50-275/323

Pacific Gas and Electric Company

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January 24, 2001

PG&E Letter DCL-2001-501

Mr. Roger Briggs, Executive Officer
Central Coast Regional Water Quality Control Board (CCRWQCB)
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-3147

Re: PG&E Diablo Canyon Submittal -

Diablo Canyon Power Plant (DCPP) - NPDES Permit Amendment Package

Dear Mr. Briggs:

In order to begin a dialogue with CCRWQCB staff on the DCPP NPDES permit renewal, PG&E has prepared the enclosed NPDES permit amendment package. This package was prepared following the review of: 1) the existing NPDES permit, 2) PG&E and CCRWQCB correspondence identifying NPDES permit changes and clarifications, and 3) the 1994 NPDES permit application.

This NPDES permit amendment package outlines the various permit and monitoring and reporting program changes that have been largely identified in PG&E's correspondence with the CCRWQCB, as well as recommended changes to the existing permit and the monitoring and reporting program. The package also contains updated permit application Forms 1 and 2C. These forms are amended to update information contained in the original NPDES permit renewal application submitted November 7, 1994, (PG&E Letter DCL-94-245) and include the analytical results of from our re-sampling event conducted in July 2000.

This amendment package does not address items such as the permit findings on the thermal and 316(b) studies agreed to as part of the settlement between the Regional Board and PG&E. Additionally, it does not address changes to the Receiving Water Monitoring Program incorporated in the settlement. These items will be handled separately. Other items not addressed in this package may also result from dialogue with CCRWQCB staff.

We look forward to working with you and your staff, and will be contacting you soon to set up a meeting to begin this NPDES permit renewal process. We would also like to use this meeting to review the contents of this package, define the renewal process, and establish a schedule with milestones to issue a permit in a timely and efficient manner.

C001

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate 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, I certify that 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.

If you have any questions, please contact Rick Hernandez of my staff at (805) 545-4662.

Sincerely,

David H. Oatley

Enclosure

2001501/rdhj/kmo

cc w/encl:

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Central Coast Regional Water Quality Control Board
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Amended NPDES Application

Permit No. CA 0003751

Prepared for:

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424

Prepared by:

Pacific Gas & Electric Company
Environmental Affairs
P.O. Box 770000
San Francisco, CA 94177

Kintr Environmental, Inc.
3377 Deer Valley Road, Suite 248
Antioch, California 94509
(925) 757-1732

January 2001

Kintr Environmental, Inc.

Amended NPDES Application

Permit No. CA 0003751

Prepared for:

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424

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January 2001

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1.0 INTRODUCTION

NPDES permit Order No. 90-09 was issued for Diablo Canyon Power Plant on May 11, 1990. As required, a new permit application was submitted November 7, 1994. The permit application included Form 1, Form 2C, and a check for $10,000 to cover the first annual fee.

Following the permit's expiration date of July 1, 1995, the permit was administratively extended under Title 23, Section 2235.4, as documented in the CCRWQCB's letter dated August 29, 1996. The permit renewal was deferred by the Regional Board pending the completion of the DCPP Thermal Effects and 316(b) Demonstration Studies, which were completed in March 2000, and finalization of the settlement agreement between the Regional Board and PG&E, which was announced in June 2000.

It is important at this time to move ahead with the NPDES permit renewal process. In order that we may start a dialogue with Board staff, we have prepared this NPDES permit amendment package for your review. This package is based on our review of: 1) the existing NPDES permit, 2) PG&E and CCRWQCB correspondence identifying NPDES permit changes and clarifications since the 1990 permit and 3) the 1994 NPDES permit application. This package outlines the various permit and monitoring and reporting program changes that have been identified in correspondence, as well as recommended changes to the existing permit and the monitoring and reporting program. This package also contains updated permit application Forms 1 and 2C. These forms are amended to update information and includes analytical results from our re-sampling event conducted in July 2000.

This amendment package does not address the permit findings on the thermal and 316(b) studies agreed to as part of the settlement between the Regional Board and PG&E. Additionally, it does not address changes to the Receiving Water Monitoring Program incorporated in the settlement. These items will be handled separately.

2.0 PROPOSED CHANGES TO PERMIT FINDINGS

This section addresses the changes that PG&E requests for new or modified discharges or to revise text in the permit to be consistent with current operations. Many of these items have been addressed in correspondence with Board staff over the ten years since this permit was last revised.

2.1 Revisions to the discharge descriptions in Finding No. 2

The text in Finding No. 2 should be changed to reflect the changed discharge description for Discharge 002, as well as the addition of eleven new discharge pathways 018-027 (including 025 (A) and 025 (B)).

PG&E recommends Finding 2 include the following revisions:

"Screen Wash Pumps Overboard (Discharge 002) and Industrial Storm Water (Discharge 020) discharge into the Intake Cove west of the cooling water intakes."

"Circulating Water Pumps Backflow (Discharge 026) is a short-term gravity induced discharge out the intake that occurs when a circulating water pump is shut down."

"Screen Wash Collection Sump Overflow" (Discharge 027) infrequently discharges out an opening in the face of the intake structure."

"The Biolab Discharge (Discharge 004) and Biolab/Reverse Osmosis Supply Lines Drain (Discharge 022) discharge to the Intake Cove east of the Intake Structure."

"The Biolab Seawater Supply Pump Valve Drain (Discharge 016), the Seawater Reverse Osmosis System Blowdown Drain (Discharge 017), and the Industrial Storm Water (Discharges 018, 021 and 023) all discharge into the Intake Cove east of the Intake Structure."

"Industrial Storm Water (Discharge 005, 006, and 007) and Stormwater Runoff (Discharges 024, 025(A) and 025(B) are discharged into the ocean at six points southeast of the Intake Cove."

"Storm Water Runoff (Discharge 019) discharges to Diablo Cove."

2.2 Revisions to the discharge descriptions in Finding No. 4

The text in Finding No. 4 should be revised to reflect the current discharge pathways and the associated plant operations. Listed below are discharge-related issues and PG&E's recommendations for resolution. Discharge issues that are generic, in that they have the potential to affect several discharge pathways, are described as "Generic Issues" and include a discussion of the pathways that are potentially affected and PG&E's recommendations. Issues that are discharge-specific, except internal wastestream flows, are described under each discharge number, along with PG&E's recommendations. As part of this review process, we have provided detailed flow rates and volumes (Form 2C – Attachment 1) for all internal wastestreams and Discharge Outfalls. As a result, some flows have changed since our previous application. These changes reflect a more consistent interpretation of the application instructions and do not affect the discharge limit of 2760 MGD on Discharge 001.

Generic Issue 1 - PG&E continues to evaluate new and improved corrosion inhibitors and biocide agents in an effort to improve the effectiveness of the plant closed cooling water systems. Currently, the corrosion inhibitors used in these systems, excluding the Diesel Generator Closed Cooling System, are a mixture of potassium molybdate, potassium nitrite, tolyltriazole, potassium tetraborate, and potassium hydroxide. The Diesel Generator Closed Cooling System (described below) uses a mixture of potassium dichromate and potassium hydroxide. Boric acid is also added to these systems as part of the corrosion control regime. Glutaraldehyde and isothiazolin are used in conjunction with these chemicals as a biocide to control microbial growth and biofouling. Dispersant and antifoaming agents may be used in conjunction with the biocides.

Generic Recommendation 1 - In order to allow flexibility in operations, PG&E proposes that the description for those discharges that could potentially contain these chemicals be changed to read:

> "Discharge of corrosion inhibitors and biocide agents used in the closed cooling water systems may occur due to leakage and/or during operation, testing and maintenance activities. Corrosion inhibitors may include potassium molybdate, potassium nitrite, tolyltriazole, potassium tetraborate, sodium hydroxide, potassium dichromate, potassium hydroxide and boric acid. The biocide agents may include glutaraldehyde and isothiazolin."

If new chemicals are of a character significantly different than described above, PG&E will notify the CCRWQCB in association with Provision D.4 as it exists in the current permit.

The following is a discussion of the closed cooling water systems at the plant and discharge pathways which could contain system leakage.

Component Cooling Water System

Each unit at DCPP has a closed-loop system consisting of 3 pumps, 2 heat exchangers, 2 chemical injection tanks, a surge tank, and 3 parallel cooling loops. The system contains approximately 66,000 gallons and supplies cooling water to plant vital and miscellaneous systems during normal operation as well as cooldown and post-accident conditions. Potentially, leakage from this system could be discharged through the following pathways: 001B, 001D, 001F, 001M, 004, 005, 008 and 009.

Service Cooling Water System

Each unit at DCPP has a closed-service cooling water system which supplies cooling water to secondary plant components and non-safeguards equipment. Each system contains approximately 11,000 gallons and consists of 2 service cooling water pumps, 2 heat exchangers, a chemical injection tank, and associated piping. Leakage from this system could potentially be discharged through the following pathways: 001D, 001E, 001F, 001H, 001J, 001K, 001L, 001M, 004, 005, 008 and 009.

Intake Cooling Water System

This system provides cooling water for the circulating water pump motor air coolers and bearing oil coolers. Each system, 1 per unit, contains approximately 1,150 gallons. Leaks and drainage from this system could potentially be discharged through the following pathways: 001Q, 002, and 003.

Diesel Generator Cooling System

The Diesel Generator Cooling System is a closed-loop cooling water system which uses potassium dichromate and potassium hydroxide to control corrosion. The floor drains in the Diesel Generator Rooms can be sealed to prevent any spills or leakage from entering the floor drains and subsequent entry into discharge 001F, 001M, 005, or 009.

Generic Issue 2 - Neutralizing amines (pH control agents) are effective as corrosion inhibitors and are used primarily in the plant's feedwater systems and steam generators. Neutralizing amines include ethanolamine (ETA), dimethylamine (DMA), pyrrolidine, lithium hydroxide, ammonia, morpholine, 3-methoxypropyl amine (MPA), 2-amino, 2-methly propanol (AMP), and 5-aminopentanol (5AP). Reducing agents such as hydrazine, carbohydrazide, and diethylhydroxylamine (DEHA), are also used to control oxygen and reduce electrochemical potentials, thereby decreasing corrosion and other deleterious processes promoted by an oxidizing environment in these systems. In addition to neutralizing amines, other corrosion inhibitors that are used include boric acid, as an inhibitor against steam generator tube denting, and titanium compounds, as inhibitors against stress corrosion cracking in caustic environments. Solvents are used in a two-step process which is based on dissolution and chelation of metals (primarily iron and copper), in the steam generators and other plant components, with ethylenediaminetetraacetic acid (EDTA), as the primary component in the various formulations, that can also contain triethanolamine, ascorbic acid and surfactants. Scale conditioning agents (SCA) are used to enhance the effectiveness of hydraulic techniques used to remove deposits from the steam generators. Scale conditioning agents may include DMA, dipyridyl, ethanoldiamine (EDA), phenanthroline, and methanol. The application of either solvents or SCA are proposed to be used during outages and maintenance activities in the steam generator and in other plant components.

Discharge of these chemicals due to leakage or during operation, testing and maintenance activities may occur through the following discharge pathways: 001D, 001F, 001H, 001J, 001K, 001L, 001M, 005, 008, and 009.

Generic Recommendation 2 - In order to reflect current operation in the NPDES permit, PG&E proposes that the discharge descriptions for the discharge pathways that may contain these chemicals be changed to read:

"Discharge may contain corrosion inhibitors such as neutralizing amines, pH control agents, reducing agents, oxygen scavengers, boric acid, and titanium compounds, during plant operation, and solvents or scale conditioning agents, for scale/sludge material dissolution, chelation, or softening, during outages. These chemicals are used in the feedwater system and/or the steam generators, and may be present in this discharge due to leakage or during operation, testing and maintenance activities."

Generic Issue 3 - In the current NPDES Permit, storm water discharges are called "Yard Storm Drains" or "Storm Water Runoff" and it is not clear which drainage areas may be affected by industrial activity.

Generic Recommendation 3 - Consistent with the State Water Board's Storm Water Permit program, we recommend that the term "Industrial Storm Water" be used for any storm water drainage area that includes any industrial activities. Other discharges where the drainage area does not include any industrial activities, such as natural vegetation and parking lots, are called "Storm Water Runoff". See Form 2C, Attachment 1 for a summary of each discharge location, including its title and estimated seasonal flow.

2.2.1 Revision to Discharge 001 - Once-Through Cooling Water

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 – Modify text in the permit to include "Generic Recommendations 1 and 2".

Issue 2 - PG&E uses sodium hypochlorite and acti-brom (sodium bromide and surfactants) in the once-through cooling water for the control of biofouling. Dechlorination with chemicals such as sodium bisulfite is performed intermittently in conjunction with the biofouling program to assure compliance with NPDES requirements.

Recommendation 2 - PG&E recommends the discharge description be modified to include:

> "DCPP implements a biofouling control program which includes the use of chlorination and bromination to control microbial growth. Dechlorination is also performed on an intermittent basis with chemicals such as sodium bisulfite."

Issue 3 - Outfall 001 is comprised of once-through cooling water for main condenser cooling, as well as relatively smaller amounts of in-plant wastes streams. For clarification purposes, the total volume of flow in Outfall 001 should be clearly descibed to include once-through cooling water and the internal waste streams.

Recommendation 3 - PG&E recommends that the description in Finding 4 be revised as follows:

Discharge 001 – Once-Through Cooling Water

> "The total flow volume into Diablo Cove through Outfall 001 is a combination of once-through cooling water (over 97%) that supplies the main steam condensers for Units 1 and 2 and the Service Cooling Water System (001E), the cooling water for the closed-loop Auxiliary Cooling Water System (001B), and miscellaneous in-plant waste streams (001D through 001Q). The natural temperatures of water in the intake cove and Diablo Cove are assumed comparable at any time. Corrosion inhibitors used in the closed-loop cooling water systems can occur due to leakage, or during operation, testing and maintenance activities."

2.2.2 **Issue 1** – Following the description for Discharge 001 in Finding 4, the sentence leading into the remaining internal waste streams (001B – 001Q) should be revised to accurately reflect the descriptions for other Outfalls (002 – 027) and the Firewater System Maintenance and Testing.

Recommendation 1 – PG&E recommends that the lead-in sentence referenced above be revised as follows:

"Cooling water for internal closed-loop cooling systems, the Firewater System Maintenance and Testing program which discharges into several waste streams and individual outfalls (see note 1 for the types of discharges), and the in-plant waste streams that discharge into the once-through cooling water system are described as follows:"

2.2.3 Revision to Discharge 001 A, (1), (2) and (3) Firewater System and "Note 1"

Issue 1 - The firewater system is flushed and tested on a routine basis to maintain reliability. The current NPDES permit deleted the references to Discharge 001 A and referenced "Note 1" located at the end of Finding 4 instead. The discharges from the firewater system occur at a number of locations at DCPP. "Firewater Tank Repairs" is another activity that should be added to the list of maintenance activities.

Recommendation 1 - PG&E recommends updating the discharge pathways which receive firewater releases as listed in Attachment 1 of the Amended Form 2C and revising "Note 1" to read as follows:

"Note 1: Maintenance and testing activities are routinely conducted on the firewater system to maintain reliability. The system consists of several loops that can be isolated for testing purposes and there are a numbers of hose stations. Unscheduled discharges from firewater systems will also occur in the event of fire. The following maintenance and testing activities are conducted:

- Firewater System Flushes and other activities

  Firewater will be discharged occasionally when, for example, portions of the system are flushed to ensure they remain clear.

- Firewater System Flow Tests

  This test is conducted typically once every three years to comply with Nuclear Regulatory Commission requirements.

- Fire Hose Tests

  This test is typically conducted annually on portions of the firewater system to comply with Nuclear Regulatory Commission requirements.

- Fire Water Tank Repairs

  A non-routine discharge of up to 300,000 gallons may be required for internal tank cleaning and recoating."

PG&E also recommends that the discharge descriptions for those discharges that receive firewater releases be consistent with Attachment 1 of the Amended Form 2C.

2.2.4 Revision to Discharge 001 B – Auxiliary Salt Water Cooling System

Issue 1 - See "Generic Issue 1".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendation 1".

Issue 2 - This discharge description contains notification requirements for dye testing using chemicals such as rhodamine.

Recommendation 2 - PG&E recommends the reporting requirements for dye testing be moved to the M&R section of the permit.

2.2.5 Revision to Discharge 001 D – Liquid Radioactive Waste Treatment System

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendations 1and 2".

Issue 2 - The current discharge description states:

> *"After decay and/or treatment, individual batches of low-level waste are sampled and analyzed to confirm compliance with discharge limits,* ***passed through a 5-micron filter****, and discharged into the auxiliary salt water cooling system."*

The 5-micron filter is not provided for radiological control or as a treatment necessary to meet NPDES limitations. The use of this filter pre-dates the original NPDES permit. Its description was included in the first NPDES permit for informational purposes only. The LRW system discharges comply fully with NPDES permit limitations for Discharge 001D prior to the 5-micron filter.

Recommendation 2 - PG&E recommends adding the following clarification to this finding:

> "The 5-micron filter is not part of an NPDES permit-required treatment or control system."

2.2.6 Revision to Discharge 001 E – Service Cooling Water System

Issue 1 - See "Generic Issue 1".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendation 1".

2.2.7 Revision to Discharge 001 F – Turbine Building Sump

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendations 1 and 2".

Issue 2 - PG&E notified the CCRWQCB staff in a letter dated September 11, 1992 (DCL-92-195) that the discharge description should be revised to include the collection of treated water in a separate sump prior to discharge to Outfall 001.

Recommendation 2 - PG&E recommends the discharge description be revised to read:

> "Floor drainage from the turbine building, buttress areas and drainage from other sumps, secondary systems, secondary systems chemistry laboratories and firewater system maintenance and testing (see note 1), are collected in the turbine building sump prior to treatment. *[Insert text from Generic Recommendations 1 and 2].* The turbine building sump effluent is treated in an oily water separator or the Wastewater Holding and Treatment (WHAT) system prior to discharge via a separate sump to the main circulating water. Polyelectrolytes and/or coagulants may be used as a treatment aid."

2.2.8 Revision to Discharge 001H - Condensate Demineralizer Regenerant

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 – Modify the text in the permit to include "Generic Recommendations 1 and 2".

2.2.9 Revision to Discharge 001I - Seawater Evaporator Blowdown

Issue 1 - The Seawater Evaporator System is not operational and there are no plans at this time to make it operational because the existing makeup water systems provide sufficient water to operate the plant.

Recommendation 1 - PG&E recommends that the Seawater Evaporator System continue to be listed in the NPDES permit, but the status should be "not operational" and the discharge flows should be zero (0).

Issue 2 - PG&E submitted a letter to the CCRWQCB dated February 13, 1991 (DCL-91-029) requesting concurrence to intermittently re-route Discharge 001J to Discharge 001I during power plant start-up operations and during periods of plant maintenance. The CCRWQCB provided concurrence in a letter dated April 3, 1991.

Recommendation 2 - PG&E requests that this discharge description be amended to reflect this alternate re-route of Discharge 001J as shown on the Waste Stream Schematic and include the following:

> "Intermittently during power plant start-up operations and plant maintenance Discharge 001J is re-routed to Discharge 001I."

2.2.10 Revision to Discharge 001J - Condensate Pumps Discharge Header Overboard

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 – Modify the text in the permit to include "Generic Recommendations 1 and 2".

2.2.11 Revision to Discharge 001K - Condenser Tube Sheet Detection Dump Tank Overboard

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendations 1 and 2" and re-name discharge as, "Condensate Dump Tank".

2.2.12 Revision to Discharge 001L – Steam Generator Blowdown

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendations 1 and 2".

2.2.13 Revision to Discharge 001M - Wastewater Holding and Treatment System

Issue 1 - See "Generic Issues 1 and 2".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendations 1 and 2".

2.2.14 Revision to Discharge 001N - Sanitary Wastewater Treatment System

Issue 1 - PG&E informed the CCRWQCB on September 11, 1992 (DCL-92-195) that the annual average flow for this discharge is 4.0×10^4 gpd. The maximum design capacity is 6.0×10^4 gpd, which could potentially be reached during unit outages when the onsite population temporarily increases. However, system integrator readings of the annual flow volume indicate the long-term average flow is 1.2×10^4 gpd.

Recommendation 1 - Based on current operations and consistent with Form 2C, Attachment 1, PG&E recommends that the long-term average flow for this discharge read 1.2×10^4 gpd.

2.2.15 Addition of Discharge 001Q - Intake Structure Building Sumps

Issue 1 - See "Generic Issue 1".

Recommendation 1 - Modify the text in the permit to include "Generic Recommendation 1".

Issue 2 - The intake building sump water was re-routed to NPDES Discharge 001 beginning in late 1996 as described in PG&E Letter DCL -96-500 (dated

March 11, 1996). The CCRWQCB provided written concurrence with this re-route on April 30, 1996. This water was previously discharged through Outfall 002 and can continue to be discharged through Outfall 002 if operationally it is determined necessary.

Recommendation 2 - PG&E recommends that this re-routed discharge be designated 001Q and be described in the permit as follows:

> "This discharge is comprised of drainage from within the intake structure including the intake sump, intake cooling water system, stored water releases, washwater, and firewater system maintenance and testing (see note 1). Discharge of corrosion inhibitors such as potassium molybdate, potassium nitrite, tolyltriazole, potassium tetraborate, potassium hydroxide and boric acid, and biocide agents such as glutaraldehyde and isothiazolin used in closed cooling water systems, may occur due to leakage and/or during operation, testing and maintenance activities."

2.2.16 Discharge 002 - Intake Structure Building Floor Drains

Issue 1 - Screenwash pumps provide more water than can be used in the screen wash system. The excess water is available to be used for emergency equipment cooling if needed (infrequent). The unused water is discharged through Discharge 002 at about 80 gallons/minute when the screen wash pumps are operating. As discussed in Section 2.2.15, Discharge 002 no longer routinely contains Intake Building Structure Sump water since its re-route to Outfall 001 beginning late in 1996 (as approved by the CCRWQCB April 30, 1996).

Recommendation 1 - PG&E recommends that Discharge 002 be renamed "Screen Wash Pumps Overboard". The discharge description should be changed to read:

> "Excess water from the screen wash pumps and firewater system maintenance and testing program (see note 1) is discharged inside the breakwater adjacent to the Intake Structure."

2.2.17 Revision to Discharge 003 - Intake Screen Wash

Issue 1 - See "Generic Issue 3"

Recommendation 1 - Modify text in the permit to include "Generic Recommendation 3".

Issue 2 - Subsequent to the issuance of the 1990 NPDES permit, the Intake Maintenance Shop was completed. This building resides within the Discharge 003 drainage area and on September 11, 1992 (DCL-92-195), PG&E notified the CCRWQCB of the completion of this building. The letter also included a description of a gutter on the east side of the building that collects storm water from the vicinity, routing it to Discharge 003. The screen wash water and ocean debris is no longer collected and removed for disposal.

Recommendation 2 – PG&E recommends that this discharge continue to be referred to as"Intake Screen Wash " and that industrial storm water be included

in the discharge description. In addition, the first two sentences of the discharge description should be revised as follows:

> "Debris from the ocean is washed from the traveling screens at the Intake Structure. The screen wash water, along with ocean debris, is pumped back to the ocean at a point located on the ocean side of the breakwater."

2.2.18 Revision to Discharge 004 - Biolab Discharge

Issue 1 - See "Generic Issue 3"

Recommendation 1 - Modify text in the permit to include "Generic Recommendation 3".

Issue 2 - In the current NPDES discharge description the term "filtrate" is incorrectly used. The description states, "Filters are backwashed based on pressure differentials and the filtrate (debris from the ocean) is discharged through Discharge 004." The term "filtrate" is defined as material which has passed though a filter. The material that is backwashed is the debris from the ocean which did not pass through the filter.

Recommendation 2 - PG&E recommends that this description be revised to read,

> "Filters are backwashed based on pressure differentials and the debris from the ocean is discharged through Discharge 004."

2.2.19 Revision to Discharge 005 - Yard Storm Water

Issue 1 - See "Generic Issues 1, 2 and 3".

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3. The description in the permit should be modified to include the text in Generic Recommendations 1 and 2 and the first sentence of the description should be modified as follows:

> "Storm water runoff from the plant yard on the Unit 2 side of the radwaste buildings and the turbine building yard discharges west of Patton Cove."

2.2.20 Revision to Discharge 006 - Yard Storm Water

Issue 1 – The discharge description should be updated to show that the temporary parking lot is now a permanent parking lot and the proposed used fuel storage area will be included in this watershed. The "Soils-Concrete Lab" which was described in Outfall 007, should be included in this discussion for Outfall 006. Finally, the description should include discharges from the Firewater System Maintenance and Testing.

Recommendation 1 – PG&E recommends the discharge description be revised. Even though the watershed is primarily undeveloped, the title should be changed to "Industrial Storm Water," consistent with Generic Recommendation 3. The following description is suggested:

> "Storm water runoff from the Pacific Ocean side of the ridge to the southeast of the plant is discharged south of Patton Cove. Industrial activities in this

watershed include the shooting range, south warehouse, used fuel storage area, Soils-Concrete Lab, stored water releases, washwater, and firewater system maintenance and testing (see note 1). A parking lot is also included in the watershed."

2.2.21 Revision to Discharge 007 - Storm Water Runoff

Issue 1 – The discharge description should be updated to reflect: 1) the temporary hazardous waste storage area has been closed; 2) the "Soils Lab" is now called the "Soils-Concrete Lab" and is included in the drainage for Outfall 006; 3) the drainage area includes an outside sandblast facility; and 4) the fuel tanks have been upgraded to double-walled, above-ground tanks, and thus the requirement to dike the area is no longer necessary.

Recommendation 1 - PG&E recommends the discharge description be revised. Even though the watershed is primarily undeveloped, the title should be changed to "Industrial Storm Water," consistent with Generic Recommendation 3. The following description is suggested:

"Storm water runoff from an area to the south of the same ridge that drains to Discharge 006 is routed to the ocean near the southern site boundary. Industrial activities in this watershed are conducted by the general construction paint department and vehicle fueling from the above-ground double-walled fuel tanks."

2.2.22 Revision to Discharge 008 - Yard Storm Drain

Issue 1 - See "Generic Issues 1, 2 and 3".

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3. The description in the permit should be modified to include the text in Generic Recommendations 1 and 2 and the first sentence should be modified as follows:

"Storm water runoff from the yard area of the turbine building is drained to the west plant access road and discharged into Diablo Creek."

2.2.23 Revision to Discharge 009 - Yard Storm Drain

Issue 1 - See "Generic Issues 1, 2 and 3". The hazardous waste storage area in the protected area of the plant has been closed and is no longer used.

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3. The description in the permit should be modified to include the text in Generic Recommendations 1 and 2. Finally, the reference to the "protected area hazardous waste storage area" should be deleted.

2.2.24 Revision to Discharge 010 - Yard Storm Drain

Issue 1 - See "Generic Issue 3"

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3.

2.2.25 Revision to Discharge 011 - Storm Water Runoff

Issue 1 - See "Generic Issue 3"

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3.

2.2.26 Revision to Discharge 012 - Storm Water Runoff

Issue 1 - See "Generic Issue 3"

Recommendation 1 - PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3.

2.2.27 Revision to Discharge 013 - Yard Storm Drain

Issue 1 - See "Generic Issue 3" and add a reference to the used fuel storage area in the description.

Recommendation 1 - PG&E recommends that the discharge description be revised. The title should be changed to "Industrial Storm Water" consistent with Generic Recommendation 3. Also, a reference to the used fuel storage area should be included. The following description is suggested:

> "Storm water from raw water reservoirs, makeup water treatment area, used fuel storage area, and 230 KV switchyard collects in a drainage system and is routed to Diablo Creek. Some runoff from the watershed under the 500 KV power lines is also included in this drainage. This drainage may occasionally include firewater (see note 1), washwater and stored water releases."

2.2.28 Revision to Discharge 014 - Yard Storm Drain

Issue 1 - Discharge description references a dog kennel which has subsequently been closed.

Recommendation 1 - PG&E recommends the discharge description be revised removing reference to the dog kennel.

Issue 2 - See "Generic Issue 3"

Recommendation 2 - PG&E recommends that the name of this discharge be changed to "Storm Water Runoff" in accordance with Generic Recommendation 3.

2.2.29 Revision to Discharge 015 - Yard Storm Drain

Issue 1 - See "Generic Issue 3."

Recommendation 1 – PG&E recommends that the name of this discharge be changed to "Industrial Storm Water" in accordance with Generic Recommendation 3.

Issue 2 – The description should be modified to reflect changes to the facilities in this drainage area.

Recommendation 2 – PG&E recommends the following description:

> "Storm water runoff from the area around the auto facility, concrete and paved areas, and adjacent roadway is routed to Diablo Creek. This discharge may occasionally include firewater (see note 1), washwater, and stored water releases."

2.2.30 Revision to Discharge 016 - Biolab Seawater Supply Pump Valve Drain

Issue 1 - This description incorrectly calls the Intake Cove the "South Cove".

Recommendation 1 - PG&E recommends the description be modified to reflect the discharge entering the Intake Cove.

2.2.31 Revision to Discharge 017 - Seawater Reverse Osmosis System Blowdown Drain

Issue 1 - This description incorrectly calls the Intake Cove the "South Cove".

Recommendation 1 - PG&E recommends the description be modified to reflect the discharge entering the Intake Cove.

2.2.32 Addition of Discharge 018 - Industrial Storm Water

Issue 1 - PG&E informed the CCRWQCB of this new stormwater discharge on September 11, 1992 (DCL-92-195). See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Stormwater which originates from the southeast side of the road adjacent to the Intake Structure and from the southeast side of the Intake Structure Security Building is collected in a drainage culvert and routed to the Intake Cove."

2.2.33 Addition of Discharge 019 - Storm Water Runoff

Issue 1 - PG&E informed the CCRWQCB of this new stormwater discharge on September 11, 1992 (DCL-92-195). See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Stormwater which originates from the parking lot immediately to the west of the protected area and adjacent to the discharge structure outfall is collected in a yard drain and routed to Diablo Cove."

2.2.34 Addition of Discharge 020 - Industrial Storm Water

Issue 1 - As presented in the 1994 application submitted November 7, 1994, this is a new yard storm drain located west of the intake structure. See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Storm water that originates from the area west of the Intake Structure is discharged into the Intake Cove. Overspray from the intake screen washes may contribute to this source."

2.2.35 Addition of Discharge 021 - Industrial Storm Water

Issue 1 - As presented in the 1994 application submitted November 7, 1994, this is a new yard storm drain located on the south portion of the intake structure. See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Storm water that originates from the area south of the Intake Structure is discharged into the Intake Cove. Overspray from intake screen washes may contribute to this source."

2.2.36 Addition of Discharge 022 - Biolab/Reverse Osmosis Supply Lines Drain

Issue 1 - As presented in the 1994 application submitted November 7, 1994, this discharge is located in the Intake Cove and is described in the current permit under Discharge 004.

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 and described as follows:

> "There are two supply lines for the Biolab/Reverse Osmosis plant. Each line has a bypass pipe that discharges into the Intake Cove just south of the boat dock. The supply lines are typically alternated on a regular basis (approximately monthly) so that one can be laid-up dry to control biofouling while the other is in operation. During start-up of the Biolab pump, and when supply lines are switched, discharges to the Intake Cove occur."

2.2.37 Addition of Discharge 023 – Storm Water Runoff

Issue 1- This is a new discharge south of the Intake Cove. See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Storm water that originates southeast of the North Meteorological Tower and includes the hillside below Marine Drive."

2.2.38 Addition of Discharges 024 – Storm Water Runoff

Issue 1 - This is a new discharge south of the Intake Cove. See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Storm water that originates northeast of the South Meteorological Tower includes a watershed of approximately 30 acres. The watershed encompasses both sides of Diablo Ocean Drive and the land is undeveloped."

2.2.39 Addition of Discharge 025 – Storm Water Runoff

Issue 1 - This is a new discharge south of the Intake Cove. See "Generic Issue 3."

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 in accordance with Generic Recommendation 3 and described as follows:

> "Storm water that originates east of the South Meteorological Tower includes a watershed of approximately 25 acres. The watershed encompasses both sides of Diablo Ocean Drive and the land is undeveloped. An estimated 20 acres is discharged through 024A and an estimated 5 acres through 024B."

2.2.40 Addition of Discharge 026 – Circulating Water Pumps Backflow

Issue 1 – Once-Through cooling water may be discharged at the Intake Structure on occasion. When the pumps are shut down, the water that has been pumped from the Intake Structure up to the main condensers will flow by gravity back down and out the intake. For completeness, this discharge should be added to the NPDES permit.

Such discharges could contain the products of chlorination and bromination and the constituents described in "Generic Issue 1". There would be no temperature influence associated with this discharge.

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 and described as follows:

> "On occasion, one or both of the circulating water pumps for Unit 1 or Unit 2 may be shut down. When this occurs, water that has been pumped from the

intake structure up to the main condensers will flow by gravity back down and out the intake. *[Insert text from Generic Recommendations 1]."*

2.2.41 Addition of Discharge 027 – Screen Wash Collection Sump Overflow

Issue 1 – Ocassionally, the screen wash collection sump may overflow seawater and ocean debris that discharges into the Intake Cove.

Recommendation 1 - PG&E recommends this discharge be added to Finding 4 and described as follows:

"Ocean debris accumulates on the traveling screens. This debris is washed off into troughs that feed into the collection sump. Under normal conditions this material is pumped back to the ocean via Outfall 003. However, on occasion, the collection sump pumps become clogged and/or debris loading is extremely high. On these rare occasions, the collection sump fills up with seawater and ocean debris, and then is designed to overflow through an opening in the face of the Intake Structure into the Intake Cove".

3.0 PROPOSED CHANGES TO DISCHARGE PROHIBITIONS AND EFFLUENT LIMITATIONS

3.1 Revise Discharge 001 limitation - Radioactivity

Issue 1 - The current permit assigns effluent limitations for radioactivity as:

> *"Not to exceed limits specified in Title 17, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations."*

This regulation was repealed in 1994 (17CCR30269). The Draft Functional Equivalent Document of the California Ocean Plan, dated September 1, 2000, states that the Table B Water Quality Objectives for "Radioactivity" was intended to reference Title 17 Section 30253 of the California Code of Regulations. The current draft of the California Ocean Plan proposes Section 30253 in Title 17 will be substituted for Section 30269. Section 30253 references the federal radiological standards in 10CFR20.

Recommendation 1 - PG&E recommends this requirement be removed. DCPP does perform radiological effluent monitoring in conjunction with 10CFR20 and its Nuclear Regulatory Commission (NRC) operating license. The results of this monitoring are contained in the "Annual Radiological Effluent Report" which is provided to the NRC and the CCRWQCB.

3.2 Remove Discharge Prohibition A. 4

Issue 1 – The current permit states:

> *"Discharge of nonhazardous solid waste (as defined in California Code of Regulations, Title 23, Chapter 3, Subchapter 15, Section 2523 (a), adopted December 8, 1984) to surface waters is prohibited."*

This regulation was repealed June 18, 1997 and refers to Water Code Section 13172. Section 13172 "Classification of wastes and types of disposal sites; adoption of standards and regulations." This section applies only to disposal facilities.

Recommendation 1 – PG&E recommends this requirement be removed. DCPP is not a disposal facility and does not accept or manage waste from off-site or on-site sources for on-site disposal.

3.3 Remove the Third Footnote Pertaining to Total Residual Chlorine Discharge

Issue 1 - The current permit effluent limitation for Total Residual Chlorine (TRC) third footnote states:

> *"TRC may not be discharged from any single generating unit for more than two hours per day. At least thirty minutes must separate the chlorine discharge from each one-half condenser unit."*

At the request of PG&E, the CCRWQCB staff reviewed the basis for requiring the timed separation of chlorine discharge from each one-half condenser unit. The CCRWQCB responded in a letter dated January 4, 1996 stating, ". . . the 30-minute separation of discharges is not based on any known regulation, plan or policy. Furthermore, the 30-minute separation appears inappropriate in light of the cooling water flow pattern at your

facility. Implementation of this requirement may increase the amount of chemicals discharged by forcing longer chlorination cycles and chemical addition of dechlorination in order to comply with the first part of the footnote. Federal regulations (40CFR423) allow for simultaneous multi-unit discharges of chlorine. Therefore, this requirement (30-minute separation) does not appear to further the goal to protect water quality and should be eliminated, effective immediately."

Recommendation 1 - PG&E recommends this requirement for 30-minute separation be removed as indicated in the CCRWQCB's letter.

Issue 2 - Subsequent to the issuance of the 1990 permit, DCPP conducted up to four, thirty-minute chlorine injections per day to control condenser microfouling in each of the four condenser halves. Grab samples were collected for TRC at Discharge 001 for compliance with the monitoring program. In 1993, PG&E initiated an improved method which involved six separate 20-minute injections per tunnel over a 24-hour period. Continuous TRC/TRO monitoring of Discharge 001 is conducted to facilitate improved data collection and injection system controls. This method exceeded the NPDES permit requirement to collect a grab sample ". . . at least twice during each chlorination cycle" by providing continuous characterization of TRC concentrations during each chlorination cycle. While an extensive maintenance plan is performed on the TRC/TRO analyzer system, continuous TRC/TRO analysis occasionally does not occur due to a temporary analyzer system problem.

In 1994, PG&E proposed the use of an engineering evaluation as an approved method to confirm compliance with the chlorine limits in these instances. This was approved by the CCRWQCB in a January 13, 1994 letter, and has been used by PG&E to confirm compliance. The existing permit contains a provision allowing use of an engineering evaluation for demonstrating compliance with temperature monitoring in the event of temporary measurement system failure. The recommendation below is based on that language.

Recommendation 2 - PG&E recommends the following statement be added to the permit:

> "For periods when TRC/TRO monitoring systems are temporarily inoperative, an alternate means of measurement or calculation providing equivalent information, such as an engineering evaluation, may be used during this period."

4.0 PROPOSED CHANGES TO MONITORING AND REPORTING REQUIREMENTS

4.1 Effluent Monitoring Program – Type of Sample for Metal Cleaning Operations

Issue 1 - The current permit requires 24-hour composite samples for both copper and iron during metal cleaning operations. This operation occurs at Discharges 001D, 001F, 001I, 001L, and 001M. Typically, these discharges are conducted only after the batch has been recirculated, the contents are homogeneous, and grab sample results are less than the discharge limits. PG&E proposes that a grab sample method is representative of the total discharge.

Recommendation 1 - PG&E recommends that the 24-hour composite sample be changed to a grab sample for the metal cleaning wastes that are batched and recirculated.

4.2 Effluent Monitoring Program - Footnote (*)

Issue 1 - The current permit requires that Total Suspended Solids (TSS) analysis be conducted using a "two-filter" method. This method has been required for ocean water samples to essentially provide credit to the discharger for any brine that may collect on the filter. This method falls short of this intent, however, because it requires that once the samples are passed through the filters, they are then rinsed with deionized water which in effect rinses any brine that has accumulated on either filter. Therefore, implementation of the "two-filter" methodology does not account for the brine that may collect on the filter.

Recommendation 1 - PG&E recommends that the "two-filter" method no longer be required for TSS analysis. Instead, we propose that TSS analysis be conducted using the Department of Health Services's ELAP approved methodology.

4.3 Monitoring and Reporting Program, Reporting Requirement # 3:

Issue 1 - Currently this requirement states, "Notwithstanding Standard Provision C.4, details of any bypass or damage of the five-micron filters in the liquid radwaste system shall be reported to the Executive Officer immediately." The 5-micron filter is not used for radiological control or as a treatment necessary to meet NPDES limitations. The use of this filter pre-dates the original NPDES permit. Its description was included in the first NPDES permit for informational purposes only. The LRW system discharges comply fully with NPDES permit limitations for Discharge 001D prior to the 5-micron filter.

Recommendation 1 - For these reasons, PG&E recommends that the reporting requirement regarding the status of the 5-micron filter be removed from the Monitoring and Reporting Program.

4.4 Monitoring and Reporting Program, Reporting Requirement # 4:

Issue 1 – This requirement provides copies of reports prepared for the Nuclear Regulatory Commission (NRC) and/or the California Department of Health Services related to the marine environment shall be submitted to the Executive Officer. It is believed that the intent of this requirement is to provide reports that may "have an impact

on the marine environment" to the Executive Officer. Currently, reports are provided to the NRC that address the "impacts that the marine environment may have on the operation of the power plant" and appears to be beyond the scope of what was intended to be submitted to the Executive Officer.

Recommendation 1 -PG&E recommends that the reporting requirement be revised as follows:

> "A copy of information contained in reports to the Nuclear Regulatory Commission and/or the California Department of Health Services related to the effects the plant may have on the marine environment shall be submitted to the Executive Officer. Results of radiological monitoring of the receiving water shall be reported at the same time reports are made to the Nuclear Regulatory Commission."

Appendix A

AMENDED FORM 1

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086. Approval expires 5-31-9

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA

GENERAL INFORMATION
Consolidated Permits Program

(Read the "General Instructions" before starting.)

1. EPA I.D. NUMBER

S F	C A D 0 7 7 9 6 6 3 4 9	T/A .	C D
1 2		14	15

LABEL ITEMS
I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill- in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear,) please provide it in the proper fill-in area(s) below. If the label is complete and correct, you needs not complete Items I, III, V, and VI (except VI-B which must be completed regardless.) Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "x" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S. (FORM 2A)		X		B. Does or will this facility (*either existing or proposed*) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
	16	17	18		16	17	18
C. Is this facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		X	D. Is this a proposed facility (*other than those described in A or B above*) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
	22	23	24		22	23	24
E. Does or will this facility treat, store or dispose of hazardous wastes? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
	28	29	30		28	28	29
. you or will you inject at this facility any produced water ...er fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes wuch as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
	34	35	36		34	35	36
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instruction and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instruction and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
	40	41	42		40	41	42

III. NAME OF FACILITY

	SKIP	
1		DIABLO CANYON POWER PLANT
15	16-29	30 69

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first & title)*	B. PHONE (area code & no.)		
2 OATLEY, DAVID H., VICE PRESIDENT DIABLO CANYON OPERATIONS	805	545	4350
15 16 45	46 - 48	49 - 51	52-55

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 P O BOX 56
15 16 45

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 AVILA BEACH	CA	93424
15 16 40	41 42	47 - 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 9 MILES NW OF AVILIA BEACH
15 16 45

B. COUNTY NAME

SAN LUIS OBISPO
77

C. CITY OR TOWN	C. STATE	D. ZIP CODE	F. COUNTY CODE *(if known)*
6 AVILA BEACH	CA	93424	40
15 16 60	41 - 42	47 - 51	52 - 54

CONTINUED FROM THE FRONT

VIII. SIC CODES *(4 digit, in order of priority)*

A. FIRST	B. SECOND
4911 (SPECIFY) ELECTRIC POWER GENERATION	(SPECIFY)
C. THIRD	**D. FOURTH**
(SPECIFY)	(SPECIFY)

VIII. SIC CODES *(4 digit, in order of priority)*

A. NAME

PACIFIC GAS & ELECTRIC COMPANY

B. Is the name listed Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify)*

F= FEDERAL S= STATE P= PRIVATE M= PUBLIC (OTHER THAN FEDERAL OR STATE) O= OTHER (SPECIFY)

P (specify)

D. PHONE *(area code & no.)*

415 973 7000

E. STREET OR P.O. BOX

77 BEALE STREET PO BOX 770000

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
(SPECIFY) SAN FRANCISCO	CA	94177	Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Dishcarge to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
CA0003751	
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(Specify)*
	CAD077966349 (SPECIFY) CA Dept. of Toxic Substances-Hazardous Waste Facility Permit
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(Specify)*
	(SPECIFY)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a breif description*

Investor owned public utility company which provides electricity and gas services in Northern and Central California.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I beleive that the information is true, accurate and complete. I am aware that there are significant penalites for submitting false information, including the possibilty of fine and imprisonment.

A . NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
David H. Oatley, Vice President Diablo Canyon Operations	D. N. Oatley	1-24-01

COMMENTS FOR OFFICIAL USE ONLY

SITE DRAINAGE SYSTEM
DIABLO CANYON POWER PLANT

PLANT SITE BOUNDARY

DIABLO CANYON CREEK

WATER TANK

OVERFLOW POND

230-kV SWITCHYARD

500-kV SWITCHYARD

WASTE WATER HOLDING AND TREATMENT (WHAT) UNIT

LONGITUDE 120° 51' 44" W

RAW WATER RESERVOIR 1A

RAW WATER RESERVOIR 1B

SITE OVERLOOK

WASTE WATER HOLDING POND CLOSED 12-21-92

OIL WATER SEPARATOR COLLECTION SUMP

MIXED WASTE STORAGE

ARCHEOLOGICAL SITE

UNITS 1 & 2 DISCHARGE 001

COLD MACHINE SHOP UNDERGROUND STORAGE UNIT

DIABLO COVE

SHORE CLIFF RD

SITE HAZARDOUS WASTE STORAGE UNIT

DIABLO CANYON RD

TO AVILA GATE

DIABLO OCEAN DR.

PATTON COVE

MAINTENANCE SHOP BLDG LABORATORY WASTEWATER STORAGE UNIT

BOAT SLIP

INTAKE COVE

BLAST/PAINT FACILITY ABOVE GROUND STORAGE UNIT

EAST BREAKWATER

WEST BREAKWATER

INTAKE MAINTENANCE SHOP ABOVE GROUND STORAGE UNIT

PACIFIC OCEAN

LATITUDE 35° 12' 44" N

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025A 025B 026 027

0 150 300 600 1200 FEET
SCALE

C 01

S:/DRAWINGS/0 MISC/ENVIRONMENTAL/SPCCPLAN.dgn (PW12 1-18-2001)

Appendix B

AMENDED FORM 2C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
CAD 077966349

Form Approved
OMB No. 2040-0086
Approval expires 5-31-92

Please print or type in the unshaded areas only

FORM 2 C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATION
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	35	12	45	120	51	15	Pacific Ocean (Diablo Cove)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g. for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
001	Once-Through Cooling Water	2.5×10^9 GPD	Dechlorinaton	2-E
			Ocean Discharge Through Outfall	4-B
001B	Auxiliary Salt Water Cooling System	3.48×10^7 GPD		
001D	Liquid Radioactive Waste Treatment System	8.00×10^3 GPD	Microstraining	1-N
			Carbon Adsorption	2-A
			Ion Exchange	2-J
			Coagulation	2-D
			Landfill	5-Q
001E	Service Cooling Water System	1.24×10^7 GPD	Screening	1-T
001F	Turbine Building Sump	5.00×10^4 GPD	Flotation (Oil/Water Separation)	1-H
			Coagulation	2-D
			Landfill	5-Q

[1] Flow Data is summarized in Attachment 1

FFICIAL USE ONLY *(effluent guidelines sub-categories)*

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
CAD 077966349

Form Approved
OMB No. 2040-0086
Approval expires 5-31-92

Please print or type in the unshaded areas only

FORM 2 C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATION
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g, for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001G	Make-up Water	9.65×10^4 GPD			
	System Effluent (Brine)				
001H	Condensate	3.33×10^4 GPD	Filtration (Microstraining)	1-N	
	Demineralizer		Neutralization	2-k	
	Regenerant		Landfill	5-Q	
001I	Seawater Evaporator				
	Blowdown				
001J	Condensate Pumps	1.89×10^3 GPD			
	Discharge Header				
	Overboard				
001K	Condensate Dump	1.44×10^5 GPD			
	Tank				
001L	Steam Generator	1.47×10^5 GPD			
	Blowdown				
	[1]Flow Data is summarized in Attachment 1				

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OMB No. 2040-0086
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...ORM 2 C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATION
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

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1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001M	**Wastewater**	**1.25×10^5 GPD**	Flotation (Oil/Water Separation)	1-H	
	Holding and		Multimedia Filtration	1-Q	
	Treatment System		Sedimentation (Settling)	1-U	
			Neutralization	2-K	
			Coagulation	2-D	
			Landfill	5-Q	
			Disinfection (Chlorine)	2-F	
001N	**Sanitary Wastewater**	**1.21×10^4 GPD**	Activated Sludge	3-A	
	Treatment System		Aerobic Digestion	5-A	
			Disinfection (Chlorine)	2-F	
			Land Application (Leach Fields)	5-P	
001P	**Seawater Reverse**	**8.37×10^5 GPD**			
	Osmosis System				
	Blowdown				
001Q	**Intake Structure**	**7.20×10^4 GPD**			
	Building Sumps				
	[1]**Flow Data is summarized in Attachment 1**				

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A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
002	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
003	35	12	30	120	51	15	Pacific Ocean
004	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
005	35	12	15	120	51	15	Pacific Ocean
006	35	12	15	120	51	0	Pacific Ocean
007	35	12	15	120	50	45	Pacific Ocean

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g, for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
002	Screen Wash Pumps	1.76×10^5 GPD	Ocean Discharge Through Outfall	4-B	
	Overboard				
003	Intake Screen Wash	3.19×10^6 GPD	Screening	1-T	
			Ocean Discharge Through Outfall	4-B	
004	Biolab Discharge	4.71×10^5 GPD	Flotation (Oil/Water Separation)	1-H	
			Landfill	5-Q	
			Ocean Discharge Through Outfall	4-B	
005	Industrial Storm Water	809 GPD	Ocean Discharge Through Outfall	4-B	
006	Industrial Storm Water	1,618 GPD	Ocean Discharge Through Outfall	4-B	
007	Industrial Storm Water	809 GPD	Ocean Discharge Through Outfall	4-B	

[1] Flow Data is summarized in Attachment 1

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A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
008	35	12	45	120	51	15	Diablo Creek
009	35	12	45	120	51	15	Diablo Creek
010	35	12	45	120	51	15	Diablo Creek
011	35	13	0	120	51	15	Diablo Creek
012	35	13	0	120	51	15	Diablo Creek
013	35	13	0	120	51	15	Diablo Creek

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g, for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
008	Industrial Storm Water	1,079 GPD	Discharge to Surface Water	4-A	
009	Industrial Storm Water	180 GPD	Discharge to Suface Water	4-A	
			Flotation (Oil/Water Separation)	1-H	
			Landfill	5-Q	
010	Industrial Storm Water	90 GPD	Discharge to Surface Water	4-A	
011	Industrial Storm Water	6,112 GPD	Discharge to Surface Water	4-A	
012	Industrial Storm Water	180 GPD	Discharge to Surface Water	4-A	
013	Industrial Storm Water	899 GPD	Discharge to Surface Water	4-A	

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A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
014	35	13	0	120	50	45	Diablo Creek
015	35	13	0	120	50	45	Diablo Creek
016	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
017	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
018	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
019	35	12	39	120	51	18	Pacific Ocean (Diablo Cove)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g. for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

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1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
014	Storm Water Runoff	360 GPD	Discharge to Surface Water	4-A	
015	Industrial Storm Water	18 GPD	Discharge to Surface Water	4-A	
016	Biolab Seawater Supply	2.00×10^3 GPD	Ocean Discharge Through Outfall	4-B	
	Pump Valve Drain				
017	Seawater Reverse	4.00×10^3 GPD	Ocean Discharge Through Outfall	4-B	
	Osmosis System				
	Blowdown Drain				
018	Industrial Storm Water	18 GPD	Ocean Discharge Through Outfall	4-B	
019	Storm Water Runoff	18 GPD	Ocean Discharge Through Outfall	4-B	

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A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
020	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
021	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
022	35	12	23	120	51	15	Pacific Ocean (Intake Cove)
023	35	12	30	120	51	15	Pacific Ocean (Intake Cove)
024	35	12	15	120	50	30	Pacific Ocean
025	35	12	15	120	50	30	Pacific Ocean
026	35	12	30	120	51	15	Pacific Ocean (Intake Cove)

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	a. OPERATION *(list)*	b. AVERAGE FLOW[1] *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
020	Industrial Storm Water	1.46×10^3 GPD	Ocean Discharge Through Outfall	4-B	
021	Industrial Storm Water	1.46×10^3 GPD	Ocean Discharge Through Outfall	4-B	
022	Biolab/Reverse Osmosis Supply Lines Drain	1.65×10^4 GPD	Ocean Discharge Through Outfall	4-B	
023	Industrial Storm Water	18 GPD	Ocean Discharge Through Outfall	4-B	
024	Storm Water Runoff	539 GPD	Ocean Discharge Through Outfall	4-B	
025	Storm Water Runoff	449 GPD	Ocean Discharge Through Outfall	4-B	
026	Circulating Water Pumps Backflow	3.00×10^6 GPD	Ocean Discharge Through Outfall	4-B	
027	Screen Wash Collection Sump Overflow	7.22×10^6 GPD	Ocean Discharge Through Outfall	4-B	

[1]Flow Data is summarized in Attachment 1

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?
[X] **Yes** *(complete the following table)* [ ] **NO** *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*
	See Attachment 1 (3 pages)							

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?
[X] **YES** *(complete Item III-B)* [ ] **NO** *(go to section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)?*
[ ] **YES** *(complete Item III-C)* [X] **NO** *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in terms and units used in the applicabel effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION C. OPERATION, PRODUCTION MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers*

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrade or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions
[ ] **YES** *(complete the following table)* [X] **NO** *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may effect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.
[ ] **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED**

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided.
Note: Tables V-A, V-B, and V-C are included on seperate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Strontium Uranium Zirconium	Uranium and radioactive fission products of uranium including isotopes of strontium and zirconium may be released in minute amounts in Discharge 001. Analytical data from Discharge 001D are provided in Attachment 2.		
Ethylene diamine	Used in Secondary Chemistry Laboratory. Complete List of Chemicals used in Primary and Secondary Laboratories is provided in Attachment 3.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or by product?

☐ **YES** *(list all such pollutants below)* ☒ **NO** *(go to Item VI-B)*

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharge or on a receiving water in relation to your discharge within the last 3 years?

[X] **YES** *(identify the test(s) and describe their purpose below)* [ ] **NO** *(go to Section VIII)*

The current DCPP NPDES Permit requires that quarterly acute and chronic toxicity bioassays be performed on Discharge 001.

The static acute toxicity bioassay is a 96-hour TLM performed in a grab sample from the specified discharge point. Juvenile red abalone (Haliotis rufescens) are used as the test species.

The chronic toxicity bioassay is 48-hour test also performed in a grab sample from the specified discharge point. Larval red abalone (Haliotis rufescens) are used as the test species.

VIII. CONTRACT ANALYSIS INFORMATION

Where any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

[X] **YES** *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* [ ] **NO** *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Columbia Analytical Services, Inc.	**1317 South 13th Avenue P.O. Box 479 Kelso, WA 98626**	**(360) 577-7222**	**Part V-A, except for temperature and pH Part V-B, except for radioactivity and surfactants Part C**

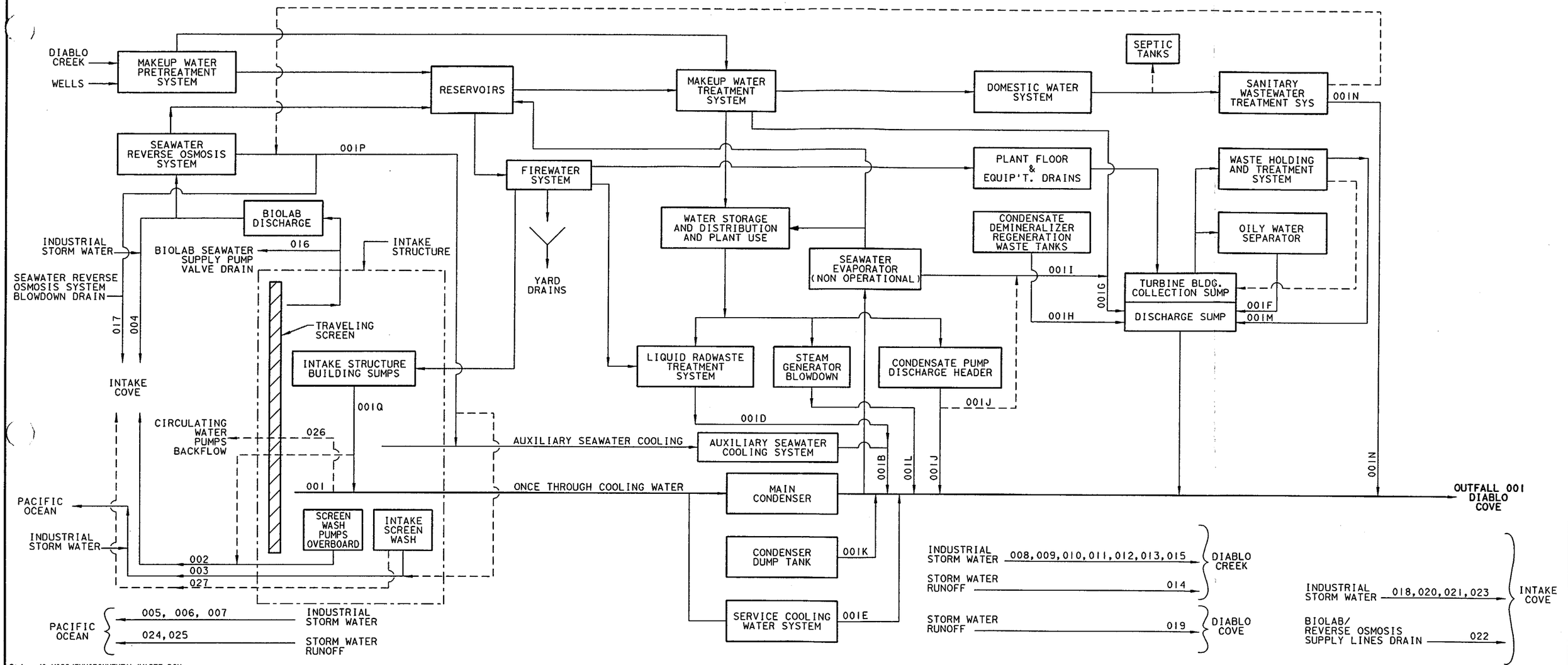
IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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.

A. NAME AND OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
David H. Oatley Vice President Diablo Canyon Operations	**(805) 545-4350**
C. SIGNATURE	D. DATE SIGNED

Attachment C

WASTE STREAM SCHEMATIC



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DISCHARGE	DESCRIPTION	VOLUME (gal/day)
001	Once through Cooling Water	2.50E+09
001B	Auxiliary Salt Water Cooling	3.48E+07
001D	Liquid Radioactive Waste Treatment System (Batch 3-12 times/week)	8.00E+03
001E	Service Cooling Water	1.24E+07
001F	Turbine Bldg. Sump (Intermittent)	5.00E+04
001G	Makeup Water System Effluent (Brine)	9.65E+04
001H	Condensate Demineralizer Regenerant (Intermittent)	3.33E+04
001I	Seawater Evaporator Blowdown (Non Operational)	0.0E+00

DISCHARGE	DESCRIPTION	VOLUME (gal/day)
001J	Condensate Pumps Discharge Header Overboard (Intermittent)	1.89E+03
001K	Condensate Dump Tank (Batch)	1.44E+05
001L	Steam Generator Blowdown	1.47E+05
001M	Wastewater Holding & Treatment System (Intermittent)	1.25E+05
001N	Sanitary Wastewater Treatment System (Intermittent)	1.21E+04
001P	Seawater Reverse Osmosis System Blowdown	8.37E+05

DISCHARGE	DESCRIPTION	VOLUME (gal/day)
001Q	Intake Structure Building Sumps (Intermittent)	7.20E+04
002	Screen Wash Pumps Overboard (Intermittent)	1.76E+05
003	Intake Screen Wash (Intermittent)	3.19E+06
004	Biolab Discharge	4.71E+05
005	Industrial Storm Water (Seasonal)	809
006	Industrial Storm Water (Seasonal)	1,618
007	Industrial Storm Water (Seasonal)	809
008	Industrial Storm Water (Seasonal)	1,079
009	Industrial Storm Water (Seasonal)	180

DISCHARGE	DESCRIPTION	VOLUME (gal/day)
010	Industrial Storm Water (Seasonal)	90
011	Industrial Storm Water (Seasonal)	6,112
012	Industrial Storm Water (Seasonal)	180
013	Industrial Storm Water (Seasonal)	899
014	Storm Water Runoff (Seasonal)	360
015	Industrial Storm Water (Seasonal)	18
016	Biolab Seawater Supply Pump Valve Drain (Batch)	2.00E+03
017	Seawater Reverse Osmosis System Blowdown Drain (Batch)	4.00E+03
018	Industrial Storm Water (Seasonal)	18

DISCHARGE	DESCRIPTION	VOLUME (gal/day)
019	Storm Water Runoff (Seasonal)	18
020	Industrial Storm Water (Intermittent)	1.46E+03
021	Industrial Storm Water (Intermittent)	1.46E+03
022	Biolab/Reverse Osmosis Supply Lines Drain (Intermittent)	1.65E+04
023	Industrial Storm Water (Seasonal)	18
024	Storm Water Runoff (Seasonal)	539
025	Storm Water Runoff (Seasonal)	449
026	Circulating Water Pumps Backflow	3.00E+06
027	Screen Wash Collection Sump Overflow (Intermittent)	7.22E+06

Diablo Canyon Power Plant
Flow Rates and Volumes
Continuous Waste Streams

Outfall	Waste Stream No.	Description	Nominal Flow Rate (gpm)	Maximum Flow Rate (gpm)	Annual Total Volume (gal)	Maximum Daily Volume (gal)	Long Term Average Flow Rate (gpd)
001		**Once-Through Cooling Water**	**1,759,235**	**1,783,913**	**9.25E+11**	**2.65E+09**	**2.50E+09**
	001	Once-Through Cooling Water (circulating pumps only)	1,734,000	1,734,000	9.11E+11	2.50E+09	2.50E+09
	001 B	Auxiliary Salt Water Cooling System[1]	23,000	46,000	1.27E+10	6.62E+07	3.48E+07
	001 E	Service Cooling Water System[1]	8,600	17,200	4.52E+09	2.48E+07	1.24E+07
	001 G	Make-up Water System Effluent (Brine)	50	200	3.52E+07	2.88E+05	9.65E+04
	001 L	Steam Generator Blowdown	120	533	5.36E+07	7.68E+05	1.47E+05
	001 P	Seawater Reverse Osmosis System Blowdown	550	800	3.06E+08	9.05E+05	8.37E+05
004		**Biolab Discharge[2]**	**100**	**1,500**	**1.72E+08**	**2.89E+06**	**4.71E+05**
	004 A	Biolab Discharge[2]	100	1,500	1.72E+08	1.58E+06	4.70E+05
	004 B	Industrial Storm Water[3]			2.16E+04	1.30E+06	3.60E+02

Footnotes:

[1] *Cooling water for closed-loop system is taken from and discharged back into the once-through cooling water 001.*

[2] *Discharges include Firewater System Maintenance and Testing.*

[3] *See Seasonal Data Sheet for calculations of storm water flow.*

Diablo Canyon Power Plant
Flow Rates and Volumes
Intermittent Waste Streams

Outfall	Waste Stream No.	Description	Narrative	Nominal Flow Rate (gpm)	Maximum Flow Rate (gpm)	Annual Total Volume (gal)	Maximum Daily Volume (gal)	Long Term Average Flow Rate (gpd)
	001 D	Liquid Radioactive Waste Treatment System	Batch 3-12 times/week	35	50	1.60E+06	5.00E+04	8.00E+03
	001 F	Turbine Building Sump [1]	Intermittent	100	100	1.83E+07	1.44E+05	5.00E+04
	001 H	Condensate Demineralizer Regenerant	Intermittent	160	320	1.22E+07	5.00E+04	3.33E+04
	001 I	Seawater Evaporator Blowdown[2]		0	0	0	0	0
	001 J	Condensate Pumps Discharge Header Overboard	Intermittent	1,000	1,000	6.90E+05	1.00E+05	1.89E+03
	001 K	Condensate Dump Tank	Batch	50	100	7.20E+05	1.44E+05	1.44E+05
	001 M	Wastewater Holding and Treatment System [1]	Intermittent	100	500	1.25E+06	2.50E+05	1.25E+05
	001 N	Sanitary Waste Water Treatment System	Intermittent	20	110	4.43E+06	6.00E+04	1.21E+04
	001 Q	Intake Structure Building Sumps	Intermittent	50	200	2.63E+07	2.88E+05	7.20E+04
002		**Screen Wash Pumps Overboard [1]**	**Intermittent**	**50**	**7,800**	**6.44E+07**	**2.88E+06**	**1.76E+05**
003		**Intake Screen Wash**	**Intermittent**	3,900	7,800	**1.17E+09**	**1.17E+07**	**3.19E+06**
	003 A	Intake Screen Wash	Intermittent	3,900	7,800	1.17E+09	1.12E+07	3.19E+06
	003 B	Industrial Storm Water[3]	Seasonal			5.39E+03	4.56E+05	8.99E+01
016		**Biolab Seawater Supply Pump Valve Drain**	**Batch**	**50**	**50**	**4.00E+04**	**4.00E+03**	**2.00E+03**
017		**Seawater Reverse Osmosis System Blowdown Drain**	**Batch**	**50**	**100**	**4.00E+03**	**4.00E+03**	**4.00E+03**
020		**Industrial Storm Water**	**Intermittent**	**1**	**10**	**5.27E+05**	**1.06E+05**	**1.46E+03**
	020 A	Industrial Storm Water[3]	Seasonal			1.08E+03	9.12E+04	1.80E+01
	020 B	Screen Wash Overspray	Intermittent	1	10	5.26E+05	1.44E+04	1.44E+03
021		**Industrial Storm Water**	**Intermittent**	**1**	**10**	**5.27E+05**	**1.06E+05**	**1.46E+03**
	021 A	Industrial Storm Water[3]	Seasonal			1.08E+03	9.12E+04	1.80E+01
	021 B	Screen Wash Overspray	Intermittent	1	10	5.26E+05	1.44E+04	1.44E+03
022		**Biolab/Reverse Osmosis Supply Lines Drain**	**Intermittent**	-	**1,100**	**1.98E+05**	**2.20E+04**	**1.65E+04**
026		**Circulating Water Pumps Backflow**	**Intermittent**	**100,000**	**2,240,000**	**1.20E+07**	**6.00E+06**	**3.00E+06**
027		**Screen Wash Collection Sump Overflow**	**Intermittent**	-	**7,800**	**5.05E+07**	**1.12E+07**	**7.22E+06**

Footnotes:

[1] *Discharges include Firewater System Maintenance and Testing.*

[2] *Equipment is not operational.*

[3] *See Seasonal Data Sheet for calculations of storm water flow.*

Diablo Canyon Power Plant
Flow Rates and Volumes
Seasonal Waste Streams

Outfall	Waste Stream No.	Description	Frequency	Area[1] (Acres)	Rainfall Intensity[2] (in/hour)	Coefficient	Maximum Flow Rate[3] (gpd)	Average Annual Precipitation[4] (in)	Annual Total Volume[4] (gal)	Long-Term Average Flow[4] (gpd)
	003 B	Industrial Storm Water	Seasonal	5	0.2	0.7	4.56E+05	14.5	5,393	90
	004 B	Industrial Storm Water[5]	Seasonal	20	0.2	0.5	1.30E+06	14.5	21,573	360
005		Industrial Storm Water[5]	Seasonal	45	0.2	0.7	4.11E+06	14.5	48,540	809
006		Industrial Storm Water[5]	Seasonal	90	0.2	0.5	5.86E+06	14.5	97,079	1,618
007		Industrial Storm Water	Seasonal	45	0.2	0.3	1.76E+06	14.5	48,540	809
008		Industrial Storm Water[5]	Seasonal	60	0.2	0.3	2.35E+06	14.5	64,719	1,079
009		Industrial Storm Water[5]	Seasonal	10	0.2	0.6	7.82E+05	14.5	10,787	180
010		Industrial Storm Water[5]	Seasonal	5	0.2	0.3	1.95E+05	14.5	5,393	90
011		Industrial Storm Water	Seasonal	340	0.2	0.4	1.77E+07	14.5	366,743	6,112
012		Industrial Storm Water	Seasonal	10	0.2	0.5	6.52E+05	14.5	10,787	180
013		Industrial Storm Water[5]	Seasonal	50	0.2	0.5	3.26E+06	14.5	53,933	899
014		Storm Water Runoff	Seasonal	20	0.2	0.3	7.82E+05	14.5	21,573	360
015		Industrial Storm Water[5]	Seasonal	1	0.2	0.5	6.52E+04	14.5	1,079	18
018		Industrial Storm Water	Seasonal	1	0.2	0.3	3.91E+04	14.5	1,079	18
019		Storm Water Runoff	Seasonal	1	0.2	0.7	9.12E+04	14.5	1,079	18
020	020 A	Industrial Storm Water	Intermittent	1	0.2	0.7	9.12E+04	14.5	1,079	18
021	021 A	Industrial Storm Water	Intermittent	1	0.2	0.7	9.12E+04	14.5	1,079	18
023		Industrial Storm Water	Seasonal	1	0.2	0.7	9.12E+04	14.5	1,079	18
024		Storm Water Runoff	Seasonal	30	0.2	0.3	1.17E+06	14.5	32,360	539
025		**Storm Water Runoff**	**Seasonal**	**25**	**0.2**	**0.3**	**9.77E+05**	**14.5**	**26,966**	**449**
025	025A	Storm Water Runoff	Seasonal	20	0.2	0.3	7.82E+05	14.5	21,573	360
	025B	Storm Water Runoff	Seasonal	5	0.2	0.3	1.95E+05	14.5	5,393	90

Footnotes:

[1] *Areas are rounded.*

[2] *Source of rainfall intensity is from PG&E Drawing No. 105469.*

[3] *Rainfall calculations were based on the Rational Formula (Q = C I A); where Q = Discharge Flow, C is a runoff coefficient, I is the rainfall intensity of .2 in/hr which is the 10-year, 24-hr Storm Event, and A is the Area. The values used for C were .7 for roofs, asphalt and concrete; soil (medium permeability and flat grade of 2%) .2; and soil (medium permeability and steep grade of 7%) .3. Source: Hydrology and Sedimentology of Surface Mined Lands, C.T. Haan and B.J. Barfield, 1978.*

[4] *Source of Average Annual Precipitation of 14.5 inches/year is "Analysis of the Continued Use of Diablo Creek Water as a Component of the DCPP Makeup Water System", PG&E's TES Department, June 1993. The Annual Total Volume assumes there are no losses due to soil permeability. The Long-Term Average Flow assumes there are 60 measurable rain events per year at an average rainfall of 14.5" per year.*

[5] *Discharges include Firewater System Maintenance and Testing.*

Diablo Canyon Power Plant

Strontium and Zirconium Discharged Tabulated by Calendary Quarter from Discharge 001D

	First Quarter 1999		Second Quarter 1999	
Nuclide	**Batch Mode (Ci)**	**Grams[2]**	**Batch Mode (C)**	**Grams[2]**
strontium-89	MDA[3]	-	MDA[3]	-
strontium-90[1]	MDA[3]	-	MDA[3]	-
strontium-91	3.11 E-6	8.74 E-13	MDA[3]	-
strontium-92	MDA[3]	-	7.71 E-6	6.12 E-13
zirconium-95[1]	MDA[3]	-	8.56 E-6	4.08 E-10

	Third Quarter 1999		Fourth Quarter 1999	
Nuclide	**Batch Mode (Ci)**	**Grams[2]**	**Batch Mode (C)**	**Grams[2]**
strontium-89	MDA[3]	-	MDA[3]	-
strontium-90[1]	MDA[3]	-	MDA[3]	-
strontium-91	MDA[3]	-	MDA[3]	-
strontium-92	MDA[3]	-	MDA[3]	-
zirconium-95[1]	MDA[3]	-	4.79 E-5	2.28 E-9

Note
[1] Includes daughters
[2] Derivation of Dass Discharged:

Nuclide	Half-life	Specific Activity Ci/g)	1/Specific Activiy (g/Ci)
strontium-91	9.67 hours	3.56 E+6	2.81 E-7
strontium-92	2.71 hours	1.26 E+7	7.94 E-8
zirconium-95	65.5 days	2.10 E+4	4.76 E-5

[3] MDA (minimum detectable activity; entry indicates no activity detected)

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Primary Laboratory

1-Amino 2-Naphthol 4- Sulfonic
5-Methyl-1h-Benzotriazole
Acetic Acid
Acetone
Acetylene
Acid, Acetic
Acid, Ascorbic
Acid, Boric, Granular – Std
Acid, Carminic
Acid, Fuming Nitric 90%
Acid, Hydrochloric
Acid, Nitric
Acid, Octanesulfonic
Acid, Oxalic
Acid, Phosphoric
Acid, Sulfuric
Alcohol Ethyl 200 Proof Puncticious
Alcohol, Anhydrous
Alcohol, Isopropyl 2-Propanol
Ammonia Electrode Fill Solution
Ammonia
Ammonium Acetate
Ammonium Carbonate
Ammonium Chloride
Ammonium Hydroxide, 30%
Ammonium Molybdate
Ammonium Phospate Monobasic
Ammonium Sulfate
Amonium Oxalate
Anhydrous Magnesium Perchlorate
Argon
Ascorbic Acid
Barium Chloride
Barium Nitrate
Benzaldehyde
Boric Acid
Buffer
Buffer, Ph-10
Buffer, Ph-4
Buffer, Ph-7
Calcium Chloride
Carbon, Activated
Chemet Kit, 0-1 Ppm, 25% Diethylene Glycol
Cobalt Chloride
Copper Sulfate
Cupric Chloride
Cupric Sulfate
Diphenyl-Carbazone
Dithizone Crystals
Edta
EDTA Standard
Electrode Fill, Orion, Potassium Hydroxide
Electrode Storage Solution, 11% KCl / 1% KH_2
Electrode, Fill Solution, Ross Probe, 22% KCl
Eriochrome Cyanine R
Ethyl Alcohol
Ethyl Propionate
Ferric Chloride
Ferrous Ammonium Sulfate
Freon, 1,1,2 Trichlorotriflouroethane
Gas, Acetylene, Aa403/Aa5000
Gas, Argon, Ultra Pure (Aa5000)
Gas, Nitrogen, Ultra Pure
Glutaraldehyde, 25%
Glycerol, Anhydrous
H_20_2 Kit – 5% Glacial Acetic Acid 3% NH_3
H_20_2 Refill - 5% Glacial Acetic Acid 3% NH_3
Hydrazine Dihydrochloride
Hydrochloric Acid
Hydrofluoric Acid

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Primary Laboratory

Hydrogen Peroxide
Hydroxylamine Hydrochloride
Ketone
Lithium Hydroxide
Lithium Standard
Magnesium Nitrate
Magnesium Standard
Manganous Sulfate
Mannatol Powder
Mercuric Iodide
Mercuric Nitrate
Mercuric Thiocyanate
Methanol, Absolute
Methyl Isobutyl Ketone
Methyl Orange
Nickel Chloride
Oil, Vacuum Pump
Oxalic Acid
Oxygen
P-Dimethylamino-Benzaldehyde
pH 10 Buffer
pH 4 Buffer
pH 7 Buffer
Phenolphthalein
Phenylarsine Oxide
Phosphoric Acid
Potassium Biphthalate
Potassium Chloride
Potassium Chromate
Potassium Dichromate
Potassium Hydroxide
Potassium Iodate
Potassium Iodide
Potassium Iodine
Potassium Molybdate
Potassium Nitrite
Potassium Permanganate
Potassium Persulfate
Reagent Pack A – Ferric Chloride
Reagent Pack B1 – Sulfamic Acid
Reagent Pack B2 – Mbth & Inert Diluent
Reference Electrolyte, 22% KCl
Silver Nitrate
Sodium Acetate Trihydrate
Sodium Bicarbonate
Sodium Borate
Sodium Bromate
Sodium Carbonate
Sodium Chloride
Sodium Fluoride Powder
Sodium Hydroxide
Sodium Meta-Bisulfite
Sodium Nitrate
Sodium Nitrite
Sodium Peroxide (Granular)
Sodium Persulfate
Sodium Sulfate
Sodium Sulfide
Sodium Sulfite
Sodium Tetrafluoroborate
Sodium Thiosulfate
Standard, Aluminum, 1000 Ppm
Standard, Cadmium, 1000 Ppm
Standard, Calcium, 1000 Ppm
Standard, Chromium, 1000 Ppm
Standard, Cobalt, 1000 Ppm
Standard, Copper, 1000 Ppm
Standard, Fluoride, 100 Ppm
Standard, Iron, 1000 Ppm – Std
Standard, Lead, 1000 Ppm

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Primary Laboratory

Standard, Lithium, 1000 Ppm – Std

Standard, Magnesium, 1000 Ppm – Std

Standard, Mercury, 1000 Ppm

Standard, Nickel, 1000 Ppm

Standard, Potassium, 1000 Ppm

Standard, Silica, 1000 Ppm

Standard, Silver, 1000 Ppm

Standard, Sodium, 1000 Ppm

Standard, Zinc, 1000 Ppm

Starch

Stoddard Solvent

Strontium Chloride

Sulfuric Acid

Toluene

Yttrium Nitrate

Zinc Shot

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Secondary Laboratory

1, 1, 2 Trichlorotrifluoroethane (Freon)
1, 10-Phenanthroline
1-Amino-2 Naphthol-1 Sulfonic Acid
1-Octanesulfonic Acid
2,2,4 Trimethylpentane
2-Propanol (Isopropyl Alcohol)
Acetic Acid
Acetone
Acetylene
Acid, Amino
Acid, Boric
Acid, Methanesulfonic
Alcohol
Amino Acid reagent
Ammonia, pH adjusting
Ammonium 1-Pyrrolidinecarbodithioate
Ammonium Acetate
Ammonium Chloride
Ammonium Hydroxide
Ammonium Molybdate
Ammonium Nitrate
Ammonium Pyrolidine Carodithionate
Ammonium Sulfate
Anhydrone (Magnesium Perchlorate)
Anhydrous Alcohol
Argon
Barium Nitrate
Benzaldehyde
Biobor JF Fungicide
Boiling Chips
Boric Acid
Bromophenol Blue
Calcium Chloride
Calcium Liquid Standard
Carbohydrazide
Carminic Acid
Chemets DO2 (High Range)
Chemets DO2 (Low Range)
Chlorine Reagent Powder Pillows
Chromium Liquid Standard
Cobalt Chloride
Copper Liquid Standard
Copper Standard
Copper Sulfate
Cupric Sulfate
Cylinder, Argon
DFO samples
Dimethyamine
Dithizone
EDTA Acid
Elimin-Ox reagent 1
Elimin-Ox reagent 2
Erichrome Black T
Erichrome Cyanine R
Ethyl Propionate
Ethylenediamine
Ferric Ammonium Sulfate reagent
Ferric Chloride
Ferric Nitrate in Nitric Acid
Ferrous Ammonium Sulfate
Freon
Fungicide, Biobor JF
Glutaraldehyde
Glycerol
Glycolic Acid
Hydrazine (Samples)
Hydrazine Dihydrochloride
Hydrochloric Acid
Hydrogen Peroxide
Hydroxylamine Hydrochloride

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Secondary Laboratory

Iron Liquid Standard
Lead Liquid Standard
Long-term storage additive (LTSA)
LTSA, Additive
Magnesium Liquid Standard
Manganous Sulfate
Mercuric Chloride
Mercuric Iodide
Mercuric Nitrate
Mercuric Thiocyanate
Mercury Liquid Standard
Mercury Thiocyanate reagent
Methanol
Methyl Iso-Butyl Ketone
Methyl Orange
Molybdate corrosion inhibitor
Monoethanolamine
NH4 Acetate-Acetic Acid reagent
Nickel Liquid Standard
Nitric Acid
Nitrogen as Ammonia Standard
Oil, Technical White
Orbisphere Electrolyte
Oxalic Acid
Oxygen
p-(Dimethylaminobenzaldehyde)
PDAB reagent
pH 10 Buffer
pH 4 Buffer
pH 7 Buffer
Phenanthroline
Phenolphthalein
Phenylarsine Oxide
Phosphoric Acid
Potassium Biphthalate
Potassium Chloride standard
Potassium Chromate
Potassium Dichromate
Potassium Hydroxide
Potassium Iodide
Potassium Liquid Standard
Potassium Nitrite
Potassium Permanganate
Potassium Persulfate
Potassium Standard
Powder Infusorial Earth
Pyrrolidine
Silica Gel 40-140 Mesh
Silica Gel 6-16 Mesh
Silica Liquid Standard
Silver
Silver Chloride
Silver Nitrate
Silver Standard
Sodium Acetate
Sodium Azide
Sodium Bicarbonate
Sodium Bisulfite
Sodium Borate
Sodium Carbonate
Sodium Chloride
Sodium Citrate
Sodium Etch solution
Sodium Fluoride
Sodium Formate
Sodium Hydroxide
Sodium Hypochlorite
Sodium Meta-Bisulfite
Sodium Monoethylamine
Sodium Nitrate
Sodium Persulfate
Sodium Reconditioning solution
Sodium Sulfate
Sodium Sulfite

Diablo Canyon Power Plant
Primary and Secondary Chemistry Laboratory Inventory
Secondary Laboratory

Sodium Tetrafluoroborate
Sodium Thiosulfate
Stannous Chloride
Starch
Starch Indicator reagent
Stoddard Solvent
Sulfate Liquid Standard
Sulfuric Acid
TOC/Organic standards (refrigerator)
Toluene
Trace-Klean
TTA
Turbidity standards
Vacuum pump oil
Viscosity bath oil
Zinc Liquid Standard

PLEASE PRIN . TYPE IN THE UNSHADED AREAS ONLY. You report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

D. NUMBER *(copy from Item 1 of Form 1)*

CAD 077966349

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.
001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. a. (2) MASS	4. b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	ND (MRL = 4)						1	mg/l		ND (MRL = 4)		1
b. Chemical Oxygen Demand (COD)	489						1	mg/l		449		1
c. Total Organic Carbon (TOC)	0.8						1	mg/l		0.9		1
d. Total Suspended Solids (TSS)	ND (MRL = 5)						1	mg/l		ND (MRL = 5)		1
e. Ammonia (as N)	ND (MRL = 0.05)						1	mg/l		ND (MRL = 0.05)		1
f. Flow	VALUE 2.60×10^9		VALUE 2.56×10^9		VALUE 2.29×10^9		See Note	GPD		VALUE N/A		N/A
g. Temperature (winter) Nov-Apr	VALUE 24.7		VALUE 23.3		VALUE 21.9		See Note	°C		VALUE 11.3		See Note
h. Temperature (summer) May-Oct	VALUE 24.9		VALUE 25.0		VALUE 22.1		See Note	°C		VALUE 11.5		See Note
i. pH	MINIMUM 7.8	MAXIMUM 8.1	MINIMUM	MAXIMUM			12	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete on table for each outfall. See the instructions for additional details and requirements.

1. POLLUT-ANT AND CAS NO. *(if available)*	2. MARK "X" a. BE-LIEVED PRE-SENT	2. b. BE-LIEVED AB-SENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	4. UNITS *(specify if blank)* a. CONCEN-TRATION	4. b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. a. (2) MASS	5. b. NO. OF ANALYSES
a. Bromide (24959-67-9)	x		81.0						1	mg/l		81.4		1
b. Chlorine Total Residual	x		ND (MRL = 0.1)						1	mg/l		ND (MRL = 0.1)		1
c. Color	x		ND (MRL = 5)						1	mg/l		ND (MRL = 5)		1
d. Fecal Coliform	x		2						1	MPN / 100ml		ND (MRL = 2)		1
e. Fluoride (16984-48-8)	x		1.0						1	mg/l		1.0		1
f. Nitrate-Nitrite *(as N)*	x		0.3						1	mg/l		0.3		1

Note: Data taken from 1999 annual NPDES Report

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*	X		**ND** (MRL = 0.1)						1	mg/l		**0.1**		1
h. Oil and Grease	X		**ND** (MRL = 5.0)						1	mg/l		**ND** (MRL = 5.0)		1
i. Phosphorus *(as P)*, Total (7723-14-0)	X		**0.06**						1	mg/l		**0.06**		1
j. Radioactivity														
(1) Alpha, Total	X		**110 ± 260** (MDA = 270)						1	pCi/l		**22 ± 250** (MDA = 270)		1
(2) Beta, Total	X		**490 ± 280** (MDA = 420)						1	pCi/l		**160 ± 280** (MDA = 440)		1
(3) Radium, Total	X		**1.3 ± 2.2** (MDA = 4.8)						1	pCi/l		**0.1 ± 2.0** (MDA = 3.6)		1
(4) Radium 226, Total	X		**0.4 ± 0.4** (MDA = 1.1)						1	pCi/l		**0.1 ± 0.3** (MDA = 1.0)		1
k. Sulfate *(as SO_4)* (14808-79-8)	X		**2640**						1	mg/l		**2540**		1
l. Sulfide *(as S)*	X		**ND** (MRL = 1)						1	mg/l		**ND** (MRL = 1)		1
m. Sulfite *(as SO_3)* (14265-45-3)	X		**ND** (MRL = 2)						1	mg/l		**ND** (MRL = 2)		1
n. Surfactants	X		**ND** (MRL = 0.05)						1	mg/l		**ND** (MRL = 0.05)		1
o. Aluminum, Total (7429-90-5)	X		**0.076**						1	mg/l		**0.085**		1
p. Barium, Total (7440-39-3)	X		**ND** (MRL = 0.005)						1	mg/l		**ND** (MRL = 0.005)		1
q. Boron, Total (7440-42-8)	X		**4.37**						1	mg/l		**4.44**		1
r. Cobalt, Total (7440-48-4)	X		**ND** (MRL = 0.001)						1	mg/l		**ND** (MRL = 0.001)		1
s. Iron, Total (7439-89-6)	X		**ND** (MRL = 0.02)						1	mg/l		**ND** (MRL = 0.02)		1
t. Magnesium, Total (7439-95-4)	X		**1180**						1	mg/l		**1190**		1
u.Molybdenum, Total (7439-98-7)	X		**ND** (MRL = 0.01)						1	mg/l		**ND** (MRL = 0.01)		1
v. Manganese, Total (7439-96-5)	X		**ND** (MRL = 0.005)						1	mg/l		**ND** (MRL = 0.005)		1
w. Tin, Total (7440-31-5)	X		**ND** (MRL = 0.005)						1	mg/l		**ND** (MRL = 0.005)		1
x. Titanium, Total (7440-32-6)	X		**ND** (MRL = 0.005)						1	mg/l		**ND** (MRL = 0.005)		1

EPA I.D. NUMBER *(copy from Item 1 of Form*	OUTFALL NUMBER
CAD 077966349	001

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PART C- If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant of you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
2M. Arsenic, Total (7440-38-2)	X	X		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
3M. Beryllium, Total (7440-41-7)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
4M. Cadmium, Total (7440-43-9)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
5M. Chromium, Total (7440-47-3)	X	X		ND (MRL = 0.002)						1	mg/l		ND (MRL =0.002)		1
6M. Copper, Total (7440-50-8)	X	X		ND (MRL = 0.002)						1	ug/l		ND (MRL = 0.002)		1
7M. Lead, Total (7439-92-1)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
8M. Mercury, Total (7439-97-6)	X	X		ND (MRL = 0.0002)						1	mg/l		ND (MRL = 0.0002)		1
9M. Nickel, Total (7440-02-0)	X	X		ND (MRL = 0.003)						1	mg/l		ND (MRL = 0.003)		1
10M. Selenium, Total (7782-49-2)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
11M. Silver, Total (7440-22-4)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
12M. Thallium, Total (7440-28-0)	X	X		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001		1
13M. Zinc, Total (7440-66-6)	X	X		0.026						1	mg/l		0.021		1
14M. Cyanide, Total (57-12-5)	X		X	ND (MRL = 0.01)						1	mg/l		ND (MRL =0.01)		1
15M. Phenols, Total	X	X		ND (MRL = 0.01)						1	mg/l		ND (MRL = 0.01)		1
DIOXIN															
2,3,7,8 Tetra-chlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED	2. MARK "X" b. BELIEVED PRESENT	2. MARK "X" c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
2V. Acrylonitrile (107-13-1)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
3V. Benzene (71-43-2)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
4V. Bis *(Chloromethyl)* Ether (542-88-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
5V. Bromoform (75-25-2)	X		X	ND (MRL = 0.3)						1	ug/l		ND (MRL = 0.50)		1
6V. Carbon Tetrachloride (56-23-5)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
7V. Chlorobenzene (108-90-7)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
8V. Chlorodibromomethane (124-48-1)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
9V. Chloroethane (75-00-3)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		X	ND (MRL = 0.50)						1	ug/l		ND (MRL = 1.0)		1
11V. Chloroform (67-66-3)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
12V. Dichlorobromomethane (75-27-4)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
13V. Dichlorodifluoromethane (75-71-8)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
14V. 1,1-Dichloroethane (75-34-3)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
15V. 1,2-Dichloroethane (107-06-2)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
16V. 1,1-Dichloroethylene (75-35-4)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
17V. 1,2-Dichloropropane (78-87-5)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
18V. 1,3-Dichloropropylene (542-75-6)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
19V. Ethylbenzene (100-41-4)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
20V. Methyl Bromide (74-83-9)	X		X	ND (MRL = 0.3)						1	ug/l		ND (MRL = 0.50)		1
21V. Methyl Chloride (74-87-3)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TEST-ING REQUIR-ED	b. BE-LIEVED PRE-SENT	c. BE-LIEVED AB-SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X		X	ND (MRL = 0.50)						1	ug/l		ND (MRL = 1.0)		1
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
24V. Tetrachloro-ethylene (127-18-4)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
25V. Toluene (108-88-3)	X	X		ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
27V. 1,1,1-Tri-chloroethane (71-55-6)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
28V. 1,1,2-Tri-Chloroethane (79-00-5)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
29V. Trichloro-ethylene (79-01-6)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
30V. Trichloro-fluoromethane (75-69-4)	X		X	ND (MRL = 0.25)						1	ug/l		ND (MRL = 0.50)		1
31V. Vinyl Chloride (75-01-4)	X		X	ND (MRL = 0.3)						1	ug/l		ND (MRL = 0.50)		1
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
2A. 2,4-Dichloro-phenol (120-83-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
3A. 2,4-Dimethyl-phenol (105-67-9)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
4A. 4,6-Dinitro-0-Cresol (534-52-1)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
5A. 2,4-Dinitro-phenol (51-28-5)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
6A. 2-Nitrophenol (88-75-5)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
7A. 4-Nitrophenol (100-02-7)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
8A. P-Chloro-M-Cresol (59-50-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
9A. Pentachloro-phenol (87-86-5)	X		X	ND (MRL = 20)						1	ug/l		ND (MRL = 20)		1
10A. Phenol (108-95-2)	X	X		ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
11A. 2,4,6-Tri-chlorophenol (88-06-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
2B. Acenaphthylene (208-96-8)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
3B. Anthracene (120-12-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
4B. Benzidine (92-87-5)	X		X	ND (MRL = 50)						1	ug/l		ND (MRL = 50)		1
5B. Benzo *(a)* Anthracene (56-55-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
6B. Benzo *(a)* Pyrene (50-32-8)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
7B. 3,4-Benzo-flouranthene (205-99-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
9B. Benzo *(k)* Flouranthene (207-08-9)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
12B. Bis (2-Chloroisopropyl) Ether (102-60-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
13B. Bis (2-Chloroethyl) Phthalate (117-81-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
16B. 2-Chloronapthalene (91-58-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
18B. Chrysene (218-01-9)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
20B. 1,2-Dichlorobenzene (95-50-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
21B. 1,3-Dichlorobenzene (541-73-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1

CONTINUE ON PAGE V-7

Forms by ChemSW   ph11197:v5.21:11/1/98;s/nZZZYYYXXX

EPA I.D. NUMBER (copy from Item 1 of form 1)	OUTFALL NUMBER
CAD 077966349	001

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CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
23B. 3,3'-Dichlorobenzidine (91-94-1)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 10)		1
24B. Diethyl Phthalate (84-66-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
25B. Dimethyl Phthalate (131-11-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 5)		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 5)		1
29B. Di-N-Octyl Phthalate (117-84-0)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 10)		1
31B. Fluorathene (206-44-0)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
32B. Fluorene (86-73-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
33B. Hexachlorobenzene (118-74-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
34B. Hexachlorobutadiene (87-68-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
35B. Hexachlorocyclopentadiene (77-47-4)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 10)		1
36B. Hexachloroethane (67-72-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
38B. Isophorone (78-59-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
39B. Naphthalene (91-20-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
40B. Nitrobenzene (98-95-3)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
41B. N-Nitrosodimethylamine (62-75-9)	X		X	ND (MRL = 10)						1	ug/l		ND (MRL = 10)		1
42B. N-Nitrosodi- N-Propylamine (621-64-7)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TEST-ING REQUIR-ED	b. BE-LIEVED PRE-SENT	c. BE-LIEVED AB-SENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitro-sodiphenylamine (86-30-6)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
44B. Phenanthrene (85-01-8)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
45B. Pyrene (129-00-0)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
46B. 1,2,4-Tri-Chlorobenzene (120-82-1)	X		X	ND (MRL = 5)						1	ug/l		ND (MRL = 5)		1
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
2P. α-BHC (319-85-7)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
3P.ß-BHC (319-85-7)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
4P. γ-BHC (58-89-9)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
5P. δ-BHC (319-86-8)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
6P. Chlordane (57-74-9)			X	ND (MRL = 0.2)						1	ug/l		ND (MRL = 0.2)		1
7P. 4,4'-DDT (50-29-3)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
8P. 4,4'-DDE (72-55-9)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
9P. 4,4'-DDD (72-54-8)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
10P. Dieldrin (60-57-1)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
11P. α-Endosulfan (115-29-7)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
12P. ß-Endosulfan (115-29-7)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
13P. Endosulfan Sulfate (1031-07-8)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
14P. Endrin (72-20-8)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
15P. Endrin Aldehyde (7421-93-4)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1
16P. Heptachlor (75-44-8)			X	ND (MRL = 0.02)						1	ug/l		ND (MRL = 0.02)		1

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X	**ND** (MRL = 0.02)						1	ug/l		**ND** (MRL = 0.02)		1
18P. PCB-1242 (53469-21-9)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
19P. PCB-1254 (11097-69-1)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
20P. PCB-1221 (11104-28-2)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
21P. PCB-1232 (11141-16-5)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
22P. PCB-1248 (12672-29-6)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
23P. PCB-1260 (11096-82-5)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
24P. PCB-1016 (12674-11-2)			X	**ND** (MRL = 0.2)						1	ug/l		**ND** (MRL = 0.2)		1
25P. Toxaphene (8001-35-2)			X	**ND** (MRL = 0.5)						1	ug/l		**ND** (MRL = 0.5)		1

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E . NUMBER *(copy from Item 1 of Form 1)*

CAD 077966349

Forms by Chems 15;p/n11197;v5 21;11/1/98;s/nZZZYYYXXX

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 002

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	ND (MRL = 4)						1	mg/l		ND (MRL = 4)		1
b. Chemical Oxygen Demand (COD)	139						1	mg/l		449		1
c. Total Organic Carbon (TOC)	0.9						1	mg/l		0.9		1
d. Total Suspended Solids (TSS)	8						1	mg/l		ND (MRL = 5)		1
e. Ammonia (as N)	0.06						1	mg/l		ND (MRL = 0.05)		1
f. Flow	VALUE N/A		VALUE N/A		VALUE N/A			GPD		VALUE N/A		N/A
g. Temperature (winter)	VALUE N/A		VALUE N/A		VALUE N/A			°C		VALUE N/A		N/A
h. Temperature (summer)	VALUE N/A		VALUE N/A		VALUE N/A			°C		VALUE N/A		N/A
i. pH	MINIMUM 7.8	MAXIMUM 8.1	MINIMUM	MAXIMUM			34	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete on table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	x		78.5						1	mg/l		81.4		1
b. Chlorine Total Residual		x	ND (MRL = 0.1)						1	mg/l		ND (MRL = 0.1)		1
c. Color		x	ND (MRL = 5)						1	mg/l		ND (MRL = 5)		1
d. Fecal Coliform		x	ND (MRL = 2)						1	MPN / 100ml		ND (MRL = 2)		1
e. Fluoride (16984-48-8)	x		1.0						1	mg/l		1.0		1
f. Nitrate-Nitrite *(as N)*	x		0.3						1	mg/l		0.3		1

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	x		0.16						1	mg/l		0.1		1
h. Oil and Grease	x		ND (MRL = 5.0)						1	mg/l		ND (MRL = 5.0)		1
i. Phosphorus (as P), Total (7723-14-0)	x		0.06						1	mg/l		0.06		1
j. Radioactivity														
(1) Alpha, Total	x		0.0 ± 290 (MDA = 270)						1	pCi/l		22 ± 250 (MDA = 270)		1
(2) Beta, Total	x		460 ± 290 (MDA = 480)						1	pCi/l		160 ± 280 (MDA = 440)		1
(3) Radium, Total	x		0.7 ± 1.4 (MDA = 3.6)						1	pCi/l		0.1 ± 2.0 (MDA = 3.6)		1
(4) Radium 226, Total	x		0.1 ± 0.2 (MDA = 0.7)						1	pCi/l		0.1 ± 0.3 (MDA = 1.0)		1
k. Sulfate (as SO_4) (14808-79-8)	x		2620						1	mg/l		2540		1
l. Sulfide (as S)	x		ND (MRL = 1)						1	mg/l		ND (MRL = 1)		1
m. Sulfite (as SO_3) (14265-45-3)		x	ND (MRL = 2)						1	mg/l		ND (MRL = 2)		1
n. Surfactants	x		ND (MRL = 0.05)						1	mg/l		ND (MRL = 0.05)		1
o. Aluminum, Total (7429-90-5)	x		ND (MRL = 0.05)						1	mg/l		0.085		1
p. Barium, Total (7440-39-3)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
q. Boron, Total (7440-42-8)	x		4.26						1	mg/l		4.44		1
r. Cobalt, Total (7440-48-4)	x		0.002						1	mg/l		ND (MRL = 0.001)		1
s. Iron, Total (7439-89-6)	x		0.022						1	mg/l		ND (MRL = 0.02)		1
t. Magnesium, Total (7439-95-4)	x		1150						1	mg/l		1190		1
u.Molybdenum, Total (7439-98-7)	x		N/A									ND (MRL = 0.01)		1
v. Manganese, Total (7439-96-5)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
w. Tin, Total (7440-31-5)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
x. Titanium, Total (7440-32-6)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1

CONTINUE ON PAGE V-3

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V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 003

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	**ND** (MRL = 4)						1	mg /l		**ND** (MRL = 4)		1
b. Chemical Oxygen Demand (COD)	**156**						1	mg /l		**449**		1
c. Total Organic Carbon (TOC)	**1.0**						1	mg /l		**0.9**		1
d. Total Suspended Solids (TSS)	**11**						1	mg /l		**ND** (MRL = 5)		1
e. Ammonia (as N)	**ND** (MRL = 0.05)						1	mg /l		**ND** (MRL = 0.05)		1
f. Flow	VALUE **N/A**		VALUE **N/A**		VALUE **N/A**			GPD		VALUE **N/A**		N/A
g. Temperature (winter)	VALUE **N/A**		VALUE **N/A**		VALUE **N/A**			°C		VALUE **N/A**		N/A
h. Temperature (summer)	VALUE **N/A**		VALUE **N/A**		VALUE **N/A**			°C		VALUE **N/A**		N/A
i. pH	MINIMUM **7.8**	MAXIMUM **8.1**	MINIMUM	MAXIMUM			12	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete on table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS (specify if blank) a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
a. Bromide (24959-67-9)	x		**83.1**						1	mg /l		**81.4**		1
b. Chlorine Total Residual	x		**ND** (MRL = 0.1)						1	mg /l		**ND** (MRL = 0.1)		1
c. Color	x		**ND** (MRL = 5)						1	mg /l		**ND** (MRL = 5)		1
d. Fecal Coliform	x		**ND** (MRL = 2)						1	MPN / 100ml		**ND** (MRL = 2)		1
e. Fluoride (16984-48-8)	x		**1.0**						1	mg /l		**1.0**		1
f. Nitrate-Nitrite *(as N)*	x		**0.3**						1	mg /l		**0.3**		1

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. EFFLUENT PRESENT	2. MARK "X" b. EFFLUENT ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	x		0.7						1	mg/l		0.1		1
h. Oil and Grease	x		ND (MRL = 5.0)						1	mg/l		ND (MRL = 5.0)		1
i. Phosphorus (as P), Total (7723-14-0)	x		0.09						1	mg/l		0.06		1
j. Radioactivity														
(1) Alpha, Total	x		0.0 ± 320 (MDA = 270)						1	pCi/l		22 ± 250 (MDA = 270)		1
(2) Beta, Total	x		550 ± 290 (MDA = 420)						1	pCi/l		160 ± 280 (MDA = 440)		1
(3) Radium, Total	x		0.4 ± 0.73 (MDA = 2.31)						1	pCi/l		0.1 ± 2.0 (MDA = 3.6)		1
(4) Radium 226, Total			0.0 ± 0.21 (MDA = 0.71)						1	pCi/l		0.1 ± 0.3 (MDA = 1.0)		1
k. Sulfate (as SO_4) (14808-79-8)	x		2760						1	mg/l		2540		1
l. Sulfide (as S)	x		ND (MRL = 1)						1	mg/l		ND (MRL = 1)		1
m. Sulfite (as SO_3) (14265-45-3)		x	ND (MRL = 2)						1	mg/l		ND (MRL = 2)		1
n. Surfactants	x		0.06						1	mg/l		ND (MRL = 0.05)		1
o. Aluminum, Total (7429-90-5)	x		0.082						1	mg/l		0.085		1
p. Barium, Total (7440-39-3)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
q. Boron, Total (7440-42-8)	x		4.59						1	mg/l		4.44		1
r. Cobalt, Total (7440-48-4)	x		ND (MRL = 0.001)						1	mg/l		ND (MRL = 0.001)		1
s. Iron, Total (7439-89-6)	x		0.227						1	mg/l		ND (MRL = 0.02)		1
t. Magnesium, Total (7439-95-4)	x		1250						1	mg/l		1190		1
u.Molybdenum, Total (7439-98-7)	x		N/A									ND (MRL = 0.01)		1
v. Manganese, Total (7439-96-5)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
w. Tin, Total (7440-31-5)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1
x. Titanium, Total (7440-32-6)	x		ND (MRL = 0.005)						1	mg/l		ND (MRL = 0.005)		1

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Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 004

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	ND (MRL = 4)						1	mg/l				
b. Chemical Oxygen Demand (COD)	415						1	mg/l				
c. Total Organic Carbon (TOC)	0.7						1	mg/l				
d. Total Suspended Solids (TSS)	ND (MRL = 5)						1	mg/l				
e. Ammonia (as N)	ND (MRL =0.05)						1	mg/l				
f. Flow	VALUE N/A		VALUE N/A		VALUE N/A			GPD		VALUE		
g. Temperature (winter)	VALUE N/A		VALUE N/A		VALUE N/A			°C		VALUE		
h. Temperature (summer)	VALUE N/A		VALUE N/A		VALUE N/A			°C		VALUE		
i. pH	MINIMUM 7.8	MAXIMUM 8.2	MINIMUM	MAXIMUM			12	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete on table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS (specify if blank) a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	x		80.9						1	mg/l				
b. Chlorine Total Residual	x		ND (MRL = 0.1)						1	mg/l				
c. Color	x		ND (MRL = 5)						1	mg/l				
d. Fecal Coliform		x	ND (MRL = 2)						1	MPN / 100ml				
e. Fluoride (16984-48-8)	x		1.0						1	mg/l				
f. Nitrate-Nitrite *(as N)*	x		0.3						1	mg/l				

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. a. (2) MASS	3. b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. b. (2) MASS	3. c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. c. (2) MASS	3. d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. a. (2) MASS	5. b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*	x		**ND** (MRL = 0.1)						1	mg/l				
h. Oil and Grease	x		**ND** (MRL = 5.0)						1	mg/l				
i. Phosphorus *(as P)*, Total (7723-14-0)	x		**0.08**						1	mg/l				
j. Radioactivity														
(1) Alpha, Total	x		**8.5 ± 210** (MDA = 270)						1	pCi/l				
(2) Beta, Total	x		**200 ± 290** (MDA = 420)						1	pCi/l				
(3) Radium, Total	x		**0.1 ± 1.65** (MDA = 4.6)						1	pCi/l				
(4) Radium 226, Total	x		**0.1 ± 0.4** (MDA = 1.1)						1	pCi/l				
k. Sulfate *(as SO_4)* (14808-79-8)	x		**2540**						1	mg/l				
l. Sulfide *(as S)*		x	**ND** (MRL = 1)						1	mg/l				
m. Sulfite *(as SO_3)* (14265-45-3)		x	**ND** (MRL = 2)						1	mg/l				
n. Surfactants	x		**ND** (MRL = 0.05)						1	mg/l				
o. Aluminum, Total (7429-90-5)	x		**0.089**						1	mg/l				
p. Barium, Total (7440-39-3)	x		**ND** (MRL = 0.005)						1	mg/l				
q. Boron, Total (7440-42-8)	x		**4.35**						1	mg/l				
r. Cobalt, Total (7440-48-4)	x		**ND** (MRL = 0.001)						1	mg/l				
s. Iron, Total (7439-89-6)	x		**ND** (MRL =0.02)						1	mg/l				
t. Magnesium, Total (7439-95-4)	x		**1170**						1	mg/l				
u.Molybdenum , Total (7439-98-7)	x		**ND** (MRL = 0.01)						1	mg/l				
v. Manganese, Total (7439-96-5)	x		**ND** (MRL = 0.005)						1	mg/l				
w. Tin, Total (7440-31-5)	x		**ND** (MRL = 0.005)						1	mg/l				
x. Titanium, Total (7440-32-6)	x		**ND** (MRL = 0.005)						1	mg/l				

CONTINUE ON PAGE V-3

PART C- If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant of you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-0)			X											
2M. Arsenic, Total (7440-38-2)			X											
3M. Beryllium, Total (7440-41-7)			X											
4M. Cadmium, Total (7440-43-9)			X											
5M. Chromium, Total (7440-47-3)			X											
6M. Copper, Total (7440-50-8)			X											
7M. Lead, Total (7439-92-1)			X											
8M. Mercury, total (7439-97-6)			X											
9M. Nickel, Total (7440-02-0)			X											
10M. Selenium, Total (7782-49-2)			X											
11M. Silver, Total (7440-22-4)			X											
12M. Thallium, Total (7440-28-0)			X											
13M. Zinc, Total (7440-66-6)			X											
14M. Cyanide, Total (57-12-5)			X											
15M. Phenols, Total			X											
DIOXIN														
2,3,7,8 Tetrachlorodibenzo-P Dioxin (1764-01-6)			X	DESCRIBE RESULTS										

Not Applicable for Non-Process Wastewaters

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			x												
2V. Acrylonitrile (107-13-1)			x												
3V. Benzene (71-43-2)			x												
4V. Bis *(Chloromethyl)* Ether (542-88-1)			x												
5V. Bromoform (75-25-2)			x												
6V. Carbon Tetrachloride (56-23-5)			x												
7V. Chlorobenzene (108-90-7)			x												
8V. Chlorodibromomethane (124-48-1)			x												
9V. Chloroethane (75-00-3)			x												
10V. 2-Chloroethylvinyl Ether (110-75-8)			x												
11V. Chloroform (67-66-3)			x												
12V. Dichlorobromomethane (75-27-4)			x												
13V. Dichlorodifluoromethane (75-71-8)			x												
14V. 1,1-Dichloroethane (75-34-3)			x												
15V. 1,2-Dichloroethane (107-06-2)			x												
16V. 1,1-Dichloroethylene (75-35-4)			x												
17V. 1,2-Dichloropropane (78-87-5)			x												
18V. 1,3-Dichloropropylene (542-75-6)			x												
19V. Ethylbenzene (100-41-4)			x												
20V. Methyl Bromide (74-83-9)			x												
21V. Methyl Chloride (74-87-3)			x												

Not Applicable for Non-Process Wastewaters

EPA I.D. NUMBER *(copy from Item 1 of form 1)*	OUTFALL NUMBER
CAD 077966349	**002, 003, 004**

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			x												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			x												
24V. Tetrachloroethylene (127-18-4)			x												
25V. Toluene (108-88-3)			x												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			x												
27V. 1,1,1-Trichloroethane (71-55-6)			x												
28V. 1,1,2-Trichloroethane (79-00-5)			x												
29V. Trichloroethylene (79-01-6)			x												
30V. Trichlorofluoromethane (75-69-4)			x												
31V. Vinyl Chloride (75-01-4)			x												
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			x												
2A. 2,4-Dichlorophenol (120-83-2)			x												
3A. 2,4-Dimethylphenol (105-67-9)			x												
4A. 4,6-Dinitro-0-Cresol (534-52-1)			x												
5A. 2,4-Dinitrophenol (51-28-5)			x												
6A. 2-Nitrophenol (88-75-5)			x												
7A. 4-Nitrophenol (100-02-7)			x												
8A. P-Chloro-M-Cresol (59-50-7)			x												
9A. Pentachlorophenol (87-86-5)			x												
10A. Phenol (108-95-2)			x												
11A. 2,4,6-Trichlorophenol (88 06-2)			x												

Not Applicable for Non-Process Wastewaters

CONTINUE ON REVERSE

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			x												
2B. Acenaphylene (208-96-8)			x												
3B. Anthracene (120-12-7)			x												
4B. Benzidine (92-87-5)			x												
5B. Benzo *(a)* Anthracene (56-55-3)			x												
6B. Benzo *(a)* Pyrene (50-32-8)			x												
7B. 3,4-Benzo-flouranthene (205-99-2)			x												
8B. Benzo *(ghi)* Perylene (191-24-2)			x												
9B. Benzo *(k)* Flouranthene (207-08-9)			x												
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)			x												
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)			x												
12B. Bis (2-Chloro-isopropyl) Ether (102-60-1)			x												
13B. Bis (2-Chloro-ethyl) Phthalate (117-81-7)			x												
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)			x												
15B. Butyl Benzyl Phthalate (85-68-7)			x												
16B. 2-Chloro-napthalene (91-58-7)			x												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			x												
18B. Chrysene (218-01-9)			x												
19B. Dibenzo *(a,h)* Anthracene (53-70-3)			x												
20B. 1,2-Dichloro-benzene (95-50-1)			x												
21B. 1,3-Dichloro-benzene (541-73-1)			x												

Not Applicable for Non-Process Wastewaters

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X" a. TESTING REQUIRED	2. MARK "X" b. BELIEVED PRESENT	2. MARK "X" c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE *(optional)* b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X												
31B. Fluorathene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-74-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi- N-Propylamine (621-64-7)			X												

Not Applicable for Non-Process Wastewaters

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED	2. MARK "X" b. BELIEVED PRESENT	2. MARK "X" c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4-Tri-Chlorobenzene (120-82-1)			X												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-85-7)			X												
3P.ß-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. ß-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (75-44-8)			X												

Not Required for steam electric facilities and Not Applicable for Non-Process Wastewaters

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TEST-ING REQUIR-ED	b. BE-LIEVED PRE-SENT	c. BE-LIEVED AB-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			x												
18P. PCB-1242 (53469-21-9)			x												
19P. PCB-1254 (11097-69-1)			x												
20P. PCB-1221 (11104-28-2)			x												
21P. PCB-1232 (11141-16-5)			x												
22P. PCB-1248 (12672-29-6)			x												
23P. PCB-1260 (11096-82-5)			x												
24P. PCB-1016 (12674-11-2)			x												
25P. Toxaphene (8001-35-2)			x												

Not Required for steam electric facilities and Not Applicable for Non-Process Wastewaters

Appendix C

ANALYTICAL RESULTS

Columbia Analytical Services INC.
An Employee-Owned Company

January 2, 2001

Service Request No: K2005315

Clint Gans
Pacific Gas & Electric Company
9 Mls N.W. of Avilla Beach
Avila Beach, CA 93424

Re: Diablo Canyon NPDES

Dear Clint:

Enclosed are the revised pages for the sample(s) submitted to our laboratory on July 19, 2000. For your reference, these analyses have been assigned our service request number K2005315.

Please call if you have any questions. My extension is 3316.

Respectfully submitted,

Columbia Analytical Services, Inc.

Jeff Christian
Laboratory Director

JC/gep

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/577-7222 • Fax 360/636-1068

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a matrix interference.
X	See case narrative.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
E	The reported value is estimated because of the presence of matrix interference.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL has been elevated due to a matrix interference.
X	See case narrative.
*	The duplicate analysis not within control limits. See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL out greater than or equal to the MDL.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a chromatographic interference.
X	See case narrative.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/2000
Sample Matrix:	Water	**Date Received:**	7/20/2000

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/2000	8/2/2000	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/2000	8/2/2000	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/2000	8/2/2000	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4,6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
2-Chloronaphthalene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Acenaphthylene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/2000	8/2/2000	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/2000	8/2/2000	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/2000	8/2/2000	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/2000	8/2/2000	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	

Approved By: _____ Date: 1/2/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/2000
Sample Matrix:	Water	**Date Received:**	7/20/2000

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/2000	8/2/2000	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/2000	8/2/2000	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/2000	8/2/2000	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/2000	8/2/2000	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/2000	8/2/2000	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/2000	8/2/2000	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/2000	8/2/2000	ND	
2,4-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/2000	8/2/2000	ND	
2,6-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/2000	8/2/2000	ND	

* Searched as a tentatively-identified compound.

Approved By: _____ Date: 1/2/01

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/2000
Sample Matrix:	Water	**Date Received:**	7/20/2000

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Discharge Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-023	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/2000	8/2/2000	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/2000	8/2/2000	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/2000	8/2/2000	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4,6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
2-Chloronaphthalene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Acenaphthylene	EPA 3520C	625	5	0.6	1	7/21/2000	8/2/2000	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/2000	8/2/2000	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/2000	8/2/2000	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/2000	8/2/2000	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/2000	8/2/2000	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/2000	8/2/2000	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/2000	8/2/2000	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/2000	8/2/2000	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/2000	8/2/2000	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/2000	8/2/2000	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/2000	8/2/2000	ND	

Approved By: _____ Date: 1/2/01

01006

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Discharge Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-023	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/00	8/2/00	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/00	8/2/00	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/00	8/2/00	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/00	8/2/00	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/00	8/2/00	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/00	8/2/00	ND	
2,4-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/00	8/2/00	ND	
2,6-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/00	8/2/00	ND	

* Searched as a tentatively-identified compound.

Approved By: _____ Date: 1/2/01

1S2P/050897p

00007

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002803-10	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/1/00	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/1/00	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/00	8/1/00	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4,6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
2-Chloronaphthalene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Acenaphthylene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/00	8/1/00	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/00	8/1/00	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	

Approved By: _____ Date: 1/2/01

000008

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002803-10	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/00	8/1/00	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/00	8/1/00	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/00	8/1/00	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/00	8/1/00	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/00	8/1/00	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/00	8/1/00	ND	
2,4-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/00	8/1/00	ND	
2,6-Dinitrotoluene	EPA 3520C	625	10	2	1	7/21/00	8/1/00	ND	

* Searched as a tentatively-identified compound.

Approved By: _____ Date: 1/2/01

1S2P/050897p

00009

Rec'd 9/1/00

Columbia Analytical Services INC.
An Employee-Owned Company

August 24, 2000

Service Request No: K2005315

Clint Gans
Pacific Gas & Electric Company
9 Mls N.W. of Avilla Beach
Avila Beach, CA 93424

Re: Diablo Canyon NPDES

Dear Clint:

Enclosed are the results of the sample(s) submitted to our laboratory on July 19, 2000. For your reference, these analyses have been assigned our service request number K2005315.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 3316.

Respectfully submitted,

Columbia Analytical Services, Inc.

Jeff Christian
Laboratory Director

JC/afs

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/ 577-7222 • Fax 360/636-1068

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
)	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a matrix interference.
X	See case narrative.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
E	The reported value is estimated because of the presence of matrix interference.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL has been elevated due to a matrix interference.
)	See case narrative.
)	The duplicate analysis not within control limits.
+	The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a matrix interference.
)	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
X	See case narrative.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Pacific Gas and Electric Company	**Service Request No.:**	K2005315
Project:	Diablo Canyon NPDES	**Date Received:**	7/19/00
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for sample(s) designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), and Matrix/Duplicate Matrix Spike (MS/DMS).

All EPA recommended holding times have been met for analyses in this sample delivery group.

General Chemistry

Fluoride was analyzed initially using EPA Method 300.0 (ion chromatography). Due to the elevated chloride concentrations, the fluoride was not resolvable without performing a relatively large dilution. The results reported from the Method 300.0 analysis reflect a 100x dilution of the original sample.

A second fluoride analysis was performed using EPA Method 340.2 (ion specific electrode). The elevated dissolved salts present in the samples did not interfere with this analysis. However, the analysis using Method 340.2 was performed seven days past the recommended hold time. Inspection of the results, including the raw water intake, shows an analyzed concentration of 1.0 mg/L for all samples. These results are consistent with published typical values for fluoride in open ocean seawater (i.e. approximately 1 mg/L). The extended time to analysis for the second fluoride determination does not appear to be significant.

Metals

The matrix spike recoveries of arsenic, chromium, and copper were below the normal CAS/Kelso control limit. The cause of the low bias was confirmed as matrix interference (i.e. samples are seawater) via post-spike analysis. As per EPA guidelines, no further corrective action was feasible because the native concentrations were below the reporting limit and the associated recoveries were in an acceptable range for this application (i.e. direct analysis of seawater without chemical separation of the analyte from the matrix).

The Matrix Spike (MS) recovery of boron is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Volatiles

The samples were analyzed using two different methods. Acrolein and Acrylonitrile were run by EPA 624, while the other analytes were determined using EPA 8260B. The EPA 8260 procedure was used for the majority of the analytes in order to obtain greater sensitivity (i.e. reporting limits). No anomalies associated with the EPA 8260 analysis were observed.

Approved by _____ **Date** 8/23/00

For the EPA 624 analysis, the upper control criterion was exceeded for the Toluene-d8 surrogate in 001 Intake Composite, and the Toluene-d8 and Dichloroethane-d4 surrogates in 001 Discharge Composite. No target analytes were detected in the sample. The error associated with an elevated recovery equates to a high bias. The quality of the sample data has not been significantly affected. No further corrective action was feasible.

Semivolatiles

The semivolatiles are reported to the CAS/Kelso Method Detection Limit (MDL) rather than the Method Reporting Limit (MRL) because the required detection limits for a number of compounds are below the CAS/Kelso MRL. Benzidine was the only compound where the required limit was not achievable by CAS/Kelso using routine EPA methodology (CAS/Kelso MDL=30 ug/L; Required Detection Limit=10 ug/L).

Bis(chloromethyl)ether was analyzed as a Tentatively Identified Compound (TIC) because it is not included in the standard analyte mix. No response for the associated ions was observed.

Pesticides/PCBs

No anomalies associated with the analysis of these samples were observed. An LCS/DLCS is reported to provide precision data for the batch. A single matrix spike was performed for pesticides and PCBs.

Butyltins

No anomalies associated with the analysis of these samples were observed.

Dioxin

The dioxin analysis was sub-contracted to an outside laboratory. The results are included as Appendix C.

Radiochemistry

The radiochemistry analyses were sub-contracted to an outside laboratory. The results are included as Appendix D.

Approved by _____ **Date** _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

ent:	Pacific Gas and Electric Company	**Service Request:**	K2005315
ject:	Diablo Canyon NPDES	**Date Collected:**	7/18/00
Sample Matrix:	Water	**Date Received:**	7/19/00
		Date Extracted:	NA
		Date Analyzed:	7/19/00

Coliform, Fecal
SM 9221E
Units: MPN/100 ml

Sample Name	Lab Code	MRL	Time Test Started		Result
002 Discharge	K2005315-001	2	1000	hrs	ND
003 Discharge	K2005315-002	2	1000	hrs	ND
004 Discharge	K2005315-003	2	1000	hrs	ND
001 Intake	K2005315-004	2	1000	hrs	ND
001 Discharge	K2005315-005	2	1000	hrs	2

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Laboratory Chronicle

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/18,19/00
Date Received: 7/19-20/00
Date Extracted: NA

Inorganic Parameters

Analyte	EPA Method	Date Analyzed
Ammonia as Nitrogen	350.1	8/8,10/00
Biochemical Oxygen Demand (BOD)	405.1	7/20/00
Chemical Oxygen Demand (COD)	410.2	8/9,11/00
Bromide	300.0	8/8/00
Chlorine, Total Residual	330.4	7/19,20/00
Color	110.2	7/20/00
Cyanide, Total	335.2	7/26/00
Fluoride	340.2	8/23/00
Fluoride	300.0	8/8/00
Nitrate+Nitrite as Nitrogen	353.2	8/9,11/00
Nitrogen, Total Kjeldahl (TKN)	351.4	8/9/00
Phenolics, Total	420.1	7/24/00
Phosphorus, Total	365.3	8/10/00
Solids, Total Suspended (TSS)	160.2	7/20/00
Sulfate	300.0	8/8/00
Sulfide	376.1	7/21/00
Sulfite	377.1	7/19,20/00
Carbon, Total Organic (TOC)	415.1	8/9/00
Methylene Blue Active Substance	425.1	7/21/00

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/18,19/00
Date Received: 7/19-20/00
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

		Sample Name:	002 Discharge	003 Discharge	001 Intake Composite
		Lab Code:	K2005315-001	K2005315-002	K2005315-014
Analyte	**EPA Method**	**MRL**			
Ammonia as Nitrogen	350.1	0.05	0.06	ND	ND
Biochemical Oxygen Demand (BOD)	405.1	4	ND	ND	ND
Chemical Oxygen Demand (COD)	410.2	5	139	156	449
Bromide	300.0	0.2	78.5	83.1	81.4
Chlorine, Total Residual	330.4	0.1	ND	ND	ND
Color	110.2	5	ND	ND	ND
Cyanide, Total	335.2	0.01	-	-	ND
Fluoride	340.2 (X)	0.2	1.0	1.0	1.0
Fluoride	300.0	10	ND	ND	ND
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.3	0.3	0.3
Nitrogen, Total Kjeldahl (TKN)	351.4	0.1	0.1	0.7	0.1
Phenolics, Total	420.1	0.01	-	-	ND
Phosphorus, Total	365.3	0.01	0.06	0.09	0.06
Solids, Total Suspended (TSS)	160.2	5	8	11	ND
Sulfate	300.0	0.2	2620	2760	2540
Sulfide	376.1	1	ND	ND	ND
Sulfite	377.1	2	ND	ND	ND
Carbon, Total Organic (TOC)	415.1	0.5	0.9	1.0	0.9
Methylene Blue Active Substance	425.1	0.05	ND	0.06	ND
Nitrogen, Total Organic	351.4/350.1	-	0.16	0.7	0.1

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/18,19/00
Date Received: 7/19-20/00
Date Extracted: NA

Inorganic Parameters
Units: mg/L (ppm)

	Sample Name:	001 Discharge Composite	004 Discharge Composite	Method Blank
	Lab Code:	K2005315-023	K2005315-024	K2005315-MB
Analyte	**EPA Method**	**MRL**		
Ammonia as Nitrogen	350.1	0.05	ND	ND	ND
Biochemical Oxygen Demand (BOD)	405.1	4	ND	ND	-
Chemical Oxygen Demand (COD)	410.2	5	489	415	ND
Bromide	300.0	0.2	81.0	80.9	ND
Chlorine, Total Residual	330.4	0.1	ND	ND	ND
Color	110.2	5	ND	ND	ND
Cyanide, Total	335.2	0.01	ND	-	ND
Fluoride	340.2 (X)	0.2	1.0	1.0	ND
Fluoride	300.0	10	ND	ND	ND
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.3	0.3	ND
Nitrogen, Total Kjeldahl (TKN)	351.4	0.1	ND	ND	ND
Phenolics, Total	420.1	0.01	ND	-	ND
Phosphorus, Total	365.3	0.01	0.06	0.08	ND
Solids, Total Suspended (TSS)	160.2	5	ND	ND	ND
Sulfate	300.0	0.2	2640	2540	ND
Sulfide	376.1	1	ND	ND	ND
Sulfite	377.1	2	ND	ND	ND
Carbon, Total Organic (TOC)	415.1	0.5	0.8	0.7	ND
Methylene Blue Active Substance	425.1	0.05	ND	ND	ND
Nitrogen, Total Organic	351.4/350.1	-	ND	ND	ND

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 8/4/00

Total Metals
Units: µg/L (ppb)

			Sample Name:	002 Discharge	003 Discharge
			Lab Code:	K2005315-001	K2005315-002
			Date Analyzed:	8/8-16/00	8/8-16/00
Analyte	**EPA Method**	**MRL**			
Aluminum	200.7	50		ND	82
Barium	200.7	5		ND	ND
Boron	200.7	50		4260	4590
Cobalt	200.8	1		2	ND
Iron	200.7	20		22	227
Magnesium	200.7	20		1150000	1250000
Manganese	200.7	5		ND	ND
Tin	200.8	5		ND	ND
Titanium	200.7	5		ND	ND

Approved By: _____ Date: 8/16/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/24, 8/4/00

Total Metals
Units: µg/L (ppb)

			001 Intake	001 Discharge	004 Discharge
		Sample Name:	Composite	Composite	Compsite
		Lab Code:	K2005315-014	K2005315-023	K2005315-024
		Date Analyzed:	7/24-8/10/00	7/24-8/10/00	7/24-8/10/00
Analyte	**EPA Method**	**MRL**			
Aluminum	200.7	50	85	76	89
Antimony	200.8	1	ND	ND	ND
Arsenic	200.9	5	ND	ND	ND
Barium	200.7	5	ND	ND	ND
Beryllium	200.8	1	ND	ND	ND
Boron	200.7	50	4440	4370	4350
Cadmium	200.8	1	ND	ND	ND
Chromium	200.9	2	ND	ND	ND
Cobalt	200.8	1	ND	ND	ND
Copper	200.9	2	ND	ND	ND
on	200.7	20	ND	ND	ND
ead	200.8	1	ND	ND	ND
Magnesium	200.7	20	1190000	1180000	1170000
Manganese	200.7	5	ND	ND	ND
Mercury	245.1	0.2	ND	ND	ND
Molybdenum	200.7	10	ND	ND	ND
Nickel	200.9	3	ND	ND	ND
Selenium	SM 3114B	1	ND	ND	ND
Silver	200.8	1	ND	ND	ND
Thallium	200.8	1	ND	ND	ND
Tin	200.8	5	ND	ND	ND
Titanium	200.7	5	ND	ND	ND
Zinc	200.7	10	21	26	ND

Approved By: _____ Date: 8/15/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: NA
Date Received: NA
Date Extracted: 7/24, 8/4/00

Total Metals
Units: µg/L (ppb)

		Sample Name:	**Method Blank**
		Lab Code:	K2005315-MB
		Date Analyzed:	7/24-8/10/00
Analyte	**EPA Method**	**MRL**	
Aluminum	200.7	50	ND
Antimony	200.8	1	ND
Arsenic	200.9	5	ND
Barium	200.7	5	ND
Beryllium	200.8	1	ND
Boron	200.7	50	ND
Cadmium	200.8	1	ND
Chromium	200.9	2	ND
Cobalt	200.8	1	ND
Copper	200.9	2	ND
ɔn	200.7	20	ND
ead	200.8	1	ND
Magnesium	200.7	20	ND
Manganese	200.7	5	ND
Mercury	245.1	0.2	ND
Molybdenum	200.7	10	ND
Nickel	200.9	3	ND
Selenium	SM 3114B	1	ND
Silver	200.8	1	ND
Thallium	200.8	1	ND
Tin	200.8	5	ND
Titanium	200.7	5	ND
Zinc	200.7	10	ND

Approved By: _____ Date: 8/15/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/18-19/00
Sample Matrix:	Water	**Date Received:**	7/19-20/00
		Date Extracted:	8/7/00
		Date Analyzed:	8/8/00

Oil and Grease
EPA Method 413.1
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
002 Discharge	K2005315-001	5.0	ND
003 Discharge	K2005315-002	5.0	ND
001 Intake Composite	K2005315-014	5.0	ND
001 Discharge Composite	K2005315-023	5.0	ND
004 Discharge Composite	K2005315-024	5.0	ND
Method Blank	K000807-WB	5.0	ND

Approved By: M Gulla Date: 8/8/00

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	07/19/2000
Sample Matrix:	Water	**Date Received:**	07/20/2000

Volatile Organic Compounds

Sample Name:	001 Intake Composite	**Units:**	ug/L
Lab Code:	K2005315-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Vinyl Chloride	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromomethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Trichlorofluoromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Methylene Chloride	ND	U	1.0	1	08/02/00	08/02/00	KWG2002991	
trans-1,2-Dichloroethene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloroform	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
C Tetrachloride	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
B e	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Trichloroethene (TCE)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloropropane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromodichloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
2-Chloroethyl Vinyl Ether	ND	U	1.0	1	08/02/00	08/02/00	KWG2002991	*
trans-1,3-Dichloropropene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Toluene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
cis-1,3-Dichloropropene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,2-Trichloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Tetrachloroethene (PCE)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Dibromochloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chlorobenzene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Ethylbenzene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromoform	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	

* See Case Narrative

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	07/19/2000
Sample Matrix:	Water	**Date Received:**	07/20/2000

Volatile Organic Compounds

Sample Name:	001 Intake Composite	**Units:**	ug/L
Lab Code:	K2005315-014	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Note
Toluene-d8	104	83-116	Acceptable
4-Bromofluorobenzene	105	75-120	Acceptable
Dibromofluoromethane	108	87-115	Acceptable

00015

Analytical Results

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 07/19/2000
Date Received: 07/20/2000

Volatile Organic Compounds

Sample Name: 001 Discharge Composite
Lab Code: K2005315-023

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Chloromethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Vinyl Chloride	ND	U	0.3	1	08/02/00	08/02/00	KWG2002991	
Bromomethane	ND	U	0.3	1	08/02/00	08/02/00	KWG2002991	
Chloroethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Trichlorofluoromethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Methylene Chloride	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
trans-1,2-Dichloroethene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Chloroform	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,1,1-Trichloroethane (TCA)	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
C Tetrachloride	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Bo ne	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloroethane (EDC)	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Trichloroethene (TCE)	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloropropane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Bromodichloromethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
2-Chloroethyl Vinyl Ether	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	*
trans-1,3-Dichloropropene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Toluene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
cis-1,3-Dichloropropene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
1,1,2-Trichloroethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Tetrachloroethene (PCE)	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Dibromochloromethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Chlorobenzene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Ethylbenzene	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	
Bromoform	ND	U	0.3	1	08/02/00	08/02/00	KWG2002991	
1,1,2,2-Tetrachloroethane	ND	U	0.25	1	08/02/00	08/02/00	KWG2002991	

* See Case Narrative

00016

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	07/19/2000
Sample Matrix:	Water	**Date Received:**	07/20/2000

Volatile Organic Compounds

Sample Name:	001 Discharge Composite	**Units:**	ug/L
Lab Code:	K2005315-023	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Note
Toluene-d8	103	83-116	Acceptable
4-Bromofluorobenzene	103	75-120	Acceptable
Dibromofluoromethane	107	87-115	Acceptable

Analytical Results

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG2002991-6

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Vinyl Chloride	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromomethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Trichlorofluoromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Methylene Chloride	ND	U	1.0	1	08/02/00	08/02/00	KWG2002991	
trans-1,2-Dichloroethene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1-Dichloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chloroform	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Carbon Tetrachloride	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Benzene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Trichloroethene (TCE)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,2-Dichloropropane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromodichloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
2-Chloroethyl Vinyl Ether	ND	U	1.0	1	08/02/00	08/02/00	KWG2002991	*
trans-1,3-Dichloropropene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Toluene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
cis-1,3-Dichloropropene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,2-Trichloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Tetrachloroethene (PCE)	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Dibromochloromethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Chlorobenzene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Ethylbenzene	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
Bromoform	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	08/02/00	08/02/00	KWG2002991	

* See Case Narrative

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG2002991-6	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Note
Toluene-d8	100	83-116	Acceptable
4-Bromofluorobenzene	101	75-120	Acceptable
Dibromofluoromethane	102	87-115	Acceptable

00019

Analytical Results

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: water

Service Request: K2005315
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG2003030-3

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Chloromethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Vinyl Chloride	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Bromomethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Chloroethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,1-Dichloroethene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Trichlorofluoromethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Methylene Chloride	ND	U	1.0	1	08/03/00	08/03/00	KWG2003030	
trans-1,2-Dichloroethene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,1-Dichloroethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Chloroform	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Ca Tetrachloride	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Be e	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Trichloroethene (TCE)	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,2-Dichloropropane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Bromodichloromethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
2-Chloroethyl Vinyl Ether	ND	U	1.0	1	08/03/00	08/03/00	KWG2003030	
trans-1,3-Dichloropropene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Toluene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
cis-1,3-Dichloropropene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,1,2-Trichloroethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Tetrachloroethene (PCE)	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Dibromochloromethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Chlorobenzene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Ethylbenzene	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
Bromoform	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	08/03/00	08/03/00	KWG2003030	

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG2003030-3	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Note
Toluene-d8	103	83-116	Acceptable
4-Bromofluorobenzene	103	75-120	Acceptable
Dibromofluoromethane	103	87-115	Acceptable

00021

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	07/19/2000
Sample Matrix:	Water	**Date Received:**	07/20/2000

Volatile Organic Compounds

Sample Name:	001 Intake Composite	**Units:**	ug/L
Lab Code:	K2005315-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	624		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acrolein	ND	U	20	1	08/02/00	08/02/00	KWG2002998	
Acrylonitrile	ND	U	20	1	08/02/00	08/02/00	KWG2002998	

Surrogate Name	%Rec	Control Limits	Note
1,2-Dichloroethane-d4	113	76-114	Acceptable
Toluene-d8	137	88-110	Outside Control Limits
4-Bromofluorobenzene	112	86-115	Acceptable

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	07/19/2000
Sample Matrix:	Water	**Date Received:**	07/20/2000

Volatile Organic Compounds

Sample Name:	001 Discharge Composite	**Units:**	ug/L
Lab Code:	K2005315-023	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	624		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acrolein	ND	U	20	1	08/02/00	08/02/00	KWG2002998	
Acrylonitrile	ND	U	20	1	08/02/00	08/02/00	KWG2002998	

Surrogate Name	%Rec	Control Limits	Note
1,2-Dichloroethane-d4	116	76-114	Outside Control Limits
Toluene-d8	114	88-110	Outside Control Limits
4-Bromofluorobenzene	111	86-115	Acceptable

Analytical Results

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG2002998-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	624		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acrolein	ND	U	20	1	08/01/00	08/01/00	KWG2002998	
Acrylonitrile	ND	U	20	1	08/01/00	08/01/00	KWG2002998	

Surrogate Name	%Rec	Control Limits	Note
1,2-Dichloroethane-d4	105	76-114	Acceptable
Toluene-d8	108	88-110	Acceptable
4-Bromofluorobenzene	109	86-115	Acceptable

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name: 001 Intake Composite
Lab Code: K2005315-014
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/2/00	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/2/00	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/00	8/2/00	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4,6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
ıronaphthalene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
phthylene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/00	8/2/00	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/00	8/2/00	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	

Approved By: C L Haines Date: AUG 18 2000

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/00	8/2/00	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/00	8/2/00	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/00	8/2/00	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/00	8/2/00	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/00	8/2/00	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/00	8/2/00	ND	

* Searched as a tentatively-identified compound.

Approved By: _____ Date: AUG 18 2000

1S2P/050897p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name: 001 Discharge Composite
Lab Code: K2005315-023
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/2/00	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/2/00	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/00	8/2/00	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4,6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
'oronaphthalene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
aphthylene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/00	8/2/00	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/00	8/2/00	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/00	8/2/00	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/00	8/2/00	ND	

Approved By: C Weires Date: AUG 18 2000

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Discharge Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-023	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/00	8/2/00	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/00	8/2/00	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/00	8/2/00	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/00	8/2/00	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/00	8/2/00	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/00	8/2/00	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/00	8/2/00	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/00	8/2/00	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/00	8/2/00	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/00	8/2/00	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/00	8/2/00	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/00	8/2/00	ND	

* Searched as a tentatively-identified compound.

Approved By: _____ Date: AUG 18 2000

1S2P/050897p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002803-10	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Bis(2-chloroethyl) Ether	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
Phenol	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
2-Chlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
1,3-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/1/00	ND	
1,2-Dichlorobenzene	EPA 3520C	625	5	0.3	1	7/21/00	8/1/00	ND	
1,4-Dichlorobenzene	EPA 3520C	625	5	0.4	1	7/21/00	8/1/00	ND	
Bis(2-chloroisopropyl) Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Hexachloroethane	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
N-Nitrosodi-n-propylamine	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Nitrobenzene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Isophorone	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	
2-Nitrophenol	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dimethylphenol	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Bis(2-chloroethoxy)methane	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dichlorophenol	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Naphthalene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Hexachlorobutadiene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
4-Chloro-3-methylphenol	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2 4.6-Trichlorophenol	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
'oronaphthalene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
aphthylene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Dimethyl Phthalate	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
Acenaphthene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
2,4-Dinitrophenol	EPA 3520C	625	20	6	1	7/21/00	8/1/00	ND	
4-Nitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
Fluorene	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
4-Chlorophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Diethyl Phthalate	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
2-Methyl-4,6-dinitrophenol	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
4-Bromophenyl Phenyl Ether	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Hexachlorobenzene	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
Pentachlorophenol (PCP)	EPA 3520C	625	20	2	1	7/21/00	8/1/00	ND	
Phenanthrene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Anthracene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Di-n-butyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Fluoranthene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Pyrene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Butyl Benzyl Phthalate	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
3,3'-Dichlorobenzidine	EPA 3520C	625	10	0.7	1	7/21/00	8/1/00	ND	
Benz(a)anthracene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Chrysene	EPA 3520C	625	5	0.5	1	7/21/00	8/1/00	ND	

Approved By: _____ Date: AUG 18 2000

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002803-10	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Di-n-octyl Phthalate	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Benzo(b)fluoranthene	EPA 3520C	625	5	0.8	1	7/21/00	8/1/00	ND	
Benzo(k)fluoranthene	EPA 3520C	625	5	0.6	1	7/21/00	8/1/00	ND	
Benzo(a)pyrene	EPA 3520C	625	5	0.7	1	7/21/00	8/1/00	ND	
Indeno(1,2,3-cd)pyrene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Dibenz(a,h)anthracene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Benzo(g,h,i)perylene	EPA 3520C	625	5	2	1	7/21/00	8/1/00	ND	
Benzidine	EPA 3520C	625	50	30	1	7/21/00	8/1/00	ND	
Bis(2-ethylhexyl)Phthalate	EPA 3520C	625	5	5	1	7/21/00	8/1/00	ND	
2-Methylnaphthalene	EPA 3520C	625	5	0.9	1	7/21/00	8/1/00	ND	
Azobenzene	EPA 3520C	625	10	0.8	1	7/21/00	8/1/00	ND	
Hexachlorocyclopentadiene	EPA 3520C	625	10	0.5	1	7/21/00	8/1/00	ND	
N-Nitrosodimethylamine	EPA 3520C	625	10	0.6	1	7/21/00	8/1/00	ND	
N-Nitrosodiphenylamine	EPA 3520C	625	5	1	1	7/21/00	8/1/00	ND	
Bis(chloromethyl)ether *	EPA 3520C	625	5	-	1	7/21/00	8/1/00	ND	

* Searched as a tentatively-identified compound.

Approved By: C Haines Date: AUG 18 2000

1S2P/050897p

00030

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Organochlorine Pesticides

Sample Name: 001 Intake Composite
Lab Code: K2005315-014
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
alpha-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
beta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
gamma-BHC (Lindane)	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
delta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Aldrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor Epoxide	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
E- lfan I	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
D n	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan II	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin Aldehyde	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan Sulfate	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Toxaphene	EPA 3520C	8081A	0.5	1	7/24/00	7/28/00	ND	
Chlordane	EPA 3520C	8081A	0.2	1	7/24/00	7/28/00	ND	
2,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	

Approved By: VA Date: 8-3-00

1S22/0z0597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
ct:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Organochlorine Pesticides

Sample Name:	001 Discharge Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-023	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
alpha-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
beta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
gamma-BHC (Lindane)	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
delta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Aldrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor Epoxide	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Er · ·lfan I	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
D	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan II	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin Aldehyde	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan Sulfate	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Toxaphene	EPA 3520C	8081A	0.5	1	7/24/00	7/28/00	ND	
Chlordane	EPA 3520C	8081A	0.2	1	7/24/00	7/28/00	ND	
2,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	

A: :d By: VN Date: 8-3-00

1S22/0z097p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

t:	Pacific Gas and Electric Company	**Service Request:**	K2005315
ect:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	K200724-MB	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
alpha-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
beta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
gamma-BHC (Lindane)	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
delta-BHC	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Aldrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Heptachlor Epoxide	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
E fan I	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Dieldrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan II	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endrin Aldehyde	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Endosulfan Sulfate	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
4,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
Toxaphene	EPA 3520C	8081A	0.5	1	7/24/00	7/28/00	ND	
Chlordane	EPA 3520C	8081A	0.2	1	7/24/00	7/28/00	ND	
2,4'-DDE	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDD	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	
2,4'-DDT	EPA 3520C	8081A	0.02	1	7/24/00	7/28/00	ND	

Ap ed By: VN Date: 8-3-00

1S22/020597p

00033

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Polychlorinated Biphenyls (PCBs)

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Aroclor 1016	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1221	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1232	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1242	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1248	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1254	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1260	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	

Approved By: VN Date: 8-9-00

1S22/0200397p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Polychlorinated Biphenyls (PCBs)

Sample Name: 001 Discharge Composite
Lab Code: K2005315-023
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Aroclor 1016	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1221	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1232	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1242	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1248	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1254	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1260	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	

Approved By: VN Date: 8-9-00

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polychlorinated Biphenyls (PCBs)

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002837-7	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Aroclor 1016	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1221	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1232	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1242	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1248	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1254	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	
Aroclor 1260	EPA 3520C	8082	0.2	1	7/24/00	8/4/00	ND	

Approved By: VN Date: 8-9-00

1622oxo397p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Butyltins

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Tetra-n-butyltin	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
Tri-n-butyltin Cation	EPA 3520C	Krone	0.02	1	7/25/00	7/28/00	ND	
Di-n-butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
n-Butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	

Approved By: VN Date: 8-3-00

1S22/020397p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00

Butyltins

Sample Name:	001 Discharge Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-023	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Tetra-n-butyltin	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
Tri-n-butyltin Cation	EPA 3520C	Krone	0.02	1	7/25/00	7/28/00	ND	
Di-n-butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
n-Butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	

Approved By: VN Date: 8-3-00

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Butyltins

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	KWG2002851-4	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Tetra-n-butyltin	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
Tri-n-butyltin Cation	EPA 3520C	Krone	0.02	1	7/25/00	7/28/00	ND	
Di-n-butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	
n-Butyltin Cation	EPA 3520C	Krone	0.05	1	7/25/00	7/28/00	ND	

Approved By: VN Date: 8-3-00

1S22/020597p

APPENDIX A
QA/QC RESULTS

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: NA

Duplicate Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: 001 Intake Composite
Lab Code: K2005315-014DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Ammonia as Nitrogen	350.1	0.05	ND	ND	ND	-
Biochemical Oxygen Demand (BOD)	405.1	4	ND	ND	ND	-
Chemical Oxygen Demand (COD)	410.2	5	449	425	437	5
Bromide	300.0	0.2	81.4	80.1	80.8	2
Chlorine, Residual	330.4	0.1	ND (L1)	ND	ND	-
Color	110.2	20	ND (L2)	ND	ND	-
Cyanide, Total	335.2	0.01	ND	ND	ND	-
Fluoride	340.2	0.2	1.0	1.0	1.0	< 1
Fluoride	300.0	10	ND	ND	ND	-
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.3	0.3	0.3	< 1
Nitrogen, Total Kjeldahl (TKN)	351.4	0.1	0.1	0.2	0.2	50
Phenolics, Total	420.1	0.01	ND	ND	ND	-
Phosphorus, Total	365.3	0.01	0.06 (L1)	0.06	0.06	< 1
Solids, Total Suspended (TSS)	160.2	5	8 (L)	ND	NC	NC
Sulfate	300.0	0.2	2540	2550	2540	< 1
Sulfide	376.1	1	ND	ND	ND	-
Sulfite	377.1	2	ND	ND	ND	-
Carbon, Total Organic (TOC)	415.1	0.5	0.9	0.9	0.9	< 1
Methylene Blue Active Substance	425.1	0.05	ND (L1)	ND	ND	-

L1 Duplicate analysis was performed on Sample 002 Discharge; Lab Code K2005315-001DUP.
L2 Duplicate analysis was performed on Sample 003 Discharge; Lab Code K2005315-002DUP.

Approved By: _____ Date: 8/23/00

DUP1SEPA/102194
05315WET.LJ1 - MixedDup 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: NA

Matrix Spike Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: 001 Intake Composite
Lab Code: K2005315-014MS

Analyte	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Ammonia as Nitrogen	350.1	0.05	2.00	ND	2.05	102	75-125
Chemical Oxygen Demand (COD)	410.2	5	1000	449	1440	99	75-125
Bromide	300.0	0.2	200	81.4	299	109	80-120
Chlorine, Residual	330.4	0.1	1.8	ND (M)	1.8	100	75-125
Cyanide, Total	335.2	0.01	0.10	ND	0.09	90	75-125
Fluoride	340.2	0.2	5.0	1.0	4.8	76	75-125
Fluoride	300.0	10	200	ND	220	110	75-125
rate+Nitrite as Nitrogen	353.2	0.2	2.0	0.3	2.3	100	75-125
trogen, Total Kjeldahl (TKN)	351.4	0.1	20.0	0.1	23.3	116	75-125
Phenolics, Total	420.1	0.01	0.40	ND	0.41	102	75-125
Phosphorus, Total	365.3	0.01	1.0	0.06	0.83	77	75-125
Sulfate	300.0	0.2	2000	2540	4650	106	80-120
Sulfide	376.1	1	5	ND	5	100	75-125
Carbon, Total Organic (TOC)	415.1	0.5	25.0	0.9	25.1	97	85-115
Methylene Blue Active Substance	425.1	0.05	0.08	ND (M)	0.09	113	75-125

M Matrix Spike analysis was performed on Sample 002 Discharge; Lab Code K2005315-001MS.

Approved By: _____ Date: 8/23/00

MS1SEPA/102194
05315WET.LJ1 - mixedspk 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: NA

Duplicate Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: 004 Discharge Composite
Lab Code: K2005315-024DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Bromide	300.0	0.2	80.9	82.4	81.6	2
Chlorine, Residual	330.4	0.1	ND (L1)	ND	ND	-
Fluoride	340.2	0.2	1.0	1.0	1.0	< 1
Fluoride	300.0	10	ND	ND	ND	-
Nitrate+Nitrite as Nitrogen	353.2	0.2	0.3	0.3	0.3	< 1
Sulfate	300.0	0.2	2540	2540	2540	< 1
Sulfite	377.1	2	ND (L2)	ND	ND	-

L1 Duplicate analysis was performed on Sample 001 Discharge Composite; Lab Code K2005315-023DUP.
L2 Duplicate analysis was performed on Sample 002 Discharge; Lab Code K2005315-001DUP.

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: NA

Matrix Spike Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: 004 Discharge Composite
Lab Code: K2005315-024MS

Analyte	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Bromide	300.0	0.2	200	81.0	299	109	80-120
Chlorine, Residual	330.4	0.1	1.2	ND (M)	1.3	108	75-125
Fluoride	340.2	0.2	7.5	1.0	6.8	77	75-125
Fluoride	300.0	10	200	ND	220	110	75-125
Nitrate+Nitrite as Nitrogen	353.2	0.2	2.0	0.3	2.3	100	75-125
Sulfate	300.0	0.2	2000	2540	4690	108	80-120

M Matrix Spike analysis was performed on Sample 001 Discharge Composite; Lab Code K2005315-023MS.

Approved By: _____ Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/24, 8/4/00
		Date Analyzed:	7/24-8/7/00

Duplicate Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 001 Intake Composite
Lab Code: K2005315-014DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Arsenic	200.9	5	ND	ND	ND	-
Chromium	200.9	2	ND	ND	ND	-
Copper	200.9	2	ND	ND	ND	-
Mercury	245.1	0.2	ND	ND	ND	-
Nickel	200.9	3	ND	ND	ND	-
Selenium	SM 3114B	1	ND	ND	ND	-

Approved By: _____ Date: 8/15/00

DUP1SEPA/102194

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/24/00
		Date Analyzed:	7/24/00

Duplicate Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 004 Discharge Compsite
Lab Code: K2005315-024DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Selenium	SM 3114B	1	ND	ND	ND	-

Approved By: _____ Date: 8/15/00

DUP1SEPA/102194

05315ICP.BR1 - DUP Se (2) 8/15/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 8/4/00
Date Analyzed: 8/8, 10/00

Duplicate Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 002 Discharge
Lab Code: K2005315-001DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Aluminum	200.7	50	ND	82	NC	NC
Antimony	200.8	1	ND	ND	ND	-
Barium	200.7	5	ND	ND	ND	-
Beryllium	200.8	1	ND	ND	ND	-
Boron	200.7	50	4260	4250	4260	<1
Cadmium	200.8	1	ND	ND	ND	-
Cobalt	200.8	1	2	2	2	<1
Iron	200.7	20	22	21	22	5
Lead	200.8	1	ND	ND	ND	-
Magnesium	200.7	20	1150000	1090000	1120000	<1
Manganese	200.7	5	ND	ND	ND	-
Molybdenum	200.7	10	ND	ND	ND	-
Silver	200.8	1	ND	ND	ND	-
Thallium	200.8	1	ND	ND	ND	-
Tin	200.8	5	ND	ND	ND	-
Titanium	200.7	5	1760	1690	1720	4
Zinc	200.7	10	ND	ND	ND	-

Approved By: _____ Date: 8/16/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/24, 8/4/00
Date Analyzed: 7/24-8/7/00

Matrix Spike Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 001 Intake Composite
Lab Code: K2005315-014MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Arsenic	5	80	ND	50	62 (N)	75-125
Chromium	2	50	ND	31	62 (N)	75-125
Copper	2	100	ND	74	74 (N)	75-125
Mercury	0.2	1	ND	1.0	100	75-125
Nickel	3	50	ND	43	86	75-125
Selenium	1	20	ND	17	85	75-125

Approved By: _____ Date: 5/22/02

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/24/00
		Date Analyzed:	7/24/00

Matrix Spike Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 004 Discharge Compsite
Lab Code: K2005315-024MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Selenium	1	20	ND	17	85	75-125

Approved By: _____ Date: 9/15/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	8/4/00
		Date Analyzed:	8/8, 10/00

Matrix Spike Summary
Total Metals
Units: µg/L (ppb)

Sample Name: 002 Discharge
Lab Code: K2005315-001MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Aluminum	50	2000	ND	1900	95	75-125
Antimony	1	1000	ND	1020	102	75-125
Barium	5	2000	ND	1590	80	75-125
Beryllium	1	1000	ND	948	95	75-125
Boron	50	400	4260	4630	82 (#)	75-125
Cadmium	1	1000	ND	934	93	75-125
Cobalt	1	1000	2	950	95	75-125
Iron	20	1000	22	788	77	75-125
Lead	1	1000	ND	880	88	75-125
Manganese	5	500	ND	419	84	75-125
Molybdenum	10	400	ND	332	83	75-125
Silver	1	1000	ND	898	90	75-125
Thallium	1	1000	ND	896	90	75-125
Tin	5	1000	ND	1050	105	75-125
Zinc	10	500	ND	434	87	75-125

Approved By: _____ Date: 8/16/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	8/7/00
		Date Analyzed:	8/8/00

Matrix Spike/Duplicate Matrix Spike Summary
Oil and Grease
EPA Method 413.1
Units: mg/L (ppm)

Sample Name: 001 Intake Composite
Lab Code: K2005315-001DMS

	Spike Level		Sample	Spike Result		Percent Recovery		CAS Acceptance	Relative Percent	CAS RPD Acceptance
Analyte	MS	DMS	**Result**	MS	DMS	MS	DMS	Limits	**Difference**	**Limit**
Oil	100	100	ND	77	77	77	77	71-113	<1	30

Approved By: M Gulu Date: 8/8/00

DMS1SRPD/120594
05315PHC.KH1 - dms 8/8/00

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
001 Intake Composite	K2005315-014	104	105	108
001 Discharge Composite	K2005315-023	103	103	107
Method Blank	KWG2002991-6	100	101	102
Method Blank	KWG2003030-3	103	103	103
001 Discharge CompositeMS	KWG2002991-7	100	105	106
001 Discharge CompositeDMS	KWG2003030-7	102	106	108
Lab Control Sample	KWG2002991-4	101	104	105
Lab Control Sample	KWG2003030-4	102	104	107

Surrogate Recovery Control Limits (%)

Sur1	Toluene-d8	83-116
Sur2	4-Bromofluorobenzene	75-120
Sur3	Dibromofluoromethane	87-115

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

00052

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Extracted:**	08/02/2000
Sample Matrix:	Water	**Date Analyzed:**	08/02/2000

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	001 Discharge Composite	**Units:**	ug/L
Lab Code:	K2005315-023	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG2002991

Analyte Name	Sample Result	001 Discharge CompositeMS KWG2002991-7 Matrix Spike			001 Discharge CompositeDM KWG2003030-7 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	11	10	110	8.9	10	89	42-178	21	30
Benzene	ND	10	10	100	9.1	10	91	65-138	9	30
Trichloroethene (TCE)	ND	10	10	100	9.2	10	92	58-146	8	30
Toluene	ND	9.7	10	97	8.9	10	89	68-135	9	30
Chlorobenzene	ND	11	10	110	9.5	10	95	71-124	15	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

00053

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 624

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
001 Intake Composite	K2005315-014	113	137 *	112
001 Discharge Composite	K2005315-023	116 *	114 *	111
Method Blank	KWG2002998-4	105	108	109
Lab Control Sample	KWG2002998-3	102	103	106

Surrogate Recovery Control Limits (%)

Sur1	1,2-Dichloroethane-d4	76-114
Sur2	Toluene-d8	88-110
Sur3	4-Bromofluorobenzene	86-115

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Extracted:**	08/01/2000
Sample Matrix:	Water	**Date Analyzed:**	08/01/2000

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	624	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG2002998

	Lab Control Sample KWG2002998-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Acrolein	93	100	93	50-150
Acrylonitrile	43	50	86	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/21/00
Date Analyzed: 8/1-2/00

Surrogate Recovery Summary
Base Neutral/Acid Semivolatile Organic Compounds

Prep Method: EPA 3520C
Analysis Method: 625

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery 2FPHL	PHLD6	NBZ	2FBPH	246TBPHL	TPH
001 Intake Composite	K2005315-014		53	63	74	73	75	113
001 Discharge Composite	K2005315-023		60	69	78	68	70	108
001 Intake Composite	K2005315-014MS		57	66	77	74	89	112
001 Intake Composite	K2005315-014DMS		62	71	78	78	100	117
Method Blank	KWG2002803-10		64	76	89	84	71	112
CAS Acceptance Limits:			27-93	34-109	37-115	45-116	45-112	9-137

2FPHL	2-Fluorophenol
PHLD6	Phenol-d6
NBZ	Nitrobenzene-d5
2FBPH	2-Fluorobiphenyl
246TBPHL	2,4,6-Tribromophenol
TPH	p-Terphenyl-d14

Approved By: C Haines Date: AUG 18 2000

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/21/00
		Date Analyzed:	8/2/00

Matrix Spike/Duplicate Matrix Spike Summary
Base Neutral/Acid Semivolatile Organic Compounds

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014MS, K2005315-014DMS	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Phenol	EPA 3520C	625	5	200	200	ND	140	150	70	75	55-96	7	
2-Chlorophenol	EPA 3520C	625	5	200	200	ND	130	140	65	70	56-99	7	
1,4-Dichlorobenzene	EPA 3520C	625	5	200	200	ND	120	130	60	65	46-95	8	
N-Nitrosodi-n-propylami	EPA 3520C	625	5	200	200	ND	150	150	75	75	43-122	<1	
1,2,4-Trichlorobenzene	EPA 3520C	625	5	200	200	ND	140	140	70	70	51-98	<1	
4-C 3-methylpheno	EPA 3520C	625	5	200	200	ND	160	180	80	90	56-128	12	
Ace thene	EPA 3520C	625	5	200	200	ND	160	180	80	90	58-102	12	
4-Nitrophenol	EPA 3520C	625	20	200	200	ND	160	180	80	90	60-132	12	
Pentachlorophenol (PCP	EPA 3520C	625	20	200	200	ND	150	170	75	85	44-138	13	
Pyrene	EPA 3520C	625	5	200	200	ND	200	210	100	105	36-126	5	

Approved By: C Ubbens Date: AUG 18 2000

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/24/00
Date Analyzed: 7/28/00

Surrogate Recovery Summary
Organochlorine Pesticides

Prep Method: EPA 3520C
Analysis Method: 8081A

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery	
			Tetrachloro-m-xylene	Decachlorobiphenyl
001 Intake Composite	K2005315-014		77	66
001 Discharge Composite	K2005315-023		78	68
001 Intake Composite	K2005315-014MS		73	75
Lab Control Sample	K200724-LCS		76	61
Lab Control Sample	K200724-DLCS		82	48
Method Blank	K200724-MB		79	62
CAS Acceptance Limits:			27-108	16-115

Approved By: VN Date: 8-3-00

SUR2/111397p

05315SVG.AY2 - SUR2 8/2/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

ient: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/24/00
Date Analyzed: 7/28/00

Matrix Spike Summary
Organochlorine Pesticides

Sample Name: 001 Intake Composite
Lab Code: K2005315-014MS
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
alpha-BHC	EPA 3520C	8081A	0.02	0.38	ND	0.35	92	35-150	
beta-BHC	EPA 3520C	8081A	0.02	0.38	ND	0.40	105	35-150	
gamma-BHC (Lindane)	EPA 3520C	8081A	0.02	0.38	ND	0.40	105	29-154	
delta-BHC	EPA 3520C	8081A	0.02	0.38	ND	0.38	100	35-150	
Heptachlor	EPA 3520C	8081A	0.02	0.38	ND	0.33	87	17-149	
Aldrin	EPA 3520C	8081A	0.02	0.38	ND	0.36	95	40-122	
otachlor Epoxide	EPA 3520C	8081A	0.02	0.38	ND	0.38	100	35-150	
dosulfan I	EPA 3520C	8081A	0.02	0.38	ND	0.31	82	35-150	
Dieldrin	EPA 3520C	8081A	0.02	0.38	ND	0.38	100	19-185	
4,4'-DDE	EPA 3520C	8081A	0.02	0.38	ND	0.42	111	35-150	
Endrin	EPA 3520C	8081A	0.02	0.38	ND	0.38	100	27-183	
Endosulfan II	EPA 3520C	8081A	0.02	0.38	ND	0.33	87	35-150	
4,4'-DDD	EPA 3520C	8081A	0.02	0.38	ND	0.42	111	35-150	
Endrin Aldehyde	EPA 3520C	8081A	0.02	0.38	ND	0.36	95	35-150	
Endosulfan Sulfate	EPA 3520C	8081A	0.02	0.38	ND	0.38	100	35-150	
4,4'-DDT	EPA 3520C	8081A	0.02	0.38	ND	0.42	111	27-173	

Approved By: VN Date: 8-3-00

MS/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	7/24/00
		Date Analyzed:	7/28/00

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary
Organochlorine Pesticides

Sample Name:	Lab Control Sample	Units:	ug/L (ppb)
Lab Code:	K200724-LCS, K200724-DLCS	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	True Value LCS	True Value DLCS	Result LCS	Result DLCS	Percent Recovery LCS	Percent Recovery DLCS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
alpha-BHC	EPA 3520C	8081A	0.20	0.20	0.18	0.19	90	95	60-140	5	
beta-BHC	EPA 3520C	8081A	0.20	0.20	0.19	0.21	95	105	60-140	10	
gamma-BHC (Lindane)	EPA 3520C	8081A	0.20	0.20	0.21	0.22	105	110	59-120	5	
delta-BHC	EPA 3520C	8081A	0.20	0.20	0.19	0.21	95	105	60-140	10	
Heptachlor	EPA 3520C	8081A	0.20	0.20	0.17	0.18	85	90	22-128	6	
Aldrin	EPA 3520C	8081A	0.20	0.20	0.19	0.20	95	100	17-123	5	
Heptachlor Epoxide	EPA 3520C	8081A	0.20	0.20	0.20	0.20	100	100	60-140	<1	
Endosulfan I	EPA 3520C	8081A	0.20	0.20	0.15	0.17	75	85	60-140	13	
Dieldrin	EPA 3520C	8081A	0.20	0.20	0.21	0.21	105	105	61-127	<1	
4,4'-DDE	EPA 3520C	8081A	0.20	0.20	0.20	0.22	100	110	60-140	10	
Endrin	EPA 3520C	8081A	0.20	0.20	0.20	0.20	100	100	60-133	<1	
Endosulfan II	EPA 3520C	8081A	0.20	0.20	0.16	0.19	80	95	60-140	17	
4,4'-DDD	EPA 3520C	8081A	0.20	0.20	0.21	0.23	105	115	60-140	9	
Endrin Aldehyde	EPA 3520C	8081A	0.20	0.20	0.19	0.21	95	105	60-140	10	
Endosulfan Sulfate	EPA 3520C	8081A	0.20	0.20	0.19	0.20	95	100	60-140	5	
4,4'-DDT	EPA 3520C	8081A	0.20	0.20	0.21	0.22	105	110	63-129	5	

Approved By: VO Date: 8-3-00

DLCS/080797p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/24/00
		Date Analyzed:	8/4/00

Surrogate Recovery Summary
Polychlorinated Biphenyls (PCBs)

Prep Method:	EPA 3520C	Units:	PERCENT
Analysis Method:	8082	Basis:	NA

Sample Name	Lab Code	Test Notes	Percent Recovery Decachlorobiphenyl
001 Intake Composite	K2005315-014		77
001 Discharge Composite	K2005315-023		80
001 Intake Composite	K2005315-014MS		94
Lab Control Sample	KWG2002837-5		59
Lab Control Sample	KWG2002837-6		78
Method Blank	KWG2002837-7		72

CAS Acceptance Limits: 5-140

Approved By: VW Date: 8-9-00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/24/00
		Date Analyzed:	8/4/00

Matrix Spike Summary
Polychlorinated Biphenyls (PCBs)

Sample Name:	001 Intake Composite	Units:	ug/L (ppb)
Lab Code:	K2005315-014MS	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Aroclor 1016	EPA 3520C	8082	0.2	3.8	ND	3.8	100	38-128	
Aroclor 1260	EPA 3520C	8082	0.2	3.8	ND	3.7	97	48-138	

Approved By: VU Date: 8-9-00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

lient:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	7/24/00
		Date Analyzed:	8/4/00

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name:	Lab Control Sample	Units:	ug/L (ppb)
Lab Code:	KWG2002837-5, KWG2002837-6	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	True Value LCS	True Value DLCS	Result LCS	Result DLCS	Percent Recovery LCS	Percent Recovery DLCS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Aroclor 1016	EPA 3520C	8082	2.0	2.0	2.0	1.9	100	95	36-123	5	
Aroclor 1260	EPA 3520C	8082	2.0	2.0	1.9	2.0	95	100	54-132	5	

Approved By: VN Date: 8-9-00

DLCS/080797p

05315SVG.AY3 - DLCS 8/9/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Pacific Gas and Electric Company	**Service Request:**	K2005315
Project:	Diablo Canyon NPDES	**Date Collected:**	7/19/00
Sample Matrix:	Water	**Date Received:**	7/20/00
		Date Extracted:	7/25/00
		Date Analyzed:	7/28/00

Surrogate Recovery Summary
Butyltins

Prep Method:	EPA 3520C	Units:	PERCENT
Analysis Method:	Krone	Basis:	NA

Sample Name	Lab Code	Test Notes	Percent Recovery	
			Tri-n-propyltin Cation	Tri-n-pentyltin Cation
001 Intake Composite	K2005315-014		81	86
001 Discharge Composite	K2005315-023		93	94
001 Intake Composite	K2005315-014MS		84	86
001 Intake Composite	K2005315-014DMS		71	78
Method Blank	KWG2002851-4		84	89
CAS Acceptance Limits:			30-115	36-102

Approved By: VN Date: 8-3-00

SUR2/111397p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Clie: Pacific Gas and Electric Company
Project: Diablo Canyon NPDES
Sample Matrix: Water

Service Request: K2005315
Date Collected: 7/19/00
Date Received: 7/20/00
Date Extracted: 7/25/00
Date Analyzed: 7/28/00

Matrix Spike/Duplicate Matrix Spike Summary
Butyltins

Sample Name: 001 Intake Composite
Lab Code: K2005315-014MS, K2005315-014DMS
Test Notes:

Units: ug/L (ppb)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Tetra-n-butyltin	EPA 3520C	Krone	0.05	0.50	0.50	ND	0.45	0.36	90	72	34-103	22	
Tri-n-butyltin Cation	EPA 3520C	Krone	0.02	0.50	0.50	ND	0.53	0.50	106	100	32-150	6	
Di-n-butyltin Cation	EPA 3520C	Krone	0.05	0.50	0.50	ND	0.41	0.37	82	74	30-132	10	
n-Butyltin Cation	EPA 3520C	Krone	0.05	0.50	0.50	ND	0.45	0.47	90	94	34-136	4	

Approved By: NW Date: 8-3-00

APPENDIX B
CHAIN-OF-CUSTODY INFORMATION

CHAIN OF CUSTODY

Columbia Analytical Services, Inc.
An Employee-Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-[illegible]2 • FAX (360) 636-1068

SR#: K0005315

PAGE _____ OF _____ COC # _____

00662

PROJECT NAME: Diablo Canyon (PG+E)
PROJECT NUMBER:
PROJECT MANAGER: Clint Gans
COMPANY/ADDRESS:
PHONE #: (805) 545-3419
FAX #:
SAMPLER'S SIGNATURE: Mike Firth

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625☐ 8270☐	Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐	Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ ☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen	Oil & Grease/TRPH 413.1☐ 418.1☐ 1664 SGT☐ 1664 HEM☐	PCB's Aroclors☐ Congeners☐	Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐	Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐	PAHS 8310☐ SIM☐	GC/MS-SIM PAH☐ Phenol☐ Phthalates☐	Metals, (Total or Dissolved) (See list below)	Cyanide☐ Hex-Chrom☐	pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, TSS, TDS (circle)	NH_3-N, COD, Total-P, TKN, TOC, DOC (circle)	TOC 9020☐ AOX 1650☐ 506☐	Sulfide	Radioactivity	Fecal Coliform	REMARKS
002 Discharge	7/18/00		1	H_2O					1						1		2	1		1	1	1		
003 Discharge			2						1						1		2	1		1	1	1		
004 Discharge			3																			1		
001 Intake			4																			1		
001 Discharge	↓		5	↓																		1		

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
___ II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

INVOICE INFORMATION

P.O. # _____
Bill To: _____

TURNAROUND REQUIREMENTS

____ 24 hr. ____ 48 hr.
____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results

Requested Report Date _____

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: _____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

NP Sef See Jeff Christian for details
More samples to come,
Please issue temps for Fecal Coliforms.

RELINQUISHED BY:

Mike Firth — 7/18/00 15:30
Signature — Date/Time
Mike Firth — CAS
Printed Name — Firm

RECEIVED BY:

[signature] — 7/19/00 1000
Signature — Date/Time
[illegible] — CTS
Printed Name — Firm

RELINQUISHED BY:

Signature — Date/Time
Printed Name — Firm

RECEIVED BY:

Signature — Date/Time
Printed Name — Firm

Columbia Analytical Services INC.
An Employee-Owned Company

CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695- • FAX (360) 636-1068

SR#: K 200 5315

PAGE 1 OF 3 COC #

PROJECT NAME: Diablo Canyon DCPP

PROJECT NUMBER:

PROJECT MANAGER: Clint Gans

COMPANY/ADDRESS:

PHONE #: FAX #:

SAMPLER'S SIGNATURE: [signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625☐ 8270☒	Volatile Organics 624☐ 8260☐	Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐ 8021☐ BTEX☐	Fuel Fingerprint (FIQ) ☐ NW-HCID Screen ☐	Oil & Grease 413.1☐ 418.1☐ /TRPH 1664 SGT☐	PCB's Aroclors☐ 1664 HEM☐ / Pesticides	Pesticides/Herbicides 608☐ 8081A☐ Congeners☐	Chlorophenolics - 8151M Tri☐ Tetra☐ 8141A☐ 8151A☐	PAHS 8310☐ PCP☐	GC/MS-SIM PAH☐ SIM☐	Metals, Total or Dissolved (See list below) Phenol☐ Phthalates☐	Cyanide☒ Hex-Chrom☐	pH, Cond, Cl, SO4, PO4, F, NO2, Br	NO3, BOD, TSS, TDS (circle) NH3-N, COD, Total-P, TKN, TOC, NO2+NO3, Phen	DOC (circle) TOC 9020☐ AOX 1650☐ 506☐	Organotin	Sulfide	Dioxin	Fecal Coliform, SO3, MBAS, Radioactivity	REMARKS
001 Intake	7/18-19	*	14	H2O		X				X	X					X	X	X	X		X	X	X	XX	Fcoli on
VOA (1)	7/18	11:25A	6	↓			X																		previous
VOA (2)	7/18	2:35P	7	↓			X																		chain
VOA (3)	7/18	5:40P	8	↓			X																		
VOA (4)	7/18	8:40P	9	↓			X																		
VOA (5)	7/18	11:40P	10	↓			X																		
VOA (6)	7/19	2:35A	11	↓			X																		
VOA (7)	7/19	5:35A	12	↓			X																		
VOA (8)	7/19	8:35A	13	↓			X																		

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. Data Validation Report (includes all raw data)

___ IV. CLP Deliverable Report

___ V. EDD

INVOICE INFORMATION

P.O. # ______

Bill To: ______

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.

___ 5 Day

___ Standard (10-15 working days)

___ Provide FAX Results

Requested Report Date ______

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER:______ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

* 125mls from each of 8 VOA sample times.

- See Jeff Christian for methods and Instructions.

RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: [signature]	Date/Time: 7/19 10:00A	Signature: [signature]	Date/Time: 7/20/00 1000	Signature	Date/Time	Signature	Date/Time
Printed Name: [illegible]	Firm: CAS	Printed Name: [illegible]	Firm: CAS	Printed Name	Firm	Printed Name	Firm

00069

Columbia Analytical Services INC.
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CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

SR#: 1200S315

 COC #

PROJECT NAME: Diablo Canyon DCP

PROJECT NUMBER:

PROJECT MANAGER: Clint Gans

COMPANY/ADDRESS:

PHONE #: FAX #:

SAMPLER'S SIGNATURE: [signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625☐ 8270☐	Volatile Organics 624☐ 8260☐	Hydrocarbons (*see below) Gas☐ Diesel☐ 8021☐ BTEX☐	☐ Fuel Fingerprint (FIQ) ☐ NW-HCID Screen Oil☐	Oil & Grease/TRPH 413.1☐ 418.1☐ 1664 SGT☐ 1664 HEM☐	PCB's / Pesticide Aroclors☐ Congeners☐	Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐	Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐	PAHS 8310☐ SIM☐	GC/MS-SIM PAH☐ Phenol☐ Phthalates☐	Metals, Total or Dissolved (See list below)	Cyanide	pH, Cond, Cl, SO4, PO4, F, NO2 (circle) BOD, NO3, SS, TDS (circle)	NH3-N, COD, Total-P, TKN, TOC DOC (circle)	TOC 9020☐	AOX 1650☐ 506☐ / Organotin	Sulfide	Dioxin	Fecal coliform, SO3, MBAS, Radioactivity	REMARKS
001 Discharge	7/18-19	*	23	H2O		X				X	X					X	X	X	X		X	X	X	x x	F coli on
VOA(1)	7/18	11:40A	15	↓			X																		previous
VOA(2)	7/18	2:50P	16	↓			X																		chain
VOA(3)	7/18	5:55P	17	↓			X																		
VOA(4)	7/18	9:00P	18	↓			X																		
VOA(5)	7/18	11:55P	19	↓			X																		
VOA(6)	7/19	2:50A	20	↓			X																		
VOA(7)	7/19	5:50A	21	↓			X																		
VOA(8)	7/19	8:50A	22	↓			X																		

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. Data Validation Report (includes all raw data)

___ IV. CLP Deliverable Report

___ V. EDD

INVOICE INFORMATION

P.O. # ____________

Bill To: ____________

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.

___ 5 Day

___ Standard (10-15 working days)

___ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER:________ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

*125mls from each of 8 Voa sample times

– See Jeff Christian for methods and Instructions.

RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: [signature]	Date/Time: 7/19 10:00A	Signature: [signature]	Date/Time: 7/20/00 1000	Signature	Date/Time	Signature	Date/Time
Printed Name: [illegible]	Firm: CAS	Printed Name: [illegible]	Firm: CAS	Printed Name	Firm	Printed Name	Firm

000069

Columbia Analytical Services INC.
An Employee-Owned Company

CHAIN OF CUSTODY

SR#: K2005315

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

PAGE 3 OF 3 COC #

PROJECT NAME: Diablo Canyon DCCP
PROJECT NUMBER:
PROJECT MANAGER: Clint Gans
COMPANY/ADDRESS:
PHONE #:
FAX #:
SAMPLER'S SIGNATURE: [signature]

Analysis columns: NUMBER OF CONTAINERS; Semivolatile Organics by GC/MS 625☐ 8270☐; Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐; Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐; ☐ Fuel Fingerprint (FIQ); ☐ NW-HCID Screen; Oil & Grease/TRPH 413.1☐ 418.1☐ 1664 SGT☐ 1664 HEM☐; PCB's Aroclors☐ Congeners☐; Pesticides/Herbicides 608☐ 8081A☐ 8141A☐ 8151A☐; Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐; PAHS 8310☐ SIM☐; GC/MS-SIM PAH☐ Phenol☐ Phthalates☐; Metals, Total or Dissolved (See list below); Cyanide☐ Hex-Chrom☐; pH, Cond, Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle); NH3-N, COD, Total-P, TKN, TOC, DOC (circle) NO3/NO2; TOC 9020☐ AOX 1650☐ 506☐; SO3 MBAS; Radioactivity; Sulfide; Fecal Coliform

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	Oil & Grease	Metals	SO3	MBAS	Radioactivity	Sulfide	Fecal Coliform	REMARKS
004 Discharge	7/18	24 hour continuous composite	24	H2O	X	X	X	X	X	X		F.Coli on previous chain

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
___ II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

INVOICE INFORMATION

P.O. # ______
Bill To: ______

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.
___ 5 Day
___ Standard (10-15 working days)
___ Provide FAX Results

Requested Report Date ______

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER:______ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
– See Jeff Christian for methods and Instructions.

RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: [signature]	Date/Time: 7/19 1000AM	Signature: [signature]	Date/Time: 7/20 1000	Signature	Date/Time	Signature	Date/Time
Printed Name: [illegible]	Firm: CAS	Printed Name: [illegible]	Firm: CAS	Printed Name	Firm	Printed Name	Firm

0007

APPENDIX C
DIOXIN RESULTS

ALTA

August 15, 2000

Alta Batch I.D.: 8844

Mr. Jeff Christian
Columbia Analytical Services
1317 South 13th Avenue
Kelso, WA 98626

Dear Mr. Christian,

Enclosed are the results for the two effluent samples received at Alta Analytical Laboratory on July 25, 2000. This work was authorized under your Purchase Order #K2005315A. These samples were analyzed using EPA Method 8290 for tetra to octa chlorinated dioxins and dibenzofurans. A standard turnaround time was requested for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix. The Appendix contains a copy of the chain-of-custody, a list of data qualifiers and abbreviations, our current certifications and copies of the raw data (if requested).

If you have any questions regarding this report please feel free to contact me.

Sincerely,

Robert S. Mitzel
Vice-President of HRMS Operations

Alta Analytical Laboratory Inc.
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762
FAX (916) 933-0940
(916) 933-1640

ALTA

Section I: Sample Inventory Report

Date Received: 7/25/00

Alta Lab. ID	Client Sample ID
8844-001	001 INTAKE COMP
8844-002	001 DISCHARGE COMP

SECTION II.

ALTA

PCDD & PCDF
EPA METHOD 8290

Method Blank | Date Extracted: 8/1/00 | Lab ID: MB001
Matrix: Aqueous | Sample Amount: 1.000 L | QC Set: 830
TEQ (Min-Max): 0 - 10.9 | Units: pg/L

Compound	Conc.	DL [b]	EMPC [c]	MDL [d]	Qualifier
2,3,7,8-TCDD	ND	2.96		0.711	
1,2,3,7,8-PeCDD	ND	3.31		2.53	
1,2,3,4,7,8-HxCDD	ND	4.35		2.76	
1,2,3,6,7,8-HxCDD	ND	4.09		1.46	
1,2,3,7,8,9-HxCDD	ND	4.12		2.49	
1,2,3,4,6,7,8-HpCDD	ND	7.24		2.97	
OCDD	ND	14.1		6.93	
2,3,7,8-TCDF	ND	5.00		0.243	
1,2,3,7,8-PeCDF	ND	7.46		5.42	
2,3,4,7,8-PeCDF	ND	5.30		4.42	
1,2,3,4,7,8-HxCDF	ND	3.30		4.24	
1,2,3,6,7,8-HxCDF	ND	3.14		2.43	
2,3,4,6,7,8-HxCDF	ND	3.26		3.06	
1,2,3,7,8,9-HxCDF	ND	3.96		1.80	
1,2,3,4,6,7,8-HpCDF	ND	2.94		2.02	
1,2,3,4,7,8,9-HpCDF	ND	3.33		3.62	
OCDF	ND	8.66		4.39	
Total TCDD	ND	2.96			
Total PeCDD	ND	3.31			
Total HxCDD	ND	4.17			
Total HpCDD	ND	7.24			
Total TCDF	ND	5.00			
Total PeCDF	ND	6.27			
Total HxCDF	ND	3.40			
Total HpCDF	ND	3.13			

00075

PCDD & PCDF
EPA METHOD 8290

Method Blank **QC Set:** 830
Lab ID: MB001

Internal Standards	%R	LCL-UCL[e]	Qualifier
13C-2,3,7,8-TCDD	39.5	40 - 135	
13C-1,2,3,7,8-PeCDD	50.7	40 - 135	
13C-1,2,3,4,7,8-HxCDD	49.1	40 - 135	
13C-1,2,3,6,7,8-HxCDD	52.2	40 - 135	
13C-1,2,3,4,6,7,8-HpCDD	69.2	40 - 135	
13C-OCDD	62.0	40 - 135	
13C-2,3,7,8-TCDF	41.8	40 - 135	
13C-1,2,3,7,8-PeCDF	52.3	40 - 135	
13C-2,3,4,7,8-PeCDF	59.5	40 - 135	
13C-1,2,3,4,7,8-HxCDF	47.5	40 - 135	
13C-1,2,3,6,7,8-HxCDF	43.3	40 - 135	
13C-2,3,4,6,7,8-HxCDF	46.3	40 - 135	
13C-1,2,3,7,8,9-HxCDF	58.7	40 - 135	
13C-1,2,3,4,6,7,8-HpCDF	59.2	40 - 135	
13C-1,2,3,4,7,8,9-HpCDF	78.9	40 - 135	
13C-OCDF	59.1	40 - 135	
Clean-up Recovery Standard			
37Cl-2,3,7,8-TCDD	61.3	40 - 135	

Analysis Dates
DB-5: 8/4/00

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower Control Limit - Upper Control Limit

ALTA

PCDD & PCDF
EPA METHOD 8290

OPR RESULTS
Lab ID: OPR001
Matrix: Aqueous

Date Received: NA
Date Extracted: 8/1/00
Sample Amount: 1.000 L

QC Set: 830
Units: ng/mL

Compound	Spike Conc.	Conc. Found	OPR Limits
2,3,7,8-TCDD	10.0	8.36	7 - 13
1,2,3,7,8-PeCDD	50.0	47.5	35 - 65
1,2,3,4,7,8-HxCDD	50.0	49.0	35 - 65
1,2,3,6,7,8-HxCDD	50.0	50.0	35 - 65
1,2,3,7,8,9-HxCDD	50.0	55.6	35 - 65
1,2,3,4,6,7,8-HpCDD	50.0	48.7	35 - 65
OCDD	100	98.1	70 - 130
2,3,7,8-TCDF	10.0	9.58	7 - 13
1,2,3,7,8-PeCDF	50.0	47.5	35 - 65
2,3,4,7,8-PeCDF	50.0	47.2	35 - 65
1,2,3,4,7,8-HxCDF	50.0	46.7	35 - 65
1,2,3,6,7,8-HxCDF	50.0	46.4	35 - 65
2,3,4,6,7,8-HxCDF	50.0	49.3	35 - 65
1,2,3,7,8,9-HxCDF	50.0	48.2	35 - 65
1,2,3,4,6,7,8-HpCDF	50.0	47.4	35 - 65
1,2,3,4,7,8,9-HpCDF	50.0	44.7	35 - 65
OCDF	100	94.8	70 - 130

ALTA

PCDD & PCDF
EPA METHOD 8290

OPR RESULTS QC Set: 830
Lab ID: OPR001

Internal Standards	Spike Conc.	%R	OPR Limits
13C-2,3,7,8-TCDD	100	49.5	40 - 135
13C-1,2,3,7,8-PeCDD	100	54.6	40 - 135
13C-1,2,3,4,7,8-HxCDD	100	49.6	40 - 135
13C-1,2,3,6,7,8-HxCDD	100	54.9	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	100	69.2	40 - 135
13C-OCDD	200	69.3	40 - 135
13C-2,3,7,8-TCDF	100	52.0	40 - 135
13C-1,2,3,7,8-PeCDF	100	57.0	40 - 135
13C-2,3,4,7,8-PeCDF	100	64.1	40 - 135
13C-1,2,3,4,7,8-HxCDF	100	48.5	40 - 135
13C-1,2,3,6,7,8-HxCDF	100	49.4	40 - 135
13C-2,3,4,6,7,8-HxCDF	100	50.3	40 - 135
13C-1,2,3,7,8,9-HxCDF	100	61.7	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	100	65.5	40 - 135
13C-1,2,3,4,7,8,9-HpCDF	100	79.5	40 - 135
13C-OCDF	200	59.2	40 - 135

Clean-up Recovery Standard	Spike Conc.	%R	OPR Limits
37Cl-2,3,7,8-TCDD	40.0	65.9	40 - 135

Analysis Dates
DB-5: 8/4/00

Analyst: BS

Reviewer:

00078

ALTA

PCDD & PCDF
EPA METHOD 8290

Sample ID:	001 INTAKE COMP			**Lab ID:**	8844-001
Project:	K2005315			**QC Set:**	830
Matrix:	Aqueous	**Date Received:**	7/25/00	**% Solids:**	3.34
Sample Amount:	1.021 L	**Date Extracted:**	8/1/00	**Units:**	pg/L
[a] **TEQ (Min-Max):**	0 - 6.54				

Compound	Conc.	DL [b]	EMPC [c]	MDL [d]	Qualifier
2,3,7,8-TCDD	ND	2.07		0.711	
1,2,3,7,8-PeCDD	ND	2.78		2.53	
1,2,3,4,7,8-HxCDD	ND	3.45		2.76	
1,2,3,6,7,8-HxCDD	ND	3.46		1.46	
1,2,3,7,8,9-HxCDD	ND	3.42		2.49	
1,2,3,4,6,7,8-HpCDD	ND	4.35		2.97	
OCDD	ND	18.4		6.93	
2,3,7,8-TCDF	ND	1.62		0.243	
1,2,3,7,8-PeCDF	ND	2.15		5.42	
2,3,4,7,8-PeCDF	ND	2.10		4.42	
1,2,3,4,7,8-HxCDF	ND	1.45		4.24	
1,2,3,6,7,8-HxCDF	ND	1.45		2.43	
2,3,4,6,7,8-HxCDF	ND	1.44		3.06	
1,2,3,7,8,9-HxCDF	ND	2.03		1.80	
1,2,3,4,6,7,8-HpCDF	ND	1.14		2.02	
1,2,3,4,7,8,9-HpCDF	ND	1.43		3.62	
OCDF	ND	6.03		4.39	
Total TCDD	ND	2.07			
Total PeCDD	ND	2.78			
Total HxCDD	ND	3.46			
Total HpCDD	ND	4.35			
Total TCDF	ND	1.62			
Total PeCDF	ND	2.13			
Total HxCDF	ND	1.58			
Total HpCDF	ND	1.27			

PCDD & PCDF
EPA METHOD 8290

Sample ID: 001 INTAKE COMP
Lab ID: 8844-001

Internal Standards	%R	LCL-UCL[e]	Qualifier
13C-2,3,7,8-TCDD	68.2	40 - 135	
13C-1,2,3,7,8-PeCDD	74.4	40 - 135	
13C-1,2,3,4,7,8-HxCDD	78.0	40 - 135	
13C-1,2,3,6,7,8-HxCDD	67.9	40 - 135	
13C-1,2,3,4,6,7,8-HpCDD	74.5	40 - 135	
13C-OCDD	48.7	40 - 135	
13C-2,3,7,8-TCDF	66.4	40 - 135	
13C-1,2,3,7,8-PeCDF	79.8	40 - 135	
13C-2,3,4,7,8-PeCDF	74.9	40 - 135	
13C-1,2,3,4,7,8-HxCDF	76.6	40 - 135	
13C-1,2,3,6,7,8-HxCDF	64.3	40 - 135	
13C-2,3,4,6,7,8-HxCDF	70.4	40 - 135	
13C-1,2,3,7,8,9-HxCDF	83.4	40 - 135	
13C-1,2,3,4,6,7,8-HpCDF	73.0	40 - 135	
13C-1,2,3,4,7,8,9-HpCDF	85.7	40 - 135	
13C-OCDF	45.1	40 - 135	
Clean-up Recovery Standard			
37Cl-2,3,7,8-TCDD	90.1	40 - 135	

Analysis Dates

DB-5: 8/4/00 **DB-225:** NA

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower control limit - upper control limit

ALTA

PCDD & PCDF
EPA METHOD 8290

Sample ID:	001 DISCHARGE COMP			**Lab ID:**	8844-002
Project:	K2005315			**QC Set:**	830
Matrix:	Aqueous	**Date Received:**	7/25/00	**% Solids:**	3.52
Sample Amount:	1.023 L	**Date Extracted:**	8/1/00	**Units:**	pg/L
[a] **TEQ (Min-Max):**	0 - 5.11				

Compound	Conc.	DL [b]	EMPC [c]	MDL [d]	Qualifier
2,3,7,8-TCDD	ND	1.14		0.711	
1,2,3,7,8-PeCDD	ND	1.85		2.53	
1,2,3,4,7,8-HxCDD	ND	2.53		2.76	
1,2,3,6,7,8-HxCDD	ND	2.30		1.46	
1,2,3,7,8,9-HxCDD	ND	2.38		2.49	
1,2,3,4,6,7,8-HpCDD	ND	4.47		2.97	
OCDD	ND	20.0		6.93	
2,3,7,8-TCDF	ND	1.90		0.243	
1,2,3,7,8-PeCDF	ND	2.37		5.42	
2,3,4,7,8-PeCDF	ND	2.54		4.42	
1,2,3,4,7,8-HxCDF	ND	1.48		4.24	
1,2,3,6,7,8-HxCDF	ND	1.55		2.43	
2,3,4,6,7,8-HxCDF	ND	1.54		3.06	
1,2,3,7,8,9-HxCDF	ND	1.97		1.80	
1,2,3,4,6,7,8-HpCDF	ND	0.921		2.02	
1,2,3,4,7,8,9-HpCDF	ND	1.31		3.62	
OCDF	ND	6.96		4.39	
Total TCDD	ND	1.14			
Total PeCDD	ND	1.85			
Total HxCDD	ND	2.41			
Total HpCDD	ND	4.47			
Total TCDF	ND	1.90			
Total PeCDF	ND	2.45			
Total HxCDF	ND	1.63			
Total HpCDF	ND	1.09			

ALTA

PCDD & PCDF
EPA METHOD 8290

Sample ID: 001 DISCHARGE COMP
Lab ID: 8844-002

Internal Standards	%R	LCL-UCL[e]	Qualifier
13C-2,3,7,8-TCDD	69.0	40 - 135	
13C-1,2,3,7,8-PeCDD	79.4	40 - 135	
13C-1,2,3,4,7,8-HxCDD	80.3	40 - 135	
13C-1,2,3,6,7,8-HxCDD	66.9	40 - 135	
13C-1,2,3,4,6,7,8-HpCDD	82.6	40 - 135	
13C-OCDD	63.6	40 - 135	
13C-2,3,7,8-TCDF	69.9	40 - 135	
13C-1,2,3,7,8-PeCDF	83.9	40 - 135	
13C-2,3,4,7,8-PeCDF	75.5	40 - 135	
13C-1,2,3,4,7,8-HxCDF	78.8	40 - 135	
13C-1,2,3,6,7,8-HxCDF	68.5	40 - 135	
13C-2,3,4,6,7,8-HxCDF	70.7	40 - 135	
13C-1,2,3,7,8,9-HxCDF	84.7	40 - 135	
13C-1,2,3,4,6,7,8-HpCDF	79.1	40 - 135	
13C-1,2,3,4,7,8,9-HpCDF	87.2	40 - 135	
13C-OCDF	52.8	40 - 135	
Clean-up Recovery Standard			
37Cl-2,3,7,8-TCDD	87.5	40 - 135	

Analysis Dates

DB-5: 8/5/00 **DB-225:** NA

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower control limit - upper control limit

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

A	The amount detected is below the Method Calibration Limit.
B	This compound was also detected in the blank.
C	The amount detected is less than five times the Method Quantitation Limit.
D	The amount reported is the maximum possible concentration.
E	The detection limit was raised above the Method Quantitation Limit due to chemical interferences.
F	This result has been confirmed on a DB-225 column.
G	This result has been confirmed on a SP-2331 column.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical Interference

Conc.	Concentration
D.L.	Detection Limit
NA	Not applicable
S/N	Signal-to-noise
*	See Cover Letter
ND	Not Detected
MPC	Maximum Possible Concentration

CURRENT CERTIFICATIONS

ALTA

Bureau of Reclamation-Mid-Pacific Region---(MP-470, Res-1.10)

Commonwealth of Kentucky---(Certificate No. 90063)

Commonwealth of Virginia---(Certificate No. 00013)

State of Alaska, Department of Environmental Conservation---(Certificate No. OS-00197)

State of Arkansas, Department of Health---(Approval granted through CA certification)

State of Arkansas, Department of Environmental Quality---

State of California---(Certificate No. 1640)

State of Connecticut---(Certificate No. PH-0182)

State of Florida---(Certificate No. 87456)

State of Louisiana---(Certificate No. 98-33)

State of Mississippi---(Approval granted through CA certification)

State of Nevada---(Certificate No. CA413)

State of New York, Department of Health---(Certificate No. 11411)

State of North Carolina---(Certificate No. 06700)

State of North Dakota, Department of Health---(Certificate No. R-078)

State of Oregon---

State of Pennsylvania---(Certificate No. 68-490)

State of South Carolina---(Certificate No. 87002001)

State of Texas — (Certificate No. TX247-2000A)

State of Tennessee---(Certificate No. 02996)

State of Utah---(Certificate No. E-201)

State of Washington, Department of Ecology---(Certification No. C091)

State of Wisconsin---(Certificate No. 998036160)

State of Wyoming---(Ref: 8ES-LB)

U.S. Army Corps of Engineers

U.S. 5 EPA Region

May 2000

Columbia Analytical Services INC.
An Employee-Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-[illegible] FAX (360) 636-1068

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 7/24/00 PAGE 1 of 1

PROJECT NAME

PROJECT MANAGER Jeff Christian

COMPANY/ADDRESS CAS (Les Kennedy)
P O Box 479
Kelso WA 98626 PHONE

SAMPLERS SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: Dioxins *	REMARKS
001 Intake Comp.	7/9				2	/	K5315-014
001 Discharge Comp	7/9				1	/	↓ -023

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time 7/24/00 1500

RECEIVED BY:
Signature
Printed Name ALTA
Firm 7-25-00 1000
Date/Time

TURNAROUND REQUIREMENTS
___ 24 hr ~~48 hr.~~ ___ 5 day
~~___~~ Standard (10-15 working days)
___ Provide Verbal Preliminary Results
___ Provide FAX preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
___ I. Routine Report
~~___~~ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.# K005315A
Bill To

SAMPLE RECEIPT:
Shipping VIA:
Shipping #:
Condition:
Lab No: K005315

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

* Dioxin = 1613 or 8290 for TCDD Equivalents

Sent to ALTA

98000

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

400-05

Attachment 10.B.1

SAMPLE LOG-IN CHECKLIST

ALTA Project No.: 8844 Client/Protocol No. N/A

1. Date Samples Arrived: 7-25-00 Initials: [illegible] Location: WR-1			
2. Time / Date logged in: 7-25-00 1020 Initials: [illegible] Location: WR-1			
3. Samples Arrived By: (circle) FedEx (UPS) World Courier Other:			
4. Shipping Preservation: (circle) Ice / ~~Blue Ice~~ Dry Ice / None Temp °C 2			
	YES	NO	NA
5. Shipping Container(s) Intact"? If not, describe condition in comment section.	X		
6. Shipping Container(s) Custody Seals Present?	X		
Intact? If not intact, describe condition in comment section.	Y		
7. Shipping Documentation Present? (circle) Shipping Label (Airbill)			
Tracking Number 179736590446171452	X		
8. Sample Custody Seal(s) Present? No. of Seals_____ or Seal No._____		X	
Intact? If not intact, describe condition in comment section.			X
9. Sample Container Intact? If no, indicate sample condition in comment section.	X		
10. Chain of Custody (COC) or other Sample Documentation Present?	Y		
11. COC/Documentation Acceptable? If no, complete COC Anomaly Form.	Y		
12. Shipping Container (circle): ALTA (Client) Retain or (Return) or Disposed			
13. Container(s) and/or Bottle(s) Requested?		X	
14. Sample Control Check In/Out Log Completed? (HRMS Only)	X		
15. Drinking Water Sample? (HRMS Only) If yes, Acceptable Preservation? Y or N			
Preservation Info From? (circle) COC or Sample Container or None Noted			X
16. Number of Samples Received: N/A			

Name: _____ Date Samples Reconciled: _____
(Signature Required for LCMS Only)

Comments:

APPENDIX D
RADIOCHEMISTRY RESULTS

ACZ Laboratories, Inc.

August 18, 2000

Jeff Christian
Columbia Analytical Services
1317 So. 13th Ave.
Kelso, WA 98626

Project: L28358

Dear Jeff Christian:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 25, 2000. This project has been assigned to ACZ's project number, L28358. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 7.0. The enclosed results relate only to the samples received under L28358.

Please assess the enclosed report only in its entirety. ACZ prohibits the reproduction of this report, except in full, without the written approval of ACZ. ACZ is not responsible for the consequences arising from the use of a partial report.

If you have any questions, please contact your Project Manager or Customer Service Representative.

Sincerely,

ACZ Laboratories, Inc.

Document Control

2773 Downhill Drive
Steamboat Springs, CO 80487

Phone (800) 334-5493
FAX No. (970) 879-2216

ACZ

Radiochemistry Resul

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Columbia Analytical Services
1317 So. 13th Ave.
Kelso, WA 98626
Jeff Christian

ACZ Project ID: *L28358*
Client Project ID: *PG and E NPDES*
ACZ Report ID: *RG126364*

Date Sampled: *7/18/00*
Date Received: *7/25/00*
Date Reported: *8/17/00*

ACZ ID	Client ID	Matrix	Parameter	Result	Error(+/-)	MDA	Units	Preparation			Analysis		
								Method	Date	Analyst	Method	Date	Analyst
L28358-01	002 Discharge	Ground Water	Gross Alpha	0.0	290	270	pCi/L	Method	7/26/00	pj	M9310	7/28/00	gb
			Gross Beta	460	290	430	pCi/L	Method	7/26/00	pj	M9310	7/28/00	gb
			Radium 226	0.1	0.2	0.7	pCi/L	Method	7/26/00	pj	M9315	8/1/00	pj
			Radium 228, total	0.6	1.3	2.9	pCi/L	Method	8/11/00	cbr	M9320	8/15/00	cbr
L28358-02	003 Discharge	Ground Water	Gross Alpha	0.0	320	270	pCi/L	Method	7/26/00	pj	M9310	7/28/00	gb
			Gross Beta	550	290	420	pCi/L	Method	7/26/00	pj	M9310	7/28/00	gb
			Radium 226	0.0	0.21	0.71	pCi/L	Method	7/26/00	pj	M9315	8/1/00	pj
			Radium 228, total	0.4	0.7	1.6	pCi/L	Method	8/11/00	cbr	M9320	8/15/00	cbr

Radiochemistry Notes

MDA: Calculated sample specific Minimum Detectable Activity

Error(+/-): Calculated sample specific uncertainty

Solid matrices reported on a dry weight basis

Preparation Method: "Method" indicates preparation defined in analytical method

Method Prefix Reference:

M = EPA SM = Standard Methods D = ASTM RP = DOE ESM = DOE/ESM

REPRC001.98.01.02

Radiochemistry Supervisor: Craig B. Russell

Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487

SAMPLE RECEIPT FORM

CLIENT: Columbia

PROJECT #: L 2035E

DATE 7/25

1) Does this project require special handling procedures such as CLP protocol?	(NA)	YES	NO
2) Are the custody seals on the cooler intact?	NA	(YES)	NO
3) Are the custody seals on the sample containers intact?	(NA)	YES	NO
4) Is there a Chain of Custody (COC), or other directive shipping papers present?		(YES)	NO
5) Is the COC complete? Relinquished? Yes ___ No ___ Requested Analysis? Yes ___ No ___		(YES)	NO
6) Is the COC in agreement with the samples received? # of Samples: Yes ___ (No ✓) Sample ID: Yes ___ No ___ Matrix: Yes ___ No ___ # of Containers: Yes ___ No ___		YES	(NO)
7) Is there enough sample for all requested analysis?		(YES)	NO
8) Are all samples within holding times for requested analysis?		(YES)	NO
9) Were all sample containers received intact?		(YES)	NO
10) Are samples requiring no headspace, headspace free?	NA	YES	NO
11) Do the samples require a Foriegn Soils Permit Label or quarantine?		YES	(NO)
Do samples require special disposal/hold considerations? Non-Hazardous: Yes ___ No ___ Hazardous: Yes ___ No ___ Hold: ___ months			

Describe "NO" items (except #1, 11, & 12): #6) DID NOT RECEIVE:
001 INTAKE
002 DISCHARGE
004 "

Was the client contacted? Yes ✓ No ___ LEFT MESSAGE

If yes: Date: 7/25 Name of person contacted: JEFF CHRISTIAN.

Actions taken or client instructions:

Signature:

FRMQA011.01.97.04

SAMPLE RECEIPT FORM

CLIENT: COLUMBIA

PROJECT #: L29358

DATE 7/25

ANALYST: DAVE

TEMPERATURE VERIFICATION SAMPLE CHECK (°C)

CONTAINER ID	TEMP (°C) 2° to 6°	RAD µR/hr
	4.10	14

If container radioactivity is ≥ 25 µR/hr then each sample must be screened.

PRESERVATION CHECK (pH) & RADIOACTIVITY SCREEN

SAMPLE	R <2	G <2	Y <2	YG <2	B <2	BG <2	O <2	T >12	P >12	RAD µR/hr
1	*									
2	*									

INTERNAL COMMENTS: * NOTE: SAMPLES RECEIVED @ pH = 7. ADDED 4 ml of HNO3 @ LOG-IN. DT.

REPORT COMMENTS:

Analytical Services INC. An Employee Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695

FAX (360) 636-1068

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 7/20/00 PAGE 1 of 1

PROJECT NAME PG & E NPDES

PROJECT MANAGER Jeff Christian

COMPANY/ADDRESS Columbia Analytical Services Inc.

1317 So. 13th Ave.

Kelso, WA 98626

PHONE 360-577-7222 360-636-1068 (FAX)

SAMPLERS SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	* Radiology	REMARKS
002 Discharge	7/18			H2O	1	✓	
003 Discharge	7/18			H2O	1	✓	
001 Intake Comp	7/19				1	✓	
001 Discharge Comp	7/19				1	✓	
004 Discharge Comp	7/19				1	✓	

RELINQUISHED BY:

Signature

Printed Name

Firm 7/20/00 330

Date/Time

RECEIVED BY:

Signature

Printed Name

Firm

Date/Time

RELINQUISHED BY:

Signature

Printed Name

Firm

Date/Time

RECEIVED BY:

Signature

Printed Name

Firm

Date/Time

TURNAROUND REQUIREMENTS

___ 24 hr ___ 48 hr. ___ 5 day

✓ Standard (10-15 working days)

___ Provide Verbal Preliminary Results

___ Provide FAX preliminary Results

Requested Report Date

REPORT REQUIREMENTS

___ I. Routine Report

✓ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)

___ III. Data Validation Report (includes All Raw Data)

___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.# K000535B

Bill To

SAMPLE RECEIPT:

Shipping VIA:

Shipping #:

Condition:

Lab No: K000535B

SPECIAL INSTRUCTIONS/COMMENTS:

* Radium-226; Radium-228; Total Alpha; Total Beta

Attn: Christy VanCamper

Sent to ACZ Labs (1-800-334-5493)

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

ACZ Laboratories, Inc.

August 18, 2000

Jeff Christian
Columbia Analytical Services
1317 So. 13th Ave.
Kelso, WA 98626

Project: L28370

Dear Jeff Christian:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 26, 2000. This project has been assigned to ACZ's project number, L28370. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 7.0. The enclosed results relate only to the samples received under L28370.

Please assess the enclosed report only in its entirety. ACZ prohibits the reproduction of this report, except in full, without the written approval of ACZ. ACZ is not responsible for the consequences arising from the use of a partial report.

If you have any questions, please contact your Project Manager or Customer Service Representative.

Sincerely,

ACZ Laboratories, Inc.

Document Control

2773 Downhill Drive
Steamboat Springs, CO 80487

Phone (800) 334-5493
FAX No. (970) 879-2216

ACZ

Radiochemistry Resu

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Columbia Analytical Services
1317 So. 13th Ave.
Kelso, WA 98626
Jeff Christian

ACZ Project ID: *L28370*
Client Project ID: *PG and E NPDES*
ACZ Report ID: *RG126365*

Date Sampled: *7/19/00*
Date Received: *7/26/00*
Date Reported: *8/17/00*

ACZ ID	Client ID	Matrix	Parameter	Result	Error(+/-)	MDA	Units	Preparation			Analysis		
								Method	Date	Analyst	Method	Date	Analyst
L28370-01	001 Intake	Ground Water	Gross Alpha	22	250	270	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Gross Beta	160	280	440	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Radium 226	0.1	0.3	1	pCi/L	Method	8/1/00	pj	M9315	8/7/00	cbr
			Radium 228, total	0.0	1.6	3.5	pCi/L	Method	8/11/00	cbr	M9320	8/15/00	cbr
L28370-02	001 Discharge	Ground Water	Gross Alpha	110	260	270	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Gross Beta	490	280	420	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Radium 226	0.4	0.4	1.1	pCi/L	Method	8/1/00	pj	M9315	8/7/00	cbr
			Radium 228, total	0.9	1.8	3.7	pCi/L	Method	8/11/00	cbr	M9320	8/15/00	cbr
L28370-03	004 Discharge	Ground Water	Gross Alpha	8.5	210	270	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Gross Beta	200	290	420	pCi/L	Method	7/31/00	pj	M9310	7/31/00	pj
			Radium 226	0.1	0.4	1.1	pCi/L	Method	8/1/00	pj	M9315	8/7/00	cbr
			Radium 228, total	0.0	1.6	3.5	pCi/L	Method	8/11/00	cbr	M9320	8/15/00	cbr

Radiochemistry Notes

MDA: Calculated sample specific Minimum Detectable Activity

Error(+/-): Calculated sample specific uncertainty

Solid matrices reported on a dry weight basis

Preparation Method: "Method" indicates preparation defined in analytical method

Method Prefix Reference:

M = EPA SM = Standard Methods D = ASTM RP = DOE ESM = DOE/ESM

REPRC001.98.01.02

Radiochemistry Supervisor: Craig B. Russell

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487

SAMPLE RECEIPT FORM

CLIENT: C45

PROJECT #: C 28370

DATE 7-26-00

1) Does this project require special handling procedures such as CLP protocol?	~~NA~~	YES	NO
2) Are the custody seals on the cooler intact?	NA	~~YES~~	NO
3) Are the custody seals on the sample containers intact?	~~NA~~	YES	NO
4) Is there a Chain of Custody (COC), or other directive shipping papers present?		~~YES~~	NO
5) Is the COC complete? Relinquished? Yes ____ No ____ Requested Analysis? Yes ____ No ____		~~YES~~	NO
6) Is the COC in agreement with the samples received? # of Samples: Yes ____ No ____ Sample ID: Yes ____ No ____ Matrix: Yes ____ No ____ # of Containers: Yes ____ No ____		~~YES~~	NO
7) Is there enough sample for all requested analysis?		~~YES~~	NO
8) Are all samples within holding times for requested analysis?		~~YES~~	NO
9) Were all sample containers received intact?		~~YES~~	NO
10) Are samples requiring no headspace, headspace free?	~~NA~~	YES	NO
11) Do the samples require a Foriegn Soils Permit Label or quarantine?		YES	~~NO~~
12) Do samples require special disposal/hold considerations? Non-Hazardous: Yes ____ No ____ Hazardous: Yes ____ No ____ Hold: ____ months			

Describe "NO" items (except #1, 11, & 12): _____

Was the client contacted? Yes ____ No ____

If yes: Date: _____ Name of person contacted: _____

Actions taken or client instructions: _____

Signature: _____

30400 Downhill Drive
Steamboat Springs, CO 80487

SAMPLE RECEIPT FORM

ENT: CAS

PROJECT #: L28370

DATE 7-26-00

ANALYST: [illegible]

TEMPERATURE VERIFICATION SAMPLE CHECK (°C)

CONTAINER ID	TEMP (°C) 2° to 6°	RAD µR/hr
NA	6.2°	13.6

If container radioactivity is ≥ 25 µR/hr then each sample must be screened.

PRESERVATION CHECK (pH) & RADIOACTIVITY SCREEN

SAMPLE	R <2	G <2	Y <2	YG <2	B <2	BG <2	O <2	T >12	P >12	RAD µR/hr
1	✓A									
2	✓									
3	✓									

INTERNAL COMMENTS: A NOTE: EACH SX WAS RECEIVED w/ pH=7. ADDED 4 ml HNO_3 TO EACH SX. @ LOG-IN. [illegible]

REPORT COMMENTS:

Analytical Services INC.
An Employee-Owned Company

CHAIN OF CUSTODY

K 2003 ?? SR#: ______

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 6[illegible] • FAX (360) 636-1068

PAGE ______ OF ______ COC # ______

PROJECT NAME: PG+E NPDES

PROJECT NUMBER:

PROJECT MANAGER: Jeff Christian

COMPANY/ADDRESS: 1317 So. 13th Ave. Kelso, WA 98626

PHONE #: 360-577-7222 FAX #: 360-636-1068

SAMPLER'S SIGNATURE:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625□ 8270□	Volatile Organics 624□ 8260□	Hydrocarbons (*see below) Gas□ 8021□ BTEX□	Fuel Fingerprint (FIQ) Diesel□ Oil□ NW-HCID Screen	Oil & Grease/TRPH 413.1□ 418.1□ 1664 SGT□ 1664 HEM□	PCB's Aroclors□ Congeners□	Pesticides/Herbicides 608□ 8081A□ 8141A□ 8151A□	Chlorophenolics - 8151M Tri□ Tetra□ PCP□	PAHS 8310□ SIM□	GC/MS-SIM PAH□ Phenol□ Phthalates□	Metals, Total or Dissolved (See list below)	Cyanide□ Hex-Chrom□	pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS (circle)	NH3-N, COD, Total-P, TKN, TOC, DOC (circle)	TOC 9020□	AOX 1650□ 506□				REMARKS
001 Intake	7/19			H2O	2																X				
001 Discharge	↓			↓	2																X				
004 Discharge	↓			↓	2																X				
[illegible] Discharge	7/18			H2O	1																*				
[illegible] Discharge	7/18			H2O	1																*				

* = Please combine with samples rec'd 7/25 (i.e. extra volume as required for the testing). DWT.

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. Data Validation Report (Includes all raw data)

___ IV. CLP Deliverable Report

___ V. EDD

INVOICE INFORMATION

P.O. # ______

Bill To: ______

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.

___ 5 Day

___ Standard (10-15 working days)

___ Provide FAX Results

______ Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORHTWEST OTHER: ______ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

(1) Forgotten Samples from 7/20 Shipment K2005315

(2) Radiology = Radium-226; Radium-228; Total Alpha; Total Beta

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date/Time: 7/25/00	Signature ______ Date/Time ______	Signature ______ Date/Time ______	Signature: [signature] Date/Time: 7/26 10:30
Printed Name: [illegible] Firm: CAS	Printed Name ______ Firm ______	Printed Name ______ Firm ______	Printed Name: THAYER Firm: AEZ