

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2007-0722

FOR

CHEVRON PRODUCTS COMPANY, CELONI OIL COMPANY,
RAMOS OIL COMPANY, AND UNION PACIFIC RAILROAD COMPANY
FORMER CHEVRON FUEL TERMINAL #1001546
YOLO COUNTY

This Order is issued to Chevron Environmental Management Company (Chevron), Celoni Oil Company (Celoni), Ramos Oil Company (Ramos), and Union Pacific Railroad Company (UPRR), hereafter collectively referred to as Dischargers, based on provisions of California Water Code Section 13304, which authorizes the California Regional Water Quality Control Board, Central Valley Region (hereafter Water Board) to issue a Cleanup and Abatement Order (Order), and Water Code section 13267, which authorizes the Water Board to require preparation and submittal of technical and monitoring reports.

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

PROPERTY OWNERSHIP AND OPERATIONS

1. Chevron constructed the bulk fuel terminal at Old Highway 99 and County Road 6 in Dunnigan (site), as shown in Attachment 1, which is made part of this Order, in 1913 on land leased from UPRR (successor of Southern Pacific Railroad Company). Mr. Joe Celoni of Celoni purchased the facility in 1981 and then sold the facility to Ramos in 1994. In 1998, Ramos purchased the land from UPRR. In 2006, Ramos ceased operations and removed the aboveground tanks. The property is currently vacant.
2. Chevron, Celoni, and Ramos are named in this Order because they operate or operated a bulk fuel terminal at the time releases of wastes occurred. Ramos is also named in this Order because it is the current property owner. UPRR is named in this Order because it owned the property during the time of Chevron and Celoni operations when discharges of waste occurred.

BACKGROUND

3. The site formerly had five aboveground tanks that contained diesel and gasoline, waste oil storage containers, a fueling area, above and below ground piping, a water supply well and an office building. Groundwater pollution was discovered in June 1987, when the onsite water supply well, WSW-1, was tested for organic chemicals. This well, which is 125 feet deep, contained 1,2-dichloroethane, benzene, ethylbenzene, toluene, and xylenes at 4.4, 90, 11, 8.5, and 26 micrograms per liter ($\mu\text{g/l}$), respectively. The groundwater pollution was caused in part by a leak in underground lines and spills during transfer of fuel products.
4. Numerous soil and groundwater investigations have taken place since 1989. There are currently 23 monitoring wells in three zones: 13 wells in the shallow zone screened

between about 20 and 60 feet below ground surface (bgs); 9 wells in the deep zone screened between 60 and 65 feet bgs, and 1 well in the very deep zone screened between 195 and 205 feet bgs.

5. During the fourth quarter of 2006, WSW-1 (125 feet bgs) contained total petroleum hydrocarbons (TPH) as diesel and gasoline, benzene, toluene, ethylbenzene, xylenes, and methyl tertiary butyl ether (MTBE) at concentrations of 2,400, 3,900, 630, 14, 110, 220, and 1 µg/l, respectively, and the very deep well (205 feet bgs) contained TPH as diesel at 180 µg/l. During the same quarter, the highest concentrations of TPH as diesel, TPH as gasoline, benzene, and MTBE were 1,400, 69, 5, and 100 µg/l, respectively, in shallow groundwater, and 1,900, 640, 28, and 5 µg/l, respectively, in deep groundwater.
1. In February 1989, the Executive Officer issued Cleanup and Abatement Order (CAO) No. 89-702 for failure to submit a complete site investigation work plan. On 4 September 2002, the Executive Officer rescinded CAO No. 89-702 and issued CAO No. R5-2002-0721.
7. The Dischargers complied with several of the requirements in CAO No. R5-2002-0721, including conducting additional site assessment, and preparing a feasibility study and a remediation work plan. However, as of Spring 2007, the Dischargers have not defined the lateral or vertical extent of groundwater pollution nor begun any active remediation.
8. On 27 November 2006, Chevron submitted a *Remediation Work Plan* proposing to clean up groundwater using biosparge technology. On 7 February 2007, Chevron submitted a *Remediation Work Plan Addendum*. Neither the Work Plan nor the Addendum provides sufficient design and operation parameters for the proposed biosparge system.
9. CAO No. R5-2002-0721 is outdated, and based on current site conditions, more specific due dates are needed to require installation and operation of remedial actions. Since the site no longer operates as a bulk fuel terminal, some remedial actions might now be feasible that were not compatible with an operating fuel facility.

AUTHORITY – LEGAL REQUIREMENTS

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

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

11. Section 13304(f) of the California Water Code provides that:

“Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state and local drinking water standards and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge of waste”

12. 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.”

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

“If waste is cleaned up or the effects of the waste are abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by any government agency, 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. . .”

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

15. The Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition, rev. August 2006* (hereafter Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The beneficial uses of the groundwater beneath the site are domestic, municipal, industrial, and agricultural supply.
16. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Regional Water Board's policy for managing contaminated sites. This Policy is based on Water Code Sections 13000 and 13304, the Title 27 CCR, Division 2, Subdivision 1 regulations, and State Water Board Resolution Nos. 68-16 and 92-49. The Policy includes site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the bases for establishment of soil and groundwater cleanup levels.
17. The State Board adopted the *Water Quality Enforcement Policy*, which states in part: "*At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the RWQCB allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the CAO should require the discharger(s) to abate the effects of the discharge. Abatement activities may include the provision of alternate water supplies.*" (*Enforcement Policy, p. 19.*)
18. The wastes detected at the site are not naturally occurring, and MTBE is a known human carcinogen. Pollution of groundwater with these wastes impairs or threatens to impair the beneficial uses of the groundwater.
19. WQOs listed in the Basin Plan include numeric WQOs, e.g., state drinking water maximum contaminant levels (MCLs) and narrative WQOs, including the narrative toxicity objective and the narrative taste and odor objective for surface water and groundwater. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, which provides that "[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives." The numerical limits for the constituents of concern listed in the following table implement the Basin Plan WQOs.

Constituent	Limits	WQO	Reference
Total Petroleum Hydrocarbons as Gasoline	5 µg/l	Taste and Odor	McKee & Wolf, <i>Water Quality Criteria</i> , SWRCB, p. 230
Total Petroleum Hydrocarbons as Diesel	100 ug/l	Taste and Odor	U.S. EPA Suggested No-Adverse Response Level, 1980
Benzene	0.15 µg/l	Toxicity	California Public Health Goal (OEHHA)
Toluene	42 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97
Ethylbenzene	29 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97
Xylene	17 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97
MTBE	5 µg/l	Taste and Odor	Federal Register, Vol. 54, No. 97

µg/l = micrograms per liter
 MTBE = methyl tertiary butyl ether

20. The constituents listed in Finding No. 19 are wastes as defined in California Water Code Section 13050(d). The groundwater exceeds the WQOs for the constituents listed in Finding No. 5. Exceeding applicable WQOs in the Basin Plan constitutes pollution as defined in California Water Code Section 13050(l)(1).

DISCHARGER LIABILITY

21. As described in Findings 1 through 9, 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 Water Board.
22. This Order requires investigation and cleanup of the site in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, and other applicable plans, policies, and regulations.
23. As described in Findings 1 through 7, the Dischargers are subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Dischargers named in this Order. The technical reports required by this Order are necessary to assure compliance with Section 13304 of the California Water Code, including the need to adequately investigate and clean up the site to protect the

beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

24. If the Dischargers fail to comply with this Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction.
25. If the Dischargers violate this Order, the Dischargers may be liable civilly in a monetary amount provided by the Water Code.
26. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Title 14 CCR Section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Title 14 CCR, Sections 15308 and 15330.
27. Any person affected by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Title 23 CCR Sections 2050-2068. The regulations may be provided upon request and are available at www.swrcb.ca.gov. The State Board must receive the petition within 30 days of the date of this Order.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to California Water Code Section 13000, Section 13304 and Section 13267, Cleanup and Abatement Order No. R5-2002-0721 is rescinded, and Chevron Environmental Management Company, Celoni Oil Company, Ramos Oil Company, and Union Pacific Railroad Company shall:

1. Investigate the discharges of waste, clean up the waste, and abate the effects of the waste, forthwith, resulting from activities at the former Chevron Fuel Terminal #1001546, in conformance with State Board Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

SITE ASSESSMENT

2. As required in the 31 August 2007 letters from Water Board staff to Chevron and Ramos, by **14 December 2007** submit Site Assessment Reports, which shall include the information in Attachment 2, *Items to be Included in a Site Assessment Report*, which is

made part of this Order. The Site Assessment Reports shall include recommendations and, if needed, a second Work Plan for additional investigation. If additional investigation is necessary, the Work Plan shall include a time schedule for completing the work and submitting the results.

3. Within **45 days** of staff concurrence with the Work Plan for additional site assessment, and in accordance with the approved time schedule, implement the Work Plan.
4. Upon defining the extent of wastes, but no later than **14 March 2008**, submit a *Problem Assessment Report* (PAR) which includes information from the implementation of the Work Plan and sufficient detail on the nature and extent of the release to provide a basis for future decisions regarding subsequent cleanup and abatement actions.

REMEDIATION

5. By **30 January 2008**, submit a *Remediation Pilot Study Work Plan* that includes a recommendation for a final remedial alternative, a work plan for a pilot study, and a time schedule to implement the pilot study.
6. Within **30 days** of staff concurrence with the *Remediation Pilot Study Work Plan*, but no later than **1 April 2008**, implement the pilot study in accordance with the approved time schedule, which shall become part of this Order.
7. Submit results of the pilot study in a Pilot Study Report, in accordance with the approved time schedule, but no later than **1 July 2008**. The Pilot Study Report shall include an evaluation of the feasibility of using the proposed technology to clean up the soil and groundwater at the site. The Dischargers shall attempt to clean up each constituent to background concentrations, or to the lowest level that is technically and economically achievable and which complies with all applicable water quality objectives of the Basin Plan and promulgated water quality criteria.
8. Within **60 days** of Water Board staff concurrence with the Pilot Study Report, but no later than **15 October 2008**, submit a Final Remedial Plan (FRP). The FRP must include a detailed description of the remedial actions to clean up the entire groundwater plume and source area soils. The FRP shall also include a schedule to implement all remedial actions.
9. Within **60 days** of Water Board staff approval of the FRP, but no later than **15 January 2009**, begin implementation of the approved remedial actions.
10. For remediation system(s), submit **monthly** status reports for the first three months of operation of any new systems. At a minimum, the monthly status reports shall include:
 - site maps showing the capture zone and waste plumes,
 - average extraction rates of all treatment systems,

- influent and effluent concentrations of TPHg, TPHd, benzene, toluene, ethylbenzene, xylene, and MTBE.
- mass of hydrocarbons treated during the reporting period and cumulative to date,
- estimated mass of wastes remaining and predicted time frame for meeting cleanup objectives,
- running and down time for the remediation system(s),
- summary of consultant visits to the site, and
- evaluation of the overall remediation program and recommendations to correct deficiencies and/or increase efficiency.

12. The Discharger shall ensure that any soil vapor or groundwater extraction system(s) "zone of capture" completely envelops and controls the contamination plume(s) (lines of zero contamination in all targeted zones). If sampling results in any two consecutive months (or quarters) demonstrate that any part of the contamination plume(s) is not within the "zone of capture", the Discharger shall include with the second status report a proposal to mitigate the condition. The proposed actions shall be completed within 60 days (adjust as appropriate) of staff approval of the proposal.

GROUNDWATER MONITORING

13. Conduct monitoring of the existing wells and any additional wells in accordance with MRP No. R5-2002-0820 or any revised MRP issued by the Executive Officer.

GENERAL REQUIREMENTS

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

15. Upon startup of any remediation system(s), operate the remediation system(s) continuously, except for periodic and required maintenance or unpreventable equipment failure. The Dischargers shall notify the Water Board within 24 hours of any unscheduled shutdown of the remediation system(s) that lasts longer than 48 hours. This notification shall include the cause of the shutdown and the corrective action taken (or proposed to be taken) to restart the system. Any interruptions in the operation of the remediation system(s), other than for maintenance, emergencies, or equipment failure, without prior approval from Water Board staff or without notifying the Water Board within the specified time is a violation of this Order. Within 7 working days of a shutdown, the Dischargers

shall submit a Technical Report containing at a minimum, but not limited to the following information:

- times and dates equipment were not working,
- cause of shutdown,
- if not already restarted, a time schedule for restarting the equipment, and
- a Cleanup Assurance Plan to ensure that similar shutdowns do not reoccur. Proposed Cleanup Assurance Plans are to be completed within 30 days of the system shutdown.

16. Notify Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.
17. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.
18. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.
19. Optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in the quarterly reports.
20. Maintain a sufficient number of monitoring wells to completely define and encompass the waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within 30 days of Water Board staff approval, to define the new plume limits.
21. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site.
22. If the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. An extension may be granted by revision of this Order or by a letter from the Executive Officer. Extension requests not approved in writing by the Executive Officer with reference to this order are denied.

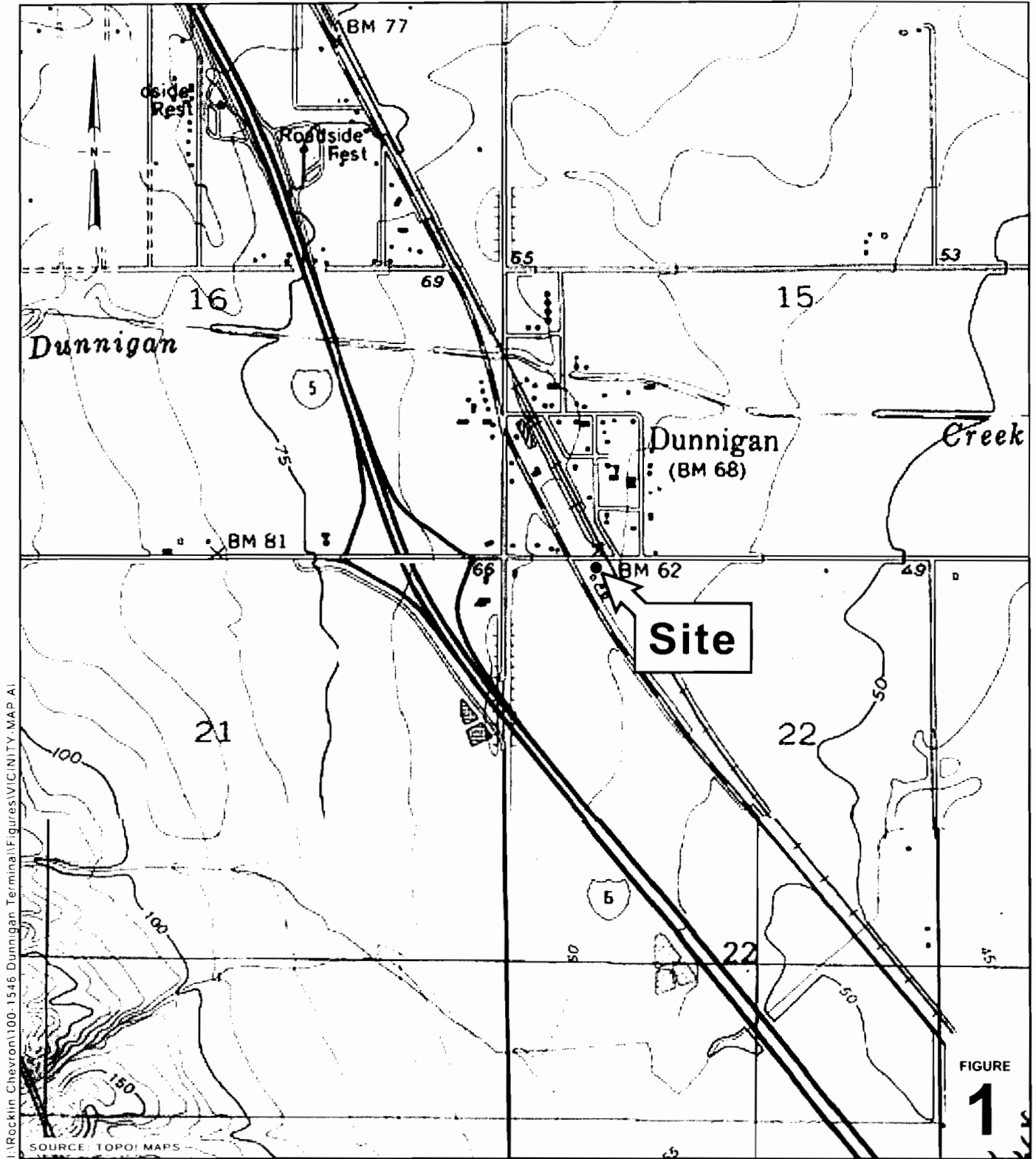
23. If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

This Order is effective upon the date of signature.

PAMELA C. CREEDON, Executive Officer

28 September 2007

(Date)



I:\Rocklin Chevron\100-1546 Dunnigan Terminal\Figures\VICINITY-MAP.A1

SOURCE: TOPOI MAPS

FIGURE 1

Former Chevron Bulk Fuel Terminal 100-1546

County Road 6 and Highway 99 West
Dunnigan, California



CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair



Arnold
Schwarzenegger
Governor

Linda S. Adams
Secretary for
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CLEANUP AND ABATEMENT ORDER NO. R5-2007-0722

ATTACHMENT 3

ITEMS TO BE INCLUDED IN A SITE ASSESSMENT REPORT

The outline below is a minimum requirement for items to be included and discussed in the text of all site assessment reports submitted to the Board. Other supporting data to be included in the report, either within the text of the report or in appendices, are italicized at the end of each section. All reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. INTRODUCTION

Summary of past investigations
Purpose of the recent investigation
Scope of the recent investigation
Time period in which the recent investigation was carried out

II. SUMMARY

Number of wells drilled
Results of soil and water analyses
Ground water flow direction and gradient
Possible source determination

III. FIELD INVESTIGATION

Well Construction
Number and depth of wells drilled
Date(s) wells drilled
Description of drilling and construction
Approximate locations relative to facility site(s)

Supporting Data:

A well construction diagram for each well should be included in the report which shows the following details:

Total depth drilled
Depth of open hole (same as total depth drilled if no caving occurs)
Footage of hole collapsed
Length of slotted casing installed
Depth of bottom of casing
Depth to top of sand pack
Thickness of sand pack
Depth to top of bentonite seal
Thickness of bentonite seal
Thickness of concrete grout

California Environmental Protection Agency

Boring diameter
Casing diameter
Casing material
Size of perforations
Number of bags of sand
Well elevation at top of casing
Depth to ground water
Date of water level measurement
Monitoring well number
Date drilled
Location

Well Development

Date(s) of development of each well
Method of development
Volume of water purged from well
How well development completion was determined
Method of effluent disposal

Supporting Data:

Field notes from well development should be included in report.

Water Sampling

Date(s) of sampling
How well was purged
How many well volumes purged
Levels of temperature, EC, and pH at stabilization
Sample collection, handling, and preservation methods
Sample identification
Analytical methods used

Soil Sampling

Date(s) of sampling
Sample collection, handling, and preservation method
Sample identification
Analytical methods used

IV. FINDINGS OF THE INVESTIGATION

Lithology

Types of sediments encountered
Presence, location, and lateral continuity of any significant sand, silt, or clay layers
Any visual signs of contamination

Supporting Data:

Well logs geologic cross-sections should be included in the report.

Analytical Results of Soil and Ground Water Sampling

Analytical results of each monitoring well should be summarized

Supporting Data:

*Laboratory analytical sheets
Chain-of-custody forms*

Water Levels

Static water levels measured when well drilled
Date(s) of water level measurements
Water levels determined prior to sampling

Supporting Data:

Dates of water level measurement, depths to ground water, and ground water elevations should be tabulated and included in the report.

Ground Water Gradient and Flow Direction

Ground water gradient and flow direction determined by the investigation should be discussed and compared to the regional gradient and flow direction.

Supporting Data:

A ground water contour map, drawn to scale, should be provided which shows each well, its ground water elevation, and lines of equal ground water elevation. Ground water gradient and flow direction should be shown on the map. The calculation of the gradient should be included.

V. RESULTS OF QA/QC

QA/QC procedures
QC sample identification
Field blank analyses
Comparison of duplicate sample results

VI. CONCLUSIONS AND RECOMMENDATIONS

Evaluate any contamination found;
Compare to background levels and appropriate screening levels;
Identify any suspected source of contamination;
Recommend any further investigative needs based on data gaps; interim remedial measures; public participation;