the affected ground water zones: benzene, toluene, total xylenes, ethylbenzene, methyl tertiary butyl ether, tertiary butyl alcohol and any other wastes which may have been released by the Discharger. All free phase petroleum hydrocarbon product (*i.e.*, light non-aqueous phase liquid or "LNAPL") must be removed and any sources of petroleum hydrocarbon wastes must be removed.
- 5. Interim Remedial Actions:** The Discharger shall implement interim remedial actions to abate or correct the actual or potential effects of the unauthorized release pursuant to California Code of Regulations (CCR) Title 23, Chapter 16, section 2722(b) as necessary. Interim remedial actions may include but are not limited to: activities that remove all free product (or LNAPL), removal of petroleum hydrocarbon sources (*e.g.* soil saturated with petroleum hydrocarbons) and/or mitigation of pollution of all surface and ground waters affected by the waste discharge. The Discharger must notify the Regional Board of interim remedial actions, as follows:

- a. Interim Remedial Actions to mitigate emergency conditions. In writing with a technical report documenting any work performed to mitigate emergency conditions or pollution or nuisance created by the discharge of petroleum hydrocarbons at the site. The Discharger must submit the technical report to the Regional Board within 15-days after completing the work to mitigate emergency conditions under this directive. Or,
- b. Interim Remedial Actions to mitigate non-emergency conditions. In writing with a proposed workplan to mitigation non-emergency conditions and schedule at least thirty days prior to initiating any interim remedial actions. The Discharger must implement their interim remedial actions within 30 days of submitting the workplan to the Regional Board.

B. PROVISIONS

1. **No Pollution, Contamination or Nuisance:** The storage, handling, treatment, or disposal of soil containing petroleum hydrocarbon waste or polluted ground water must not create conditions of nuisance as defined in California Water Code section 13050(m). The Discharger must properly manage, treat and dispose of wastes and polluted ground water in accordance with applicable federal, state and local regulations.
2. **Good Operation and Maintenance:** The Discharger must maintain in good working order and operate as efficiently as possible any monitoring system, facility or control system installed to achieve compliance with the requirements of this Order.
3. **Ground Water Monitoring Program:** The Discharger must comply with the Ground Water Monitoring Program specified in Enclosure 1 of this Order.
4. **Contractor/Consultant Qualifications:** All technical documents must be signed by and stamped with the seal of a California licensed professional geologist, or a California licensed civil engineer.
5. **Lab Qualifications:** All samples must be analyzed by California State-certified laboratories using approved EPA methods for the type of analysis to be performed. All laboratories must maintain quality assurance/quality control (QA/QC) records for Regional Board review.


- 6. Reporting of Changed Owner or Operator:** The Discharger must notify the Regional Board of any changes in site occupancy or ownership associated with the property described in this Order.
- 7. Penalty of Perjury Statement.** All reports must be signed by the Dischargers' principal executive officer or their duly authorized representative, and must include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- 8. Electronic Data Submittals:** All information submitted to the Regional Board in compliance with this Order in paper copy format is also required to be submitted electronically via the Internet into the GeoTracker database. To comply with section 3893, Title 23, CCR; your update to the Geotracker database must include the following minimum information:
 - a. Data generated after the effective date of the regulations by chemical analysis of soil, vapor, or water samples (including surface water, groundwater and influent/effluent water samples from remediation systems), shall be submitted in Electronic Data File (EDF) format.
 - b. The latitude and longitude of any permanent monitoring well for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two reference points from the California Spatial Reference System (CSRS-H), if available.
 - c. The surveyed elevation relative to a geodetic datum of any permanent monitoring well.
 - d. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevation.
 - e. A site map or maps showing the location of all sampling points referred to in the report.
 - f. The depth to the screened interval and the length of screened interval for any permanent monitoring well.
 - g. Boring logs, in PDF format.
 - h. A complete copy of the report, in PDF format, which includes the signed transmittal letter and professional certification.

The GeoTracker website address is
<http://www.geotracker.waterboards.ca.gov>. Deadlines for electronic
submittals coincide with deadlines for paper copy submittals

9. **Regulations:** All corrective actions must be in accordance with the provisions of California Code of Regulations Title 23, Chapter 16, and the Cleanup and Abatement Policy in the *Water Quality Control Plan for the San Diego Basin (9)*.

C. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner that will degrade water quality or adversely affect the water quality needed to sustain beneficial uses of waters of the State is prohibited.
2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup, which will cause significant adverse migration of wastes or hazardous substances, are prohibited.


JOHN H. ROBERTUS
Executive Officer
January 22, 2007

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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY
SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED
TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE
SECTION 13268 OR REFERRAL TO THE ATTORNEY GENERAL FOR
INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY
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Enclosure 1: Quarterly Ground Water Monitoring Program

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**ENCLOSURE 1 of R9-2007-0016
QUARTERLY GROUND WATER MONITORING PROGRAM**

**FORMER AZTEC GAS STATION
1540 EAST 8TH STREET
NATIONAL CITY, CALIFORNIA**

- 1. Authority and Purpose:** The Discharger is directed to submit the technical reports required in this Ground Water Monitoring Program (GMP) pursuant to California Water Code section 13267. This GMP is intended to document compliance with Investigative Order No. R9-2007-0016.
- 2. Monitoring:** The Discharger must measure ground water elevations quarterly in all monitoring wells. Ground water samples from wells must be collected and analyzed using EPA methods 8015 for total petroleum hydrocarbons quantifying gasoline and diesel and EPA method 8260 for volatile organic compounds including benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA) and all other fuel oxygenates.

Ground water samples shall be collected and analyzed on a semi-annual basis in the 1st and 3rd quarter of the calendar year from the following monitoring wells: MW2, MW3, MW5, MW7, MW8, MW9, MW13, MW16, and MW18. Ground water samples from all other groundwater monitoring wells shall be collected and analyzed on a quarterly basis.

The Discharger must sample any new groundwater monitoring or extraction wells quarterly and analyze ground water samples for fuel related constituents and oxygenates, including the constituents identified in Finding 3 of this Order. The Discharger may provide a written proposal to change the sampling requirements in this Order; any proposed changes are subject to Regional Board approval.

- 3. Quarterly Ground Water Monitoring Reports:** The Discharger must submit quarterly ground water monitoring reports to the Regional Board commencing with **July 30, 2007**. Subsequent reports shall be submitted no later than 30 days following the end of the quarter according to the following schedule:


Monitoring Period	Due Date for Report
First Quarter (Jan-Mar)	Due no later than April 30
Second Quarter (Apr-Jun)	Due no later than July 30
Third Quarter (Jul-Sep)	Due no later than October 30
Fourth Quarter (Oct-Dec)	Due no later than January 30

The quarterly ground water monitoring reports must include:

- A. Transmittal Letter with Penalty of Perjury Statement.** The transmittal letter must discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter must be signed by the Discharger's principal executive officer or their duly authorized representative, and must include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- B. Ground Water Elevations.** Ground water elevation data must be presented in tabular format with: depth to ground water (in feet below ground surface), top of casing elevations, depths to the top of well screens, length of well screens and total depth for each well included in the monitoring program. For all wells containing floating "free petroleum product" (A.K.A. light non-aqueous phase liquid or LNAPL) include the measured thickness of LNAPL in a tabular format. A ground water elevation map must be prepared for each monitored water-bearing zone with the ground water flow direction and calculated hydrologic gradients(s) clearly indicated in the figures(s). A complete tabulation of historical ground water elevations must be included in the fourth quarterly report each year.
- C. Reporting Ground Water Results:** All monitoring reports must:
- i. Present all ground water sampling data in tabular format. Isoconcentration map(s) must be prepared for constituents of concern (COCs) for each monitored water-bearing zone, as appropriate. Time versus concentration plots and distance versus concentration plots that also show ground water elevations must be prepared for constituents of concern for appropriate wells.
 - ii. Provide a site plot plan which clearly illustrates the locations of monitoring wells, former/current underground storage tank systems (and product piping) and buildings located on the property and immediately adjacent to the property lines of the site.

- iii. Provide a site plot plan with the most recent concentrations of total petroleum hydrocarbons and volatile aromatic hydrocarbons (*e.g.* benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA and other fuel oxygenates).
 - iv. The report must provide technical interpretations of the ground water data, and describe any significant increases in pollutant concentrations since the last report, any measures proposed to address the increases, any changes to the site conceptual model, any conclusions and recommendations for future action with each report.
 - v. The report must describe analytical methods used, detection limits obtained for each reported constituent, and a summary of QA/QC data.
 - vi. The report must indicate sample collection protocol(s), describe how investigation derived wastes are managed at the site, and include documentation of proper disposal of contaminated well purge water and/or soil cuttings removed from the site.
 - vii. Historical ground water sampling results must be listed in tabular form and included in the fourth quarterly report each year.
- D. Paper Copy and Electronic Data Submittals:** All data and reports must be submitted both in paper copy and electronic formats. Deadlines for paper copy submittals also extend to electronic copy submittals. As of January 1, 2005, the applicable electronic reporting requirements include well location data, survey data, sampling data, ground water elevation data, boring logs, well screen information, site maps, and copies of reports in PDF format. All required information must be submitted electronically via the Internet into the GeoTracker database in the appropriate electronic deliverable format according to the schedule in item 3 above. The GeoTracker website address is <http://www.geotracker.waterboards.ca.gov>.
- E. Ground Water Extraction:** If applicable, the report must include ground water extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total ground water volume for the quarter. The report must also include contaminant removal results, from ground water extraction wells and from other cleanup and abatement systems (*e.g.* soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical total annual mass removal results must be tabulated in the fourth quarterly report each year.

- F. Status Report:** The quarterly report must describe relevant work completed during the reporting period (*e.g.* site investigation, interim remedial measures) and work planned for the following quarter.
- 4. Violation Reports:** If the Discharger violates any requirement of this Order, then the Discharger must notify the Regional Board office by telephone as soon as practicable once the Discharger has knowledge of the violation. Regional Board staff may, depending on violation severity, require the Discharger to submit a separate technical report on the violation within five working days of telephone notification.
 - 5. Other Reports:** The Discharger must notify the Regional Board in writing prior to any site activities, such as construction or removal of an underground tank, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
 - 6. Record Keeping:** The Discharger or their agent must retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and must make them available to the Regional Board upon request.
 - 7. Ground Water Monitoring Program (GMP) Revisions:** Revisions to the GMP may be ordered by the Regional Board, or at the request of the Discharger. Prior to making GMP revisions, the Regional Board will consider the burden, including costs, of the ground water monitoring reports relative to the benefits to be obtained from these reports.



JOHN H. ROBERTUS
Executive Officer
January 22, 2007