



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

December 28, 2001

Mr. Michael Feldman  
Director, Aviation Facilities  
Port of Seattle  
PO Box 68727  
Seattle, WA 98168

Dear Mr. Feldman:

Re: Receipt of Waste Discharge Permit Application  
WA-002465-1; Seattle-Tacoma International Airport

The Department of Ecology acknowledges receipt of an application for a waste discharge permit for the Seattle-Tacoma International Airport on December 21, 2001. The application will be reviewed for completeness and accuracy.

If you have any questions, please contact Ed Abbasi at (425) 649-7227.

Sincerely,

A handwritten signature in cursive script that reads "Tricia Miller".

Tricia Miller  
Permit Coordinator  
Northwest Regional Office

TM:tm

Cc: Tom Hubbart, Port of Seattle  
Ed Abbasi, Facility Manager





December 20, 2001

Mr. Ed Abbasi, P.E.  
Washington Department of Ecology  
Northwest Regional Office  
3190 160th Ave SE  
Bellevue, Washington 98008

RE: Application for Renewal of NPDES Permit  
Seattle-Tacoma International Airport (NPDES Permit WA-002465-1)

Dear Mr. Abbasi:

Enclosed you will find the updated Stormwater Pollution Prevention Plan (SWPPP) for Airport Operations required by Special Condition S12.B.1 as part of the permit renewal process. The Port has thoroughly reviewed the SWPPP and has added several new BMPs covering aircraft parking outside of the industrial waste system drainage, de-icing chemical storage, and operation of the Tyee Golf Course. The SWPPP reflects the fecal coliform source tracing, the whole effluent toxicity (WET) testing and new facilities that the Port has constructed such as the soil segregation facility.

If you have questions regarding the SWPPP, please call Tom Hubbard of my staff at 206/248-7135.

Sincerely,

Michael Feldman  
Director, Aviation Facilities

Enclosure

xc: Tom Hubbard, POS/AV/ENV  
Julie Oiyee, Burien Public Library

Seattle-Tacoma  
International Airport  
P.O. Box 68727  
Seattle, WA 98168 U.S.A.  
TELEX 703433  
FAX (206) 431-5912



AR 027062



**Port of Seattle**

December 20, 2001

RECEIVED

DEC 21 2001

DEPT OF ECOLOGY

**Mr. Ed Abbasi, P.E.  
Washington Department of Ecology  
Northwest Regional Office  
3190 160th Ave SE  
Bellevue, Washington 98008**

**RE: Application for Renewal of NPDES Permit  
Seattle-Tacoma International Airport (NPDES Permit WA-002465-1)**

**Dear Mr. Abbasi:**

**Enclosed you will find EPA Forms 1, 2C, 2F and Ecology Form 177 for the renewal of the NPDES permit for the Port of Seattle, Seattle-Tacoma International Airport as required by General Condition G7 of NPDES Permit WA-002465-1. The updated Stormwater Pollution Prevention Plan (SWPPP) for Airport Operations required by Special Condition S12.B.1 will be sent under separate cover.**

**Form 2C for the Industrial Waste Treatment Plant and Form 177 for discharges to the Midway Sewer District are very similar to the forms submitted in 1998. The flows for Midway discharges reflect full build-out of the Central Terminal Expansion, the South Terminal Expansion, and the North End Development. The first two projects are under construction; the third is still being studied.**

**There are three substantial changes to Form 2F. First, the Port is proposing consolidation of monitoring locations at both the north and south ends of the airport. The current monitoring locations were selected so that the Port's data would not be "tainted" with non-Port runoff from the City of SeaTac and Highway SR 518 that co-mingles with Port runoff before it reaches the stormwater treatment facilities at Lake Reba or the Northwest Ponds. However, we have come to realize that this approach does not allow the Port to monitor its runoff downstream of all of the existing and proposed best management practices and treatment facilities designed to treat the**

**Seattle-Tacoma  
International Airport  
P.O. Box 68727  
Seattle, WA 98116-0872  
TELEX 703433  
FAX 206-431-5272**



**AR 027063**

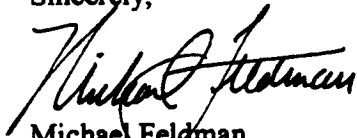
December 20, 2001

Page 2

Port's stormwater. With this change, the Port's monitoring data will better reflect what is actually discharged to the receiving environment where it might impact aquatic resources. This will allow both the Port and Ecology to get a better handle on whether our BMPs and treatment facilities are working or not. Second, Form 2F also includes the proposed new outfalls for projects that will be constructed in the next 5 years including the proposed Third Runway. Third, due to land use changes and re-routing of drainage at Sea-Tac, several outfalls listed in the current permit do not have industrial activities and therefore, the application lists only those outfalls that receive runoff from industrial activities.

If you have questions regarding the application for renewal, please call Tom Hubbard of my staff at 206/248-7135.

Sincerely,



Michael Feldman  
Director, Aviation Facilities

Enclosure

xc: Tom Hubbard, POS/AV/ENV  
Julie Oiyee, Burien Public Library

AR 027064



# APPLICATION FOR A WASTEWATER DISCHARGE PERMIT FOR DISCHARGE OF INDUSTRIAL WASTEWATER TO A POTW

FOR OFFICE USE ONLY		Check One	New/Renewal	Modification
Date Application Received _____	Date Fee Paid _____	Application Permit No. _____	Date Application Accepted _____	

This application is for a wastewater discharge permit for a discharge of industrial wastewater to a publicly owned treatment works (POTW) as required in accordance with provisions of Chapter 90.48 RCW and Chapter 173-216 WAC. Permit applications provide the Department with information on pollutants in the waste stream, materials which may enter the waste stream, and the flow characteristics of the discharge.

The Department may request additional information at a later date to clarify the conditions of this discharge. Information previously submitted to the Department and which is applicable to this application should be referenced in the appropriate section.

## SECTION A. GENERAL INFORMATION

- Applicant Name: Port of Seattle
- Facility Name: (if different from Applicant) Seattle-Tacoma International Airport
- Applicant Address: P.O. Box 68727  
Street  
Seattle, WA 98168  
City/State Zip
- Facility Address: 17891 Pacific Highway S.  
Street  
Seattle, WA 98158  
City/State Zip
- Latitude/longitude of the facility:  
47 ° 26 ' 37 " N 122 ° 18 ' 04 " W
- Facility contact who is familiar with the information contained in this application:
 

Thomas P. Hubbard	Surface Water Manager
Name	Title
206-248-7135	206-431-4980
Telephone Number	Fax Number

7. Check One:



**Permit Renewal** (including renewal of temporary permits authorized by RCW 90.48.200)

Does this application request a greater amount of wastewater discharge, a greater amount of pollutant discharge, or a discharge of different pollutants than specified in the last permit application for this facility?

For permit renewals, the current permit is an attachment, by reference, to this application.



**Permit Modification**



**Existing Unpermitted Discharge**

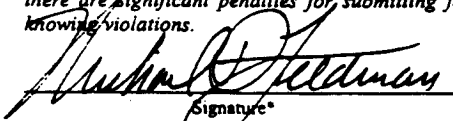


**Proposed Discharge**

Anticipated date of discharge: Rental Car Wash (early 2002)

**Proposed Equipment: Wash Rack**

*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 a fine and/or imprisonment for knowing violations.*

  
Signature\*

12/19/01  
Date

Director, Aviation Facilities  
Title

Michael D. Feldman

Printed Name

\*Applications must be signed as follows: Corporations, by a principal executive officer of at least the level of vice-president; partnership, by a general partner; sole proprietorship, by the proprietor. If these titles do not apply to your organization, the application is to be signed by the person who makes budget decisions for this facility.

*The Department of Ecology is an equal opportunity agency and does not discriminate on the basis of race, creed, color, disability, age, religion, national origin, sex, marital status, disabled veteran's status, Vietnam Era veteran's status or sexual orientation*

*If you have special accommodation needs or require this document in alternative form: please contact Ecology at (360) 407-6401 (voice). Ecology's telecommunications devise for the deaf (TDD) is (360) 407-6006.*

**SECTION B. PRODUCT INFORMATION**

- Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Classification (SIC) Code(s) for each activity (see *Standard Industrial Classification Manual*, 1987 ed.).

Boiler Blow Down SIC Code 4851 (Airport Terminal Services)

Average flow is 500 gallons per day based on full build out of South and Central Terminal Expansions.

Blow down includes surface blow down discharged via need valve at surface of boiler and bottom blow down via manual valve. Duration of blow down is based on field analyses.

Boiler additives are injected to control corrosion and scale and to disperse precipitates.

Boiler drainage for maintenance: annual 1800 gal./ 8 hr. and emergency drainage 1800 gal. / 8 hr.

- List raw materials and products:

Type	RAW MATERIALS	Quantity
Fresh Make Up Water		400 - 800 gal./day
Iron Passivator/ Silica Solubilizer 1156		150 gal./mo.
Oxygen Scavenger 1152		150 gal./ mo.
Corrosion Control Agent 485		50 gal./ mo.
Type	PRODUCTS	Quantity

**SECTION C. PLANT OPERATIONAL CHARACTERISTICS**

1. For each process listed in B.1. that generates wastewater, list the process, assign the waste stream a name and an ID # and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch or Continuous Process
Boiler	Surface Blow Down	STIA - B1	continuous
Boiler	Bottom Blow Down	STIA-B2	batch
			batch
			batch
			batch
			batch

2. On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. (See the example on the last page of this application form.)

3. What is the maximum daily discharge flow: 2,000 gallons/day

What is the maximum average monthly discharge flow (daily flows averaged over a month): 500 gallons/day

4. Describe any planned wastewater treatment improvements or changes in wastewater disposal methods and the schedule for the improvements. (Use additional sheets, if necessary and label as attachment C4.)

Existing facilities may expand in the future. Flows may increase, but processes will not change.



**SECTION B. PRODUCT INFORMATION**

- Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Classification (SIC) Code(s) for each activity (see *Standard Industrial Classification Manual*, 1987 ed.).

Cooling Tower Blow Down    SIC Code 4851 (Airport Terminal Services)

Waste stream is batch blow down from cooling tower which provides air conditioning to the Terminal.

- List raw materials and products:

Type	RAW MATERIALS	Quantity
Fresh Make Up Water		16,800 - 25,000 gal./day
Microbiocide Formula 3338		70 gal./mo. (9 mo.) 140 gal./mo. (3 mo.)
Microbiocide Formual 315		70 gal./mo. (9 mo.) 140 gal./mo. (3 mo.)
Scale/ Corrosion Control Formula 2930L		70 gal./mo. (9 mo.) 140 gal./mo. (3 mo.)
Type	PRODUCTS	Quantity

**SECTION C. PLANT OPERATIONAL CHARACTERISTICS**

1. For each process listed in B.1. that generates wastewater, list the process, assign the waste stream a name and an ID # and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch or Continuous Process
Cooling Tower	Blow Down	STIA-CT1	batch
			batch
			batch
			batch
			batch
			batch
			batch

2. On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. (See the example on the last page of this application form.)

3. What is the maximum daily discharge flow: 25,000 gallons/day

What is the maximum average monthly discharge flow (daily flows averaged over a month): 16,000 gallons/day

4. Describe any planned wastewater treatment improvements or changes in wastewater disposal methods and the schedule for the improvements. (Use additional sheets, if necessary and label as attachment C4.)

Existing facilities may be expanded in the future. Flows may increase, but processes will not change.

**SECTION B. PRODUCT INFORMATION**

1. Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Classification (SIC) Code(s) for each activity (see *Standard Industrial Classification Manual*, 1987 ed.).

Rental Cart Wash Facility Blow Down SIC Codes 7514 (Passenger Car Rental) and 7542 (Automotive Service- Car Wash)

System is recycling ~10% of volume is replaced each cycle. Car wash flow is scheduled to be routed to the Midway Sewer District sewers in early 2002.

2. List raw materials and products:

Type	RAW MATERIALS	Quantity
Fresh Make Up Water		2,000 - 20,000 gal./ day
Various Soaps		7,000 gal./ yr.
Type	PRODUCTS	Quantity

**SECTION C. PLANT OPERATIONAL CHARACTERISTICS**

1. For each process listed in B.1. that generates wastewater, list the process, assign the waste stream a name and an ID # and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch or Continuous Process
Rental Car Wash	Blow Down	STIA-RC1	continuous
			batch
			batch
			batch
			batch
			batch
			batch

2. On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. (See the example on the last page of this application form.)

3. What is the maximum daily discharge flow: 20,000 gallons/day

What is the maximum average monthly discharge flow (daily flows averaged over a month): 20,000 gallons/day

4. Describe any planned wastewater treatment improvements or changes in wastewater disposal methods and the schedule for the improvements. (Use additional sheets, if necessary and label as attachment C4.)

Existing facilities may be expanded in the future. Flows may increase, but processes will not change.

**SECTION B. PRODUCT INFORMATION**

1. Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Classification (SIC) Code(s) for each activity (see *Standard Industrial Classification Manual*, 1987 ed.).

Future Equipment Wash Rack SIC Code 7542 (Automotive Services - Car Wash) and 4582 (Airport Terminal Services)

Waste stream will be batch blow down from automatic and batch equipment wash facility.

2. List raw materials and products:

Type	RAW MATERIALS	Quantity
Fresh Make Up Water		1,000 - 2,000 gal./ day
Various Soaps		1,000 gal./yr.
Type	PRODUCTS	Quantity

**SECTION C. PLANT OPERATIONAL CHARACTERISTICS**

1. For each process listed in B.1. that generates wastewater, list the process, assign the waste stream a name and an ID # and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch or Continuous Process
Equipment Wash Rack	Blow Down	STIA - WR1	continuous
			batch
			batch
			batch
			batch
			batch
			batch

2. On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. (See the example on the last page of this application form.)

3. What is the maximum daily discharge flow: 1,000 gallons/day

What is the maximum average monthly discharge flow (daily flows averaged over a month): 1,000 gallons/day

4. Describe any planned wastewater treatment improvements or changes in wastewater disposal methods and the schedule for the improvements. (Use additional sheets, if necessary and label as attachment C4.)

System will include oil water separation and vaults/ chambers to settle solids. System will be recycling.

5. If production processes are subject to seasonal variations, provide the following information. List discharge for each waste stream in gallons per day (GPD). The combined value for each month should equal the estimated total monthly flow.

Waste Stream ID#	MONTHS											
	J	F	M	A	M	J	J	A	S	O	N	D
STIA B1	800	800	800	600	400	400	400	400	600	800	800	800
STIA B2	2000	2000	2000	1500	1000	1000	1000	1000	1500	2000	2000	2000
STIA CT1	16000	16000	16000	20000	20000	25000	25000	25000	25000	20000	16000	16000
STIA RC1	4800	6400	5600	6000	6000	8400	9600	10200	9800	15000	14200	12040
STIA WR1 (proposed)	2400	3200	2800	3000	3000	4200	4900	4900	6600	7500	7100	6000
<b>Estimated Total Monthly Flow (GPD)</b>	26000	28400	27200	31100	30400	39000	40800	41100	46900	45300	40100	36840

6. How many hours a day does this facility typically operate? 24  
 How many days a week does this facility typically operate? 7  
 How many weeks per year does this facility typically operate? 52

7. List all incidental materials like oil, paint, grease, solvents, and cleaners that are used or stored on site (List only those with quantities greater than 10 gallons for liquids and 50 pound quantities for solids). For solvents and solvent-based cleaners include a copy of the material safety data sheet for each material and estimate the quantity used. (Use additional sheets, if necessary and label as attachment C.7.) Materials/Quantity Stored:

The Port of Seattle's Stormwater Pollution Prevention Plan, a condition of NPDES permit WA 002465-1 requires secondary containment of liquids. Oil, paint, grease solvents and cleaners are stored in areas isolated from the boilers, cooling tower, rental car wash facility and the proposed equipment wash rack. All solids are stored under cover. The boiler and cooling towers are closed systems.

8. Some types of facilities are required to have spill or waste control plans. Does this facility have:

- |  |                              |
|--|------------------------------|
| a. A Spill Prevention, Control, and Countermeasure Plan (40 CFR 112)?  | <input type="checkbox"/> Yes |
| b. An Emergency Response Plan (per WAC 173-303-350)?   | <input type="checkbox"/> No  |
| c. A Runoff, spillage, or leak control plan (per WAC 173-216-110(f))?  | <input type="checkbox"/> No  |
| d. Any spill or pollution prevention plan required by local, State or Federal authorities?<br>If yes specify: SPCC and SWPPP required by NPDES permi WA 002465-1 | <input type="checkbox"/> Yes |
| e. A Solid Waste Management Plan?  | <input type="checkbox"/> No  |
| f. Slug Discharge Control Plan (40 CFR 403.8(f)(2)(v))?  | <input type="checkbox"/> No  |





**SECTION E. WASTEWATER INFORMATION**

1. How are the water intake and effluent flows measured?

Intake: metered

Effluent: metered

2. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for the parameters with a check (X) in the left column. Use the analytical methods given in the table unless an alternate method is approved by Ecology. All analyses, except pH, must be conducted by a laboratory registered or accredited by the Department of Ecology (WAC 173-216-125). If this is an application for permit renewal provide data for the last year for those parameters that are routinely measured. For parameters measured only for this application place the values under maximum.

X	Parameter	Concentrations Measured			Analytical Method Std. Methods 19th edition	Detection Limit
		Minimum	Maximum	Average		
	BOD (5 day)				5210	2 mg/l
	COD				5220 B, C, or D	5 mg/l
	Total Suspended Solids				2540D	1 mg/l
	Total Dissolved Solids				2540 C	
	Conductivity				2510 B	
	Ammonia-N				4500-NH <sub>3</sub> , C	20 µg/l
	pH				4500-H	0.1 units
	Total Residual Chlorine				4500-ClE	1 mg/l
	Fecal Coliform				9222 D	
	Total Coliform				9221 B or 9222 B	
	Dissolved Oxygen				4500-O C or 4500-O G	
	Nitrate + Nitrite-N				4500-NO <sub>3</sub> , E	0.5 mg/l
	Total Kjeldahl N				4500-N <sub>org</sub>	20 µg/l
	Ortho-phosphate-P				4500-P E or 4500-P F	1 µg/l

Existing NPDES Permit WA 002465-1 requires monitoring of flow only.

X	Parameter	Concentrations Measured			Analytical Method Std. Methods 19th edition	Detection Limit
		Minimum	Maximum	Average		
	Total-phosphate-P				4500-P B.4.	1 µg/l
	Total Oil & Grease				5520 C	0.2 mg/l
	Total Petroleum Hydrocarbon				5520 D, F	
	Calcium				3500-Ca B	3 µg/l
	Chloride				4500-Cl C	0.15 µg/l
	Fluoride				4500-F D	0.1 mg/l
	Magnesium				3500-Mg B	0.5 µg/l
	Potassium				3500-K B	5 µg/l
	Sodium				3500-Na B	2 µg/l
	Sulfate				4500-SO <sub>4</sub> E	1 mg/l
	Arsenic (total)	N/A			3114 B	2 µg/l
	Barium (total)				3500-Ba B	30 µg/l
	Cadmium (total)				3500-Cd B	5 µg/l
	Chromium (total)				3500-Cr B	50 µg/l
	Copper (total)				3500-Cu B	20 µg/l
	Lead (total)				3500-Pb B	100 µg/l
	Mercury				3500-Hg B	0.2 µg/l
	Molybdenum (total)				3500-Mo	1 µg/l
	Nickel (total)				3500-Ni	20 µg/l
	Selenium (total)				3500-Se C	2 µg/l
	Silver (total)				3500-Ag B	10 µg/l
	Zinc (total)				3500-Zn B	5 µg/l

3. Describe the collection method for the samples which were analyzed above (i.e... grab, 24 hour composite).

NA

4. Has the effluent been analyzed for any other parameters than those identified in question E.1.?  No  
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location of sampling. (Note: Ecology may require additional effluent testing based on information submitted in this application.)

5. Does this facility use any of the following chemicals as raw materials in production, produce them as part of the manufacturing process, or are they present in the wastewater? (The number following the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.)  No

If yes, specify how the chemical is used and the quantity used or produced:

The selection and application of chemicals is dictated by the Port's SWPPP. The boiler and cooling towers are isolated from areas where these chemicals might be stored or used. All chemicals at the rental car facility and the proposed equipment wash rack will be stored in secondary containment.

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#### VOLATILE COMPOUNDS

Acrolein (107-02-8)	1,1-Dichloroethylene (75-35-4)
Acrylonitrile (107-13-1)	1,2-Dichloropropane (78-87-5)
Benzene (71-43-2)	1,3-Dichloropropane (542-75-6)
Bis (chloromethyl) Ether (542-88-1)	Ethylbenzene (100-41-4)
Bromoform (75-25-2)	Methyl Bromide (74-83-9)
Carbon Tetrachloride (108-90-7)	Methyl Chloride (74-87-3)
Chlorobenzene (108-90-7)	Methylene Chloride (75-09-2)
Chlorodibromomethane (124-48-1)	1,1,2,2-Tetrachloroethane (79-34-5)
Chloroethane (75-00-3)	Tetrachloroethylene (127-18-4)
2-Chloroethylvinyl Ether (110-75-8)	Toluene (108-88-3)
Chloroform (67-66-3)	1,2-Trans-Dichloroethylene (156-60-5)
Dichlorobromomethane (75-27-4)	2, 1,1,1-Trichloroethane (71-55-6)
Dichlorodifluoromethane (75-71-8)	2, 1,1,2-Trichloroethane (79-00-5)
1,1-Dichloroethane (75-34-3)	2, Trichloroethylene (79-01-6)
1,2-Dichloroethane (107-06-2)	Trichlorofluoromethane (75-69-4)
Vinyl Chloride (75-01-4)	

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#### ACID COMPOUNDS

2-Chlorophenol 95-57-8	4-Nitrophenol 100-02-7
2,4-Dichlorophenol 120-83-2	p-Chloro-m-cresol 59-50-7
2,4-Dimethylphenol 105-67-9	Pentachlorophenol 87-86-5
4,6-Dinitro-o-cresol 534-52-1	Phenol 108-95-2
2,4-Dinitrophenol 51-28-5	2,4,6-Trichlorophenol 88-06-2
2-Nitrophenol 88-75-5	

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**METALS**

Antimony 7440-36-0  
Arsenic 7440-38-2  
Beryllium 7440-41-7  
Cadmium 7440-43-9  
Chromium 7440-47-3  
Copper 7440-50-8  
Lead 7439-92-1  
Mercury 7439-97-6  
Nickel 7440-02-0  
Selenium 7782-49-2  
Silver 7440-22-4  
Thallium 7440-28-0  
Zinc 7440-66-6  
Cyanide 57-12-5

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**PESTICIDES**

Aldrin 309-00-2  
alpha-BHC 319-84-6  
beta-BHC 319-85-7  
gamma-BHC 58-89-9  
delta-BHC 319-86-8  
Chlordane 57-74-9  
4,4'-DDD 72-54-8  
4,4'-DDE 72-55-9  
4,4'-DDT 50-29-3  
Dieldrin 60-57-1  
Endosulfan I 115-29-7  
Endosulfan II 115-29-7  
Endosulfan Sulfate 1031-07-8  
Endrin 72-20-8  
Endrin Aldehyde 7421-93-4  
Heptachlor 76-44-8  
Heptachlor Epoxide 1024-57-3  
PCB (7 Aroclors)  
Toxaphene 8001-35-2

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**BASE/NEUTRAL COMPOUNDS**

Acenaphthene 83-32-9  
Acenaphthylene 208-96-8  
Anthracene 120-12-7  
Benzidine 92-87-5  
Benzo(a)anthracene 56-55-3  
Benzo(a)pyrene 50-32-8  
3,4 Benzofluoranthene 205-99-2  
Benzo(ghi)Perylene 191-24-2  
Benzo(k)fluoranthene 207-08-9  
Bis(2-chloroethoxy) Methane 111-91-1  
Bis(2-chloroethyl) Ether 111-44-4  
Bis(2-chloroisopropyl) Ether 102-60-1  
Bis(2-ethylhexyl) Phthalate 117-81-7  
4-Bromophenyl Phenyl Ether 101-55-3  
Butyl Benzyl Phthalate 85-68-7  
2-Chloronaphthalene 91-58-7  
4-Chlorophenyl Phenyl Ether 7005-72-3  
Chrysene 218-01-9  
Dibenzo(a,h)anthracene 53-70-3  
1,2-Dichlorobenzene 95-50-1  
1,3-Dichlorobenzene 541-73-1  
1,4-Dichlorobenzene 106-46-7  
3,3' Dichlorobenzidine 91-94-1  
Diethyl Phthalate 84-66-2  
Dimethyl Phthalate 131-11-3  
Di-n-butyl Phthalate 84-74-2  
2,4-Dinitrotoluene 121-14-2  
2,6-Dinitrotoluene 606-20-2  
Di-n-octyl Phthalate 117-84-0  
1,2-Diphenylhydrazine 122-66-7  
Fluoranthene 206-44-0  
Fluorene 86-73-7  
Hexachlorobenzene 118-74-1  
Hexachlorobutadiene 87-68-3  
Hexachlorocyclopentadiene 77-47-4  
Hexachloroethane 67-72-1  
Indeno(1,2,3-cd)pyrene 193-39-5  
Isophorone 78-59-1  
Naphthalene 91-20-3  
Nitrobenzene 98-95-3  
N-nitrosodimethylamine 62-75-9  
N-nitrosodi-n-propylamine 621-64-7  
N-nitrosodiphenylamine 86-30-6  
Phenanthrene 85-01-8  
Pyrene 129-00-0  
1,2,4-Trichlorobenzene 120-82-1

GO TO NEXT PAGE

6. Are any other pesticides, herbicides or fungicides used at this facility?  Yes  
 If yes, specify the material and quantity used.

Landscaping chemicals are rarely used at Sea-Tac airport. The selection and application of chemicals is dictated by the Port's SWPPP. The boiler and cooling towers, the rental car facility and the proposed equipment wash rack are isolated from areas where these chemicals might be stored or used. They are isolated from areas where fueling, de-icing or aircraft/ vehicle maintenance occurs.

7. Are there other pollutants that you know of or believe to be present?  Yes  
 If yes, specify the pollutants and their concentration if known (attach laboratory analyses if available).

Glycols and runway de-icing chemicals. Both are stored and used in areas isolated from the boiler, cooling towers, rental car facility and the proposed equipment wash rack.

8. Does the wastewater being discharged, or proposed for discharge to the POTW designate as a dangerous waste according to the procedures in Chapter 173-303 WAC?  No

9. If the answer to question 8 above is yes, how did the waste designate as a dangerous waste? For Listed and TCLP Characteristic Wastes only, also provide the Dangerous Waste Number(s).

Listed Waste \_\_\_\_\_ Dangerous Waste Number(s) \_\_\_\_\_

Characteristic Wastes

Ignitable \_\_\_\_\_  
 Reactive \_\_\_\_\_  
 Corrosive \_\_\_\_\_  
 TCLP \_\_\_\_\_ Dangerous Waste Number(s) \_\_\_\_\_

State Only Dangerous Wastes

Toxicity \_\_\_\_\_  
 Persistent \_\_\_\_\_

For Questions about waste designation under the *Dangerous Waste Regulations*, Chapter 173-303 WAC, contact Ecology's Hazardous Waste and Toxics Program at:

Northwest Regional Office - Bellevue	(425) 649-7000
Southwest Regional Office - Lacey	(360) 407-6300
Central Regional Office - Yakima	(509) 575-2490
Eastern Regional Office - Spokane	(509) 456-2926

**SECTION F. SEWER INFORMATION**

1. Is an inspection and sampling manhole or similar structure available on-site?  Yes  
 If yes, attach a map or hand drawing of the facility which shows the location of these structures (this may be combined with map in H8, if H8 is applicable to your facility.)

## SECTION G. OTHER PERMITS

1. List all environmental control permits or approvals needed for this facility; for example, air emission permits.

Synthetic Minor Air Emissions Cap, Order of Approval # 7777 (Puget Sound Clean Air Agency)

EPA Dangerous Waste ID # WAD 980 980 106

## SECTION H. STORMWATER

1. Do you have a Washington State Stormwater Baseline General Permit?   
If yes, please list the permit number here. \_\_\_\_\_
2. Have you applied for a Washington State Stormwater Baseline General Permit?
3. Do you have any stormwater quality or quantity data?

Note: If you answered "no" to questions 1 or 2 above, complete questions 4 through 8.

4. Describe the size of the stormwater collection area.

- a. Unpaved Area \_\_\_\_\_ sq.ft.  
b. Paved Area \_\_\_\_\_ sq.ft.  
c. Other Collection Areas (Roofs) \_\_\_\_\_ sq.ft.

5. Does your facility's stormwater discharge to: *(Check all that apply)*

- Storm sewer system; name of storm sewer system (*operator*): City of SeaTac
- Directly to surface waters of Washington State (*e.g., river, lake, creek, estuary, ocean*).  
Specify waterbody name Miller, Walker, and Des Moines Creeks
- Indirectly to surface waters of Washington State (*i.e., flows over adjacent properties first*).
- Directly to ground waters of Washington State:
- Sanitary Sewer

All areas where aircraft/vehicle maintenance, aircraft/vehicle fueling and aircraft de-icing occur, drain to the Port of Seattle's Industrial Waste System. Industrial Waste Water is treated and discharged to Puget Sound per the requirements of NPDES permit WA 002465-1.

NPDES Permit covers storm water discharges.

All Discharges to the POTW are closed systems. Stormwater will not be discharged to the POTW.

6. Areas with industrial activities at facility: (check all that apply)
- Manufacturing Building
  - Material Handling
  - Material Storage
  - Hazardous Waste Treatment, Storage, or Disposal (Refers to RCRA, Subtitle C Facilities Only)
  - Waste Treatment, Storage, or Disposal
  - Application or Disposal of Wastewaters
  - Storage and Maintenance of Material Handling Equipment
  - Vehicle Maintenance
  - Areas Where Significant Materials Remain
  - Access Roads and Rail Lines for Shipping and Receiving
  - Other Airport

7. Material handling/management practices

- a. Types of materials handled and/or stored outdoors: (check all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Solvents                                       | <input type="checkbox"/> Hazardous Wastes                |
| <input type="checkbox"/> Scrap Metal                                    | <input type="checkbox"/> Acids or Alkalies               |
| <input checked="" type="checkbox"/> Petroleum or Petrochemical Products | <input type="checkbox"/> Paints/Coatings                 |
| <input type="checkbox"/> Plating Products                               | <input type="checkbox"/> Woodtreating Products           |
| <input type="checkbox"/> Pesticides                                     | <input checked="" type="checkbox"/> Other (please list): |

POTW water streams are closed systems.  
 Stormwater will not be discharged to the POTW.

glycols.  
runway/ roadway anti- and de-icing  
chemicals

- b. Identify existing management practices employed to reduce pollutants in industrial storm water discharges: (check all that apply)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Oil Water Separator | <input checked="" type="checkbox"/> Detention Facilities  |
| <input checked="" type="checkbox"/> Containment         | <input checked="" type="checkbox"/> Infiltration Basins   |
| <input checked="" type="checkbox"/> Spill Prevention    | <input checked="" type="checkbox"/> Operational BMPs      |
| <input type="checkbox"/> Surface Leachate Collection    | <input checked="" type="checkbox"/> Vegetation Management |
| <input checked="" type="checkbox"/> Overhead Coverage   | <input checked="" type="checkbox"/> Other (please list):  |

The boiler, cooling tower , rental car  
facility and the proposed equipment  
wash rack are regulated by SWPPP.

8. Attach a facility site map showing stormwater drainage/collection areas, disposal areas and discharge points. This may be a hand drawn map if no other site map is available (See example on the last page of this application). Label this as attachment H.8.

See note on: page 12 for a description of the Port of Seattle's Industrial Waste System.

## SECTION I. OTHER INFORMATION

1. Describe liquid wastes or sludges being generated that are not disposed of in the waste stream(s) and how they are being disposed. For each type of waste, provide type of waste, name, address, and phone number of hauler.

Aircraft sanitary waste discharged to King County STP by Emerald Services, 7343 E. Marginal Way S., Seattle, WA 98108 206-832-3000

Industrial waste sludge from Baker Tanks is hauled to TPS, 2800 104th St. S., Tacoma, WA 94444 ( 253-584-8430 ) by Emerald Services, 7343 E. Marginal Way S., Seattle, WA 98108 206-832-3000. Industrial waste sludge is also discharged to Philip Services: 1100 Oakesdale SW,

2. Describe storage areas for raw materials, products, and wastes. Renton, WA 98055,  
(425)-204-7181.  
Raw material, product, and waste storage is regulated by SWPPP.

3. Have you designated the wastes described above according to the applicable procedures of Dangerous Waste Regulations, Chapter 173-303 WAC?

Yes

Rental car wash sludge is hauled & treated by: Aqua Clean Jet 'n' Vac, 18912 SE 133<sup>rd</sup> Pl., Renton WA, 98059, (425)-271-5459.



**SECTION J. CERTIFICATIONS**

1. Approval by POTW [required by WAC 173-216-070(4)(b)]

*I approve of the discharge as described in this application. The applicant is:*

(Please select the one that applies:)

A Significant Industrial User

Name and location of sewer system to which this project will be tributary:

Midway Sewer District

Treatment Works Owner

3030 S. 240 St.

Street

Kent, WA

98032

City/State

Zip

*Ken J Kase*

*12/18/21*

Manager

Signature  
Ken Kase

Date

Title

Printed Name

2. Application review by Intermediate Sewer Owner at point of discharge (if applicable)

*I hereby acknowledge that I have reviewed the application for discharge to this sewer system.*

Name and location of sewer system to which this project will be tributary:

NA

Sewer System Owner

Street

City/State

Zip

Signature

Date

Title

Printed Name

---

---

**Summary of Attachments That May be Required for This Application:**

(Please check those attachments which are included)

- C.1. Production schematic flow diagram and water balance
- C.4. Wastewater treatment improvements
- C.7. Additional incidental materials
- E.5. Additional results of effluent testing
- F.1. Facility site map
- H.8. Stormwater drainage map

## DEFINITIONS

### **Significant Industrial User (SIU)--**

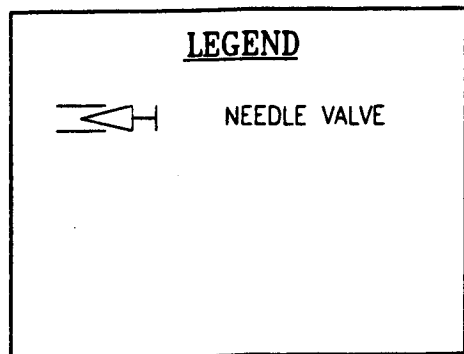
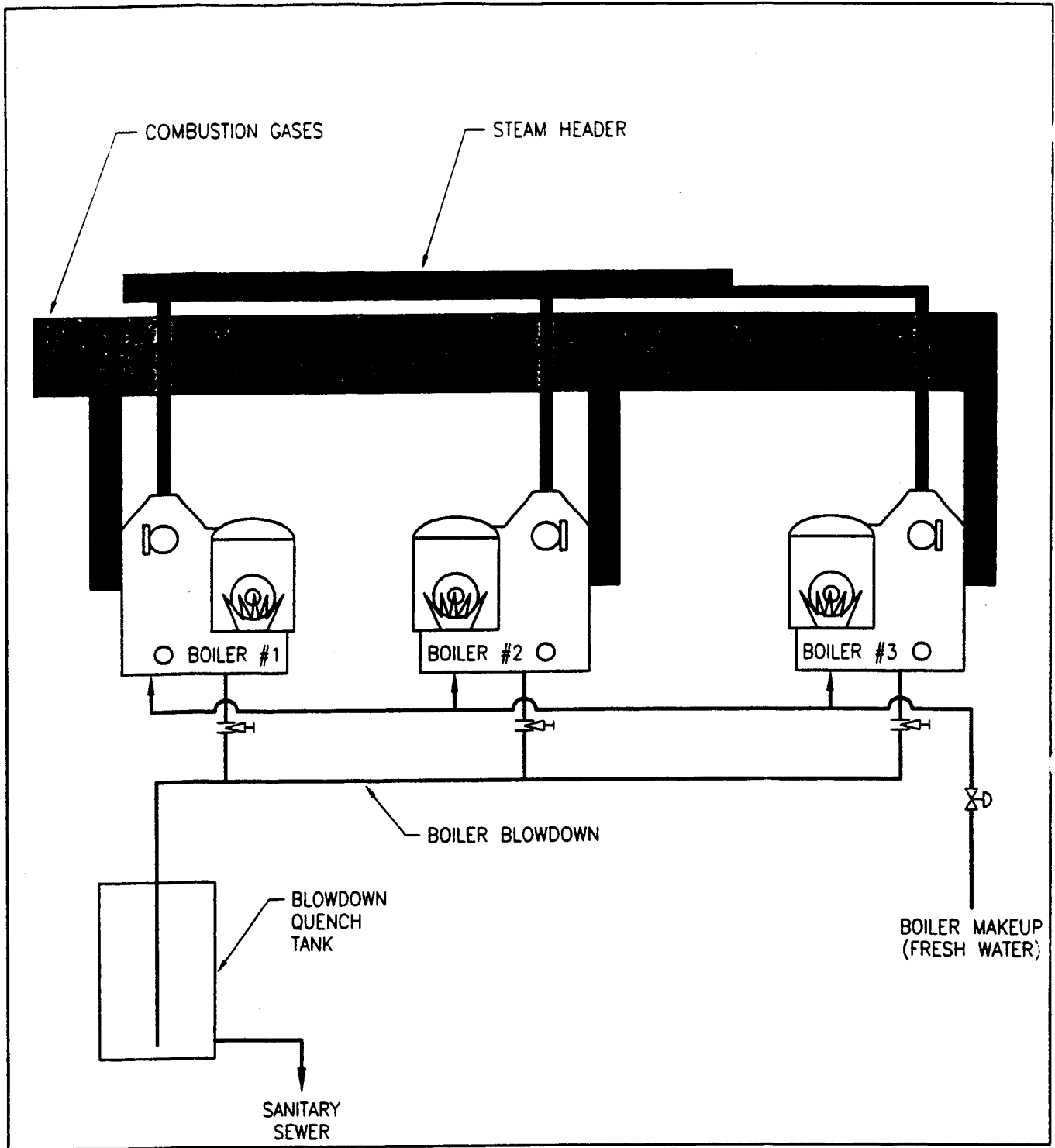
- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

**Control Authority** - means the Washington State Department of Ecology in the case of non-delegated POTWs or means the POTW in the case of delegated POTWs.

**Categoric Industrial User (CIU):** An industrial user subject to National categorical pretreatment standards promulgated by EPA (40 CFR 403.6 and 40 CFR parts 405-471).

Last Page



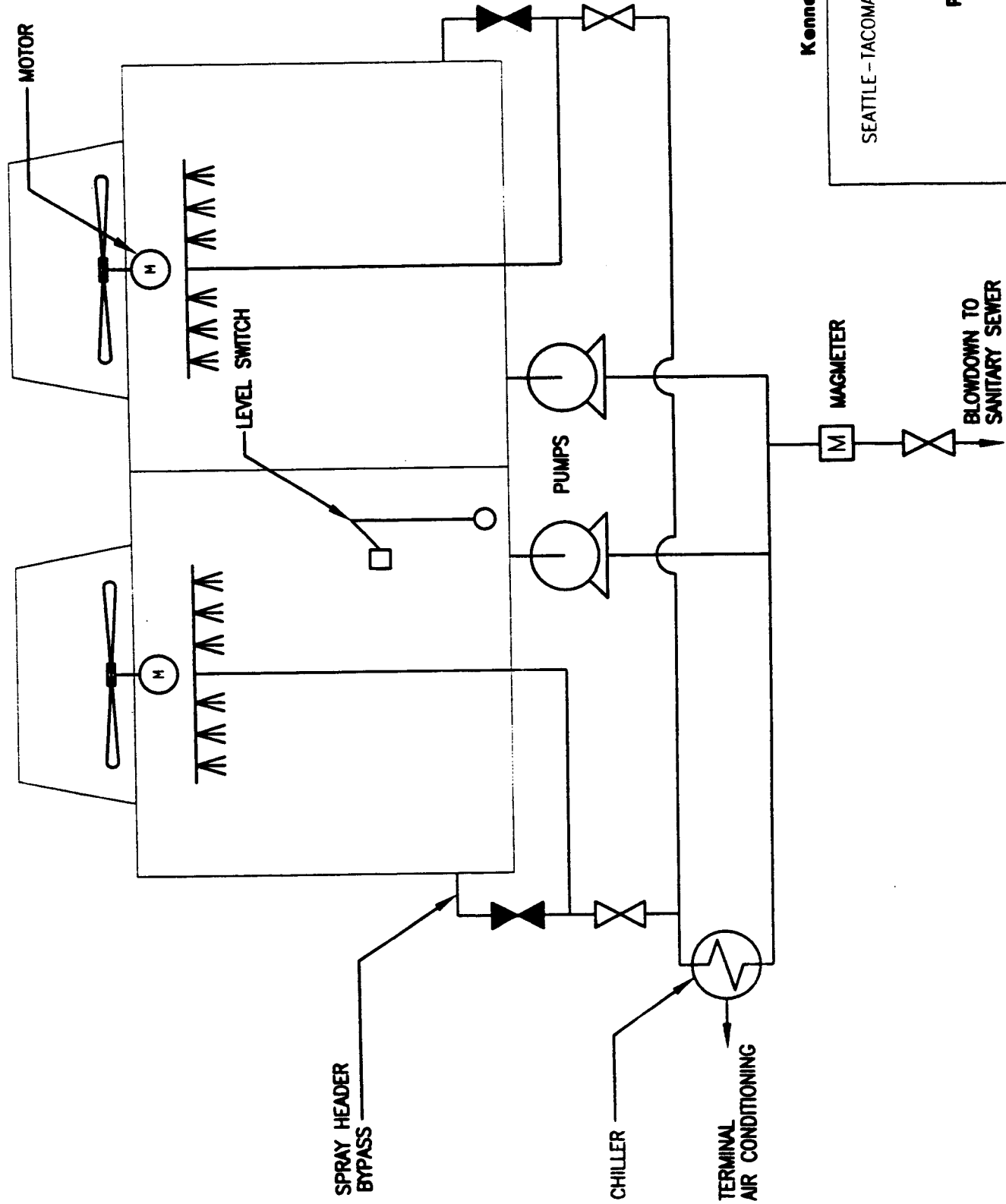
**Kennedy/Jenks Consultants**  
 PORT OF SEATTLE  
 SEATTLE-TACOMA INTERNATIONAL AIRPORT

**BOILER BLOWDOWN  
 PROCESS FLOW DIAGRAM**

006099.04.00/POSK001

**FIGURE 1**

**AR 027088**



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PORT OF SEATTLE  
SEATTLE-TACOMA INTERNATIONAL AIRPORT

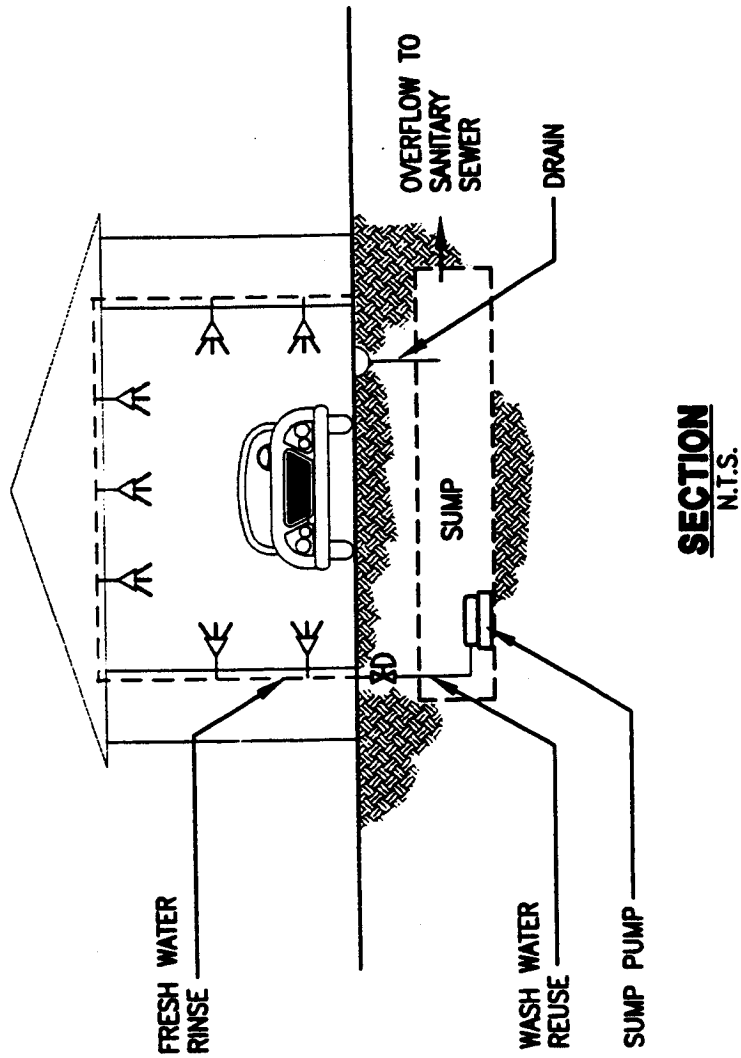
**COOLING TOWER  
PROCESS FLOW DIAGRAM**

006099.04/POS.K002

FIGURE 2

**COOLING TOWER  
(TWO CELLS)**

AR 027089



**NOTE:**

EXISTING RENTAL CAR WASH HAS 10 WASH BAYS. WASH WATER IS RECYCLED FROM SUMP. FRESH WATER USED FOR RINSE RENTAL CAR WASH DRAIN IS CURRENTLY CONNECTED TO INDUSTRIAL WASTE SYSTEM. CONNECTION TO SANITARY SEWER IS SCHEDULED FOR 2002. METHOD OF CONNECTION (GRAVITY FLOW OR FORCE MAIN) TO BE DETERMINED.

**Kennedy/Jenks Consultants**


PORT OF SEATTLE  
SEATTLE-TACOMA INTERNATIONAL AIRPORT

**RENTAL CAR WASH**

006099.04/POSK003

**FIGURE 3**

AR 027090

<b>FORM</b> <b>1</b> <b>GENERAL</b>		<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> <b>GENERAL INFORMATION</b> <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>	<b>I. EPA I.D. NUMBER</b> WAD98098016	
<b>LABEL ITEMS</b>		<b>PLEASE PLACE LABEL IN THIS SPACE</b>	<b>GENERAL INSTRUCTIONS</b> 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 need 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 authorization under which this data is collected.	
<b>I. EPA I.D. NUMBER</b>				
<b>III. FACILITY NAME</b>				
<b>V. FACILITY MAILING LIST</b>				
<b>VI. FACILITY LOCATION</b>				
<b>II. POLLUTANT CHARACTERISTICS</b>				
<b>INSTRUCTIONS:</b> 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.				
<b>SPECIFIC QUESTIONS</b>		<b>MARK "X"</b>	<b>SPECIFIC QUESTIONS</b>	
		YES NO FORM ATTACHED	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)		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	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)	
		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)		<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	D. Is this proposal facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	
		22 23 24		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	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)	
		28 29 30		
G. Do you or will you inject at this facility any produced water other 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)		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	H. Do you or will you inject at this facility fluids for special processes such 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)	
		34 35 36		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions 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)		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions 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)	
		40 41 42		
<b>III. NAME OF FACILITY</b>				
C SKIP <b>Seattle-Tacoma International Airport</b>				
1		69		
<b>IV. FACILITY CONTACT</b>				
<b>A. NAME &amp; TITLE (last, first, &amp; title)</b>		<b>B. PHONE (area code &amp; no.)</b>		
C <b>Michael D. Feldman, Director Aviation Facilities</b>		206 439 7706		
2		45 46 48 49 51 52 55		
<b>V. FACILITY MAILING ADDRESS</b>				
<b>A. STREET OR P.O. BOX</b>		* THIS IS MARKED "NO" BECAUSE THIS IS A PERMIT RENEWAL OF AN EXISTING FACILITY. DURING THE 5 YEARS OF THIS PERMIT, THERE MAY BE NEW STORMWATER DISCHARGES - SEE FORM 2F (ATTACHED)		
C <b>P.O. Box 68727</b>				
3				
<b>B. CITY OR TOWN</b>		<b>C. STATE</b>	<b>D. ZIP CODE</b>	
C <b>Seattle,</b>		WA	98168	
4		41 42 47 51		
<b>VI. FACILITY LOCATION</b>				
<b>A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER</b>				
C <b>17801 Pacific Highway S.,</b>				
5				
<b>B. COUNTY NAME</b>				
C <b>King</b>				
6				
<b>C. CITY OR TOWN</b>		<b>D. STATE</b>	<b>E. ZIP CODE</b>	
C <b>Seattle</b>		WA	98158	
6		41 42 47 51	52 54	

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

A. FIRST				B. SECOND			
C	7	15	17	7	15	16	19
	<b>4851</b>	(specify)	<b>Airfield</b>		<b>5171</b>	(specify)	<b>Petroleum Bulk Storage</b>
C. THIRD				D. FOURTH			
C	7	15	17	7	15	16	19
	<b>4852</b>	(specify)	<b>Transportation by Air, scheduled</b>		<b>7514</b>	(specify)	<b>Car Rental</b>

**VIII. OPERATOR INFORMATION**

A. NAME						B. Is the name listed in Item VIII-A also the owner?											
C	8	<b>Port of Seattle</b>						<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO									
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)												D. PHONE (area code & no.)					
F = FEDERAL	M = PUBLIC (other than federal or state)	<b>M</b> (specify)				C	206	433	5388								
S = STATE	O = OTHER (specify)	<b>Port Authority</b>				A											
P = PRIVATE						15	16	18	19	21	22	25					
E. STREET OR PO BOX																	
<b>P.O. Box 68727</b>																	

F. CITY OR TOWN				G. STATE		H. ZIP CODE		IX. INDIAN LAND				
C	B	15	16	40	42	42	47	51	Is the facility located on Indian lands?			
	<b>Seattle</b>			<b>WA</b>	<b>98168</b>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					

**X. EXISTING ENVIRONMENTAL PERMITS**

A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)						
C	T	I	<b>WA-002465-1</b>			C	T	I				
9	N		15	16	17	18	30	15	16	17	18	30
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)						
C	T	I				C	T	I				
9	U		15	16	17	18	30	15	16	17	18	30
C. RCRA (Hazardous Wastes)						E. OTHER (specify)						
C	T	I				C	T	I				
9	R		15	16	17	18	30	15	16	17	18	30

**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 brief description)**

Operate airfield for private business tenants who provides passenger and air cargo services to the public.

**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 believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)		B. SIGNATURE		C. DATE SIGNED	
<b>Michael D. Feldman,</b> <b>Director, Aviation Facilities</b>				<b>12/19/01</b>	

**COMMENTS FOR OFFICIAL USE ONLY**

C	
C	



Please type or print in the unshaded areas only

EPA ID Number (Copy from Item 1 of Form 1) **WAD980980106**

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

U.S. ENVIRONMENTAL PROTECTION AGENCY  
**APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER FROM EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS**  
Consolidated Permit Program

Form **2C**  
NPDES



**I. Outfall Location**

For this outfall, list the latitude and longitude, and name of the receiving water(s)

Outfall Number (list)	Latitude			Longitude			Receiving Water (name)
	Deg	Min	Sec	Deg	Min	Sec	
001	47	24	07N	122	20	07W	Puget Sound

**II. Flows, Sources of Pollution, and Treatment Technologies**

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

B. For each outfall, provide a description of (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater 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	2. Operations Contributing Flow		3. Treatment	
	a. OPERATION (list)	b. AVERAGE FLOW	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1
001	Industrial waste water from airfield operations and maintenance, pressure testing water lines, well and pipe flushing, construction dewatering, aircraft and airfield deicing and anti-icing, and chemicals used in fighting fires that may occur at the airport.	Not applicable. Data are not available for average flow from each specific airfield or maintenance operation. The average annual flow from the Industrial Waste Treatment Plant for the past 3 years was 321 MG with an average daily flow of 1.8 MG. Outfall 001 has a capacity of 7.1 MGD.	Coagulation Flocculation Air Flotation Ocean Discharge through Outfall Gravity Thickening	2-D 1-G 1-H 4-B 5-L

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks or spills, are any of the discharges described in Items 1-A or B intermittent or seasonal?

YES (complete the following table)  NO (go to Section IV)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				c. DURATION (in days)
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		
				LONG TERM AVERAGE	MAXIMUM DAILY	LONG TERM AVERAGE	MAXIMUM DAILY	
001	All airport operations that drain to the industrial waste system	Seasonal	12	1.32	4.32	1.32	4.32	184

Flow data are for the past year (October 2000 through September 2001).

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

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)  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 the terms and units used in the applicable effluent guideline, and indicate the affected outfall.

1. AVERAGE DAILY PRODUCTION		AFFECTED OUTFALL
a. QUANTITY PER DAY	b. UNITS OF MEASURE	
---	---	Not Applicable

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, improvement, or operation of wastewater treatment equipment or other environmental program which may affect your discharges described in this application? This includes but is not limited to permit conditions, construction or enforcement orders, court orders, stipulations, schedule letters, stipulations, court orders, and grant or loan conditions.

YES (complete the following table)  NO (go to item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		REQUIRED	EXPECTED
NPDES Permit Special Condition S4	001	Industrial Waste Treatment Plan	Implementation of AKART alternative for management of glycol-containing wastestream	June 30, 2004	
CWA 401/404 Permit Conditions (Water Quality Certification for US Army Corps of Engineers Public Notice 1996-4-02325 Condition J)	001	Industrial wastewater from airport operations	Implementation of the Comprehensive Stormwater Management Plan (Sections 4.2, 5.2.2 and 7.5)	See Table A-3 of CSMP	

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect 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 PROGRAM IS ATTACHED

CONTINUED FROM PAGE 2

**V. INTAKE AND EFFLUENT CHARACTERISTICS:**

A, 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 separate sheets number V-1 through V-3.

D: Use the space below to list any of the pollutants listed in Tables 2-3 of the instructions which you know have reason to believe may be 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
Acrolein	Unknown. Detected only once (2000) in 5 analyses performed since 1994.	Ethylbenzene	Fuel spills
Phenol	Fuel spills.	Toluene	Fuel spills
Benzene	Fuel Spills	Naphthalene	Moth balls/ insecticides?
Chlorobenzene	Unknown. Detected only once (2000) in 7 analyses performed since 1994. Detected at concentration below laboratory practical quantitation limit.	Endosulfan	Unknown. Detected only once (1999) in 8 analyses since 1994.
Chloroform	Unknown. Detected only twice in 7 analyses since 1994.		

**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 byproduct?

YES (list such pollutants below)  NO

**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 conducted on your discharges or on receiving water in relation to your discharge within the last 3 years?

YES (Identify the tests and describe their purpose below)  NO

**VIII. CONTRACT ANALYSIS INFORMATION:**

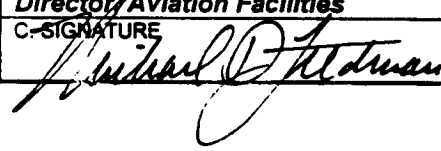
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)  NO

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
STL (Sound Analytical)	5755 - 8 <sup>th</sup> St. E. Tacoma, WA 98424	(253) 922-2310	Oil and grease, pH, ammonia, TSS, phenols, BOD, coliforms, BTEX, priority pollutants
Analytical Resources, Inc.	333 Ninth Ave. N. Seattle, WA 98109	(206) 621-6490	glycols
Aquatic Research, Inc.	3927 Aurora Ave. N. Seattle, WA 98103	(206) 632-2715	glycols

**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 & OFFICIAL TITLE (type or print) <b>Michael D. Feldman</b> <b>Director/Aviation Facilities</b>	B. PHONE NO. (area code & no.) <b>(206) 439-7706</b>
C. SIGNATURE 	D. DATE SIGNED <b>12/19/01</b>

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

EPA I.D. NUMBER (copy from item 1 of Form 1)  
WAD980980106

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

1. POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)	4. INTAKE (G/GALS)	5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE	b. LONG TERM AVERAGE VALUE			
a. Biochemical Oxygen Demand (BOD)	1100	123.4	mg/L	32	
b. Chemical Oxygen Demand (COD)	NA				NA = Not available.
c. Total Organic Carbon (TOC)	NA				ND = parameter not detected
d. Total Suspended Solids (TSS)	46	12	mg/L	115	
e. Ammonia (as N)	0.27	0.04	mg/L	33	
f. Flow	Value 6.5	Value 1.8	MG	184	Value
g. Temperature (winter)	Value Ambient	Value	°C		Value
h. Temperature (summer)	Value Ambient	Value	°C		Value
i. pH	Minimum 6.09	Maximum 7.67		115	

**PART B: Mark "X" in column 2-a for each pollutant you know or have reason to believe is discharged directly to the receiving water body. Mark "X" in column 2-b for any pollutant which is limited either directly or indirectly to the receiving water body by a discharge permit. See the instructions for discharge. Complete one table for each pollutant. See the instructions for discharge.**

1. POLLUTANT AND CAS NO. (if available)	2. MARK X IN COLUMN 2-a OR 2-b		3. UNITS	4. INTAKE (G/GALS)	5. NO. OF ANALYSES
	a. MAXIMUM DAILY VALUE	b. LONG TERM AVERAGE VALUE			
a. Bromide (2459-67-9)	<input type="checkbox"/>	NA			NA = No analysis.
b. Chlorine Total Residual	<input type="checkbox"/>	NA			ND = Parameter not detected.
c. Color	<input type="checkbox"/>	NA			
d. Fecal Coliform	<input checked="" type="checkbox"/>	3300	358	34	cfu/100 mL
e. Fluoride (16964-48-8)	<input type="checkbox"/>	NA			
f. Nitrate-Nitrite (as N)	<input type="checkbox"/>	NA			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		2. EFFLUENT		3. UNITS (specify if blank)		4. INTAKE (optional)	
	MAXIMUM DAILY VALUE	MAXIMUM 30 DAY VALUE	LONG TERM AVERAGE VALUE	NO. OF ANALYSES	CONCENTRATION	AVERAGE VALUE	NO. OF ANALYSES	
g. Nitrogen, Total Organic (as N)	<input type="checkbox"/>	NA					NA = No analysis ND = Parameter not detected.	
h. Oil and Grease	<input checked="" type="checkbox"/>	14	3.84	78	mg/L			
i. Phosphorus (as P), Total (7723-14-0)	<input type="checkbox"/>	NA						
j. Radioactivity								
(1) Alpha, Total	<input type="checkbox"/>	NA						
(2) Beta, Total	<input type="checkbox"/>	NA						
(3) Radium, Total	<input type="checkbox"/>	NA						
(4) Radium 226, Total	<input type="checkbox"/>	NA						
k. Sulfate (as SO <sub>4</sub> ) (14802-78-9)	<input type="checkbox"/>	NA						
l. Sulfide (as S)	<input type="checkbox"/>	NA						
m. Sulfite (as SO <sub>3</sub> ) (14265-45-3)	<input type="checkbox"/>	NA						
n. Surfactants	<input checked="" type="checkbox"/>	NA						
o. Aluminum, Total (7429-90-5)	<input type="checkbox"/>	NA						
p. Barium, Total (7440-39-3)	<input type="checkbox"/>	NA						
q. Boron, Total (7440-42-4)	<input type="checkbox"/>	NA						
r. Cobalt, Total (7440-48-4)	<input type="checkbox"/>	NA						
s. Iron, Total (7439-89-4)	<input type="checkbox"/>	NA						
t. Magnesium, Total (7439-95-4)	<input type="checkbox"/>	NA						
u. Molybdenum, Total (7439-98-7)	<input type="checkbox"/>	NA						
v. Manganese, Total (7439-96-6)	<input type="checkbox"/>	NA						
w. Tin, Total (7440-31-5)	<input type="checkbox"/>	NA						
x. Titanium, Total (7440-32-6)	<input type="checkbox"/>	NA						

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK X		3. BEING QUERIED		4. BEING PRESENT		5. MAXIMUM DAILY VALUE		6. TEST VALUE		7. EFFLUENT		8. UNITS (Specify if blank)		9. INTAKE (Optional)	
	TESTING COMPLETED	TESTING IN PROGRESS	TESTING NOT STARTED	TESTING NOT STARTED	TESTING COMPLETED	TESTING IN PROGRESS	TESTING NOT STARTED	TESTING NOT STARTED	TESTING COMPLETED	TESTING IN PROGRESS	TESTING NOT STARTED	TESTING NOT STARTED	TESTING COMPLETED	TESTING IN PROGRESS	TESTING NOT STARTED	TESTING NOT STARTED
<b>GC/MS - VOLATILE COMPOUNDS</b>																
1V. Acrolein (107-02-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.8			1	ug/L				
3V. Acrylonitrile (107-13-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				1					
3V. Benzene (71-43-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.4			14	ug/L				
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
5V. Bromoform (75-25-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
6V. Carbon Tetrachloride (56-23-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
7V. Chlorobenzene (108-90-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.8			3	ug/L				
8V. Chloroform (124-48-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
9V. Chloroethane (75-00-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
10V. 2-Chloroethanol (110-75-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				2					
11V. Chloroform (67-68-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.93			3	ug/L				
12V. Dichlorobromomethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
13V. Dichloroethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				1					
14V. 1,1-Dichloroethane (75-34-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
15V. 1,2-Dichloroethane (107-06-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
16V. 1,1-Dichloroethane (75335-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
17V. 1,2-Dichloropropane (78-87-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
18V. 1,3-Dichloropropane (542-78-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
19V. Ethylbenzene (100-41-4)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.75			14	ug/L				
20V. Methyl Bromide (74-83-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					
21V. Methyl Chloride (74-87-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				3					

See note re: average. Chlorobenzene detected at concentration below laboratory practical quantitation limit.

Note: One-half detection limit used for calculation of average concentration for those parameters for which analyses revealed at least one nondetect during this reporting period. Where long term average concentration is greater than maximum, 1998 Priority Pollutant analyses were performed with detection limits much higher than analyses for 1999 and 2000.  
NA = No analysis.  
ND = Nondetect for this parameter.





1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. BEING TESTED FOR		4. BEING TESTED FOR		5. EFFLUENT		6. NO. OF ANALYSES		7. UNITS (Specify if blank)		8. INTAKE (optional)		9. NO. OF ANALYSES
	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	TESTED FOR	
18 Acetone	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3		ug/L			
28 Benzene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
36 Anthracene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
48 Benzidine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
58 Benzoc(a) Anthracene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
68 Benzoc(b) Fluoranthene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
76 3,4-Benzofluoranthene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
88 Benzoc(k) Fluoranthene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
98 Benzofluoranthene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
108 B(a)P	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
118 B(a)A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
128 B(b)F	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
138 B(k)F	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
148 B(a)P	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
158 B(b)F	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
168 B(k)F	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
178 4-Chlorophenyl Phenyl Ether	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
188 Chrysene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
198 Dibenzo(a,h) Anthracene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
208 1,2-Dichlorobenzene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					
218 1,3-Dichlorobenzene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						3					

Note: Where long term average concentration is greater than maximum, 1998 Priority Pollutant analyses were performed with detection limits much higher than analyses for 1999 and 2000. One-half detection limit used for calculation of average concentration for those parameters for which analyses revealed at least one nondetect during this reporting period.  
 NA = No analysis.  
 ND = Parameter not detected.



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1. POLLUTANT NAME AND CAS NO. (if any)	2. MARK 'X'		3. BEHAVIOR		4. EFFLUENT		5. ANALYSIS		6. UNITS		7. INTAKE (optional)	
	TOXIC	CHLORINATED	LEV. PRESENT	LEV. ABSENT	CONCENTRATION	PERCENT	NO. OF ANALYSES	DATE	CONCENTRATION	MASS	AVERAGE VALUE	NO. OF ANALYSES
GC/MS FRACTION - BASE NEUTRAL COMPOUNDS												
458 1,2,4-Trichlorobenzene (120-82-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					NA = No analysis.
458 Pyrene (129-00-0)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.5		3	0.41		ug/L		ND = Parameter not detected
488 1,2,4-Trichlorobenzene (120-82-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.21		3	0.10		ug/L		
GC/MS FRACTION - PESTICIDES												
1P Aldrin (500-00-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
2P p-BHC (519-85-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
4P DDT (50-48-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
5P p-BHC (519-85-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
6P Chlordane (67-74-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
7P DDT (50-48-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
8P DDT (50-48-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
9P DDT (50-48-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
10P Dieldrin (60-57-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
11P p-BHC (519-85-7)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.014		3	0.008		ug/L		
12P p-Endrin (115-30-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
13P p-Endrin (115-30-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
14P Endrin (1001-07-6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
15P Endrin (72-30-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
16P Endrin Aldehyde (7421-82-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					
18P Heptachlor (78-44-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND		3					

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1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'			3. EFFLUENT	4. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)	
	a. TESTING REQUIRED	b. BE-LEVED PRE-SENT	c. BE-LEVED ABSENT			a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE	b. NO. OF ANALYSE S
<b>GC/MS PESTICIDES (continued)</b>									
17P Heptachlor Epoxide (1024-57-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				NA = No analysis. ND = Parameter not detected.
18P PCB-1242 (83469-21-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
19P PCB-1254 (11097-98-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
20P PCB-1221 (11104-28-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
21P PCB-1233 (11141-18-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
22P PCB-1246 (12872-28-6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
23P PCB-1260 (11688-82-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
24P PCB-1018 (12874-11-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				
25P Toxaphene (8001-35-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	3				

Please print or type in the unshaded areas

EPA ID Number (copy from item 1 of Form 1)  
**WAD98098016**

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

Form  
**2F**  
NPDES



United States Environmental Protection Agency  
Washington, DC 20460

**Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity**

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503

**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)
002 (SDE4)	47	26	30	122	17	45	Des Moines Creek (east branch)
NW Pond outlet <sup>1</sup>	47	25	45	122	18	45	Des Moines Creek (west branch)
Lake Reba outlet <sup>2</sup>	47	28	00	122	19	00	Miller Creek
009 (SDS4)	47	25	30	122	18	30	Des Moines Creek (west branch)
SDW1-A <sup>3</sup>	47	27	30	122	19	15	Miller Creek
SDW1-B <sup>3</sup>	47	27	15	122	19	15	Miller Creek
SDW2 <sup>3</sup>	47	27	00	122	19	15	Walker Creek
SDN3-A <sup>4</sup>	47	27	45	122	19	15	Miller Creek

**Table notes**

1. consolidates current outfalls 004 (SDS2), 005 (SDS3), 010 (SDS7), 014 (SDS6), 015 (SDS5), the future 019 (SDW3) and non-Port drainage at Northwest Ponds outlet

2. consolidates current outfalls 006 (SDN1), 007 (SDN2), 008 (SDN3), 011 (SDN4), other non-industrial Port drainage and non-Port drainage at Lake Reba outlet

3. future outfall

**II. Improvements**

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading 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.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
401/404 permit conditions	all	Airport operations, roadways, pervious and impervious surfaces	Monitoring of construction and mitigation projects, Implementation of Comprehensive Stormwater Management Plan (CSMP)		See Table A-3 of CSMP

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

**III. Site Drainage Map**

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structure control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each are not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility **See attached maps for existing and future drainage**

<b>IV. Narrative Description of Pollutant Sources</b>					
A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall					
Outfall Number	Area of Impervious Surface (acres)	Total Area Drained (acres)	Outfall Number	Area of Impervious Surface (acres)	Total Area Drained (acres)
002 (SDE4)	97 (current) <sup>2</sup> 126 (future)	149 (current) <sup>2</sup> 166 (future)	SDW1-B	27 (future)	97 (future)
003 (SDS1)	14 (current) <sup>2</sup> 16 (future)	16 (current) <sup>2</sup> 18 (future)	SDW1-A	15 (future)	53 (future)
NW Ponds	237 <sup>1</sup> (current) <sup>2</sup> 279 <sup>1</sup> (future)	573 <sup>1</sup> (current) <sup>2</sup> 563 <sup>3</sup> (future)	SDW2	10 (future)	45 (future)
Lake Reba	50 <sup>1</sup> (current) <sup>2</sup> 62 <sup>1</sup> (future)	119 <sup>1</sup> (current) <sup>2</sup> 181 <sup>1</sup> (future)	SDN3-A	8 (future)	30 (future)
009 (SDS4)	21 (current) <sup>2</sup> 32 (future)	63 (current) <sup>2</sup> 65 (future)			
<b>Table notes</b>					
1. does not include Port non-industrial areas and non-Port drainage areas tributary to the outfall					
2. acreage from 2001 Port of Seattle Annual Stormwater Monitoring Report					
B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.					
<p><b>Significant materials are not treated, stored or disposed at Sea-Tac Airport where they could contaminate stormwater runoff. All areas with industrial activities such as aircraft fueling, aircraft de-icing, and vehicle maintenance drain to the Industrial Waste System (see Form 2C). There is some stormwater exposed to construction activities. Construction projects have site-specific Stormwater Pollution Prevention Plans (SWPPPs), which include erosion/ sediment control, spill prevention, hazardous materials handling and monitoring plans (Special Condition S13 of NPDES permit WA002465-1).</b></p> <p><b>Application of pesticides, herbicides, soil conditioners and fertilizers is addressed in the Port's Stormwater Pollution Prevention Plan (SWPPP) for Airport Operations (Special Condition S12).</b></p>					

C For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff, and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge

Outfall Number	Treatment	List Codes from Table 2F-1
<b>All</b>	<p><b>Treatment consists of the BMPs listed in the Port's Stormwater Pollution Prevention Plan (SWPPP) including detention of stormwater in stormwater detention facilities. Much of the stormwater generated by the airfield is treated by filter strips and bioswales, prior to discharge. The SWPPP addresses aircraft servicing, ground de-icing/ anti-icing, snow storage, spills, construction sites, erosion in non-construction areas, vehicle washing and maintenance, landscape, airfield maintenance, inappropriate connections and discharges, temporary storage of surplus materials, and tenant activities on Port property.</b></p> <p><b>As a BMP, stormwater runoff from drainage areas that could receive discharges of fresh and used engine fluids; aviation and ground service vehicle fuels; aircraft and vehicle wash water; aircraft lavatory wastewater, hangar floor wash water; aircraft, runway, and roadway de-icing and anti-icing chemicals; pipe testing and flushing water; groundwater de-watering; and some construction runoff is routed to the Industrial Waste Treatment Plant (IWTP) where it is treated by dissolved air flotation units prior to discharge to Puget Sound. Snow storage areas are designed to drain to the IWTP.</b></p> <p><b>Other BMPs include secondary containment, covering, sweeping, catch basin cleaning, proper labeling and disposal, and employee education. Port and all airport tenants with exterior operations develop Water Pollution Control Plans, which include BMPs, spill control plans, and hazardous waste management plans. Port and tenant construction sites which are part of the Port's Master Plan Update or disturb more than 5 acres develop construction Stormwater Pollution Prevention Plans, which include monitoring plans, erosion and sediment control, spill response, and hazardous material management.</b></p> <p><b>The stormwater generated by many Port construction sites is chemically treated with alum or polymers to reduce total suspended solids and turbidity prior to discharge.</b></p> <p><b>The Port has developed and is responsible for implementing a Spill Control, Containment and Countermeasure Plan (SPCCC).</b></p> <p><b>Several Port of Seattle storm drain outfalls receive runoff from non-Port property such as state highway 518 and local streets.</b></p>	<p><b>1-U</b></p> <p><b>1-G, 1-H, 4-B</b></p> <p><b>1-G</b></p>

**V. Non Stormwater Discharges**

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges, and that all non-stormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name of Official Title (type or print)  
**Michael D. Feldman,**  
**Director, Aviation Facilities**

Signature  


Date Signed  
**12/19/01**

B. provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

**Dry and wet weather inspections of SDS outfalls per the SWPPP, routine NPDES monitoring, remote TV inspections, and special studies such as bacteriologic and chemical source tracing monitoring of non-storm flows. Much of this work has focused on drainage within the landside subbasins SDE4 (002), SDN1 (006) and SDS1 (003) in the past 5 years and has resulted in the elimination of all known inappropriate connections with the storm drainage system.**

## VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released

***The Port's Industrial Waste System is designed to contain and treat industrial wastewater that could be contaminated by spills and leaks of fuel and other materials. (see Form 2C)***

***Over the past three years, there was one minor spill of jet fuel, which occurred on April 28, 1999 from a 747 aircraft fuel tank expansion relief valve on a wing tip emergency relief valve. Most of the spilled fuel was contained on the airfield and recovered before reaching the drainage system. It was estimated that less than 5 gallons of fuel reached Des Moines Creek.***



**VII. Discharge Information**

A, B, C, & D. See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

Yes (list all such pollutants below)

No (go to Section IX)

**VIII. 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 discharges or on a receiving water in relation to your discharge within the last 3 years?

Yes (list all such pollutants below)

No (go to Section IX)

**Whole effluent toxicity (WET) characterization testing was performed on stormwater discharge samples from 4 outfalls as required by the current NPDES permit. This testing was performed in 1998 and 1999. Runoff was collected from 2 to 5 storms for each outfall (SDE4 (002), SDS3 (005), SDN1 (006) and SDN4 (011)). Three outfalls (SDE4, SDS3, and SDN4 passed Washington State acute performance standards (*D. pulex* (daphnia) and *P. promelas* (fathead minnow)). Acute toxicity to both organisms found in outfall SDN1. Subsequent WET testing demonstrated that stormwater associated with uncoated galvanized roofing material was the source of the toxicity. The Port has been investigating management alternatives for the roof runoff. These test results have been reported to the Washington Department of Ecology in individual reports (Nov 1998-July 1999) and a final WET testing summary report (May 2000).**

**As part of this permit application, the runoff from all four outfalls was re-sampled and analyzed for WET toxicity in November/ December 2001.**

**IX. Contact analysis Information**

Were any of the analysis reported in item VII performed by a contact laboratory or consulting firm?

Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Aquatic Research, Incorporated	3927 Aurora Avenue North, Seattle, WA 98103	206-632-2715	pH, fecal coliform, TPH, TSS, turbidity, BOD5, glycols, metals, fluoride, surfactants, phosphorus

**X. 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 & Official Title (type or print)

Michael D. Feldman, Director, Aviation Facilities

B. Area Code and Phone No.

206-439-7706

C. Signature



D. Date Signed

12/19/01

# OUTFALL SDE4 (002)

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	8.7	N/A	2.1	No data <sup>2</sup>	28	passenger, service, construction and maintenance vehicle traffic, aircraft taxiing
Biological Oxygen Demand (BOD5, mg/l)	No data <sup>2</sup>	335	No data <sup>2</sup>	19	26	ground surface de-icing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (TSS, mg/l)	No data <sup>2</sup>	250	No data <sup>2</sup>	57	26	Roadway aggregate wear, ground surface deicing abrasives (sand) atmospheric deposition and construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.3	Maximum 10.7	Minimum	Maximum	28	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
OUTFALL SDE4 (002) Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>4</sup>	158 <sup>5</sup>	No data <sup>4</sup>	28	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	0.62	No data <sup>4</sup>	0.19	No data <sup>4</sup>	15	domestic water
FOG <sup>3</sup> TPH (mg/l. NWTPH-Dx)	8.7	No data <sup>4</sup>	2.1	No data <sup>4</sup>	28	passenger, service, construction and maintenance vehicle traffic, aircraft taxiing
Surfactants <sup>2</sup> (MBAS, mg/l)	0.89	No data <sup>4</sup>	0.26	No data <sup>4</sup>	16	See footnote 2
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.032	No data <sup>4</sup>	0.016	26	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.031	No data <sup>4</sup>	0.009	26	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.197	No data <sup>4</sup>	0.101	26	See TPH above
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event: (in inches)	4. Number of hours between beginning of storm meas- ured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
<p><b>Maximum data listed for each parameter occurred in samples from multiple storm events. The Port of Seattle's Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.</b></p>						
7. Provide a description of the method of flow measurement or estimate.						
Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.						

# OUTFALL SDS1 (003)

EPA ID Number (copy from Item 1 of Form 1)

**WADS8098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	1.6	N/A	0.9	No data <sup>2</sup>	4	passenger, service, construction and maintenance vehicle traffic, vehicles on non-Port public roads
Biological Oxygen Demand (mg/l BOD5)	No data <sup>2</sup>	7.7	No data <sup>2</sup>	7.0	2	ground surface de-icing (source of aircraft glycols removed Sept 2000)
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l TSS)	No data <sup>2</sup>	93	No data <sup>2</sup>	47	4	Roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.7	Maximum 7.8	Minimum	Maximum	5	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2 C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall

OUTFALL SDS1 (003) Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>1</sup>	35 <sup>5</sup>	No data <sup>1</sup>	4	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	0.09	No data <sup>1</sup>	0.08	No data <sup>1</sup>	4	domestic water
FOG <sup>3</sup> TPH (mg/l. NWTPH-Dx)	1.6	No data <sup>1</sup>	0.9	No data <sup>1</sup>	4	passenger, service, construction and maintenance vehicle traffic, vehicles on non- Port public roads
Surfactants <sup>2</sup> (MBAS. mg/l)	3.9	No data <sup>1</sup>	0.9	No data <sup>1</sup>	6	(source of aircraft and service vehicle washwater removed Sept 2000)
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	0.366	No data <sup>1</sup>	0.110	4	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	0.009	No data <sup>1</sup>	0.005	4	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	0.206	No data <sup>1</sup>	0.138	4	See TPH above
Table notes						

1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
5. geometric mean
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B)

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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**Maximum data listed for each parameter occurred in samples from multiple storm events. The Port of Seattle's Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate.  
**Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.**

**OUTFALL SDS2 (004)<sup>3</sup>**

EPA ID Number (copy from Item i of Form 1)  
**WAD98098016**

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

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	0.31	N/A	0.17	No data <sup>2</sup>	3	passenger, service, construction and maintenance vehicle traffic, vehicles on non-Port public roads
Biological Oxygen Demand mg/l. (BOD5)	No data <sup>2</sup>	5.8	No data <sup>2</sup>	3.9	2	no known Port sources
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	65	No data <sup>2</sup>	35	3	Roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 7.4	Maximum 7.9	Minimum	Maximum	2	N/A

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3 This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet, which consolidates multiple discharges.

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

**Part C - List each pollutant shown in Tables 2F-2, 2F-3 and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.**

OUTFALL SDS2 (004) <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform <sup>1</sup> (MPN/100ml)	900	No data <sup>4</sup>	119 <sup>5</sup>	No data <sup>4</sup>	3	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	Domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	0.31	No data <sup>4</sup>	0.17	No data <sup>4</sup>	3	passenger, service, construction and maintenance vehicle traffic, vehicles on non- Port public roads
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.010	No data <sup>4</sup>	0.009	3	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.006	No data <sup>4</sup>	0.003	3	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.213	No data <sup>4</sup>	0.094	3	See TPH above
Table notes						

1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
5. geometric mean
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
8. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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**Maximum data listed for each parameter occurred in samples from multiple storm events. The Port of Seattle's Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate.

**Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.**

# OUTFALL SDS3 (005)<sup>3</sup>

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	2.7	N/A	0.21	No data <sup>2</sup>	30	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	646	No data <sup>2</sup>	68	29	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	310	No data <sup>2</sup>	26	27	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 7.0	Maximum 7.7	Minimum	Maximum	30	
<p>Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges</p>						
<p>Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.</p>						
Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)



Continued from the Front

**Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.**

OUTFALL SDS3 (005) <sup>a</sup> Pollutant: And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>d</sup>	7 <sup>e</sup>	No data <sup>d</sup>	29	small wild animals and birds
Fluoride <sup>c</sup> (mg/l)	No data <sup>d</sup>	0.15	No data <sup>d</sup>	N/A	1	Domestic water
FOG- <sup>b</sup> TPH (mg/l NWTPH-Dx)	2.75	No data <sup>d</sup>	0.21	No data <sup>d</sup>	30	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>c</sup> (MBAS, mg/l)	0.08	0.08	0.08	0.08	2	No known Port sources
Copper, total recoverable <sup>f</sup> (mg/l)	No data <sup>d</sup>	0.111	No data <sup>d</sup>	0.030	28	See TPH above
Lead, total recoverable <sup>f</sup> (mg/l)	No data <sup>d</sup>	0.043	No data <sup>d</sup>	0.003	28	See TPH above
Zinc, total recoverable <sup>f</sup> (mg/l)	No data <sup>d</sup>	0.189	No data <sup>d</sup>	0.045	28	See TPH above
Table notes						

- routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
- fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
- the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
- parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
- geometric mean
- data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
- data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
- This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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**Maximum data listed for each parameter occurred in samples from multiple storm events. The Port of Seattle's Annual Stormwater Reports (1999, 2000, and 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate

**Flow measurements are by stage-discharge equation for primary structure with level measured by ISCO 4230 (bubbler) flowmeter.**

**OUTFALL SDS5 (015)<sup>3</sup>**

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	0.08	N/A	0.08	No data <sup>2</sup>	5	service, construction and maintenance vehicle traffic
Biological Oxygen Demand (mg/l, BOD <sub>5</sub> )	No data <sup>2</sup>	<4	No data <sup>2</sup>	N/A	1	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	58	No data <sup>2</sup>	25	5	Roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.3	Maximum 7.7	Minimum	Maximum	4	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C.	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDS5 (015) <sup>a</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>d</sup>	70 <sup>d</sup>	No data <sup>d</sup>	4	small wild animals and birds
Fluoride <sup>e</sup> (mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	0.08	No data <sup>d</sup>	0.08	No data <sup>d</sup>	5	service, construction and maintenance vehicle traffic
Surfactants <sup>e</sup> (MBAS, mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Copper total recoverable <sup>1</sup> (mg/l)	No data <sup>d</sup>	0.014	No data <sup>d</sup>	0.010	5	See TPH above
Lead, total recoverable (mg/l)	No data <sup>d</sup>	0.003	No data <sup>d</sup>	<0.002	5	See TPH above
Zinc, total recoverable (mg/l)	No data <sup>d</sup>	0.129	No data <sup>d</sup>	0.037	5	See TPH above
Table notes						

1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
5. geometric mean
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
8. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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Maximum data listed for each parameter occurred in samples from multiple storm events. The Port of Seattle's Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.

7. Provide a description of the method of flow measurement or estimate.

Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.

# OUTFALL SDS6 (014)<sup>3</sup>

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	0.19	N/A	0.14	No data <sup>2</sup>	4	service, construction and maintenance vehicle traffic
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	<4	No data <sup>2</sup>	N/A	1	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	29	No data <sup>2</sup>	15	3	Roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.6	Maximum 7.4	Minimum	Maximum	3	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII A above. See Form 2C.	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

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Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
OUTFALL SDS6 (014) <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>2</sup>	367 <sup>3</sup>	No data <sup>2</sup>	4	small wild animals and birds
Fluoride <sup>4</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	0.19	No data <sup>2</sup>	0.14	No data <sup>2</sup>	4	service, construction and maintenance vehicle traffic
Surfactants <sup>4</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	0.013	No data <sup>2</sup>	0.008	3	See TPH above
Lead, total recoverable (mg/l)	No data <sup>2</sup>	0.007	No data <sup>2</sup>	0.003	3	See TPH above
Zinc, total recoverable (mg/l)	No data <sup>2</sup>	0.124	No data <sup>2</sup>	0.053	3	See TPH above
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
8. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
<b>Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.</b>						
7. Provide a description of the method of flow measurement or estimate. <b>Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.</b>						

**OUTFALL SDS7 (010)<sup>3</sup>**

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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**VII. Discharge Information (Continued from page 3 of Form 2F)**

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	3.8	N/A	0.64	No data <sup>2</sup>	7	service, construction and maintenance vehicle traffic
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	12	No data <sup>2</sup>	7	4	Roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 7.7	Maximum 7.9	Minimum	Maximum	3	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDS# (010) <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform <sup>2</sup> (MPN/100ml)	500	No data <sup>3</sup>	5 <sup>5</sup>	No data <sup>3</sup>	7	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>3</sup>	No data <sup>3</sup>	No data <sup>3</sup>	No data <sup>3</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	3.8	No data <sup>3</sup>	0.64	No data <sup>3</sup>	7	service, construction and maintenance vehicle traffic
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>3</sup>	No data <sup>3</sup>	No data <sup>3</sup>	No data <sup>3</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>3</sup>	0.028	No data <sup>3</sup>	0.010	4	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>3</sup>	<0.002	No data <sup>3</sup>	<0.002	4	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>3</sup>	0.010	No data <sup>3</sup>	0.007	4	See TPH above
Table notes						

1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
5. geometric mean
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
8. This current NPDES outfall discharges to Northwest Ponds and will be represented at the Northwest Pond outlet which consolidates multiple discharges

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.

7. Provide a description of the method of flow measurement or estimate.

Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.

**OUTFALL SDN1 (006)<sup>3</sup>**

EPA ID Number (copy from Item 1 of Form 1)

**WAD98098016**

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

**VII. Discharge Information (Continued from page 3 of Form 2F)**

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	4.9	N/A	1.7	No data <sup>2</sup>	32	Passenger, service, construction and maintenance vehicle traffic, vehicles on non-Port public roads
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	116	No data <sup>2</sup>	9.8	25	Ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	366	No data <sup>2</sup>	77	26	Public roadway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 5.1	Maximum 8.4	Minimum	Maximum	32	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)



Continued from the Front

**Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.**

OUTFALL SDN1 (006) <sup>8</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform <sup>1</sup> (MPN/100ml)	>1600	No data <sup>2</sup>	38 <sup>3</sup>	No data <sup>2</sup>	31	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	<0.05	No data <sup>2</sup>	N/A	1	N/A
FOG <sup>3</sup> TPH (mg/l. NWTPH-Dx)	4.9	No data <sup>2</sup>	1.7	No data <sup>2</sup>	32	Passenger, service, construction and maintenance vehicle traffic, vehicles on non- Port public roads
Surfactants <sup>4</sup> (MBAS, mg/l)	No data <sup>2</sup>	0.25	No data <sup>2</sup>	0.16	3	See Footnote 2
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	0.042	No data <sup>2</sup>	0.021	26	See TPH above
Lead, total recoverable (mg/l)	No data <sup>2</sup>	0.048	No data <sup>2</sup>	0.010	26	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	0.613	No data <sup>2</sup>	0.201	26	See TPH above, galvanized metal roofing material
Table notes						

- routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
- fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
- the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
- parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
- geometric mean
- data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
- data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
- This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharge.

**Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.**

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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**Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000, 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate.

**Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.**

# OUTFALL SDN2 (007)<sup>3,4</sup>

EPA ID Number (copy from Item 1 of Form 1)

**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

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

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH (mg/l. NWTPH-Dx)	1.1	N/A	0.28	No data <sup>2</sup>	8	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l. BOD5)	<4	No data <sup>2</sup>	<4	No data <sup>2</sup>	2	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	46	No data <sup>2</sup>	36	4	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. The drainage to this outfall is pumped to the IWS via two pump stations. Discharges to this storm drain outfall only occur if rainfall rates cause peak flows to exceed the pump design capacities (6-month, 24-hr event). Data listed are for samples from these rare bypass events. 4. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDN2 (007) <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	1.1	No data <sup>2</sup>	0.28	No data <sup>2</sup>	8	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above

**Table notes**

- routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
- fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
- the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
- parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
- geometric mean
- data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
- data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
- The drainage to this outfall is pumped to the IWS via two pump stations. Discharges to this storm drain outfall only occur if rainfall rates cause peak flows to exceed the pump design capacities (6-month, 24-hr event). Data listed are for samples from these rare bypass events.
- This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1.	2.	3.	4.	5.
Date of Storm Event	Duration of Storm Event (in minutes)	Total rainfall during storm event (in inches)	Number of hours between beginning of storm measured and end of previous measurable rain event	Total flow from rain event (gallons or specify units)

**Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate.

**Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.**

# OUTFALL SDN3 (008)<sup>3</sup>

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

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

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPh-Dx)	0.20	N/A	0.10	No data <sup>2</sup>	7	construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	222	No data <sup>2</sup>	81	No data <sup>2</sup>	3	ground surface deicing,
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	12	No data <sup>2</sup>	6.3	4	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.5	Maximum 7.7	Minimum	Maximum	6	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall						
OUTFALL SDN3 (008) <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	240	No data <sup>2</sup>	6 <sup>3</sup>	No data <sup>2</sup>	7	small wild animals and birds
Fluoride <sup>4</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
FOG <sup>5</sup> TPH (mg/l, NWTPH-Dx)	1.1	No data <sup>2</sup>	0.28	No data <sup>2</sup>	8	construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>4</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	0.020	No data <sup>2</sup>	0.012	5	See TPH above
Lead, total recoverable (mg/l)	No data <sup>2</sup>	0.010	No data <sup>2</sup>	0.003	5	See TPH above
Zinc, total recoverable (mg/l)	No data <sup>2</sup>	0.089	No data <sup>2</sup>	0.047	5	See TPH above
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
8. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 20001) list rainfall and flow estimates for events sampled.						
7. Provide a description of the method of flow measurement or estimate.						
Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.						

**OUTFALL SDN4 (011)<sup>3</sup>**

EPA ID Number (copy from Item 1 of Form 1)

**WAL98098016**

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**VII. Discharge Information (Continued from page 3 of Form 2F)**

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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	1.6	N/A	0.17	No data <sup>2</sup>	31	construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	168	No data <sup>2</sup>	13	27	ground surface deicing,
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	188	No data <sup>2</sup>	13.2	26	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.7	Maximum 9.3	Minimum	Maximum	30	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

**AR 027130**

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDN4 ( 011) <sup>9</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	>1600	No data <sup>4</sup>	8 <sup>5</sup>	No data <sup>4</sup>	29	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	1.6	No data <sup>4</sup>	0.17	No data <sup>4</sup>	31	construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>4</sup>	0.19	No data <sup>4</sup>	No data <sup>4</sup>	1	See Footnote 2
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.052	No data <sup>4</sup>	0.028	27	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.006	No data <sup>4</sup>	<0.002	27	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.127	No data <sup>4</sup>	0.027	27	See TPH above
Table notes						

1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)
5. geometric mean
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).
8. This current NPDES outfall discharges to the Lake Reba detention facility and will be represented at the Lake Reba outlet (006) which consolidates multiple discharges

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1.	2.	3.	4.	5.
Date of Storm Event	Duration of Storm Event (in minutes)	Total rainfall during storm event (in inches)	Number of hours between beginning of storm meas- ured and end of previous measurable rain event	Total flow from rain event (gallons or specify units)

**Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.**

7. Provide a description of the method of flow measurement or estimate.

**Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.**

# OUTFALL SDS4 (009)

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	0.17	N/A	0.11	No data <sup>2</sup>	4	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	10.5	No data <sup>2</sup>	6.3	2	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	36	No data <sup>2</sup>	15	3	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 6.8	Maximum 7.5	Minimum	Maximum	4	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)



Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
OUTFALL SDS# (009) Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	900	No data <sup>5</sup>	59 <sup>5</sup>	No data <sup>5</sup>	4	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>5</sup>	No data <sup>5</sup>	No data <sup>5</sup>	No data <sup>5</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	0.17	No data <sup>5</sup>	0.11	No data <sup>5</sup>	4	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>5</sup>	No data <sup>5</sup>	No data <sup>5</sup>	No data <sup>5</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>5</sup>	0.029	No data <sup>5</sup>	0.020	4	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>5</sup>	<0.002	No data <sup>5</sup>	<0.002	4	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>5</sup>	0.036	No data <sup>5</sup>	0.018	4	See TPH above
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.						
7. Provide a description of the method of flow measurement or estimate. Flow measurements are by ISCO 4150 area-velocity Doppler flowmeter.						

# OUTFALL EY (012)

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

<b>VII. Discharge Information (Continued from page 3 of Form 2F)</b>						
<b>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</b>						
Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH (mg/l, NWTPH-Dx)	1.8	N/A	1.2	No data <sup>2</sup>	6	Passenger, construction and maintenance vehicle traffic, and parking
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	24	No data <sup>2</sup>	N/A	1	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	128	No data <sup>2</sup>	71	6	Roadway and parking area aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum 7.7	Maximum 7.7	Minimum	Maximum	1	
Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
<b>Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.</b>						
Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
OUTFALL EY (012) Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform <sup>1</sup> (MPN/100ml)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	N/A
Fluoride <sup>4</sup> (mg/l)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	N/A
FOG <sup>3</sup> TPH (mg/l. NWTPH-Dx)	1.8	No data <sup>4</sup>	1.2	No data <sup>4</sup>	6	Passenger, construction and maintenance vehicle traffic, and parking
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	No data <sup>4</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.020	No data <sup>4</sup>	N/A	1	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.026	No data <sup>4</sup>	N/A	1	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>4</sup>	0.179	No data <sup>4</sup>	N/A	1	See TPH above
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1).						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.						
7. Provide a description of the method of flow measurement or estimate.						
Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.						

# OUTFALL TY (013)<sup>3</sup>

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	8.3	N/A	2.7	No data <sup>2</sup>	8	Passenger, construction and maintenance vehicle traffic, and parking
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	660	No data <sup>2</sup>	132	6	Roadway and parking area aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, Construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1). 3. This current NPDES outfall discharges to the Port's SDE1 system and will be represented at the final subbasin outlet (013) which consolidates subbasin SDE1 discharges

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	See VII A (above)	See VII A (above)	See VII A (above)	See VII A (above)	See VII A	See VII A (above)

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
OUTFALL TY (013) <sup>a</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Fluoride <sup>e</sup> (mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
FOG <sup>f</sup> TPH (mg/l, NWTPH-Dx)	8.3	No data <sup>d</sup>	2.7	No data <sup>d</sup>	8	Passenger, construction and maintenance vehicle traffic, and parking
Surfactants <sup>g</sup> (MBAS, mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Copper, total recoverable <sup>h</sup> (mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Lead, total recoverable <sup>h</sup> (mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Zinc, total recoverable <sup>h</sup> (mg/l)	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	No data <sup>d</sup>	N/A	N/A
Table notes						
1. routine stormwater monitoring parameter required for this outfall by NPDES permit (WA-002465-1)						
2. fluoride and surfactants are not required stormwater monitoring parameters in the current NPDES permit (WA-002465-1). These parameters have been analyzed for special source-tracing studies on an as-needed basis at certain outfalls.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						
4. parameter/sample type not required for stormwater monitoring in current NPDES permit (WA-002465-1)						
5. geometric mean						
6. data for other parameters have been previously submitted to the Washington Department Ecology in Discharge Monitoring Reports (DMRs) and Annual Stormwater Monitoring Reports according to the NPDES permit requirements (WA-002465-1)						
7. data listed are for storm runoff event samples in the period 10/15/98 through 10/15/01 that met the reporting criteria of the NPDES permit (WA-002465-1) and the Port of Seattle's Procedure Manual for Stormwater Monitoring (NPDES permit Special Condition S2.B).						
8. This current NPDES outfall discharges to the Port's SDE1 system and will be represented at the final subbasin outlet (013) which consolidates subbasin SDE1 discharges						
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.						
1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)		
Maximum data listed for each parameter occurred in samples from multiple storm events. The Annual Stormwater Reports (1999, 2000 and 2001) list rainfall and flow estimates for events sampled.						
7. Provide a description of the method of flow measurement or estimate.						
Flow measurements are by Manning equation in round pipe with level measured by ISCO 4230 (bubbler) flowmeter.						

# OUTFALL SDW 1A

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

Form Approved OMB No 2040-0086  
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## VII. Discharge Information (Continued from page 3 of Form 2F)

**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

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum	Maximum	Minimum	Maximum	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste treatment plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>

Table notes: 1. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDW1A Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Table notes						

1. future outfall
2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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*N/A but data are expected to be similar to those for outfall 005 (SDS3).*

7. Provide a description of the method of flow measurement or estimate

*N/A but method used to measure flow from outfall 005 (SDS3) will be used.*

# OUTFALL SDW 1B

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum	Maximum	Minimum	Maximum	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

**Part B** - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>

Table notes: 1. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.



Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDW1B <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
<b>Table notes</b>						
1. future outfall						
2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.						
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.						

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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*N/A but data are expected to be similar to those for outfall 005 (SDS3).*

7. Provide a description of the method of flow measurement or estimate.

*N/A but method used to measure flow from outfall 005 (SDS3) will be used.*

# OUTFALL SDW2

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l. NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l. BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l. TSS)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum No Data <sup>2</sup>	Maximum	Minimum	Maximum	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>

Table notes: 1Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall

OUTFALL SDW2 <sup>1</sup> Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	domestic water
FOG <sup>2</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Table notes						

1. future outfall
2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.
3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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**N/A but data are expected to be similar to those for outfall 005 (SDS3).**

7. Provide a description of the method of flow measurement or estimate.

**N/A but method used to measure flow from outfall 005 (SDS3) will be used.**

# OUTFALL SDW3<sup>3</sup>

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	N/A
Total Phosphorus	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	N/A
PH (std units)	Minimum	Maximum	Minimum	Maximum	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future discharge will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar. 3. This future discharge will drain to the NW Ponds and will be represented at the Northwest Ponds outlet which consolidates multiple discharges

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>

Table notes: 1. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDW3 Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Table notes						

1. future discharge!

2. Future discharge will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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*N/A but data are expected to be similar to those for outfall 005 (SDS3).*

7. Provide a description of the method of flow measurement or estimate.

*N/A but method used to measure flow from outfall 005 (SDS3) will be used.*

# OUTFALL SASA POND

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

## VII. Discharge Information (Continued from page 3 of Form 2F)

**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.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Total Phosphorus	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
PH (std units)	Minimum	Maximum	Minimum	Maximum	N/A	

Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future outfall will have land uses (roadways, parking lots and rooftops) similar to 002 (SDE4), therefore pollutant concentrations will be similar.

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>

Table notes: 1. Future outfall will have land uses (runways and taxiways) identical to 002 (SDE4), therefore pollutant concentrations will be similar.

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SASA Pond Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	See TPH above
Lead, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	No data <sup>1</sup>	N/A	See TPH above
Table notes						

1. future outfall

2. Future outfall will have land uses (roadways, parking lots and roof tops) similar to 002 (SDE4), therefore pollutant concentrations will be similar.

3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
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*N/A but data are expected to be similar to those for outfall 002 (SDE4).*

7. Provide a description of the method of flow measurement or estimate.

*N/A but method used to measure flow from outfall 002 (SDE4) will be used.*

# OUTFALL SDN 3A

EPA ID Number (copy from Item 1 of Form 1)  
**WAD98098016**

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

<b>VII. Discharge Information (Continued from page 3 of Form 2F)</b>						
<b>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.</b>						
Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease TPH <sup>1</sup> (mg/l, NWTPH-Dx)	No data <sup>a</sup>	N/A	No data <sup>a</sup>	No data <sup>a</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Biological Oxygen Demand (mg/l, BOD5)	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	N/A	ground surface deicing
Chemical Oxygen Demand (COD)	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	N/A	N/A
Total Suspended Solids (mg/l, TSS)	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	N/A	Runway/taxiway aggregate wear, ground surface deicing abrasives (sand), atmospheric deposition, construction
Total Organic Nitrogen	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	N/A	N/A
Total Phosphorus	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	N/A	N/A
PH (std units)	Minimum	Maximum	Minimum	Maximum	N/A	
Table notes: 1. total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998. 2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.						
<b>Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.</b>						
Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
All of the pollutants with effluent limitations for the Industrial Waste Treatment Plant's discharge (outfall 001) in the current NPDES permit for Sea-Tac International Airport are listed in Part VII. A above. See Form 2C	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>	No data <sup>a</sup>

Table notes: 1. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.



Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

OUTFALL SDN3A Pollutant And CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Fecal coliform (MPN/100ml)	No data <sup>1</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	small wild animals and birds
Fluoride <sup>2</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	domestic water
FOG <sup>3</sup> TPH (mg/l, NWTPH-Dx)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	service, construction and maintenance vehicle traffic, aircraft taxiing and landing
Surfactants <sup>2</sup> (MBAS, mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	N/A
Copper, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Lead, total recoverable (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Zinc, total recoverable <sup>1</sup> (mg/l)	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	No data <sup>2</sup>	N/A	See TPH above
Table notes						

1. future outfall

2. Future outfall will have land uses (runways and taxiways) identical to 005 (SDS3), therefore pollutant concentrations will be similar.

3. the total petroleum hydrocarbons (TPH) parameter replaced oil and grease (FOG) when the current NPDES permit was renewed in 1998.

**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event (gallons or specify units)
---------------------------------	--	---	--	---

*N/A but data are expected to be similar to those for outfall 005 (SDS3).*

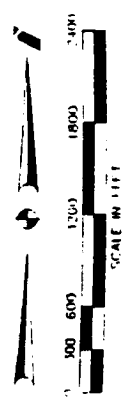
7. Provide a description of the method of flow measurement or estimate

*N/A but method used to measure flow from outfall 005 (SDS3) will be used.*

AR 027150

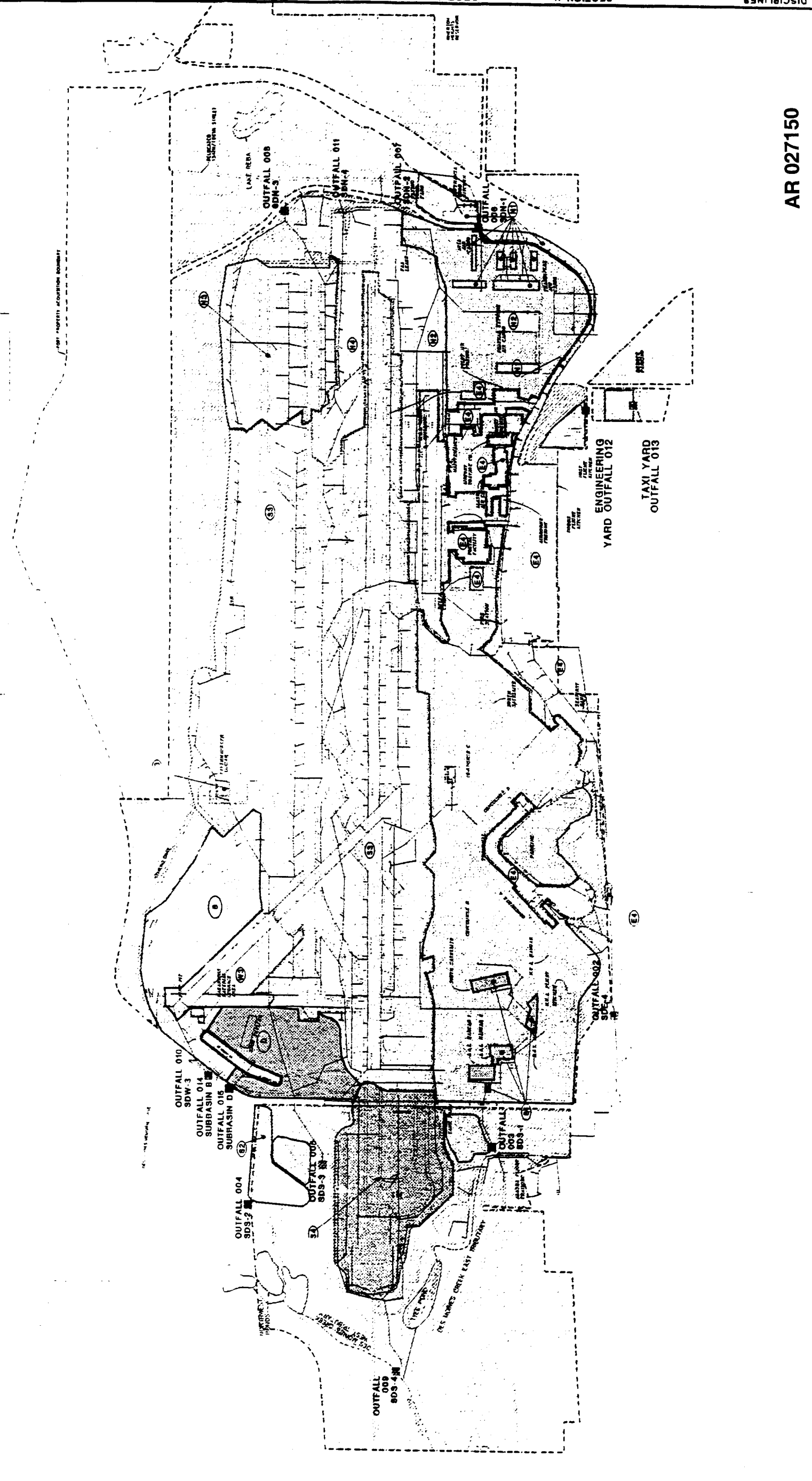
PORT OF SEATTLE

COMPREHENSIVE STORM DRAINAGE SYSTEM PLAN AND DESIGN  
DRAINAGE BASINS



PERFORATED PIPE  
STORM WATER SYSTEM  
STRUCTURE OUTLINE  
PROPERTY BOUNDARY  
PORT PROPERTY  
ACQUISITION BOUNDARY

MANHOLE  
SOUTH SIDE  
TEMPORARY  
STORM WATER CULVERT  
FLOW DIRECTION



REVISIONS

NO.	DATE	DESCRIPTION

STORMWATER DRAINAGE BASIN COLOR CODES:

(N1) SDN1	(S1) SDS1	(W3) SDW3	(IWS)
(N2) SDN2	(S3) SDS3	(S3) B	
(N3) SDN3	(S4) SDS4	(S3) D	
(N4) SDN4	(E2) SDE4	(S3) SDS2	
			(NON-INDUSTRIAL ACTIVITY)

OUTFALL LOCATION

DATE: 10/15/87  
SCALE: AS SHOWN

MH 419  
RIM=404.66  
IE=393.81

MH 485  
RIM=429.60  
IE=423.98

MATCHLINE SEE FIG G-4

AR 027151

Date  
JULY 200  
Project

Port of Seattle Seattle-Tacoma International Airport  
WATER AND SEWER SYSTEM PLANS  
SEWER SYSTEM PLAN DETAIL 2



6-

MH 9382  
RIM=433.58  
IE=427.50

MH 9381  
RIM=431.75  
IE=425.57

MH 380  
RIM=430.06  
IE=424.42

MH 9179  
RIM=428.57  
IE=423.02

MH 9378  
RIM=426.91  
IE=421.63

MH 9377  
RIM=420.00  
IE=417.00

MH 9379  
RIM=428.60  
IE=415.67

MH 9376  
RIM=428.00  
IE=417.92

MH 380  
RIM=426.75  
IE=409.15

MH 375  
RIM=427.21  
IE=409.00

MH 207  
RIM=425.76  
IE=413.02

MH 9350  
RIM=413.66  
IE=400.30

MH 360  
RIM=412.75  
IE=402.12

MH 345  
RIM=399.86  
IE=393.41

MH 340  
RIM=399.27  
IE=391.31

MH 365  
RIM=423.18  
IE=407.48

MH 355  
RIM=408.50  
IE=398.93

MH 390  
RIM=428.12  
IE=410.00

MH 385  
RIM=426.79  
IE=409.19

MH 400  
RIM=431.8  
IE=411.99

MH 395  
RIM=429.40  
IE=410.31

MH 195  
RIM=403.43  
IE=412.62

MH 9405  
RIM=433.19  
IE=419.27

MH 406  
RIM=434.83  
IE=413.75

MH 407  
RIM=435.89  
IE=414.00

MH 1035  
RIM=454.53  
IE=451.53

MH 1040  
RIM=454.00  
IE=450.00

MH 1030  
RIM=454.06  
IE=449.50

MH 1025  
RIM=453.99  
IE=449.00

MH 1020  
RIM=453.88  
IE=448.38

MH 1015  
RIM=454.48  
IE=443.58

MH 1010  
RIM=453.44  
IE=442.44

MH 1005  
RIM=443.09  
IE=437.46

MH 410  
RIM=440.00  
IE=414.49

MH 9406  
RIM=433.91  
IE=400.00

MH 415  
RIM=432.10  
IE=416.22

MH 420  
RIM=431.20  
IE=417.36

MH 435  
RIM=428.40  
IE=419.19

MH 440  
RIM=428.10  
IE=419.92

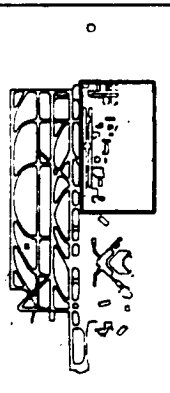
MH 445  
RIM=428.00  
IE=420.58

MH 430  
RIM=429.70  
IE=418.40

MH 425  
RIM=430.20  
IE=417.80

MH 1000  
RIM=419.39  
IE=410.06

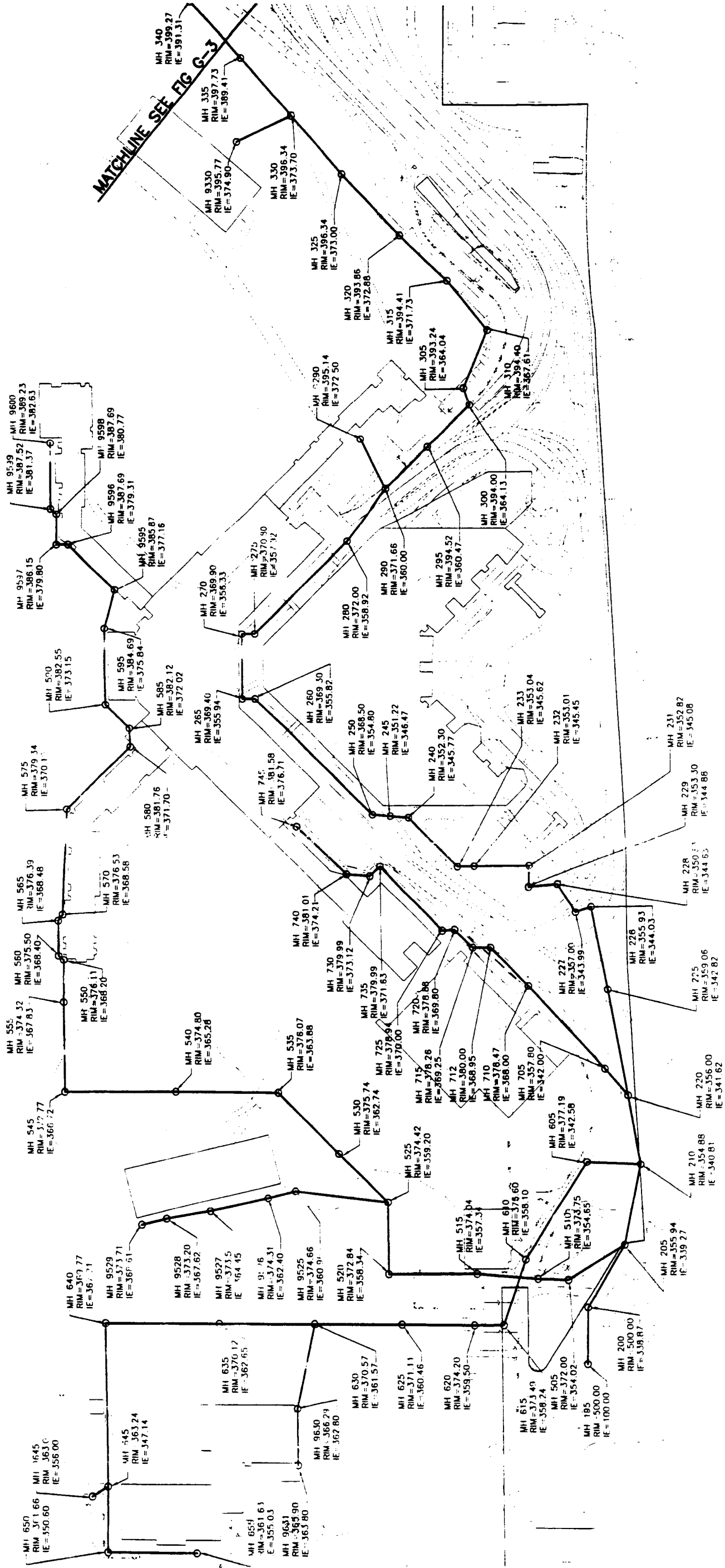
MATCHLINE SEE FIG G-2



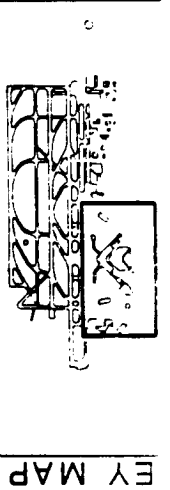
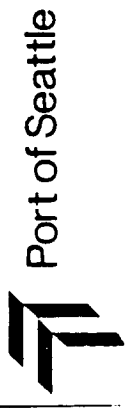
KEY MAP



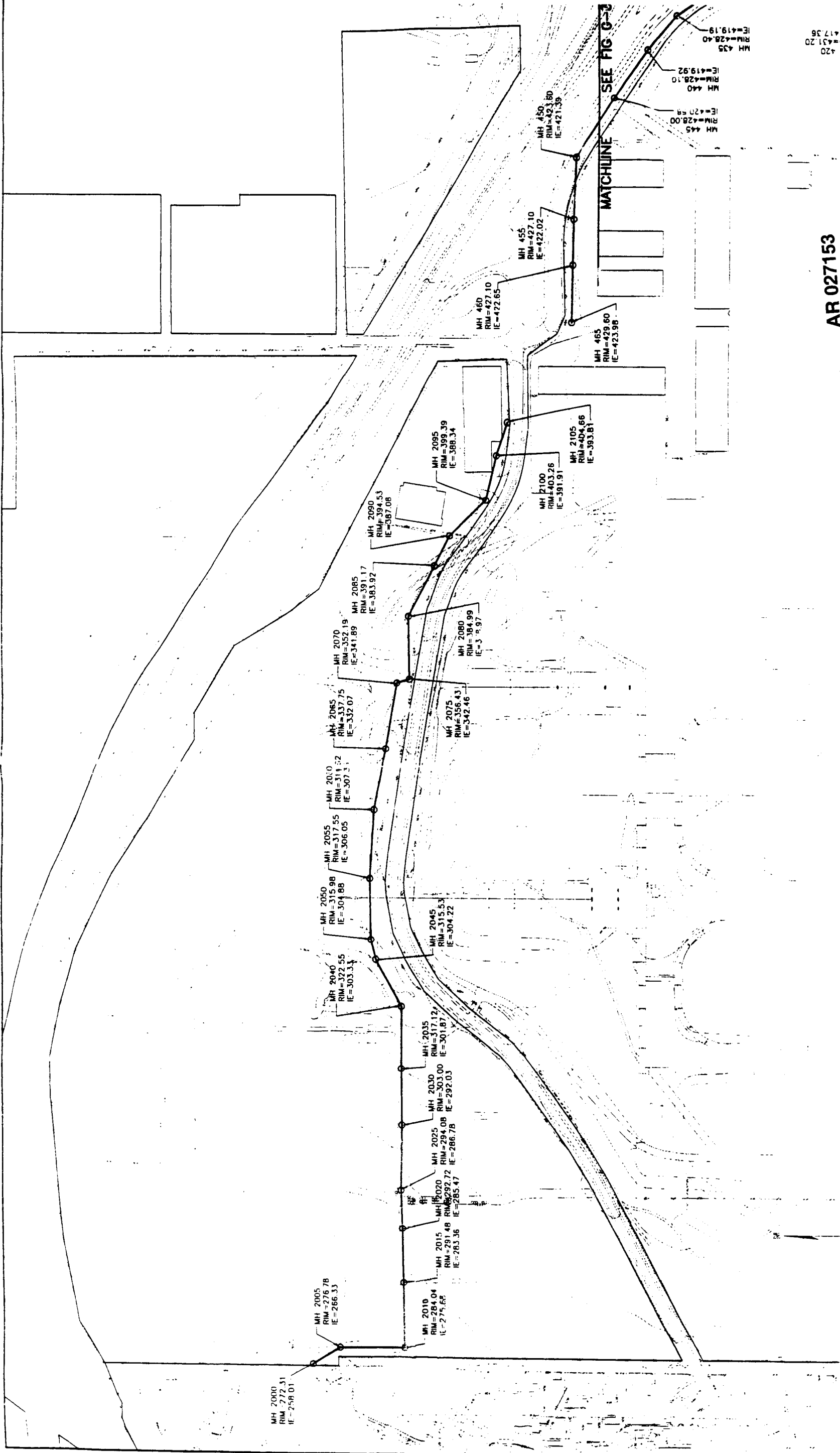
HDR CORPORATION



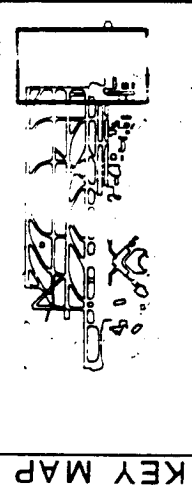
AR 027152



FDR



AR 027153



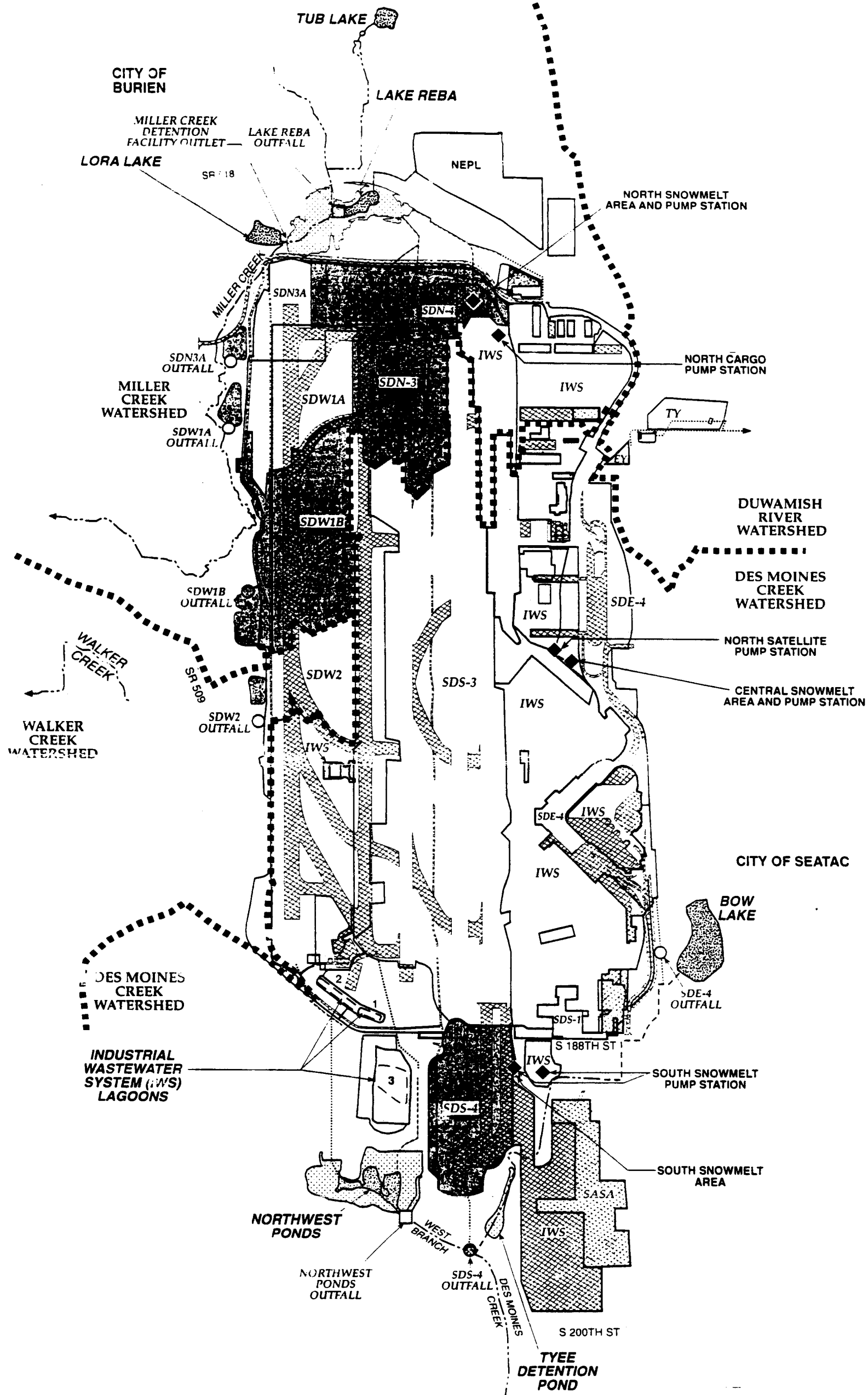
KEY MAP



Part of Seattle Seattle Tacoma International Airport  
WATER AND SEWER SYSTEM PLANS

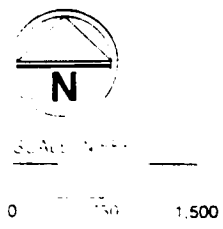
SEWER SYSTEM PLAN DETAIL 3

Date: JULY 2000  
Drawing: G



Map Date: Dec 2001

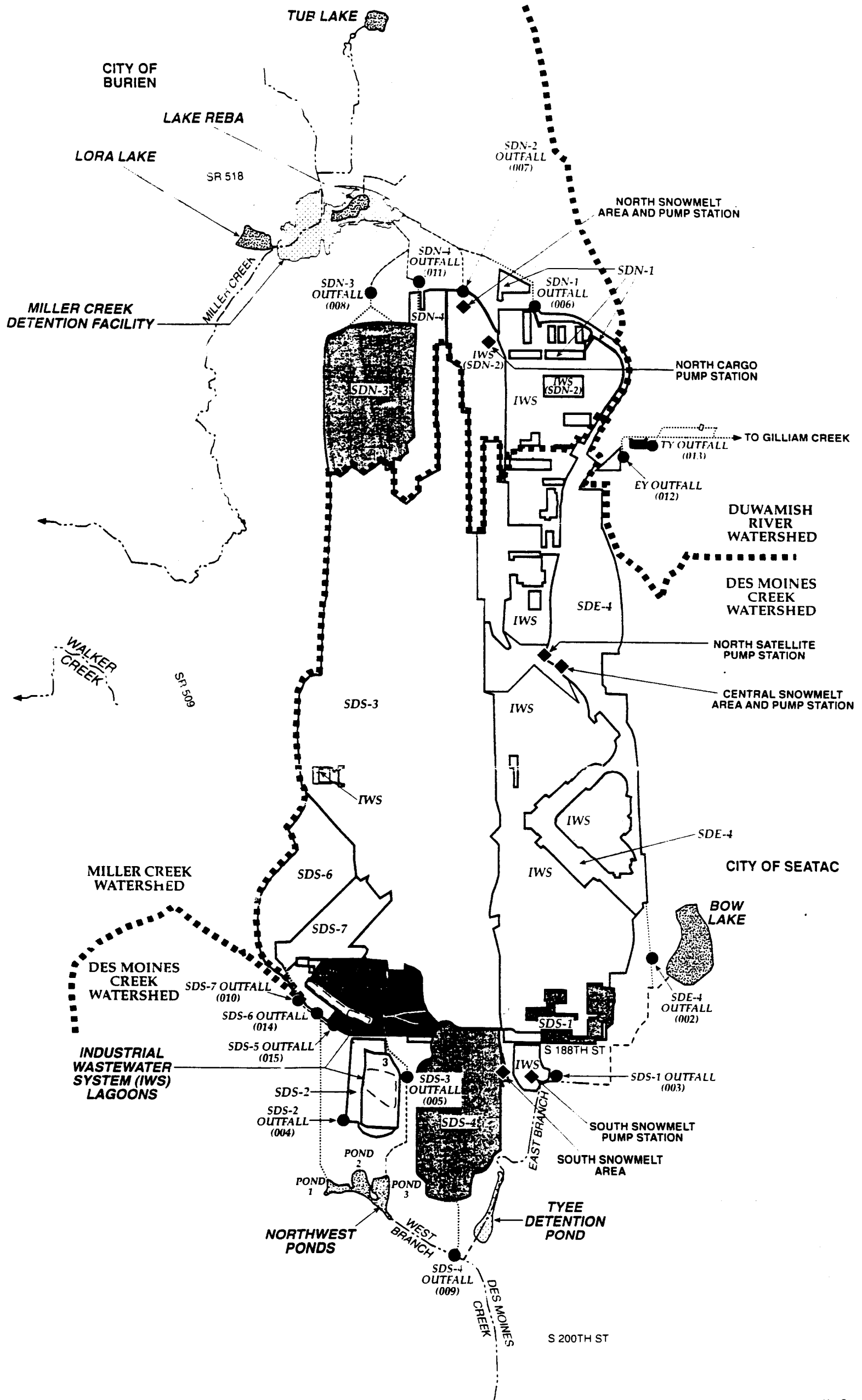
Sea-Tac Airport Stormwater Management Plan 556-2912-001/01(61A) 12/01 (K)



- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>— Sea-Tac Airport Drainage Basin Boundary</li> <li>SDS-3 Sea-Tac Airport Drainage Basin Name</li> <li>--- Stream</li> <li>- - - Piped Stream</li> <li>..... Pipe (only connections between subbasins and outfalls shown)</li> </ul> | <ul style="list-style-type: none"> <li> Proposed Stormwater Facilities</li> <li> Permanent Water Features</li> <li> Live Storage Pool Area</li> <li> Watershed Divide</li> <li> Drainage Channel</li> </ul> | <ul style="list-style-type: none"> <li> New Impervious Surfaces</li> <li> Snowmelt Pump Station</li> <li> Consolidated Outfall</li> <li> Monitoring Location</li> </ul> |
|--|---|---|

**Proposed NPDES Drainage Subbasins, Snowmelt Areas and Pump Stations, and Permitted Outfalls**

AR 027154



Map Date: Dec 2001

Sea-Tac Airport Stormwater Management Plan/556-2912-001/01(61A) 12/01 (K)

- |         |  |       |                          |
|---------|--|-------|--------------------------|
| —       | Sea-Tac Airport Drainage Basin Boundary                      |       | Permanent Water Features |
| SDS-1   | SeaTac Airport Drainage Basin Name                           |       | Live Storage Pool Area   |
| ---     | Stream   | ----- | Watershed Divide         |
| - - - - | Piped Stream   | —     | Drainage Channel         |
| .....   | Pipe (only connections between subbasins and outfalls shown) | ◆     | Snowmelt Pump Station    |
|         |  | ●     | Monitoring Location      |

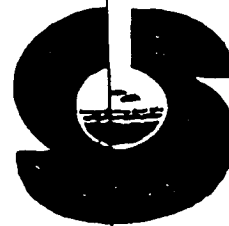
**Existing NPDES Drainage Subbasins, Snowmelt Areas and Pump Stations, and Permitted Outfalls**

SCALE IN FEET  
0 750 1500



AR 027155

**Sound Analytical Services, Inc.**  
ANALYTICAL & ENVIRONMENTAL CHEMISTS  
4813 Pacific Hwy East Tacoma, WA 98424  
(253) 922-2310 FAX (253) 922-5047  
e-mail: info@sasiah.com



**TRANSMITTAL MEMORANDUM**

DATE: December 13, 2001

TO: Al Audette  
Port of Seattle - Maintenance Dept.  
P.O. Box 68747  
Seattle, WA 98168

PROJECT: DMR

REPORT NUMBER: 95023

Enclosed are the revised test results for one sample received at Sound Analytical Services on December 27, 2000. Please replace the pages from the originally submitted report with the enclosed pages.

The originally submitted results for 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene were reported incorrectly. Due to an undetected retention time shift that occurred during the initial calibration associated with your sample analyses, 1,2,4-trimethylbenzene was reported as 1,3,5-trimethylbenzene and 1,3,5-trimethylbenzene was reported as isopropylbenzene. Unfortunately, this error was not discovered until October 2001. All affected data are in the process of being reviewed, and revised results are being submitted as they become available. Results for other reported analytes are not affected.

Please accept our sincerest apologies for this oversight. At STL Seattle, high quality data and impeccable customer service are our top priorities. I can assure you that this was an isolated incident, and in order to ensure that this type of error does not happen again, we have implemented new data review procedures.

I apologize for any inconvenience this reporting error may have caused. Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Terri Howard  
Project Manager

AR 027156



# STL Seattle

Client Name	Port of Seattle - Maintenance Dept.
Client ID:	DEC-300-EFF
Lab ID:	95023-01
Date Received:	12/27/00
Date Prepared:	12/28/00
Date Analyzed:	12/28/00
% Solids	-
Dilution Factor	1

## Volatile Organics by USEPA Method 8260

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	104		84	115
Fluorobenzene	103		82	108
Toluene-D8	101		95	106
Ethylbenzene-d10	91.4		90	111
Bromofluorobenzene	92		81	113

Analyte	Result (ug/L)	PQL	MDL	Flags
Dichlorodifluoromethane	ND	0.4	0.0227	
Chloromethane	ND	0.4	0.0312	
Vinyl chloride	ND	0.4	0.0193	
Bromomethane	ND	0.4	0.0503	
Chloroethane	ND	0.4	0.122	
Trichlorofluoromethane	ND	0.4	0.0225	
1,1-Dichloroethene	ND	0.4	0.0824	
Acrolein	25.8	2	0.052	
Methylene chloride	0.192	0.4	0.0492	J
trans-1,2-Dichloroethene	ND	0.4	0.0518	
Acrylonitrile	ND	2	0.107	
1,1-Dichloroethane	ND	0.4	0.0358	
2,2-Dichloropropane	ND	0.4	0.075	
cis-1,2-Dichloroethene	ND	0.4	0.0553	
Bromochloromethane	ND	0.4	0.0444	
Chloroform	0.663	0.4	0.0516	
1,1,1-Trichloroethane	ND	0.4	0.0759	
Carbon Tetrachloride	ND	0.4	0.0527	
1,1-Dichloropropane	ND	0.4	0.0499	
Benzene	1.99	0.4	0.0319	
1,2-Dichloroethane	ND	0.4	0.0319	
Trichloroethene	ND	0.4	0.0587	
1,2-Dichloropropane	ND	0.4	0.0498	
Dibromomethane	ND	0.4	0.024	
Bromodichloromethane	ND	0.4	0.0324	
cis-1,3-Dichloropropene	ND	0.4	0.0373	

AR 027157

# STL Seattle

Volatile Organics by USEPA Method 8260 data for 95023-01 continued...

Analyte	Result (ug/L)	PQL	MDL
Toluene	23.8	0.4	0.0357
trans-1,3-Dichloropropene	ND	0.4	0.0307
1,1,2-Trichloroethane	ND	0.4	0.0479
Tetrachloroethene	ND	0.4	0.0549
1,3-Dichloropropane	ND	0.4	0.0276
Dibromochloromethane	ND	0.4	0.0479
1,2-Dibromoethane	ND	0.4	0.0743
Chlorobenzene	0.0489	0.4	0.0475
Ethylbenzene	7.83	0.4	0.0318
1,1,1,2-Tetrachloroethane	ND	0.4	0.0401
m,p-Xylene	34.4	0.8	0.087
o-Xylene	18.4	0.4	0.0432
Styrene	ND	0.4	0.0372
Bromoform	ND	0.4	0.0455
Isopropylbenzene	0.814	0.4	0.0473
Bromobenzene	ND	0.4	0.0449
n-Propylbenzene	2.34	0.4	0.0668
1,1,2,2-Tetrachloroethane	ND	0.4	0.0705
1,2,3-Trichloropropane	ND	0.4	0.0787
2-Chlorotoluene	ND	0.4	0.0544
1,3,5-Trimethylbenzene	8.66	0.4	0.0473
4-Chlorotoluene	ND	0.4	0.0635
t-Butylbenzene	ND	0.4	0.0786
1,2,4-Trimethylbenzene	27.5	0.4	0.0523
sec-Butylbenzene	0.667	0.4	0.0632
1,3-Dichlorobenzene	ND	0.4	0.0589
4-Isopropyltoluene	0.938	0.4	0.0478
1,4-Dichlorobenzene	ND	0.4	0.0546
n-Butylbenzene	ND	0.4	0.053
1,2-Dichlorobenzene	ND	0.4	0.0438
1,2-Dibromo-3-chloropropane	ND	0.4	0.129
1,2,4-Trichlorobenzene	ND	0.4	0.0852
Hexachlorobutadiene	ND	0.4	0.115
Naphthalene	12	0.4	0.0914
1,2,3-Trichlorobenzene	ND	0.4	0.0862

AR 027158

# STL Seattle

Client Name	Port of Seattle - Maintenance Dept.
Client ID:	DEC-300-EFF
Lab ID:	95023-01
Date Received:	12/27/00
Date Prepared:	12/28/00
Date Analyzed:	12/28/00
% Solids	-
Dilution Factor	10

## Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	95.1		48	150
2 - Fluorobiphenyl	93.8		59	126
p - Terphenyl - d14	106		48	137
Phenol - d5	29.6		11	67
2 - Fluorophenol	45.3		17	113
2,4,6 - Tribromophenol	99.1		54	151

Analyte	Result (ug/L)	PQL	MDL	Flags
Phenol	5.38 ✓	0.952 ✓	0.305	
bis(2-Chloroethyl) ether	ND ✓	0.952 ✓	0.181	
2-Chlorophenol	ND ✓	0.952 ✓	0.162	
1,3-Dichlorobenzene	ND ✓	0.952 ✓	0.162	
1,4-Dichlorobenzene	ND ✓	0.952 ✓	0.143	
Benzyl Alcohol	1.17 ✓	0.952 ✓	0.305	
1,2-Dichlorobenzene	ND ✓	0.952 ✓	0.152	
2-Methylphenol	0.581 ✓	0.952 ✓	0.229	J
bis(2-Chloroisopropyl) ether	ND ✓	0.952 ✓	0.2	
3- & 4-Methylphenol	3.46 ✓	0.952 ✓	0.219	
N-nitroso-di-n-propylamine	ND ✓	0.952 ✓	0.2	
Hexachloroethane	ND ✓	0.952 ✓	0.381	
Nitrobenzene	ND ✓	0.952 ✓	0.429	
Isophorone	ND ✓	0.952 ✓	0.171	
2-Nitrophenol	ND ✓	0.952 ✓	0.21	
2,4-Dimethylphenol	ND ✓	0.952 ✓	0.143	
Benzoic Acid	ND ✓	4.76 ✓	0.19	
bis(2-Chloroethoxy)methane	ND ✓	0.952 ✓	0.171	
2,4-Dichlorophenol	ND ✓	0.952 ✓	0.143	
1,2,4-Trichlorobenzene	ND ✓	0.952 ✓	0.152	
Naphthalene	10.8 -	0.0952 ✓	0.0208	
4-Chloroaniline	ND ✓	0.952 ✓	0.371	
Hexachlorobutadiene	ND ✓	0.952 ✓	0.276	
4-Chloro-3-methylphenol	ND ✓	0.952 ✓	0.514	
2-Methylnaphthalene	16.4 ✓	0.0952 ✓	0.0145	
Hexachlorocyclopentadiene	ND ✓	0.476 -	0.248	

AR 027159

# STL Seattle

Semivolatile Organics by USEPA Method 8270 data for 95023-01 continued...

Analyte	Result (ug/L)	PQL	MDL
2,4,6-Trichlorophenol	ND	0.952	0.114
2,4,5-Trichlorophenol	ND	0.952	0.105
2-Chloronaphthalene	ND	0.0952	0.013
2-Nitroaniline	ND	0.952	0.171
Dimethylphthalate	7.09	0.952	0.152
Acenaphthylene	ND	0.0952	0.0145
2,6-Dinitrotoluene	ND	0.952	0.19
3-Nitroaniline	ND	0.952	0.314
Acenaphthene	ND	0.0952	0.015
2,4-Dinitrophenol	ND	2.38	0.286
4-Nitrophenol	ND	2.38	0.276
Dibenzofuran	0.448	0.952	0.133
2,4-Dinitrotoluene	0.238	0.952	0.124
Diethylphthalate	0.762	2.38	0.552
4-Chlorophenylphenylether	ND	0.952	0.143
Fluorene	0.752	0.0952	0.013
4-Nitroaniline	ND	0.952	0.295
4,6-Dinitro-2-methylphenol	ND	2.38	0.21
N-Nitrosodiphenylamine	ND	0.952	0.0952
4-Bromophenylphenylether	ND	0.952	0.114
Hexachlorobenzene	ND	0.952	0.19
Pentachlorophenol	ND	0.952	0.162
Phenanthrene	0.505	0.0952	0.0212
Anthracene	ND	0.0952	0.0145
Di-n-butylphthalate	ND	4.76	2.2
Fluoranthene	ND	0.0952	0.0179
Pyrene	ND	0.0952	0.013
Butylbenzylphthalate	ND	4.76	1.78
3,3'-Dichlorobenzidine	ND	0.952	0.343
Benzo(a)anthracene	ND	0.0952	0.0417
Chrysene	ND	0.0952	0.0234
bis(2-Ethylhexyl)phthalate	0.933	0.952	0.619
Di-n-octylphthalate	ND	0.952	0.324
Benzo(a)fluoranthene	ND	0.19	0.0362
Benzo(b)fluoranthene	ND	0.0952	0.0276
Benzo(k)fluoranthene	ND	0.0952	0.0365
Benzo(a)pyrene	ND	0.0952	0.0447
Indeno(1,2,3-cd)pyrene	ND	0.0952	0.029
Dibenz(a,h)anthracene	ND	0.0952	0.0256
Benzo(g,h,i)perylene	ND	0.0952	0.0326
N-nitrosodimethylamine	ND	2.38	0.314
Benzidine	ND	2.38	0.229
1,2-Diphenylhydrazine	ND	0.952	0.267

J  
J  
J

J

AR 027160

# STL Seattle

Lab ID: Method Blank - HP0033  
 Date Received: -  
 Date Prepared: 12/28/00  
 Date Analyzed: 12/28/00  
 % Solids: -  
 Dilution Factor: 1

## Volatile Organics by USEPA Method 5030/8260B Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	105		84	115
Fluorobenzene	105		82	108
Toluene-D8	98.7		95	106
Ethylbenzene-d10	90.7		90	111
Bromofluorobenzene	91.8		81	113

Analyte	Result (ug/L)	PQL	MDL	Flags
Dichlorodifluoromethane	ND	0.4	0.0227	
Chloromethane	ND	0.4	0.0312	
Vinyl chloride	ND	0.4	0.0183	
Bromomethane	ND	0.4	0.0503	
Chloroethane	ND	0.4	0.122	
Trichlorofluoromethane	ND	0.4	0.0225	
1,1-Dichloroethene	ND	0.4	0.0824	
Acrolein	ND	2	0.052	
Methylene chloride	ND	0.4	0.0492	
trans-1,2-Dichloroethene	ND	0.4	0.0518	
Acrylonitrile	ND	2	0.107	
1,1-Dichloroethane	ND	0.4	0.0358	
2,2-Dichloropropane	ND	0.4	0.075	
cis-1,2-Dichloroethane	ND	0.4	0.0553	
Bromochloromethane	ND	0.4	0.0444	
Chloroform	ND	0.4	0.0516	
1,1,1-Trichloroethane	ND	0.4	0.0759	
Carbon Tetrachloride	ND	0.4	0.0527	
1,1-Dichloropropene	ND	0.4	0.0499	
Benzene	ND	0.4	0.0319	
1,2-Dichloroethane	ND	0.4	0.0319	
Trichloroethene	ND	0.4	0.0597	
1,2-Dichloropropane	ND	0.4	0.0498	
Dibromomethane	ND	0.4	0.024	
Bromodichloromethane	ND	0.4	0.0324	
cis-1,3-Dichloropropene	ND	0.4	0.0373	

# STL Seattle

Volatile Organics by USEPA Method 5030/8260B Modified data for HP0033 continued...

Analyte	Result (ug/L)	PQL	MDL
Toluene	ND	0.4	0.0357
trans-1,3-Dichloropropene	ND	0.4	0.0307
1,1,2-Trichloroethane	ND	0.4	0.0479
Tetrachloroethene	ND	0.4	0.0549
1,3-Dichloropropane	ND	0.4	0.0276
Dibromochloromethane	ND	0.4	0.0479
1,2-Dibromoethane	ND	0.4	0.0743
Chlorobenzene	ND	0.4	0.0475
Ethylbenzene	ND	0.4	0.0318
1,1,1,2-Tetrachloroethane	ND	0.4	0.0401
m,p-Xylene	ND	0.8	0.087
o-Xylene	ND	0.4	0.0432
Styrene	ND	0.4	0.0372
Bromoform	ND	0.4	0.0455
Isopropylbenzene	ND	0.4	0.0473
Bromobenzene	ND	0.4	0.0449
n-Propylbenzene	ND	0.4	0.0668
1,1,2,2-Tetrachloroethane	ND	0.4	0.0705
1,2,3-Trichloropropane	ND	0.4	0.0787
2-Chlorotoluene	ND	0.4	0.0544
1,3,5-Trimethylbenzene	ND	0.4	0.0473
4-Chlorotoluene	ND	0.4	0.0635
t-Butylbenzene	ND	0.4	0.0788
1,2,4-Trimethylbenzene	ND	0.4	0.0523
sec-Butylbenzene	ND	0.4	0.0632
1,3-Dichlorobenzene	ND	0.4	0.0569
4-Isopropyltoluene	ND	0.4	0.0478
1,4-Dichlorobenzene	ND	0.4	0.0546
n-Butylbenzene	ND	0.4	0.053
1,2-Dichlorobenzene	ND	0.4	0.0436
1,2-Dibromo-3-chloropropane	ND	0.4	0.129
1,2,4-Trichlorobenzene	ND	0.4	0.0852
Hexachlorobutadiene	ND	0.4	0.115
Naphthalene	ND	0.4	0.0914
1,2,3-Trichlorobenzene	ND	0.4	0.0962

# STL Seattle

Lab ID:   
 Date Received:   
 Date Prepared:   
 Date Analyzed:   
 % Solids   
 Dilution Factor

Method Blank - SV3280   
 -   
 12/28/00   
 12/28/00   
 -   
 10

## Semivolatile Organics by USEPA Method 8270

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Nitrobenzene - d5	93.3		48	150
2 - Fluorobiphenyl	97.1		59	128
p - Terphenyl - d14	93.4		48	137
Phenol - d5	32.9		11	67
2 - Fluorophenol	55		17	113
2,4,6 - Tribromophenol	115		54	151

Analyte	Result (ug/L)	PQL	MDL	Flags
Phenol	ND	1	0.32	
bis(2-Chloroethyl)ether	ND	1	0.19	
2-Chlorophenol	ND	1	0.17	
1,3-Dichlorobenzene	ND	1	0.17	
1,4-Dichlorobenzene	ND	1	0.15	
Benzyl Alcohol	ND	1	0.32	
1,2-Dichlorobenzene	ND	1	0.16	
2-Methylphenol	ND	1	0.24	
bis(2-Chloroisopropyl)ether	ND	1	0.21	
3- & 4-Methylphenol	ND	1	0.23	
N-nitroso-di-n-propylamine	ND	1	0.21	
Hexachloroethane	ND	1	0.4	
Nitrobenzene	ND	1	0.45	
Isophorone	ND	1	0.18	
2-Nitrophenol	ND	1	0.22	
2,4-Dimethylphenol	ND	1	0.15	
Benzoic Acid	ND	5	0.2	
bis(2-Chloroethoxy)methane	ND	1	0.18	
2,4-Dichlorophenol	ND	1	0.15	
1,2,4-Trichlorobenzene	ND	1	0.16	
Naphthalene	ND	0.1	0.0219	
4-Chloroaniline	ND	1	0.39	
Hexachlorobutadiene	ND	1	0.29	
4-Chloro-3-methylphenol	ND	1	0.54	
2-Methylnaphthalene	ND	0.1	0.0152	
Hexachlorocyclopentadiene	ND	0.5	0.26	

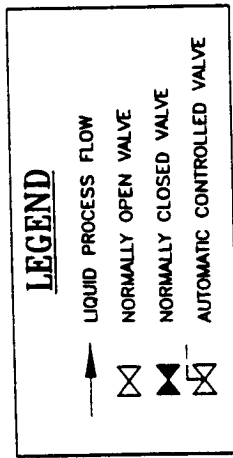
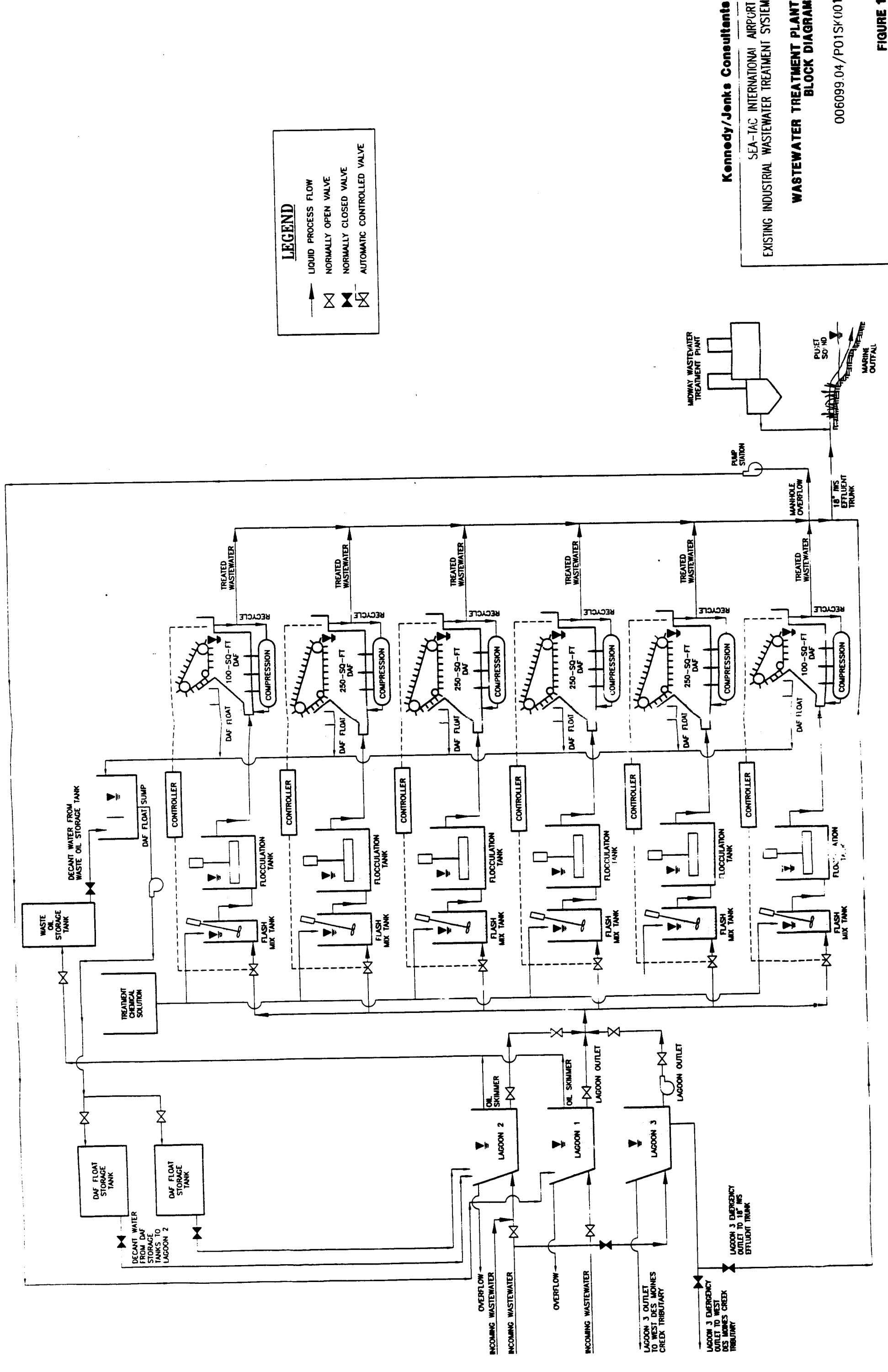
AR 027163

# STL Seattle

Semivolatile Organics by USEPA Method 8270 data for SV3280 continued...

Analyte	Result (ug/L)	PQL	MDL
		1	0.12
2,4,6-Trichlorophenol	ND	1	0.11
2,4,5-Trichlorophenol	ND	0.1	0.0138
2-Chloronaphthalene	ND	1	0.18
2-Nitroaniline	ND	1	0.16
Dimethylphthalate	ND	0.1	0.0152
Acenaphthylene	ND	1	0.2
2,6-Dinitrotoluene	ND	1	0.33
3-Nitroaniline	ND	0.1	0.0157
Acenaphthene	ND	2.5	0.3
2,4-Dinitrophenol	ND	2.5	0.29
4-Nitrophenol	ND	1	0.14
Dibenzofuran	ND	1	0.13
2,4-Dinitrotoluene	ND	2.5	0.58
Diethylphthalate	ND	1	0.15
4-Chlorophenylphenylether	ND	0.1	0.0136
Fluorene	ND	1	0.31
4-Nitroaniline	ND	2.5	0.22
4,6-Dinitro-2-methylphenol	ND	1	0.1
N-Nitrosodiphenylamine	ND	1	0.12
4-Bromophenylphenylether	ND	1	0.2
Hexachlorobenzene	ND	1	0.17
Pentachlorophenol	ND	0.1	0.0222
Phenanthrene	ND	0.1	0.0152
Anthracene	ND	5	2.31
Di-n-butylphthalate	ND	0.1	0.0188
Fluoranthene	ND	0.1	0.0136
Pyrene	ND	5	1.87
Butylbenzylphthalate	ND	1	0.36
3,3'-Dichlorobenzidine	ND	0.1	0.0438
Benzo(a)anthracene	ND	0.1	0.0245
Chrysene	ND	1	0.65
bis(2-Ethylhexyl)phthalate	ND	1	0.34
Di-n-octylphthalate	ND	0.2	0.038
Benzofluoranthene	ND	0.1	0.029
Benzo(b)fluoranthene	ND	0.1	0.0383
Benzo(k)fluoranthene	ND	0.1	0.047
Benzo(a)pyrene	ND	0.1	0.0304
Indeno(1,2,3-cd)pyrene	ND	0.1	0.0269
Dibenz(a,h)anthracene	ND	0.1	0.0343
Benzo(g,h,i)perylene	ND	2.5	0.33
N-nitrosodimethylamine	ND	2.5	0.24
Benzidine	ND	1	0.28
1,2-Diphenylhydrazine	ND		





**Kennedy/Jenke Consultants**  
 SEA-TAC INTERNATIONAL AIRPORT  
 EXISTING INDUSTRIAL WASTEWATER TREATMENT SYSTEM  
**WASTEWATER TREATMENT PLANT  
 BLOCK DIAGRAM**  
 006099.04/P01SK/001

**FIGURE 1**  
 AR 027165