		State of Washington Department of Ecology WASTEWATER TREATMENT PLANT COMPLIANCE INSPECTION REPORT			Northwest Regional Office PO Box 330316 Shoreline, WA 98133 ph: (206) 594-0000	
Section A: General Information						
Report Version	PERMIT #	mm/dd/yy	Inspection Type	Inspector Code	Facility Type	
<input checked="" type="checkbox"/> New <input type="checkbox"/> Changed <input type="checkbox"/> Deleted	ST0007374	03/31/2021 04/01/2021	I	S	<input checked="" type="checkbox"/> 2 Industrial	
Remarks						
Inspection work days	Facility Self-Monitoring	Photos Taken	Samples Taken	BI	QA	
4.0	N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N	N	
Lead Ecology Inspector(s) Maia Hoffman						
Section B: Facility Data						
Name, Location, and Phone of Facility Inspected			Entry Time	Permit Effective Date		
US Navy Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS&IMF) 1400 Farragut Avenue Bremerton, WA 98314			3/31/21 – 9:00am 4/1/21 – 8:45am	11/01/2020		
			Exit Time	Permit Expiration Date		
			3/31/21 – 1:00pm 4/1/21 – 11:25am	10/31/2025		
Name(s)/Title(s) of On-Site Representative(s)			Ecology Staff On-Site			
Mark Johnson, Director, Environmental, Health, and Safety (EHS) Cody Matheson, Deputy Director, EHS Peter Dalton, Department Head, Environmental Division Justin Hubbs, 1 st Level Supervisor, Environmental Division Water/NEPA Duy Pham, Environmental Engineer Rachel Krulc, Environmental Engineer			Siana Wong Kristi Floyd			
Name, Address, Title, Phone, and Fax Number of Responsible Official			Additional On-Site Representatives			
Mark Johnson 1400 Farragut Ave Bldg 427, 2 nd Floor, C/106.31 Bremerton, WA 98314 Phone Number (360) 476-1932			Brooke Nahring Matt Guttman John Anderson Michael Hoffmann			
			Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Section C: Areas Evaluated During Inspection (Check only those areas evaluated)						
<input checked="" type="checkbox"/>	Permit	<input checked="" type="checkbox"/>	Flow Measurement	<input checked="" type="checkbox"/>	Operations & Maintenance	<input type="checkbox"/> CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/>	Records/Reports	<input checked="" type="checkbox"/>	Effluent ○ Receiving Water	<input type="checkbox"/>	Sludge Handling/Disposal	<input type="checkbox"/> Pollution Prevention
<input checked="" type="checkbox"/>	Facility Site Review	<input type="checkbox"/>	Compliance Schedules	<input checked="" type="checkbox"/>	Pretreatment	<input type="checkbox"/> Multimedia
<input checked="" type="checkbox"/>	Self-Monitoring Program	<input type="checkbox"/>	Laboratory	<input type="checkbox"/>	Storm Water	<input type="checkbox"/> Other

Section D: Summary of Findings/Comments

Ecology's Northwest Regional Office has moved to Shoreline, WA effective May 26, 2021. Please note the new addresses and phone number.

New Physical Office Address	New Mailing Address	New 24-hour Phone Number
15700 Dayton Ave N Shoreline, WA 98133	PO Box 330316 Shoreline, WA 98133-9716	(206) 594-0000

Maia Hoffman's phone numbers are as follows,

New Office Phone	Cell Phone
(206) 594-0160	(425) 507-5681

I. INTRODUCTION

Department of Ecology (Ecology) inspectors Maia Hoffman, Siana Wong, and Kristi Floyd visited PSNS&IMF on March 31, 2021 to conduct a routine compliance inspection and sampling. The inspectors returned on April 1, 2021 to collect additional samples. Eric Burris, City of Bremerton (COB) Wastewater Treatment Plant Manager, Kevin Golnick, COB Maintenance Supervisor, and a couple other COB personnel joined for the sampling at Lift Station WB-3. The inspection and sampling was announced to Duy Pham.

PSNS&IMF operates under state waste discharge permit ST0007374.

The intent of this visit was to,

1. Conduct compliance sampling at Lift Station WB-3 and sample point 001 – Building 1109 Industrial Wastewater Treatment Plant (IWTP).
2. Complete a permit compliance inspection at Building 873 Metal Preparation Facility, Building 1109 IWTP, dry dock #2 and oily water treatment system (OWTS) #2.

The following inspection report covers only the above listed facilities. There are other facilities at this site also covered under permit ST0007374. For additional information about PSNS&IMF, the permit and fact sheet are available for public review on Ecology's Permitting and Reporting Information System (PARIS), <https://apps.ecology.wa.gov/paris/FacilitySummary.aspx?FacilityId=74322344>.

On March 29, 2021, Ecology and PSNS&IMF personnel had an opening meeting conference call to review the intent and goals of the visit.

II. RESULTS AND DISCUSSION

Industrial Processes and Wastewater Treatment:

Building 873 – The Metal Preparation Facility is used to clean and/or plate new or refurbished equipment parts. The facility is organized by color-coding to distinguish between acid/alkaline (A/A) metal bearing, cyanide bearing, and hexavalent chromium bearing solutions and rinse tanks. Wastewater is generated from wash down, rinse tanks, and air scrubbing. As with the organization of the metal preparation tanks, the wastewater generated is segregated by the types listed above (A/A metal, cyanide, and hex chrome) for treatment.

There are approximately 135 process tanks, which about 60 are rinse tanks. Most rinse tanks are in sequence with a dirty and clean tank. Water from the clean tank is periodically transferred to the dirty tank and make up water is added to the clean rinse tank. When the dirty rinse tank becomes too concentrated with chemical, the dirty rinse tank is dumped (direct piped) to the appropriate holding tank. Rinse tanks range in capacity from 12 to 1,500 gallons. B. Nahrning stated that about 3-7 rinse tanks are dumped each week.

All process tanks are staged on a grated floor, with containment on the lower level below. The work areas, including the containment areas, are washed down daily or per shift. Wastewater generated from wash downs is directed to the appropriate holding tank (A/A metal, cyanide, or hex chrome).

In the lower lower level of the facility are the wastewater holding tanks. There are 3-1,600 gallon tanks, one each for for A/A metal, cyanide, and hex chrome wastewater. When each tank is 80% full, the wastewater is direct piped to Building 1109 IWTP. Each shift, personnel record which process tanks and wash down water was directed to the holding tanks.

Building 1109 – The Industrial Wastewater Treatment Plant (IWTP) receives wastewater from numerous sources within the Bremerton Naval Complex. The fact sheet, available at the link above, describes the sources that contribute to the IWTP. Only the wastewater from Building 873 is hard-piped to the IWTP and is 95% of the influent. Wastewater from all other sources is transported to the IWTP in portable tanks and containers.

Transported wastewaters are analyzed before going to the ITWP to determine waste characteristics and compatibility with treatment. Only wastewaters that have been previously authorized for disposal at the IWTP may be unloaded and treated.

The ITWP has designated treatment tanks for each type of wastewater. The 3 A/A metal holding/treatment tanks are 5,500 gallons each, the 3 hex chrome holding/treatment tanks are 3,375 gallons each, and the 3 cyanide holding/treatment tanks are 1,125 gallons each. There are also 2-10,000 gallon multipurpose tanks available. Wastewater is treated by type. When sufficient volume of a certain type of wastewater is reached, treatment begins. The treatment tanks must be filled to 80-90% of their capacity to ensure that the mixers are fully submerged. The type of treatment depends on the type of wastewater, but in general metal treatment is by precipitation, cyanide treatment is by destruction, and chromium treatment is by reduction. A more detailed description of the treatment processes is included in the fact sheet. PSNS&IMF personnel follow specific

instructions for each treatment. After treatment in the tanks, settled sludge is pumped to the 10,000 gallon sludge holding tank while treated effluent is transferred to one of two 10,000 gallon treated effluent tanks. Between the treatment tanks and effluent holding tanks, the wastewater goes through a sequence of microfiltration including 50, 20, and 10 micron filters. The pH is adjusted to permit limits as necessary in the treated effluent holding tanks prior to discharge. PSNS&IMF staff confirm treatment via sampling before discharging the treated effluent.

Preventative maintenance (PM) for the treatment system is tracked and completed via an electronic work order system. Any additional maintenance, beyond PM, is recorded in the daily log book. PSNS&IMF also have Industrial Process Instructions (IPIs) which are reviewed every 2 years. The IPIs and O&M Manuals were briefly reviewed during the inspection.

Dry dock #2 – PSNS&IMF has 6 dry docks used for maintenance, repair, or ship recycling operations. Each dry dock is equipped with a process water collection system (PWCS). The PWCS is a system of troughs, sand traps, and sumps. All water, including stormwater, that touches the dry dock floor is routed to the PWCS for disposal in the sanitary sewer system. In addition, any miscellaneous process water from ship maintenance or repairs is collected in the PWCS and routed to the sewer. The sump is equipped with a turbidity meter. Process water below 75 NTUs, the wastewater is routed from the PWCS directly to the sanitary sewer. Wastewater above 75 NTUs, is routed to the oily water treatment system (OWTS) influent holding tanks for treatment. In addition, wastewater from several industrial activities are automatically sent to the OWTS influent holding tanks regardless of the turbidity reading. D. Pham stated that dry docks #2, #5, and #6 have significant saline groundwater intrusion which is collected by the PWCS. These dry docks are a focus of the salinity study underway by PSNS&IMF.

A detailed discussion of the impacts of the high saline water on the collection system and City of Bremerton WWTP is included in the fact sheet to the permit. No further description will be included in this inspection report.

All dry docks have a similar PWCS set up as dry dock #2.

Oily water treatment system (OWTS) #2 – OWTS #2 is used for the treatment of wastewaters collected in the PWCS of dry dock #2 and shipboard wastewaters such as bilge and ballast water. OWTS #2 is equipped with 3-20,000 gallon influent holding tanks. Each dry dock is equipped with an OWTS, however the number and capacity of the influent holding tanks varies. For example, dry dock #6 is larger than dry dock #2 and therefore can accommodate larger ships; OWTS #6 is equipped with 4-40,000 gallon influent holding tanks. The treatment at the OWTS consists of oil separation, metal precipitation, and pH adjustment. Similar to the IWTP, PM work orders are generated through an electronic system.

A seventh OWTS is under construction to support Delta pier. An authorized discharge point for OWTS #7 is already incorporated into the permit.

Flow from Bremerton Naval Complex to City of Bremerton:

PSNS&IMF use two lift stations for transporting domestic sewage and industrial wastewater to the City of Bremerton. Lift Station 9, on the east side of the base, pumps about 7% of the total flow, whereas, Lift Station WB-3 pumps about 93% of the total flow. Lift Station WB-3 is owned by COB and is located just outside the Bremerton Naval Complex fence line on the west side.

Flow Measurement:

Effluent flow from the IWTP is estimated from the volume of water discharged from the treated effluent tanks.

Effluent flow from the OWTS is monitored by a flow meter, which is calibrated annually. However, the compliance flow is estimated from the volume of water in the effluent tank.

Sampling:

Sampling at the IWTP is entirely grab samples. Prior to discharging a treated effluent tank, PSNS&IMF personnel take a sample to verify treatment and compliance with discharge limits. Only after compliance to the limits is met and verified is the effluent discharged. The permit requires metals sampling for every batch, and results are submitted in monthly DMRs.

Since PSNS&IMF takes the compliance samples to verify meeting permit limits and all discharges are done by batch, samples may be collected and analyzed a few days before the discharge. On DMRs, PSNS&IMF records the results on the day the batch is actually discharged not the day the sample was taken. This process is appropriate since the results are representative of the batch being discharged on a given day.

Sampling at Lift Station WB-3 is conducted from the base influent line before the connection is made to the COB sewer lines.

Records Review:

D. Pham provided lab reports for the January 2021 “every batch” (cadmium, chromium, copper, lead, nickel, silver, and zinc) and Q1 2021 quarterly (cyanide and total toxic organics) sampling requirements of the Building 1109 discharge and the monthly (copper, lead, mercury, nickel, silver, zinc, cyanide, and total petroleum hydrocarbons) sampling requirements of the Lift Station WB-3. PSNS&IMF has an Ecology accredited laboratory. The lab reports were compared against the January 2021 monthly DMR and the Q1 2021 quarterly DMR. There were no inconsistencies in reporting and all samples were in compliance with permit limits.

Split Sampling:

Ecology conducted compliance sampling at SP001 (Building 1109 IWTP) and SP105 (Lift Station WB-3) during the inspection.

Table 1: SP001 (Building 1109 IWTP) Monitoring Data

Parameter	Effluent Limit – Maximum Daily	Ecology Results	PSNS&IMF Results
Cadmium	0.11 mg/L	0.0016 mg/L	< 0.05 mg/L
Chromium	2.77 mg/L	0.012 mg/L	< 0.05 mg/L
Copper	3.38 mg/L	0.045 mg/L	0.05 mg/L
Lead	0.69 mg/L	Nondetect (ND): Reporting Limit (RL) 0.10 µg/L	< 0.05 mg/L
Nickel	3.98 mg/L	0.021 mg/L	0.1 mg/L
Silver	0.43 mg/L	0.013 mg/L	< 0.05 mg/L
Zinc	2.61 mg/L	0.019 mg/L	< 0.05 mg/L
Cyanide	1.20 mg/L	ND:RL 0.005 mg/L	Not analyzed.
Total Toxic Organics (TTO)	2.13 mg/L	0.14 mg/L	Not analyzed.
Polychlorinated biphenyls, total aroclors	15 µg/L	ND:RL 0.01 µg/L	Not analyzed.
pH	5.0 – 11.0 standard units	8.85 standard units	9.8 standard units

Table 2: SP105 (Lift Station WB-3) Monitoring Data

Parameter	Effluent Limit – Maximum Daily	Ecology Results	PSNS&IMF Results
Conductivity	N/A	17 mS/cm	Not analyzed.
Cadmium	0.10 mg/L	0.00024 mg/L	< 0.01 mg/L
Chromium	1.0 mg/L	0.0012 mg/L	< 0.05 mg/L
Copper	0.75 mg/L	0.086 mg/L	0.23 mg/L
Lead	0.25 mg/L	0.0012 mg/L	< 0.05 mg/L
Mercury	0.010 mg/L	0.000037 mg/L	< 0.005 mg/L
Nickel	0.60 mg/L	0.033 mg/L	< 0.05 mg/L
Silver	0.20 mg/L	0.00017 mg/L	< 0.05 mg/L
Zinc	2.0 mg/L	0.12 mg/L	0.2 mg/L
Cyanide, total	0.64 mg/L	ND:RL 0.005 mg/L	< 0.1 mg/L
Oil and Grease	100 mg/L	13.8 mg/L	Not analyzed.
Total petroleum hydrocarbons (TPH)	50 mg/L	11.2 mg/L	< 5 mg/L
pH	6.0 – 10.0 standard units	7.72 standard units	Not analyzed.

Lab reports are attached at the end of this inspection report.

Conductivity (SP105 only) and pH (SP001 and SP105) were collected as grab samples and measured on site with a calibrated data sonde.

For SP001, metals, cyanide, TTO, and PCB aroclors samples were collected as grabs. Sample ID 2103028-02 represents the original grab for all parameters. A field duplicate was also analyzed for PCB aroclors under sample ID 2103028-08. In accordance with 40 CFR 433.11, TTOs are reportable as the summation of all quantifiable values greater than 0.01 mg/L.

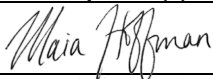

For SP105, metals and mercury were collected as 24-hour time proportional composite samples. Cyanide, oil and grease, and TPH were collected as grabs. Sample ID 22103028-02 represents the original composite or grab for all parameters. Field

duplicates were also analyzed for mercury (sample ID 2103028-03), oil and grease (sample ID 2103028-04), and TPH (sample IDs 2103028-06 and 2103028-07). TPH is the summation of the diesel and gasoline ranges.

III. CONCLUSION

Overall, PSNS&IMF does an exceptional job of tracking and designating the numerous wastewater streams on site and maintaining compliance to the permit. When issues arise, PSNS&IMF quickly develops corrective actions.

Ecology and PSNS&IMF had a close out meeting on April 1, 2021, after completing sample collection at Lift Station WB-3, to briefly discuss the inspections and any possible findings. No adverse observations were noted during this inspection.

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Maia Hoffman 	WA Dept. of Ecology, NWRO, (206) 594-0160	7/9/21
Name and Signature of Management QA Reviewer	Agency/Office/Telephone	Date
Chris Martin 	WA Dept. of Ecology, NWRO, (206) 594-0000	07-09-2021

ANNOUNCED Inspection

INSTRUCTIONS**Section A: General Information**

Report Version: N for 1st version, C for Changed or amended, or D for Delete

NPDES Permit No.: Enter the facility's NPDES or State permit number.

Inspection Date: Insert the date entry was made into the facility. Use the month/day/year format (e.g., 06/30/04 = June 30, 2004).

Inspection Type: Use one of the codes listed below to describe the type of inspection:

A Performance Audit	L Enforcement Case Support	2 IU Sampling Inspection
B Compliance Biomonitoring	M Multimedia	3 IU Non-Sampling Inspection
C Compliance Evaluation (non-sampling)	P Pretreatment Compliance Inspection	4 IU Toxics Inspection
D Diagnostic	R Reconnaissance	5 IU Sampling Inspection with Pretreatment
E Corps of Engineers Inspection	S Compliance Sampling	6 IU Non-Sampling Inspection with pretreatment
F Pretreatment Follow-up	U IU Inspection with Pretreatment Audit	7 IU Toxics with Pretreatment
G Pretreatment Audit	X Toxics Inspection	
I Industrial User (IU) Inspection	Z Sludge	

Inspector Code: Use one of the codes listed below to describe the *lead agency* in the inspection:

C - Contractor or Other Inspectors (Specify in Remarks Columns)	N - NEIC Inspectors
E - Corps of Engineers	R - EPA Regional Inspector
J - Joint EPA/State Inspectors - EPA Lead	S - State Inspector
	T - Joint State/EPA Inspectors - State Lead

Facility Type: Use one of the choices below to describe the facility.

1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.

2 - Industrial. Other than municipal, agricultural, and Federal facilities.

3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.

4 - Federal. Facilities identified as Federal by the EPA Regional Office

Remarks: These columns are reserved for remarks.

Inspection Work Days.: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, travel time and preparation time. This estimate does not require detailed documentation.

Facility Evaluation Rating: Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Photos Taken: Yes or No

Samples Taken: Yes or No

Lead Ecology Inspector: Enter lead inspector's name

Section B: Facility Data

This section is self-explanatory except for: "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record), e-mail addresses...; and "Ecology Staff On-Site", which may include staff names, titles, phone numbers, or e-mail addresses.

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary.

Section D: Summary of Findings/Comments

Support the findings, as necessary, in a narrative report. Use the headings given on the report form (staffing, back-up power) as appropriate. Reference a list of attachments, such as completed checklists, photos, lab reports, etc. Use extra sheets as necessary.

Manchester Environmental Laboratory
7411 Beach Drive E, Port Orchard, Washington 98366

Case Narrative - Metals

April 21, 2021

Project: NW Industrial Pretreatment

Work Order: 2103028

Project

Manager:

Wong, Siana

By: Heidi Chuhuran



Summary

The laboratory followed EPA 200.8 for the preparation and analysis of trace metals, EPA 200.7 for the analysis of hardness, Standard Method 2340B for the calculation of hardness and EPA 1631 for the preparation and analysis of mercury.

All analyses requested were evaluated by established regulatory quality assurance guidelines.

Sample Information

The samples were received at the Manchester Laboratory on 4/1/2021 and 4/2/2021. The samples were received in good condition and were properly preserved except for sample 09 for mercury was received over preservation hold time. Sample 09 for mercury was preserved and analyzed. Result for 09 mercury is qualified as an estimate. Four samples were received and assigned laboratory identification numbers 01 to 03 and 09.

Holding Times

The laboratory performed all analyses within their hold times.

Calibration

The instruments were calibrated following the appropriate methods. All initial and continuing calibration verification checks were within the acceptance limits. All initial

and continuing calibration blank checks were within the acceptance limits. All standard residuals were within acceptance limits. All r-values were within acceptance limits. The instruments were calibrated with NIST traceable standards and verified to be in calibration with a second source NIST traceable standard.

Method Blanks

No analytically significant level of analyte was detected in the method blank associated with these samples.

Laboratory Control Samples

All laboratory control sample recoveries were within the acceptance limits.

Replicates

All associated duplicate relative percent differences of samples with concentrations greater than 5 times the reporting limit were within the acceptance limits.

Matrix Spikes

All matrix spike recoveries were within the acceptance limits.

Internal Standards

All internal standard recoveries were within the acceptance limits.

Other Quality Assurance Measures and Issues

- U - The analyte was not detected at or above the reported result.
- J - The analyte was positively identified. The associated numerical result is an estimate.
- UJ - The analyte was not detected at or above the reported estimated result.
- NC - Not Calculated
- bold** - The analyte was present in the sample. (Visual Aid to locate detected compounds on report sheet.)

Please call Heidi Chuhran at (360) 871-8826 to further discuss this project.

cc: Project File

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Silver**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Silver

Prep Method: EPA200.2
Prepared: 04/09/21
Batch ID: B21C117

Analysis Method: EPA200.8
Matrix: Water
Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	13.4		0.10	0.05	04/01/21	04/09/21
2103028-02	PSNS-IMF	0.17		0.10	0.05	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.10	U	0.10	0.05

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.1	25.0			104	85-115		
B21C117-BSD1	LCS Dup	25.3	25.0			101	85-115	3	20

Authorized by: _____



Release Date: _____

APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Cadmium**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Cadmium

Prep Method: EPA200.2
Prepared: 04/09/21
Batch ID: B21C117

Analysis Method: EPA200.8
Matrix: Water
Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	1.63		0.10	0.02	04/01/21	04/09/21
2103028-02	PSNS-IMF	0.24		0.10	0.02	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.10	U	0.10	0.02

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.6	25.0			106	85-115		
B21C117-BSD1	LCS Dup	25.7	25.0			103	85-115	3	20

Authorized by: 

Release Date:

APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Chromium**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana	Prep Method: EPA200.2	Analysis Method: EPA200.8
Work Order: 2103028	Prepared: 04/09/21	Matrix: Water
Analyte: Chromium	Batch ID: B21C117	Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	12.3		0.20	0.09	04/01/21	04/09/21
2103028-02	PSNS-IMF	1.20		0.20	0.09	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.20	U	0.20	0.09

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.1	25.0			104	85-115		
B21C117-BSD1	LCS Dup	25.7	25.0			103	85-115	2	20

Authorized by: _____ 

Release Date: APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Copper**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Copper

Prep Method: EPA200.2
Prepared: 04/09/21
Batch ID: B21C117

Analysis Method: EPA200.8
Matrix: Water
Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	44.9		0.40	0.12	04/01/21	04/09/21
2103028-02	PSNS-IMF	85.8		0.40	0.12	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.40	U	0.40	0.12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.5	25.0			106	85-115		
B21C117-BSD1	LCS Dup	26.1	25.0			104	85-115	2	20

APR 21 2021

Authorized by: _____

Release Date: _____ **Page 4 of 9**

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Hardness**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana	Prep Method:	Analysis Method: SM2340B
Work Order: 2103028	Prepared: 04/19/21	Matrix: Water
Analyte: Hardness as CaCO3	Batch ID: B21D118	Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	1670		0.30	0.07	04/01/21	04/19/21

QC Results for Batch ID: B21D118

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21D118-BLK1	Blank	0.30	U	0.30	0.07

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21D118-BS1	LCS	26.7	26.5			101	85-115		
B21D118-BSD1	LCS Dup	26.4	26.5			100	85-115	1	20
B21D118-MS1	Matrix Spike	44.8	26.5	2104023-09	19.6	96	75-125		
B21D118-MSD1	Matrix Spike Dup	47.8	26.5	2104023-09	19.6	107	75-125	6	20

Authorized by: _____ 

Release Date: APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Mercury**

Project Name: NW Industrial Pretreatment

**Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Mercury**

**Prep Method: EPA1631E
Prepared: 04/16/21
Batch ID: B21D101**

**Analysis Method: EPA1631E
Matrix: Water
Units: ug/L**

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	0.0369		0.0005	0.00002	04/01/21	04/16/21
2103028-03	PSNS-IMF	0.0375		0.0005	0.00002	04/01/21	04/16/21
2103028-09	PSNS-IMF	0.0005	UJ	0.0005	0.00002	03/31/21	04/16/21

QC Results for Batch ID: B21D101

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21D101-BLK1	Blank	0.0005	U	0.0005	0.00002
B21D101-BLK2	Blank	0.0005	U	0.0005	0.00002
B21D101-BLK3	Blank	0.0005	U	0.0005	0.00002

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21D101-BS1	LCS	0.0052	0.005			103	77-123		
B21D101-BSD1	LCS Dup	0.0051	0.005			101	77-123	2	24
B21D101-MS1	Matrix Spike	0.0072	0.00496	2104023-09	0.0020	106	71-125		
B21D101-MS2	Matrix Spike	0.0097	0.00496	2104051-05	0.0046	102	71-125		
B21D101-MSD1	Matrix Spike Dup	0.0070	0.00487	2104023-09	0.0020	103	71-125	3	24
B21D101-MSD2	Matrix Spike Dup	0.0096	0.00494	2104051-05	0.0046	102	71-125	0.5	24

Authorized by: _____

Release Date: _____

APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Nickel**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana	Prep Method: EPA200.2	Analysis Method: EPA200.8
Work Order: 2103028	Prepared: 04/09/21	Matrix: Water
Analyte: Nickel	Batch ID: B21C117	Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	20.7		0.10	0.03	04/01/21	04/09/21
2103028-02	PSNS-IMF	33.0		0.10	0.03	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.10	U	0.10	0.03

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.6	25.0			106	85-115		
B21C117-BSD1	LCS Dup	26.3	25.0			105	85-115	1	20

Authorized by: _____ 

Release Date: APR 21 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Lead**

Project Name: NW Industrial Pretreatment

**Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Lead**

**Prep Method: EPA200.2
Prepared: 04/09/21
Batch ID: B21C117**

**Analysis Method: EPA200.8
Matrix: Water
Units: ug/L**

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	0.10	U	0.10	0.02	04/01/21	04/09/21
2103028-02	PSNS-IMF	1.18		0.10	0.02	04/01/21	04/09/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	0.10	U	0.10	0.02

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	25.7	25.0			103	85-115		
B21C117-BSD1	LCS Dup	25.3	25.0			101	85-115	2	20

Authorized by: _____

Release Date: _____

APR 21 2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Zinc**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Zinc

Prep Method: EPA200.2
Prepared: 04/09/21
Batch ID: B21C117

Analysis Method: EPA200.8
Matrix: Water
Units: ug/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-01	PSNS-IMF	19.0		5.0	1.7	04/01/21	04/12/21
2103028-02	PSNS-IMF	124		5.0	1.7	04/01/21	04/12/21

QC Results for Batch ID: B21C117

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C117-BLK1	Blank	5.0	U	5.0	1.7

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C117-BS1	LCS	26.0	25.0			104	85-115		
B21C117-BSD1	LCS Dup	25.9	25.0			104	85-115	0.3	20

Authorized by: _____ 

Release Date: APR 21 2021

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Manchester Environmental Laboratory
7411 Beach Drive E, Port Orchard, Washington 98366

Case Narrative – General Chemistry

May 5, 2021

Project: NW Industrial Pretreatment

Work Order: 2103028

Project
Manager: Wong, Siana

By: Heidi Chuhran 

Summary

The laboratory analyzed the samples following EPA 1664 for oil and grease, Standard Methods (SM) 2520B for salinity, SM2540D for total suspended solids (TSS) and SM5310B for total (TOC) and dissolved (DOC) organic carbon.

All analyses requested were evaluated by established regulatory quality assurance guidelines.

Sample Information

The samples were received at the Manchester Laboratory on 4/1/2021. The coolers were received within the proper temperature range of 0°C - 6°C. The samples were received in good condition and where applicable, were properly preserved. Four samples were received and assigned laboratory identification numbers 02, 04, 05 and 10.

Holding Times

The laboratory performed all analyses within their hold times.

Calibration

The instruments were calibrated following the appropriate methods. All initial and continuing calibration verification checks were within the acceptance limits. All initial and continuing blank checks were within the acceptance limits. All r-values were within the acceptance limits. All standard residuals were within acceptance limits. The

instruments were calibrated with NIST traceable standards and verified to be in calibration with a second source NIST traceable standard. Oven drying temperatures were monitored before and after drying.

Method Blanks

No analytically significant levels of analyte were detected in the method blanks associated with these samples.

Laboratory Control Samples

All recoveries were within the acceptance limits.

Replicates

The associated duplicate relative percent differences of samples with concentrations greater than 5 times the reporting limit were within the acceptance limits.

Matrix Spikes

All matrix spike recoveries were within the acceptance limits.

Other Quality Assurance Measures and Issues

- U The analyte was not detected at or above the reported result.
- J The analyte was positively identified. The associated numerical result is an estimate.
- UJ The analyte was not detected at or above the reported estimated result.
- NC Not Calculated
- bold** The analyte was present in the sample. (Visual Aid to locate detected compounds on report sheet.)

Please call Heidi Chuhuran at (360) 871-8826 to further discuss this project.

cc: Project File

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Dissolved Organic Carbon**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana	Method: SM5310B	Matrix: Water
Work Order: 2103028	Batch ID: B21C090	Units: mg/L
Analyte: Dissolved Organic Carbon	Prepared: 04/02/21	

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	27.7		2.50	0.61	04/01/21	04/02/21

QC Results for Batch ID: B21C090

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C090-BLK1	Blank	0.50	U	0.50	0.12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C090-MS1	Matrix Spike	2.99	2.50	2103025-06	0.598	96	75-125		
B21C090-DUP1	Duplicate	1.62		2103025-05	1.60			0.7	20
B21C090-BS1	LCS	4.58	5.00			92	80-120		

Authorized by: _____

Release Date: _____

MAY 05 2021

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Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Oil and Grease

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Oil and Grease

Method: EPA1664B
Batch ID: B21D010
Prepared: 04/06/21

Matrix: Water
Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	13.7		5.3	0.8	04/01/21	04/06/21
2103028-04	PSNS-IMF	13.9		5.7	0.8	04/01/21	04/06/21
2103028-10	PSNS-IMF	5.2	U	5.2	0.8	04/01/21	04/06/21

QC Results for Batch ID: B21D010

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21D010-BLK1	Blank	5.0	U	5.0	0.7

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21D010-BSD1	LCS Dup	39.2	40.0			98	78-114	4	20
B21D010-BS1	LCS	37.6	40.0			94	78-114		

Authorized by: _____

Release Date: MAY 05 2021 Page 2 of 5

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Salinity**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Salinity

Method: SM2520B
Batch ID: B21D119
Prepared: 04/15/21

Matrix: Water
Units: ppt

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	5.2		1.0		04/01/21	04/15/21
2103028-05	PSNS-IMF	5.2		1.0		04/01/21	04/15/21

QC Results for Batch ID: B21D119

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21D119-BLK2	Blank	1.0	U	1.0	

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21D119-DUP2	Duplicate	5.20		2103028-05	5.20			0.09	20
B21D119-BS2	LCS	34.8	35.0			100	80-120		

Authorized by: _____

Release Date: _____

MAY 05 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Total Organic Carbon**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana
Work Order: 2103028
Analyte: Total Organic Carbon

Method: SM5310B
Batch ID: B21C088
Prepared: 04/02/21

Matrix: Water
Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	35.8		2.50	0.610	04/01/21	04/02/21

QC Results for Batch ID: B21C088

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21C088-BLK1	Blank	0.500	U	0.500	0.122

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21C088-MS1	Matrix Spike	3.5	2.50	2103001-06	1.1	95	75-125		
B21C088-DUP1	Duplicate	0.8		2103001-02	0.9			3	20
B21C088-BS1	LCS	4.6	5.00			93	80-120		

Authorized by: _____

Release Date: _____

MAY 05 2021

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**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Total Suspended Solids**

Project Name: NW Industrial Pretreatment

Project Officer: Wong, Siana	Method: SM2540D	Matrix: Water
Work Order: 2103028	Batch ID: B21D008	Units: mg/L
Analyte: Total Suspended Solids	Prepared: 04/02/21	

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed
2103028-02	PSNS-IMF	54		11		04/01/21	04/02/21

QC Results for Batch ID: B21D008

Method Blank	Sample ID	Result	Qualifier	RL	MDL
B21D008-BLK1	Blank	1	U	1	
B21D008-BLK2	Blank	1	U	1	

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B21D008-DUP2	Duplicate	34		2103032-07	32			4	20
B21D008-DUP1	Duplicate	48		2103032-02	44			10	20
B21D008-BS1	LCS	53	53.0			100	80-120		

Authorized by: _____

Release Date: _____

MAY 05 2021

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DEPARTMENT OF ECOLOGY
Manchester Environmental Laboratory
7411 Beach Drive East • Port Orchard, Washington 98366-8204

Case Narrative

April 15, 2021

To: Wong, Siana

Project: NW Industrial Pretreatment

Work Order: 2103028

Subject: Semivolatile Petroleum Products

From: Karin Bailey

Sample Receipt

Enclosed are the TPHD results for the samples received by MEL on April 1, 2021. All samples were received in acceptable condition unless noted in Analyst Comments. All samples were prepared and analyzed within holding times unless noted in Analyst Comments.

Analytical Methods

These samples were prepared, analyzed, and verified by MEL according to the submitted chain-of-custody and MEL's procedures. A Sample Correlation Table with batch summary is located in Appendix A. The samples were:

- extracted following a modification of method SW3535A.
- analyzed following a modification of method NWTPH-DX.

Analyst Comments

TPHD by GCFID. The chromatograms for samples 2103028-02 and 2103028-06 didn't match those of the calibration standards for either Diesel or Lube Oil. The reported results represent the concentration of the unknown compounds eluting within the expected time ranges for both analytes. The Diesel reporting limit for sample 2103028-12 is slightly elevated due to low level background contamination and noted in Appendix B.

Sample Qualification

The samples were qualified according to MEL's procedures. The table in Appendix B summarizes the manual qualifiers added by MEL. All results reported below the method reporting limit (RL) were automatically qualified as estimates, but not included in Appendix B. The qualifiers are defined in Appendix C.

Sample Verification

All analyses met QC acceptance criteria except as noted in Appendix D. All analytes met linearity requirements unless noted in Appendix E.

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 1000 mL
Final Vol: 3 mL

Lab ID #: 2103028-02
Collected: 4/1/2021
Prep Method: SW3535A
Analysis Method: NWTPH-DX

Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL
68476-34-6	#2 Diesel	4.17		0.15
NULL	Lube Oil	5.61		0.38
<u>Surrogate Recovery:</u>		Sample	Spike	% Rec.
CAS#	Analyte	Result	Level	% Rec.
629-99-2	Pentacosane	0.142	0.200	71
				50-150

Authorized by:

Karin Bailey

Release Date:

4/15/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 990 mL
Final Vol: 3 mL

Lab ID #: 2103028-06
Collected: 4/1/2021
Prep Method: SW3535A
Analysis Method: NWTPH-DX

Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL
68476-34-6	#2 Diesel	4.32		0.15
NULL	Lube Oil	8.10		0.38
<u>Surrogate Recovery:</u>		Sample	Spike	% Rec.
CAS#	Analyte	Result	Level	% Rec.
629-99-2	Pentacosane	0.127	0.202	63

Authorized by:

Karin Bailey

Release Date:

4/15/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

**Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 950 mL
Final Vol: 3 mL**

**Lab ID #: 2103028-12
Collected: 4/1/2021
Prep Method: SW3535A
Analysis Method: NWTPH-DX**

**Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: mg/L**

CAS#	Analyte	Result	Qualifier	MRL
68476-34-6	#2 Diesel	0.17	U	0.16
NULL	Lube Oil	0.39	U	0.39
<u>Surrogate Recovery:</u>		Sample	Spike	% Rec.
CAS#	Analyte	Result	Level	% Rec.
629-99-2	Pentacosane	0.202	0.211	96

Authorized by:

Karin Bailey

Release Date:

4/15/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : Method Blank

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 1000 mL
Final Vol: 3 mL

Lab ID #: B21D032-BLK1
Prep Method: SW3535A
Analysis Method: NWTPH-DX
Source Field ID: B21D032-BLK1

Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL
68476-34-6	#2 Diesel	0.15	U	0.15
NULL	Lube Oil	0.38	U	0.38
<u>Surrogate Recovery:</u>		Sample	Spike	% Rec.
CAS#	Analyte	Result	Level	Limits
629-99-2	Pentacosane	0.205	0.200	103 50-150

Authorized by:

Karin Bailey

Release Date:

4/15/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : LCS

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 1000 mL
Final Vol: 3 mL

Lab ID #: B21D032-BS1
Prep Method: SW3535A
Analysis Method: NWTPH-DX
Source Field ID: B21D032-BS1

Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: %

Analyte	Result	Spike Level	MRL	%Rec	%Rec Limits
#2 Diesel	2.59	3.00	0.15	86	70-130
<u>Surrogate Recovery:</u>					
CAS#	Analyte	Sample Result	Spike Level	% Rec.	% Rec. Limits
629-99-2	Pentacosane	0.217	0.200	109	50-150

Authorized by:

Karin Bailey

Release Date:

4/15/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Semivolatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : LCS Dup

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 1000 mL
Final Vol: 3 mL

Lab ID #: B21D032-BSD1
Prep Method: SW3535A
Analysis Method: NWTPH-DX
Source Field ID: B21D032-BSD1

Batch ID: B21D032
Prepared: 4/6/2021
Analyzed: 4/12/2021
Matrix: Water
Units: %

Analyte	Sample Result	Spike Level	%Rec	RPD	%Rec Limits	RPD Limit
#2 Diesel	2.38	3.00	79	9	70-130	40

Surrogate Recovery:

CAS#	Analyte	Sample Result	Spike Level	% Rec.	% Rec. Limits
629-99-2	Pentacosane	0.204	0.200	102	50-150

Authorized by:

Karin Bailey

Release Date:

4/15/2021

Appendix A

Sample Correlation Table

Batch ID: B21D032

Prep Method: SW3535A

Prepared: 4/6/2021

Analysis Method: NWTPH-DX

<u>Field ID</u>	<u>MEL ID</u>
PSNS-IMF	2103028-02
PSNS-IMF	2103028-06
PSNS-IMF	2103028-12
Blank	B21D032-BLK1
LCS	B21D032-BS1
LCS Dup	B21D032-BSD1

Appendix B

Manual Qualification Table

WO: 2103028

Analysis: TPHD

MRL raised due to background; analyte was not detected at or above the reported result.

#2 Diesel U: 2103028-12,

Appendix C

Data Qualifier Definitions

Code	Definition
E	Reported result is an estimate because it exceeds the calibration range.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a “tentative identification”.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
NAF	Not analyzed for.
NC	Not calculated.
REJ	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
U	The analyte was not detected at or above the reported sample quantitation limit.
UJ	The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte in the sample.
bold	The analyte was present in the sample. (Visual aid to locate detected compounds on the analytical report.)

Appendix D

QC Exceptions Report

Lab ID	Analyte	Exception
No QC exceptions reported.		

QC Exceptions determined using unrounded QC results but are reported as integers throughout this analytical report.

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04/15/2021 8:31

Appendix E

Initial Calibration Exceptions Report

Calibration ID: B1B0902

Analysis: TPHD

LabNumber Analyte

QC Exception

No ICAL exceptions.

DEPARTMENT OF ECOLOGY
Manchester Environmental Laboratory
7411 Beach Drive East • Port Orchard, Washington 98366-8204

Case Narrative

April 12, 2021

To: Wong, Siana

Project: NW Industrial Pretreatment

Work Order: 2103028

Subject: Volatile Petroleum Products

From: Dolores Montgomery

Sample Receipt

Enclosed are the TPHG results for the samples received by MEL on April 1, 2021. All samples were received in acceptable condition unless noted in Analyst Comments. All samples were prepared and analyzed within holding times unless noted in Analyst Comments.

Analytical Methods

These samples were prepared, analyzed, and verified by MEL according to the submitted chain-of-custody and MEL's procedures. A Sample Correlation Table with batch summary is located in Appendix A. The samples were:

- extracted following a modification of method SW5030B.
- analyzed following a modification of method NWTPH-GX.

Analyst Comments

None noted.

Sample Qualification

The samples were qualified according to MEL's procedures. The table in Appendix B summarizes the manual qualifiers added by MEL. All results reported below the method reporting limit (RL) were automatically qualified as estimates, but not included in Appendix B. The qualifiers are defined in Appendix C.

Sample Verification

All analyses met QC acceptance criteria except as noted in Appendix D. All analytes met linearity requirements unless noted in Appendix E.

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: 2103028-02
Collected: 4/1/2021
Prep Method: SW5030B
Analysis Method: NWTPH-GX

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL	
86290-81-5	Gasoline	0.147		0.070	
<u>Surrogate Recovery:</u>		Sample	Spike		
CAS#	Analyte	Result	Level	% Rec.	% Rec. Limits
540-36-3	1,4-Difluorobenzene	22.4	24.0	93	70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	73.5	56.0	131	70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: 2103028-07
Collected: 4/1/2021
Prep Method: SW5030B
Analysis Method: NWTPH-GX

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL	
86290-81-5	Gasoline	0.140		0.070	
<u>Surrogate Recovery:</u>		Sample	Spike		
CAS#	Analyte	Result	Level	% Rec.	% Rec. Limits
540-36-3	1,4-Difluorobenzene	22.1	24.0	92	70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	73.4	56.0	131	70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

Field ID: PSNS-IMF

Work Order: 2103028
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: 2103028-13
Collected: 4/1/2021
Prep Method: SW5030B
Analysis Method: NWTPH-GX

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL
86290-81-5	Gasoline	0.070	U	0.070
<u>Surrogate Recovery:</u>		Sample Result	Spike Level	% Rec. Limits
CAS#	Analyte			
540-36-3	1,4-Difluorobenzene	22.4	24.0	93 70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	56.3	56.0	101 70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : Method Blank

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: B21D022-BLK1
Prep Method: SW5030B
Analysis Method: NWTPH-GX
Source Field ID: B21D022-BLK1

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: mg/L

CAS#	Analyte	Result	Qualifier	MRL	
86290-81-5	Gasoline	0.070	U	0.070	
<u>Surrogate Recovery:</u>		Sample	Spike	% Rec.	
CAS#	Analyte	Result	Level	% Rec.	% Rec. Limits
540-36-3	1,4-Difluorobenzene	22.3	24.0	93	70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	48.1	56.0	86	70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : LCS

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: B21D022-BS1
Prep Method: SW5030B
Analysis Method: NWTPH-GX
Source Field ID: B21D022-BS1

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: %

Analyte	Result	Spike Level	MRL	%Rec	%Rec Limits
Gasoline	0.606	0.750	0.070	81	70-130
<u>Surrogate Recovery:</u>					
CAS#	Analyte	Sample Result	Spike Level	% Rec.	% Rec. Limits
540-36-3	1,4-Difluorobenzene	23.6	24.0	98	70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	56.5	56.0	101	70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Report for
Volatile Petroleum Products**

Project: NW Industrial Pretreatment

QC Type : LCS Dup

Work Order: Batch QC
Project Officer: Wong, Siana
Initial Vol: 5 mL
Final Vol: 5 mL

Lab ID #: B21D022-BSD1
Prep Method: SW5030B
Analysis Method: NWTPH-GX
Source Field ID: B21D022-BSD1

Batch ID: B21D022
Prepared: 4/5/2021
Analyzed: 4/5/2021
Matrix: Water
Units: %

Analyte	Sample Result	Spike Level	%Rec	RPD	%Rec Limits	RPD Limit
Gasoline	0.756	0.750	101	22	70-130	40

Surrogate Recovery:

CAS#	Analyte	Sample Result	Spike Level	% Rec.	% Rec. Limits
540-36-3	1,4-Difluorobenzene	23.7	24.0	99	70-130
615-59-8	Benzene, 1,4-dibromo-2-methyl	53.1	56.0	95	70-130

Authorized by:

Dolores Montgomery

Release Date:

4/12/2021

Appendix A
Sample Correlation Table

Batch ID: B21D022

Prep Method: SW5030B

Prepared: 4/5/2021

Analysis Method: NWTPH-GX

Field ID

MEL ID

PSNS-IMF

2103028-02

PSNS-IMF

2103028-07

PSNS-IMF

2103028-13

Blank

B21D022-BLK1

LCS

B21D022-BS1

LCS Dup

B21D022-BSD1

Appendix B

Manual Qualification Table

WO: 2103028

Analysis: TPHG

No manual qualifiers were added to the samples or batch QC.

Appendix C

Data Qualifier Definitions

Code	Definition
E	Reported result is an estimate because it exceeds the calibration range.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a “tentative identification”.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
NAF	Not analyzed for.
NC	Not calculated.
REJ	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
U	The analyte was not detected at or above the reported sample quantitation limit.
UJ	The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte in the sample.
bold	The analyte was present in the sample. (Visual aid to locate detected compounds on the analytical report.)

Appendix D

QC Exceptions Report

Lab ID	Analyte	Exception
2103028-02	surr: Benzene, 1,4-dibromo-2-methyl-	Exceeds upper control limit
2103028-07	surr: Benzene, 1,4-dibromo-2-methyl-	Exceeds upper control limit

QC Exceptions determined using unrounded QC results but are reported as integers throughout this analytical report.

C:\PROGRAM FILES (X86)\PROMIUM\ELEMENT\FORMAT\MEL_CASENARRATIVECLP_PDF_V3.4.1.RPT

04/12/2021 10:18

Appendix E

Initial Calibration Exceptions Report

Calibration ID: B8C2801

Analysis: TPHG

LabNumber **Analyte**

QC Exception

No ICAL exceptions.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

30 April 2021

Christina Frans
Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard, WA 98366-8204

RE: Northwest Pretreatment 2021

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
21D0065

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 2100065		Turn-around Requested: 6-5-21		Date: 4-5-21																	
ARI Client Company: WA State Dept of Ecology		Phone:		Page: 1 of 1																	
Client Contact: Siana Wong		No. of Coolers: 1		Cooler Temps: 38																	
Client Project Name: NW Pretreatment		<table border="1"> <thead> <tr> <th colspan="7">Analysis Requested</th> <th>Notes/Comments</th> </tr> </thead> <tbody> <tr> <td>VDA-624</td> <td>PCBs-608</td> <td>Dioxin-1613</td> <td>SUA/BNA-625</td> <td>Pesticides-608</td> <td>Cyanide</td> <td>PCB Aroclors</td> <td></td> </tr> </tbody> </table>				Analysis Requested							Notes/Comments	VDA-624	PCBs-608	Dioxin-1613	SUA/BNA-625	Pesticides-608	Cyanide	PCB Aroclors	
Analysis Requested							Notes/Comments														
VDA-624	PCBs-608	Dioxin-1613	SUA/BNA-625	Pesticides-608	Cyanide	PCB Aroclors															
Client Project #:	Samplers: Siana Wong, Krsti Floyd																				
Sample ID	Date	Time	Matrix	No. Containers	VDA-624	PCBs-608	Dioxin-1613	SUA/BNA-625	Pesticides-608	Cyanide	PCB Aroclors										
2103028-01 (BNS-IMF)	3-31-21	11:15	Water	*	X	X	X	X	X	X	X										
2103028-08 (BNS-IMF)	3-31-21	11:15	Water	2							X										
2103028-14 (BNS-IMF)	3-31-21	1000	Water	2							X										
2103028-02 (BNS-IMF)	4-1-21	10:00	Water	1						X											
Comments/Special Instructions		Relinquished by: (Signature) Siana Wong		Received by: (Signature) Kenny Dang																	
* Analysis for full TLO list: VDA(3), PCBs(2), Dioxins(2), BNA(2), Pesticides(2). Cyanide - PCB Aroclors - 1 bottle. PCB Aroclors - 2 bottles.		Printed Name: Siana Wong		Printed Name: Kenny Dang																	
Company: WA St. Dept. of Ecology		Company: ARI		Company:																	
Date & Time: 4-5-21 14:00		Date & Time: 4/5/21 1122		Date & Time:																	



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
2103028-01 (PSNS-IMF)	21D0065-01	Water	31-Mar-2021 11:15	06-Apr-2021 11:22
2103028-08 (PSNS-IMF)	21D0065-02	Water	31-Mar-2021 11:15	06-Apr-2021 11:22
2103028-14 (PSNS-IMF)	21D0065-03	Water	31-Mar-2021 10:00	06-Apr-2021 11:22
2103028-02 (PSNS-IMF)	21D0065-04	Water	01-Apr-2021 10:00	06-Apr-2021 11:22



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

Work Order Case Narrative

Dioxin/Furans - EPA Method 1613

The sample(s) were extracted and analyzed within the recommended holding times. Analysis was performed using an application specific column developed by Restek. The RTX-Dioxin2 column has unique isomer separation for the 2378-TCDF, eliminating the need for confirmation analysis.

Initial and continuing calibrations were within method requirements.

Labeled internal standard areas were within limits.

The cleanup surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The OPR (Ongoing Precision and Recovery) standard percent recoveries were within control limits.

AroclorsPCBs - EPA Method 608.3

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Pesticides - EPA Method 608.3

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

Volatiles - EPA Method 624.1

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements with the exception of all associated "Q" flagged analytes which are out of control high in the CCAL and bromoform is out of control low. All associated samples that contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits with the exception of analytes flagged on the associated forms.

Semivolatiles - EPA Method 625.1

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements with the exception of all associated "Q" flagged analytes which are out of control high in the CCAL and Hexachlorocyclopentadiene is out of control low. All associated samples that contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: WA State of Ecology

Project Name: NW Pretreatment

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21D0065

Tracking No: 7856 0980 3768 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1122 38

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO 5266

Cooler Accepted by: RD Date: 4/6/21 Time: 1122

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SC Date: 4/6/21 Time: 1514 Labels checked by: SC

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____

Date: _____



WORK ORDER

21D0065

Client: Washington State Dept of Ecology

Project Manager: Kelly Bottem

Project: Northwest Pretreatment 2021

Project Number: Northwest Pretreatment 2021

Preservation Confirmation

Container ID	Container Type	pH
21D0065-01 A	Glass NM, Amber, 1000 mL	
21D0065-01 B	Glass NM, Amber, 1000 mL	
21D0065-01 C	Glass NM, Amber, 1000 mL	
21D0065-01 D	Glass NM, Amber, 1000 mL	
21D0065-01 E	Glass NM, Amber, 500 mL	
21D0065-01 F	Glass NM, Amber, 500 mL	
21D0065-01 G	Glass NM, Amber, 500 mL	
21D0065-01 H	Glass NM, Amber, 500 mL	
21D0065-01 I	Glass NM, Amber, 500 mL	
21D0065-01 J	Glass NM, Amber, 500 mL	
21D0065-01 K	HDPE NM, 500 mL, NaOH	>12 Pass
21D0065-01 L	VOA Vial, Clear, 40 mL, HCL	
21D0065-01 M	VOA Vial, Clear, 40 mL, HCL	
21D0065-01 N	VOA Vial, Clear, 40 mL, HCL	
21D0065-02 A	Glass NM, Amber, 500 mL	
21D0065-02 B	Glass NM, Amber, 500 mL	
21D0065-03 A	Glass NM, Amber, 500 mL	
21D0065-03 B	Glass NM, Amber, 500 mL	
21D0065-04 A	HDPE NM, 500 mL, NaOH	>12 Pass

SC
Preservation Confirmed By

4/6/21
Date



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Trace Volatile Organic Compounds

Method: EPA 624.1

Sampled: 03/31/2021 11:15

Instrument: NT2 Analyst: PKC

Analyzed: 04/10/2021 00:23

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 21D0065-01 N

Preparation Batch: BJD0261

Sample Size: 2 mL

Prepared: 04/09/2021

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	1	1.36	2.50	ND	ug/L	U
Vinyl Chloride	75-01-4	1	0.41	1.00	ND	ug/L	U
Bromomethane	74-83-9	1	3.69	5.00	ND	ug/L	U
Chloroethane	75-00-3	1	0.88	1.00	ND	ug/L	U
Trichlorofluoromethane	75-69-4	1	0.63	1.00	ND	ug/L	U
Acrolein	107-02-8	1	13.5	25.0	ND	ug/L	U
1,1-Dichloroethene	75-35-4	1	0.38	1.00	ND	ug/L	U
Methylene Chloride	75-09-2	1	2.65	5.00	ND	ug/L	U
Acrylonitrile	107-13-1	1	1.99	5.00	ND	ug/L	U
trans-1,2-Dichloroethene	156-60-5	1	0.35	1.00	ND	ug/L	U
1,1-Dichloroethane	75-34-3	1	0.45	1.00	ND	ug/L	U
Chloroform	67-66-3	1	0.27	1.00	115	ug/L	
1,1,1-Trichloroethane	71-55-6	1	0.39	1.00	ND	ug/L	U
Carbon tetrachloride	56-23-5	1	0.43	1.00	ND	ug/L	U
1,2-Dichloroethane	107-06-2	1	0.38	1.00	ND	ug/L	U
Benzene	71-43-2	1	0.27	1.00	ND	ug/L	U
Trichloroethene	79-01-6	1	0.35	1.00	18.2	ug/L	
1,2-Dichloropropane	78-87-5	1	0.33	1.00	ND	ug/L	U
Bromodichloromethane	75-27-4	1	0.45	1.00	ND	ug/L	U
2-Chloroethyl vinyl ether	110-75-8	1	2.73	5.00	ND	ug/L	U
cis-1,3-Dichloropropene	10061-01-5	1	0.45	1.00	ND	ug/L	U
Toluene	108-88-3	1	0.24	1.00	ND	ug/L	U
trans-1,3-Dichloropropene	10061-02-6	1	0.45	1.00	ND	ug/L	U
1,1,2-Trichloroethane	79-00-5	1	0.52	1.00	ND	ug/L	U
Tetrachloroethene	127-18-4	1	0.46	1.00	ND	ug/L	U
Dibromochloromethane	124-48-1	1	0.47	1.00	ND	ug/L	U
Chlorobenzene	108-90-7	1	0.29	1.00	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.25	1.00	ND	ug/L	U
Bromoform	75-25-2	1	0.77	1.00	ND	ug/L	U
1,1,2,2-Tetrachloroethane	79-34-5	1	0.51	1.00	ND	ug/L	U
1,3-Dichlorobenzene	541-73-1	1	0.38	1.00	ND	ug/L	U
1,4-Dichlorobenzene	106-46-7	1	0.52	1.00	ND	ug/L	U
1,2-Dichlorobenzene	95-50-1	1	0.42	1.00	ND	ug/L	U
1,2,4-Trichlorobenzene	120-82-1	1	1.04	2.50	ND	ug/L	U
Methyl tert-butyl Ether	1634-04-4	1	0.70	2.50	ND	ug/L	U



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Trace Volatile Organic Compounds

Method: EPA 624.1

Sampled: 03/31/2021 11:15

Instrument: NT2 Analyst: PKC

Analyzed: 04/10/2021 00:23

Analyte	CAS Number	Recovery	Recovery	Units	Notes
		Limits			
Surrogate: 1,2-Dichloroethane-d4		80-129 %	111	%	
Surrogate: 1,2-Dichlorobenzene-d4		80-120 %	97.7	%	
Surrogate: Toluene-d8		80-120 %	96.1	%	
Surrogate: 4-Bromofluorobenzene		80-120 %	92.0	%	
Surrogate: Dibromofluoromethane		80-120 %	109	%	



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Semivolatile Organic Compounds

Method: EPA 625.1

Sampled: 03/31/2021 11:15

Instrument: NT6 Analyst: JZ

Analyzed: 04/19/2021 14:05

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 21D0065-01 G 01

Preparation Batch: BJD0178

Sample Size: 475 mL

Prepared: 04/07/2021

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Phenol	108-95-2	1	0.16	1.05	0.83	ug/L	J
bis(2-chloroethyl) ether	111-44-4	1	0.25	1.05	ND	ug/L	U
2-Chlorophenol	95-57-8	1	0.29	1.05	ND	ug/L	U
1,3-Dichlorobenzene	541-73-1	1	0.25	1.05	ND	ug/L	U
1,4-Dichlorobenzene	106-46-7	1	0.22	1.05	ND	ug/L	U
1,2-Dichlorobenzene	95-50-1	1	0.24	1.05	ND	ug/L	U
2,2'-Oxybis(1-chloropropane)	108-60-1	1	0.20	1.05	ND	ug/L	U
Hexachloroethane	67-72-1	1	0.26	2.11	ND	ug/L	U
N-Nitroso-di-n-Propylamine	621-64-7	1	0.31	1.05	ND	ug/L	U
Nitrobenzene	98-95-3	1	0.21	1.05	ND	ug/L	U
Isophorone	78-59-1	1	0.23	1.05	ND	ug/L	U
2-Nitrophenol	88-75-5	1	1.76	3.16	ND	ug/L	U
2,4-Dimethylphenol	105-67-9	1	0.37	3.16	ND	ug/L	U
Bis(2-Chloroethoxy)methane	111-91-1	1	0.31	1.05	ND	ug/L	U
2,4-Dichlorophenol	120-83-2	1	0.86	3.16	ND	ug/L	U
Naphthalene	91-20-3	1	0.26	1.05	ND	ug/L	U
2,6-Dinitrotoluene	606-20-2	1	1.23	3.16	ND	ug/L	U
Hexachlorobutadiene	87-68-3	1	0.31	3.16	ND	ug/L	U
4-Chloro-3-Methylphenol	59-50-7	1	1.05	3.16	ND	ug/L	U
Hexachlorocyclopentadiene	77-47-4	1	1.57	5.26	ND	ug/L	U
2,4,6-Trichlorophenol	88-06-2	1	0.98	3.16	ND	ug/L	U
2-Chloronaphthalene	91-58-7	1	0.32	1.05	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.30	1.05	ND	ug/L	U
Dimethylphthalate	131-11-3	1	0.38	1.05	ND	ug/L	U
Acenaphthene	83-32-9	1	0.29	1.05	ND	ug/L	U
2,4-Dinitrophenol	51-28-5	1	4.47	21.1	ND	ug/L	U
4-Nitrophenol	100-02-7	1	0.95	10.5	ND	ug/L	U
2,4-Dinitrotoluene	121-14-2	1	1.24	3.16	ND	ug/L	U
Fluorene	86-73-7	1	0.32	1.05	ND	ug/L	U
4-Chlorophenylphenyl ether	7005-72-3	1	0.31	1.05	ND	ug/L	U
Diethyl phthalate	84-66-2	1	0.31	1.05	1.29	ug/L	
4,6-Dinitro-2-methylphenol	534-52-1	1	3.59	10.5	ND	ug/L	U
N-Nitrosodiphenylamine	86-30-6	1	0.27	1.05	ND	ug/L	U
4-Bromophenyl phenyl ether	101-55-3	1	0.39	1.05	ND	ug/L	U
Hexachlorobenzene	118-74-1	1	0.35	1.05	ND	ug/L	U



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Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Semivolatile Organic Compounds

Method: EPA 625.1

Sampled: 03/31/2021 11:15

Instrument: NT6 Analyst: JZ

Analyzed: 04/19/2021 14:05

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Pentachlorophenol	87-86-5	1	1.66	10.5	ND	ug/L	U
Phenanthrene	85-01-8	1	0.42	1.05	ND	ug/L	U
Anthracene	120-12-7	1	0.33	1.05	ND	ug/L	U
Di-n-butylphthalate	84-74-2	1	0.35	1.05	ND	ug/L	U
Fluoranthene	206-44-0	1	0.43	1.05	ND	ug/L	U
Pyrene	129-00-0	1	0.38	1.05	ND	ug/L	U
Butylbenzylphthalate	85-68-7	1	0.34	1.05	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.37	1.05	ND	ug/L	U
3,3'-Dichlorobenzidine	91-94-1	1	1.65	5.26	ND	ug/L	U
Chrysene	218-01-9	1	0.44	1.05	ND	ug/L	U
bis(2-Ethylhexyl)phthalate	117-81-7	1	0.36	3.16	ND	ug/L	U
Di-n-Octylphthalate	117-84-0	1	0.35	1.05	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.40	1.05	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.41	1.05	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.35	1.05	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.41	1.05	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.45	1.05	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.43	1.05	ND	ug/L	U
N-Nitrosodimethylamine	62-75-9	1	0.98	3.16	ND	ug/L	U
Benzidine	92-87-5	1	5.26	10.5	ND	ug/L	U

Surrogate: 2-Fluorophenol	32.5-120 %	56.0 %
Surrogate: Phenol-d5	17.8-120 %	44.8 %
Surrogate: 2-Chlorophenol-d4	55-120 %	83.2 %
Surrogate: 1,2-Dichlorobenzene-d4	49.3-120 %	69.0 %
Surrogate: Nitrobenzene-d5	56.1-120 %	78.5 %
Surrogate: 2-Fluorobiphenyl	54.4-120 %	81.9 %
Surrogate: 2,4,6-Tribromophenol	49.3-128 %	96.1 %
Surrogate: p-Terphenyl-d14	60-120 %	105 %



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Project Manager: Christina Frans

Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Chlorinated Pesticides

Method: EPA 608.3		Sampled: 03/31/2021 11:15	
Instrument: ECD6 Analyst: YZ		Analyzed: 04/28/2021 15:01	
Sample Preparation:	Preparation Method: EPA 3510C SepF	Extract ID: 21D0065-01 E 01	
	Preparation Batch: BJD0177	Sample Size: 425 mL	
	Prepared: 04/07/2021	Final Volume: 5 mL	
Sample Cleanup:	Cleanup Method: Silica Gel	Extract ID: 21D0065-01 E 01	
	Cleanup Batch: CJD0181	Initial Volume: 5 mL	
	Cleaned: 16-Apr-2021	Final Volume: 5 mL	
Sample Cleanup:	Cleanup Method: Sulfur	Extract ID: 21D0065-01 E 01	
	Cleanup Batch: CJD0180	Initial Volume: 5 mL	
	Cleaned: 16-Apr-2021	Final Volume: 5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
alpha-BHC	319-84-6	1	0.010	0.029	ND	ug/L	U
beta-BHC	319-85-7	1	0.012	0.029	ND	ug/L	U
gamma-BHC (Lindane)	58-89-9	1	0.019	0.029	ND	ug/L	U
delta-BHC	319-86-8	1	0.010	0.029	ND	ug/L	U
Heptachlor	76-44-8	1	0.013	0.029	ND	ug/L	U
Aldrin	309-00-2	1	0.012	0.029	ND	ug/L	U
Heptachlor Epoxide	1024-57-3	1	0.009	0.059	ND	ug/L	U
trans-Chlordane (beta-Chlordane)	5103-74-2	1	0.010	0.029	ND	ug/L	U
cis-Chlordane (alpha-chlordane)	5103-71-9	1	0.010	0.029	ND	ug/L	U
Endosulfan I	959-98-8	1	0.010	0.029	ND	ug/L	U
4,4'-DDE	72-55-9	1	0.022	0.059	ND	ug/L	U
Dieldrin	60-57-1	1	0.020	0.059	ND	ug/L	U
Endrin	72-20-8	1	0.020	0.059	ND	ug/L	U
Endosulfan II	33213-65-9	1	0.016	0.059	ND	ug/L	U
4,4'-DDD	72-54-8	1	0.022	0.059	ND	ug/L	U
Endrin Aldehyde	7421-93-4	1	0.019	0.059	ND	ug/L	U
4,4'-DDT	50-29-3	1	0.020	0.059	ND	ug/L	U
Endosulfan Sulfate	1031-07-8	1	0.028	0.059	ND	ug/L	U
Endrin Ketone	53494-70-5	1	0.018	0.059	ND	ug/L	U
Methoxychlor	72-43-5	1	0.088	0.294	ND	ug/L	U
Hexachlorobutadiene	87-68-3	1	0.014	0.059	ND	ug/L	U
Hexachlorobenzene	118-74-1	1	0.012	0.059	ND	ug/L	U
2,4'-DDE	3424-82-6	1	0.040	0.059	ND	ug/L	U
2,4'-DDD	53-19-0	1	0.014	0.059	ND	ug/L	U
2,4'-DDT	789-02-6	1	0.011	0.059	ND	ug/L	U
Oxychlordane	27304-13-8	1	0.042	0.059	ND	ug/L	U
cis-Nonachlor	5103-73-1	1	0.011	0.059	ND	ug/L	U
trans-Nonachlor	39765-80-5	1	0.010	0.059	ND	ug/L	U
Mirex	2385-85-5	1	0.012	0.059	ND	ug/L	U



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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Chlorinated Pesticides

Method: EPA 608.3

Sampled: 03/31/2021 11:15

Instrument: ECD6 Analyst: YZ

Analyzed: 04/28/2021 15:01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Toxaphene	8001-35-2	1	0.259	1.47	ND	ug/L	U
Surrogate: Decachlorobiphenyl				11-144 %	92.1	%	
Surrogate: Decachlorobiphenyl [2C]				11-144 %	75.2	%	
Surrogate: Tetrachlorometaxylene				30-120 %	66.9	%	
Surrogate: Tetrachlorometaxylene [2C]				30-120 %	59.3	%	



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Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Aroclor PCB

Method: EPA 608.3			Sampled: 03/31/2021 11:15
Instrument: ECD7 Analyst: JGR			Analyzed: 04/19/2021 19:00
Sample Preparation:	Preparation Method: EPA 3510C SepF		Extract ID: 21D0065-01 A 01
	Preparation Batch: BJD0122		
	Prepared: 04/07/2021	Sample Size: 1000 mL	
		Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 21D0065-01 A 01
	Cleanup Batch: CJD0184		
	Cleaned: 19-Apr-2021	Initial Volume: 0.5 mL	
		Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID:21D0065-01 A 01
	Cleanup Batch: CJD0182		
	Cleaned: 19-Apr-2021	Initial Volume: 0.5 mL	
		Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:21D0065-01 A 01
	Cleanup Batch: CJD0183		
	Cleaned: 19-Apr-2021	Initial Volume: 0.5 mL	
		Final Volume: 0.5 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.002	0.010	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.003	0.010	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.003	0.010	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.002	0.010	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.002	0.010	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.002	0.010	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.003	0.010	ND	ug/L	U
Surrogate: Decachlorobiphenyl				21-120 %	60.3	%	
Surrogate: Tetrachlorometaxylene				19-120 %	57.3	%	
Surrogate: Decachlorobiphenyl [2C]				21-120 %	64.4	%	
Surrogate: Tetrachlorometaxylene [2C]				19-120 %	47.1	%	



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Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Dioxins/Furans

Method: EPA 1613B			Sampled: 03/31/2021 11:15		
Instrument: AUTOSPEC01 Analyst: pk			Analyzed: 04/26/2021 17:41		
Sample Preparation:	Preparation Method: EPA 1613			Extract ID: 21D0065-01 D 01	
	Preparation Batch: BJD0398	Sample Size: 970 mL			
	Prepared: 04/20/2021	Final Volume: 20 uL			
Sample Cleanup:	Cleanup Method: Silica Gel			Extract ID: 21D0065-01 D 01	
	Cleanup Batch: CJD0237	Initial Volume: 20 mL			
	Cleaned: 20-Apr-2021	Final Volume: 20 mL			
Sample Cleanup:	Cleanup Method: Florisil			Extract ID: 21D0065-01 D 01	
	Cleanup Batch: CJD0238	Initial Volume: 20 mL			
	Cleaned: 20-Apr-2021	Final Volume: 20 mL			

Analyte	DF/Split	Ion Ratio	Ratio Limits	Reporting		Result	Units	Notes
				EDL	Limit			
2,3,7,8-TCDD			0.655-0.886	0.96	10.3	ND	pg/L	U
Total TCDD					10.3	ND	pg/L	U

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.48
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.00
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, EMPC = ND): 0.48
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, EMPC = ND): 0.00



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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Dioxins/Furans

Method: EPA 1613B

Sampled: 03/31/2021 11:15

Instrument: AUTOSPEC01 Analyst: pk

Analyzed: 04/26/2021 17:41

Analyte	DF/Split	Ion Ratio	Ratio Limits	Reporting Limit	Result	Units	Notes
Labeled compounds							
13C12-2,3,7,8-TCDD		0.783	0.655-0.886	25-164 %	88.4	%	
37Cl4-2,3,7,8-TCDD				35-197 %	93.9	%	



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Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Dioxins/Furans

Method: EPA 1613B

Sampled: 03/31/2021 11:15

Instrument: AUTOSPEC01 Analyst: pk

Analyzed: 04/26/2021 17:41

Analyte	DF/Split	Ion Ratio	Ratio Limits	EDL	Reporting	Result	Units	Notes
					Limit			



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Reported:
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2103028-01 (PSNS-IMF)
21D0065-01 (Water)

Wet Chemistry

Method: EPA 335.4

Sampled: 03/31/2021 11:15

Instrument: UV1800-2 Analyst: LRB

Analyzed: 04/09/2021 15:27

Sample Preparation:

Preparation Method: SM 4500-CN⁻ G-99

Extract ID: 21D0065-01 K

Preparation Batch: BJD0216

Sample Size: 50 mL

Prepared: 04/08/2021

Final Volume: 50 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Cyanide, Total	57-12-5	1	0.0050	0.0050	ND	mg/L	U



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Reported:
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2103028-08 (PSNS-IMF)
21D0065-02 (Water)

Aroclor PCB

Method: EPA 608.3			Sampled: 03/31/2021 11:15	
Instrument: ECD7 Analyst: JGR			Analyzed: 04/19/2021 19:21	
Sample Preparation:	Preparation Method: EPA 3510C SepF	Sample Size: 1000 mL Final Volume: 0.5 mL	Extract ID: 21D0065-02 A 01	
	Preparation Batch: BJD0122			
	Prepared: 04/07/2021			
Sample Cleanup:	Cleanup Method: Silica Gel	Initial Volume: 0.5 mL Final Volume: 0.5 mL	Extract ID: 21D0065-02 A 01	
	Cleanup Batch: CJD0184			
	Cleaned: 19-Apr-2021			
Sample Cleanup:	Cleanup Method: Sulfuric Acid	Initial Volume: 0.5 mL Final Volume: 0.5 mL	Extract ID: 21D0065-02 A 01	
	Cleanup Batch: CJD0182			
	Cleaned: 19-Apr-2021			
Sample Cleanup:	Cleanup Method: Sulfur	Initial Volume: 0.5 mL Final Volume: 0.5 mL	Extract ID: 21D0065-02 A 01	
	Cleanup Batch: CJD0183			
	Cleaned: 19-Apr-2021			

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.002	0.010	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.003	0.010	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.003	0.010	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.002	0.010	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.002	0.010	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.002	0.010	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.003	0.010	ND	ug/L	U
Surrogate: Decachlorobiphenyl				21-120 %	63.8	%	
Surrogate: Tetrachlorometaxylene				19-120 %	57.6	%	
Surrogate: Decachlorobiphenyl [2C]				21-120 %	68.3	%	
Surrogate: Tetrachlorometaxylene [2C]				19-120 %	51.4	%	



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Reported:
30-Apr-2021 09:27

2103028-14 (PSNS-IMF)
21D0065-03 (Water)

Aroclor PCB

Method: EPA 608.3			Sampled: 03/31/2021 10:00
Instrument: ECD7 Analyst: JGR			Analyzed: 04/19/2021 19:41
Sample Preparation:	Preparation Method: EPA 3510C SepF		Extract ID: 21D0065-03 A 01
	Preparation Batch: BJD0122		
	Prepared: 04/07/2021		
Sample Cleanup:	Sample Size: 1000 mL		Extract ID: 21D0065-03 A 01
	Final Volume: 0.5 mL		
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 21D0065-03 A 01
	Cleanup Batch: CJD0184		
	Cleaned: 19-Apr-2021		
Sample Cleanup:	Initial Volume: 0.5 mL		Extract ID: 21D0065-03 A 01
	Final Volume: 0.5 mL		
Sample Cleanup:	Cleanup Method: Sulfuric Acid		Extract ID: 21D0065-03 A 01
	Cleanup Batch: CJD0182		
	Cleaned: 19-Apr-2021		
Sample Cleanup:	Initial Volume: 0.5 mL		Extract ID: 21D0065-03 A 01
	Final Volume: 0.5 mL		
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID: 21D0065-03 A 01
	Cleanup Batch: CJD0183		
	Cleaned: 19-Apr-2021		
Sample Cleanup:	Initial Volume: 0.5 mL		Extract ID: 21D0065-03 A 01
	Final Volume: 0.5 mL		

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.002	0.010	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.003	0.010	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.003	0.010	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.002	0.010	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.002	0.010	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.002	0.010	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.003	0.010	ND	ug/L	U
Surrogate: Decachlorobiphenyl				21-120 %	57.2	%	
Surrogate: Tetrachlorometaxylene				19-120 %	60.4	%	
Surrogate: Decachlorobiphenyl [2C]				21-120 %	59.5	%	
Surrogate: Tetrachlorometaxylene [2C]				19-120 %	53.4	%	



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Reported:
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2103028-02 (PSNS-IMF)
21D0065-04 (Water)

Wet Chemistry

Method: EPA 335.4

Sampled: 04/01/2021 10:00

Instrument: UV1800-2 Analyst: LRB

Analyzed: 04/09/2021 15:30

Sample Preparation:

Preparation Method: SM 4500-CN⁻ G-99

Extract ID: 21D0065-04 A

Preparation Batch: BJD0216

Sample Size: 50 mL

Prepared: 04/08/2021

Final Volume: 50 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Cyanide, Total	57-12-5	1	0.0050	0.0050	ND	mg/L	U



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Reported:
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Trace Volatile Organic Compounds - Quality Control

Batch BJD0261 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0261-BLK2)						Prepared: 09-Apr-2021 Analyzed: 09-Apr-2021 17:21					
Chloromethane	ND	0.27	0.50	ug/L							U
Vinyl Chloride	ND	0.08	0.20	ug/L							U
Bromomethane	ND	0.74	1.00	ug/L							U
Chloroethane	ND	0.18	0.20	ug/L							U
Trichlorofluoromethane	ND	0.13	0.20	ug/L							U
Acrolein	ND	2.70	5.00	ug/L							U
1,1-Dichloroethene	ND	0.08	0.20	ug/L							U
Methylene Chloride	ND	0.53	1.00	ug/L							U
Acrylonitrile	ND	0.40	1.00	ug/L							U
trans-1,2-Dichloroethene	ND	0.07	0.20	ug/L							U
1,1-Dichloroethane	ND	0.09	0.20	ug/L							U
Chloroform	ND	0.05	0.20	ug/L							U
1,1,1-Trichloroethane	ND	0.08	0.20	ug/L							U
Carbon tetrachloride	ND	0.09	0.20	ug/L							U
1,2-Dichloroethane	ND	0.08	0.20	ug/L							U
Benzene	ND	0.05	0.20	ug/L							U
Trichloroethene	ND	0.07	0.20	ug/L							U
1,2-Dichloropropane	ND	0.07	0.20	ug/L							U
Bromodichloromethane	ND	0.09	0.20	ug/L							U
2-Chloroethyl vinyl ether	ND	0.55	1.00	ug/L							U
cis-1,3-Dichloropropene	ND	0.09	0.20	ug/L							U
Toluene	ND	0.05	0.20	ug/L							U
trans-1,3-Dichloropropene	ND	0.09	0.20	ug/L							U
1,1,2-Trichloroethane	ND	0.10	0.20	ug/L							U
Tetrachloroethene	ND	0.09	0.20	ug/L							U
Dibromochloromethane	ND	0.09	0.20	ug/L							U
Chlorobenzene	ND	0.06	0.20	ug/L							U
Ethylbenzene	ND	0.05	0.20	ug/L							U
Bromoform	ND	0.15	0.20	ug/L							U
1,1,2,2-Tetrachloroethane	ND	0.10	0.20	ug/L							U
1,3-Dichlorobenzene	ND	0.08	0.20	ug/L							U
1,4-Dichlorobenzene	ND	0.10	0.20	ug/L							U
1,2-Dichlorobenzene	ND	0.08	0.20	ug/L							U
1,2,4-Trichlorobenzene	ND	0.21	0.50	ug/L							U
Methyl tert-butyl Ether	ND	0.14	0.50	ug/L							U



Washington State Dept of Ecology
7411 Beach Drive East
Port Orchard WA, 98366-8204

Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

Trace Volatile Organic Compounds - Quality Control

Batch BJD0261 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0261-BLK2)						Prepared: 09-Apr-2021	Analyzed: 09-Apr-2021 17:21				
Surrogate: 1,2-Dichloroethane-d4	5.44			ug/L	5.00		109	80-129			
Surrogate: 1,2-Dichlorobenzene-d4	4.97			ug/L	5.00		99.4	80-120			
Surrogate: Toluene-d8	4.97			ug/L	5.00		99.4	80-120			
Surrogate: 4-Bromofluorobenzene	4.62			ug/L	5.00		92.5	80-120			
Surrogate: Dibromofluoromethane	5.39			ug/L	5.00		108	80-120			
LCS (BJD0261-BS2)						Prepared: 09-Apr-2021	Analyzed: 09-Apr-2021 15:17				
Chloromethane	10.6	0.27	0.50	ug/L	10.0		106	60-138			
Vinyl Chloride	10.4	0.08	0.20	ug/L	10.0		104	66-133			
Bromomethane	11.4	0.74	1.00	ug/L	10.0		114	72-131			
Chloroethane	11.7	0.18	0.20	ug/L	10.0		117	60-155			
Trichlorofluoromethane	17.3	0.13	0.20	ug/L	10.0		173	62-141			*, Q
Acrolein	59.1	2.70	5.00	ug/L	50.0		118	52-190			
1,1-Dichloroethene	12.0	0.08	0.20	ug/L	10.0		120	69-135			
Methylene Chloride	11.0	0.53	1.00	ug/L	10.0		110	65-135			
Acrylonitrile	8.46	0.40	1.00	ug/L	10.0		84.6	64-134			
trans-1,2-Dichloroethene	10.8	0.07	0.20	ug/L	10.0		108	78-128			
1,1-Dichloroethane	10.2	0.09	0.20	ug/L	10.0		102	76-124			
Chloroform	10.0	0.05	0.20	ug/L	10.0		100	80-122			
1,1,1-Trichloroethane	10.1	0.08	0.20	ug/L	10.0		101	79-123			
Carbon tetrachloride	9.55	0.09	0.20	ug/L	10.0		95.5	53-137			
1,2-Dichloroethane	10.2	0.08	0.20	ug/L	10.0		102	75-123			
Benzene	9.74	0.05	0.20	ug/L	10.0		97.4	80-120			
Trichloroethene	9.74	0.07	0.20	ug/L	10.0		97.4	80-120			
1,2-Dichloropropane	9.75	0.07	0.20	ug/L	10.0		97.5	80-120			
Bromodichloromethane	9.40	0.09	0.20	ug/L	10.0		94.0	80-121			
2-Chloroethyl vinyl ether	9.30	0.55	1.00	ug/L	10.0		93.0	64-120			
cis-1,3-Dichloropropene	10.3	0.09	0.20	ug/L	10.0		103	80-124			
Toluene	9.63	0.05	0.20	ug/L	10.0		96.3	80-120			
trans-1,3-Dichloropropene	10.5	0.09	0.20	ug/L	10.0		105	71-127			
1,1,2-Trichloroethane	9.87	0.10	0.20	ug/L	10.0		98.7	80-121			
Tetrachloroethene	8.98	0.09	0.20	ug/L	10.0		89.8	80-120			
Dibromochloromethane	9.22	0.09	0.20	ug/L	10.0		92.2	65-135			
Chlorobenzene	9.80	0.06	0.20	ug/L	10.0		98.0	80-120			
Ethylbenzene	9.49	0.05	0.20	ug/L	10.0		94.9	80-120			



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Project Manager: Christina Frans

Reported:
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Trace Volatile Organic Compounds - Quality Control

Batch BJD0261 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJD0261-BS2)						Prepared: 09-Apr-2021	Analyzed: 09-Apr-2021 15:17				
Bromoform	7.27	0.15	0.20	ug/L	10.0		72.7	51-134			Q
1,1,2,2-Tetrachloroethane	9.29	0.10	0.20	ug/L	10.0		92.9	77-123			
1,3-Dichlorobenzene	9.68	0.08	0.20	ug/L	10.0		96.8	80-120			
1,4-Dichlorobenzene	9.84	0.10	0.20	ug/L	10.0		98.4	80-120			
1,2-Dichlorobenzene	9.79	0.08	0.20	ug/L	10.0		97.9	80-120			
1,2,4-Trichlorobenzene	9.83	0.21	0.50	ug/L	10.0		98.3	64-124			
Methyl tert-butyl Ether	9.62	0.14	0.50	ug/L	10.0		96.2	71-132			
Surrogate: 1,2-Dichloroethane-d4	5.27			ug/L	5.00		105	80-129			
Surrogate: 1,2-Dichlorobenzene-d4	4.95			ug/L	5.00		99.0	80-120			
Surrogate: Toluene-d8	4.92			ug/L	5.00		98.4	80-120			
Surrogate: 4-Bromofluorobenzene	5.02			ug/L	5.00		100	80-120			
Surrogate: Dibromofluoromethane	5.22			ug/L	5.00		104	80-120			
LCS Dup (BJD0261-BS2)						Prepared: 09-Apr-2021	Analyzed: 09-Apr-2021 15:58				
Chloromethane	11.3	0.27	0.50	ug/L	10.0		113	60-138	5.93	30	
Vinyl Chloride	11.0	0.08	0.20	ug/L	10.0		110	66-133	5.60	30	
Bromomethane	11.9	0.74	1.00	ug/L	10.0		119	72-131	4.65	30	
Chloroethane	11.9	0.18	0.20	ug/L	10.0		119	60-155	1.26	30	
Trichlorofluoromethane	19.1	0.13	0.20	ug/L	10.0		191	62-141	10.10	30	*, Q
Acrolein	64.6	2.70	5.00	ug/L	50.0		129	52-190	8.94	30	
1,1-Dichloroethene	12.7	0.08	0.20	ug/L	10.0		127	69-135	5.58	30	
Methylene Chloride	11.5	0.53	1.00	ug/L	10.0		115	65-135	4.82	30	
Acrylonitrile	8.81	0.40	1.00	ug/L	10.0		88.1	64-134	4.16	30	
trans-1,2-Dichloroethene	11.3	0.07	0.20	ug/L	10.0		113	78-128	5.17	30	
1,1-Dichloroethane	10.9	0.09	0.20	ug/L	10.0		109	76-124	6.81	30	
Chloroform	10.8	0.05	0.20	ug/L	10.0		108	80-122	7.77	30	
1,1,1-Trichloroethane	11.0	0.08	0.20	ug/L	10.0		110	79-123	8.33	30	
Carbon tetrachloride	10.4	0.09	0.20	ug/L	10.0		104	53-137	8.61	30	
1,2-Dichloroethane	11.0	0.08	0.20	ug/L	10.0		110	75-123	7.20	30	
Benzene	10.5	0.05	0.20	ug/L	10.0		105	80-120	7.46	30	
Trichloroethene	10.5	0.07	0.20	ug/L	10.0		105	80-120	7.69	30	
1,2-Dichloropropane	10.5	0.07	0.20	ug/L	10.0		105	80-120	7.33	30	
Bromodichloromethane	10.1	0.09	0.20	ug/L	10.0		101	80-121	7.03	30	
2-Chloroethyl vinyl ether	9.48	0.55	1.00	ug/L	10.0		94.8	64-120	1.96	30	
cis-1,3-Dichloropropene	11.1	0.09	0.20	ug/L	10.0		111	80-124	7.57	30	



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Trace Volatile Organic Compounds - Quality Control

Batch BJD0261 - EPA 5030C (Purge and Trap)

Instrument: NT2 Analyst: PKC

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJD0261-BSD2)						Prepared: 09-Apr-2021 Analyzed: 09-Apr-2021 15:58					
Toluene	10.3	0.05	0.20	ug/L	10.0		103	80-120	6.78	30	
trans-1,3-Dichloropropene	11.2	0.09	0.20	ug/L	10.0		112	71-127	6.39	30	
1,1,2-Trichloroethane	10.6	0.10	0.20	ug/L	10.0		106	80-121	6.79	30	
Tetrachloroethene	10.1	0.09	0.20	ug/L	10.0		101	80-120	11.60	30	
Dibromochloromethane	9.98	0.09	0.20	ug/L	10.0		99.8	65-135	7.83	30	
Chlorobenzene	10.6	0.06	0.20	ug/L	10.0		106	80-120	8.17	30	
Ethylbenzene	10.5	0.05	0.20	ug/L	10.0		105	80-120	9.80	30	
Bromoform	8.09	0.15	0.20	ug/L	10.0		80.9	51-134	10.60	30	Q
1,1,2,2-Tetrachloroethane	10.0	0.10	0.20	ug/L	10.0		100	77-123	7.57	30	
1,3-Dichlorobenzene	10.7	0.08	0.20	ug/L	10.0		107	80-120	10.20	30	
1,4-Dichlorobenzene	10.8	0.10	0.20	ug/L	10.0		108	80-120	9.66	30	
1,2-Dichlorobenzene	10.7	0.08	0.20	ug/L	10.0		107	80-120	9.21	30	
1,2,4-Trichlorobenzene	11.0	0.21	0.50	ug/L	10.0		110	64-124	11.30	30	
Methyl tert-butyl Ether	10.4	0.14	0.50	ug/L	10.0		104	71-132	7.81	30	
Surrogate: 1,2-Dichloroethane-d4	5.08			ug/L	5.00		102	80-129			
Surrogate: 1,2-Dichlorobenzene-d4	4.97			ug/L	5.00		99.4	80-120			
Surrogate: Toluene-d8	4.92			ug/L	5.00		98.3	80-120			
Surrogate: 4-Bromofluorobenzene	4.93			ug/L	5.00		98.6	80-120			
Surrogate: Dibromofluoromethane	5.32			ug/L	5.00		106	80-120			



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Project: Northwest Pretreatment 2021
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Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

Semivolatile Organic Compounds - Quality Control

Batch BJD0178 - EPA 3510C SepF

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0178-BLK1)						Prepared: 07-Apr-2021 Analyzed: 19-Apr-2021 12:58					
Phenol	ND	0.15	1.00	ug/L							U
bis(2-chloroethyl) ether	ND	0.24	1.00	ug/L							U
2-Chlorophenol	ND	0.28	1.00	ug/L							U
1,3-Dichlorobenzene	ND	0.24	1.00	ug/L							U
1,4-Dichlorobenzene	ND	0.21	1.00	ug/L							U
1,2-Dichlorobenzene	ND	0.23	1.00	ug/L							U
2,2'-Oxybis(1-chloropropane)	ND	0.19	1.00	ug/L							U
Hexachloroethane	ND	0.24	2.00	ug/L							U
N-Nitroso-di-n-Propylamine	ND	0.30	1.00	ug/L							U
Nitrobenzene	ND	0.20	1.00	ug/L							U
Isophorone	ND	0.22	1.00	ug/L							U
2-Nitrophenol	ND	1.67	3.00	ug/L							U
2,4-Dimethylphenol	ND	0.35	3.00	ug/L							U
Bis(2-Chloroethoxy)methane	ND	0.29	1.00	ug/L							U
2,4-Dichlorophenol	ND	0.82	3.00	ug/L							U
Naphthalene	ND	0.24	1.00	ug/L							U
2,6-Dinitrotoluene	ND	1.17	3.00	ug/L							U
Hexachlorobutadiene	ND	0.30	3.00	ug/L							U
4-Chloro-3-Methylphenol	ND	1.00	3.00	ug/L							U
Hexachlorocyclopentadiene	ND	1.49	5.00	ug/L							U
2,4,6-Trichlorophenol	ND	0.93	3.00	ug/L							U
2-Chloronaphthalene	ND	0.30	1.00	ug/L							U
Acenaphthylene	ND	0.29	1.00	ug/L							U
Dimethylphthalate	ND	0.36	1.00	ug/L							U
Acenaphthene	ND	0.27	1.00	ug/L							U
2,4-Dinitrophenol	ND	4.25	20.0	ug/L							U
4-Nitrophenol	ND	0.90	10.0	ug/L							U
2,4-Dinitrotoluene	ND	1.18	3.00	ug/L							U
Fluorene	ND	0.31	1.00	ug/L							U
4-Chlorophenylphenyl ether	ND	0.30	1.00	ug/L							U
Diethyl phthalate	ND	0.29	1.00	ug/L							U
4,6-Dinitro-2-methylphenol	ND	3.41	10.0	ug/L							U
N-Nitrosodiphenylamine	ND	0.25	1.00	ug/L							U
4-Bromophenyl phenyl ether	ND	0.37	1.00	ug/L							U
Hexachlorobenzene	ND	0.33	1.00	ug/L							U



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Semivolatile Organic Compounds - Quality Control

Batch BJD0178 - EPA 3510C SepF

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0178-BLK1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 12:58				
Pentachlorophenol	ND	1.58	10.0	ug/L							U
Phenanthrene	ND	0.40	1.00	ug/L							U
Anthracene	ND	0.32	1.00	ug/L							U
Di-n-butylphthalate	ND	0.34	1.00	ug/L							U
Fluoranthene	ND	0.40	1.00	ug/L							U
Pyrene	ND	0.36	1.00	ug/L							U
Butylbenzylphthalate	ND	0.32	1.00	ug/L							U
Benzo(a)anthracene	ND	0.35	1.00	ug/L							U
3,3'-Dichlorobenzidine	ND	1.57	5.00	ug/L							U
Chrysene	ND	0.42	1.00	ug/L							U
bis(2-Ethylhexyl)phthalate	ND	0.35	3.00	ug/L							U
Di-n-Octylphthalate	ND	0.33	1.00	ug/L							U
Benzo(b)fluoranthene	ND	0.38	1.00	ug/L							U
Benzo(k)fluoranthene	ND	0.39	1.00	ug/L							U
Benzo(a)pyrene	ND	0.33	1.00	ug/L							U
Indeno(1,2,3-cd)pyrene	ND	0.39	1.00	ug/L							U
Dibenzo(a,h)anthracene	ND	0.43	1.00	ug/L							U
Benzo(g,h,i)perylene	ND	0.41	1.00	ug/L							U
N-Nitrosodimethylamine	ND	0.94	3.00	ug/L							U
Benzidine	ND	5.00	10.0	ug/L							U
Surrogate: 2-Fluorophenol	19.3			ug/L	37.5		51.5	32.5-120			
Surrogate: Phenol-d5	13.9			ug/L	37.5		37.0	17.8-120			
Surrogate: 2-Chlorophenol-d4	28.1			ug/L	37.5		75.0	55-120			
Surrogate: 1,2-Dichlorobenzene-d4	15.1			ug/L	25.0		60.5	49.3-120			
Surrogate: Nitrobenzene-d5	17.3			ug/L	25.0		69.2	56.1-120			
Surrogate: 2-Fluorobiphenyl	18.1			ug/L	25.0		72.4	54.4-120			
Surrogate: 2,4,6-Tribromophenol	33.7			ug/L	37.5		89.9	49.3-128			
Surrogate: p-Terphenyl-d14	25.0			ug/L	25.0		99.9	60-120			

LCS (BJD0178-BS1)

						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 13:32				
Phenol	7.17	0.15	1.00	ug/L	25.0		28.7	10-120			
bis(2-chloroethyl) ether	16.3	0.24	1.00	ug/L	25.0		65.2	57.3-120			
2-Chlorophenol	15.2	0.28	1.00	ug/L	25.0		60.9	55.2-120			
1,3-Dichlorobenzene	13.5	0.24	1.00	ug/L	25.0		54.1	46.6-120			
1,4-Dichlorobenzene	14.6	0.21	1.00	ug/L	25.0		58.3	47.5-120			



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Semivolatile Organic Compounds - Quality Control

Batch BJD0178 - EPA 3510C SepF

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJD0178-BS1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 13:32				
1,2-Dichlorobenzene	13.2	0.23	1.00	ug/L	25.0		52.9	49.1-120			
2,2'-Oxybis(1-chloropropane)	18.5	0.19	1.00	ug/L	25.0		73.8	52.3-120			
Hexachloroethane	12.3	0.24	2.00	ug/L	25.0		49.1	40.3-120			
N-Nitroso-di-n-Propylamine	16.6	0.30	1.00	ug/L	25.0		66.2	59.3-120			
Nitrobenzene	16.4	0.20	1.00	ug/L	25.0		65.5	60.8-120			
Isophorone	23.4	0.22	1.00	ug/L	25.0		93.6	77-146			
2-Nitrophenol	19.8	1.67	3.00	ug/L	25.0		79.1	68-120			
2,4-Dimethylphenol	38.9	0.35	3.00	ug/L	65.0		59.9	50.4-120			
Bis(2-Chloroethoxy)methane	19.0	0.29	1.00	ug/L	25.0		76.0	65.2-120			
2,4-Dichlorophenol	47.2	0.82	3.00	ug/L	65.0		72.5	56.6-120			
Naphthalene	17.8	0.24	1.00	ug/L	25.0		71.1	51.9-120			
2,6-Dinitrotoluene	62.2	1.17	3.00	ug/L	65.0		95.7	78.2-141			Q
Hexachlorobutadiene	13.4	0.30	3.00	ug/L	25.0		53.6	45.2-120			
4-Chloro-3-Methylphenol	46.9	1.00	3.00	ug/L	65.0		72.2	54.6-120			
Hexachlorocyclopentadiene	31.5	1.49	5.00	ug/L	65.0		48.4	29.3-120			Q
2,4,6-Trichlorophenol	49.3	0.93	3.00	ug/L	65.0		75.8	58.5-120			
2-Chloronaphthalene	18.5	0.30	1.00	ug/L	25.0		73.9	56-120			
Acenaphthylene	20.6	0.29	1.00	ug/L	25.0		82.3	56.5-120			
Dimethylphthalate	20.6	0.36	1.00	ug/L	25.0		82.4	65-120			
Acenaphthene	20.2	0.27	1.00	ug/L	25.0		80.7	60.9-120			
2,4-Dinitrophenol	124	4.25	20.0	ug/L	115		108	10-168			
4-Nitrophenol	23.7	0.90	10.0	ug/L	65.0		36.4	12.1-120			
2,4-Dinitrotoluene	54.1	1.18	3.00	ug/L	65.0		83.3	72.7-138			
Fluorene	22.0	0.31	1.00	ug/L	25.0		88.0	62.3-120			
4-Chlorophenylphenyl ether	20.5	0.30	1.00	ug/L	25.0		82.2	66.2-120			
Diethyl phthalate	21.0	0.29	1.00	ug/L	25.0		83.8	62-120			
4,6-Dinitro-2-methylphenol	102	3.41	10.0	ug/L	115		89.1	32.6-159			
N-Nitrosodiphenylamine	20.0	0.25	1.00	ug/L	25.0		80.1	66-120			
4-Bromophenyl phenyl ether	20.6	0.37	1.00	ug/L	25.0		82.6	66.2-120			
Hexachlorobenzene	21.3	0.33	1.00	ug/L	25.0		85.4	62.2-120			
Pentachlorophenol	45.1	1.58	10.0	ug/L	65.0		69.3	40.7-124			
Phenanthrene	21.9	0.40	1.00	ug/L	25.0		87.7	61-120			
Anthracene	20.7	0.32	1.00	ug/L	25.0		82.7	64.6-120			
Di-n-butylphthalate	22.6	0.34	1.00	ug/L	25.0		90.3	69.2-120			
Fluoranthene	21.2	0.40	1.00	ug/L	25.0		84.7	67.9-120			



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Project: Northwest Pretreatment 2021
Project Number: Northwest Pretreatment 2021
Project Manager: Christina Frans

Reported:
30-Apr-2021 09:27

Semivolatile Organic Compounds - Quality Control

Batch BJD0178 - EPA 3510C SepF

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJD0178-BS1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 13:32				
Pyrene	24.2	0.36	1.00	ug/L	25.0		96.8	69-135			
Butylbenzylphthalate	24.1	0.32	1.00	ug/L	25.0		96.2	71-139			
Benzo(a)anthracene	23.0	0.35	1.00	ug/L	25.0		92.0	65-133			
3,3'-Dichlorobenzidine	35.9	1.57	5.00	ug/L	40.0		89.8	41-171			
Chrysene	21.6	0.42	1.00	ug/L	25.0		86.5	61.5-120			
bis(2-Ethylhexyl)phthalate	22.2	0.35	3.00	ug/L	25.0		88.6	67.2-123			
Di-n-Octylphthalate	22.1	0.33	1.00	ug/L	25.0		88.5	60.9-120			
Benzo(b)fluoranthene	22.3	0.38	1.00	ug/L	25.0		89.2	67-120			
Benzo(k)fluoranthene	22.8	0.39	1.00	ug/L	25.0		91.1	66-131			
Benzo(a)pyrene	22.3	0.33	1.00	ug/L	25.0		89.1	74-121			
Indeno(1,2,3-cd)pyrene	23.2	0.39	1.00	ug/L	25.0		92.8	40-147			
Dibenzo(a,h)anthracene	23.3	0.43	1.00	ug/L	25.0		93.2	37-148			
Benzo(g,h,i)perylene	23.1	0.41	1.00	ug/L	25.0		92.6	49.4-120			
N-Nitrosodimethylamine	29.7	0.94	3.00	ug/L	65.0		45.7	17.7-120			
Benzidine	105	5.00	10.0	ug/L	125		84.1	10-120			Q
Surrogate: 2-Fluorophenol	18.5			ug/L	37.5		49.4	32.5-120			
Surrogate: Phenol-d5	14.9			ug/L	37.5		39.8	17.8-120			
Surrogate: 2-Chlorophenol-d4	27.4			ug/L	37.5		73.1	55-120			
Surrogate: 1,2-Dichlorobenzene-d4	15.4			ug/L	25.0		61.6	49.3-120			
Surrogate: Nitrobenzene-d5	18.6			ug/L	25.0		74.5	56.1-120			
Surrogate: 2-Fluorobiphenyl	19.6			ug/L	25.0		78.5	54.4-120			
Surrogate: 2,4,6-Tribromophenol	37.3			ug/L	37.5		99.4	49.3-128			
Surrogate: p-Terphenyl-d14	26.4			ug/L	25.0		105	60-120			



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Project: Northwest Pretreatment 2021
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Project Manager: Christina Frans

Reported:
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Chlorinated Pesticides - Quality Control

Batch BJD0177 - EPA 3510C SepF

Instrument: ECD6 Analyst: YZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0177-BLK1)						Prepared: 07-Apr-2021 Analyzed: 28-Apr-2021 14:24					
alpha-BHC	ND	0.009	0.025	ug/L							U
beta-BHC	ND	0.010	0.025	ug/L							U
gamma-BHC (Lindane)	ND	0.016	0.025	ug/L							U
delta-BHC	ND	0.009	0.025	ug/L							U
Heptachlor	ND	0.011	0.025	ug/L							U
Aldrin	ND	0.010	0.025	ug/L							U
Heptachlor Epoxide	ND	0.008	0.050	ug/L							U
trans-Chlordane (beta-Chlordane)	ND	0.008	0.025	ug/L							U
cis-Chlordane (alpha-chlordane)	ND	0.008	0.025	ug/L							U
Endosulfan I	ND	0.009	0.025	ug/L							U
4,4'-DDE	ND	0.018	0.050	ug/L							U
Dieldrin	ND	0.017	0.050	ug/L							U
Endrin	ND	0.017	0.050	ug/L							U
Endosulfan II	ND	0.014	0.050	ug/L							U
4,4'-DDD	ND	0.019	0.050	ug/L							U
Endrin Aldehyde	ND	0.016	0.050	ug/L							U
4,4'-DDT	ND	0.017	0.050	ug/L							U
Endosulfan Sulfate	ND	0.024	0.050	ug/L							U
Endrin Ketone	ND	0.015	0.050	ug/L							U
Methoxychlor	ND	0.074	0.250	ug/L							U
Hexachlorobutadiene	0.022	0.012	0.050	ug/L							J
Hexachlorobenzene	ND	0.010	0.050	ug/L							U
2,4'-DDE	ND	0.034	0.050	ug/L							U
2,4'-DDD	ND	0.012	0.050	ug/L							U
2,4'-DDT	ND	0.009	0.050	ug/L							U
Oxychlordane	ND	0.036	0.050	ug/L							U
cis-Nonachlor	ND	0.010	0.050	ug/L							U
trans-Nonachlor	ND	0.009	0.050	ug/L							U
Mirex	ND	0.010	0.050	ug/L							U
Toxaphene	ND	0.220	1.25	ug/L							U
Surrogate: Decachlorobiphenyl	0.352			ug/L	0.400		87.9	11-144			
Surrogate: Decachlorobiphenyl [2C]	0.287			ug/L	0.400		71.8	11-144			
Surrogate: Tetrachlorometaxylene	0.231			ug/L	0.400		57.7	30-120			
Surrogate: Tetrachlorometaxylene [2C]	0.241			ug/L	0.400		60.3	30-120			



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Chlorinated Pesticides - Quality Control

Batch BJD0177 - EPA 3510C SepF

Instrument: ECD6 Analyst: YZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJD0177-BS1)						Prepared: 07-Apr-2021	Analyzed: 28-Apr-2021 14:42				
alpha-BHC [2C]	0.145	0.009	0.025	ug/L	0.200		72.6	57-120			
beta-BHC [2C]	0.147	0.010	0.025	ug/L	0.200		73.6	59-120			
gamma-BHC (Lindane) [2C]	0.148	0.016	0.025	ug/L	0.200		74.0	62-120			
delta-BHC [2C]	0.152	0.009	0.025	ug/L	0.200		76.2	15-145			
Heptachlor [2C]	0.134	0.011	0.025	ug/L	0.200		66.9	54-120			
Aldrin [2C]	0.132	0.010	0.025	ug/L	0.200		66.1	47-120			
Heptachlor Epoxide [2C]	0.157	0.008	0.050	ug/L	0.200		78.4	63-120			
trans-Chlordane (beta-Chlordane) [2C]	0.157	0.008	0.025	ug/L	0.200		78.6	63-120			
cis-Chlordane (alpha-chlordane) [2C]	0.157	0.008	0.025	ug/L	0.200		78.7	60-120			
Endosulfan I [2C]	0.161	0.009	0.025	ug/L	0.200		80.7	58-121			
4,4'-DDE [2C]	0.323	0.018	0.050	ug/L	0.400		80.8	69-128			
Dieldrin [2C]	0.337	0.017	0.050	ug/L	0.400		84.3	62-120			
Endrin	0.367	0.017	0.050	ug/L	0.400		91.7	64-120			
Endosulfan II	0.395	0.014	0.050	ug/L	0.400		98.7	64-120			
4,4'-DDD	0.378	0.019	0.050	ug/L	0.400		94.6	63-120			
Endrin Aldehyde	0.292	0.016	0.050	ug/L	0.400		72.9	41-120			
4,4'-DDT	0.361	0.017	0.050	ug/L	0.400		90.1	57-124			
Endosulfan Sulfate	0.363	0.024	0.050	ug/L	0.400		90.7	47-120			
Endrin Ketone	0.309	0.015	0.050	ug/L	0.400		77.3	58-120			
Methoxychlor	1.69	0.074	0.250	ug/L	2.00		84.6	56-120			
Hexachlorobutadiene [2C]	0.119	0.012	0.050	ug/L	0.200		59.5	20-120			
Hexachlorobenzene [2C]	0.113	0.010	0.050	ug/L	0.200		56.7	41-120			
Surrogate: Decachlorobiphenyl	0.334			ug/L	0.400		83.6	11-144			
Surrogate: Decachlorobiphenyl [2C]	0.253			ug/L	0.400		63.2	11-144			
Surrogate: Tetrachlorometaxylene	0.227			ug/L	0.400		56.8	30-120			
Surrogate: Tetrachlorometaxylene [2C]	0.246			ug/L	0.400		61.4	30-120			



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Reported:
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Aroclor PCB - Quality Control

Batch BJD0122 - EPA 3510C SepF

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0122-BLK1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 17:59				
Aroclor 1016	ND	0.002	0.010	ug/L							U
Aroclor 1221	ND	0.003	0.010	ug/L							U
Aroclor 1232	ND	0.003	0.010	ug/L							U
Aroclor 1242	ND	0.002	0.010	ug/L							U
Aroclor 1248	ND	0.002	0.010	ug/L							U
Aroclor 1254	ND	0.002	0.010	ug/L							U
Aroclor 1260	ND	0.003	0.010	ug/L							U
Surrogate: Decachlorobiphenyl	0.0115			ug/L	0.0200		57.6	21-120			
Surrogate: Tetrachlorometaxylene	0.0112			ug/L	0.0200		55.9	19-120			
Surrogate: Decachlorobiphenyl [2C]	0.0120			ug/L	0.0200		59.9	21-120			
Surrogate: Tetrachlorometaxylene [2C]	0.00908			ug/L	0.0200		45.4	19-120			
LCS (BJD0122-BS1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 18:19				
Aroclor 1016	0.046	0.002	0.010	ug/L	0.0500		92.7	44-120			
Aroclor 1260	0.036	0.003	0.010	ug/L	0.0500		73.0	46-131			
Surrogate: Decachlorobiphenyl	0.0117			ug/L	0.0200		58.3	21-120			
Surrogate: Tetrachlorometaxylene	0.0130			ug/L	0.0200		64.9	19-120			
Surrogate: Decachlorobiphenyl [2C]	0.0119			ug/L	0.0200		59.5	21-120			
Surrogate: Tetrachlorometaxylene [2C]	0.0103			ug/L	0.0200		51.6	19-120			
LCS Dup (BJD0122-BSD1)						Prepared: 07-Apr-2021	Analyzed: 19-Apr-2021 18:40				
Aroclor 1016	0.042	0.002	0.010	ug/L	0.0500		84.9	44-120	8.76	30	
Aroclor 1260	0.036	0.003	0.010	ug/L	0.0500		71.1	46-131	2.57	30	
Surrogate: Decachlorobiphenyl	0.0117			ug/L	0.0200		58.5	21-120			
Surrogate: Tetrachlorometaxylene	0.0114			ug/L	0.0200		56.8	19-120			
Surrogate: Decachlorobiphenyl [2C]	0.0123			ug/L	0.0200		61.5	21-120			
Surrogate: Tetrachlorometaxylene [2C]	0.00939			ug/L	0.0200		46.9	19-120			



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Project: Northwest Pretreatment 2021
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Reported:
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Dioxins/Furans - Quality Control

Batch BJD0398 - EPA 1613

Instrument: AUTOSPEC01 Analyst: pl

QC Sample/Analyte	Ion Ratio	Ratio Limits	EDL	Reporting Limit	Result	Units	%REC Limits	RPD Limit	Notes
DBLK20 (BJD0398-BLK1)				Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 12:47			
2,3,7,8-TCDD		0.655-0.886	1.15	10.0	ND	pg/L			U
Total TCDD				10.0	ND	pg/L			U
Labeled compounds									

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.03
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.00
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, EMPC=ND): 0.03
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0 EDL, EMPC=ND): 0.00



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Reported:
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Dioxins/Furans - Quality Control

Batch BJD0398 - EPA 1613

Instrument: AUTOSPEC01 Analyst: pl

QC Sample/Analyte	Ion Ratio	Ratio Limits	EDL	Reporting Limit	Result	Units	%REC	%REC Limits	RPD	RPD Limit	Notes
DBLK20 (BJD0398-BLK1)					Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 12:47				
13C12-2,3,7,8-TCDD	0.801	0.655-0.886			96.3				25-164 %		
37Cl4-2,3,7,8-TCDD					97.4				35-197 %		
DLC20 (BJD0398-BS1)					Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 13:35				
2,3,7,8-TCDD	0.777	0.655-0.886		10.0	190	pg/L	95.1	67-158 %			
Labeled compounds											



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Dioxins/Furans - Quality Control

Batch BJD0398 - EPA 1613

Instrument: AUTOSPEC01 Analyst: pl

QC Sample/Analyte	Ion Ratio	Ratio Limits	EDL	Reporting Limit	Result	Units	%REC	%REC Limits	RPD	RPD Limit	Notes
DLCS20 (BJD0398-BS1)					Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 13:35				
13C12-2,3,7,8-TCDD	0.787	0.655-0.886			88.3				25-164 %		
37Cl4-2,3,7,8-TCDD					94.4				35-197 %		
DLCSD20 (BJD0398-BSD1)					Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 14:24				
2,3,7,8-TCDD	0.818	0.655-0.886		10.0	189	pg/L	94.6	67-158 %	0.63	25	
Labeled compounds											



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Dioxins/Furans - Quality Control

Batch BJD0398 - EPA 1613

Instrument: AUTOSPEC01 Analyst: pl

QC Sample/Analyte	Ion Ratio	Ratio Limits	EDL	Reporting Limit	Result	Units	%REC	%REC Limits	RPD	RPD Limit	Notes
DLCS20 (BJD0398-BSD1)				Prepared: 20-Apr-2021		Analyzed: 26-Apr-2021 14:24					
13C12-2,3,7,8-TCDD	0.797	0.655-0.886			92.4				25-164 %		
37Cl4-2,3,7,8-TCDD					96.0				35-197 %		



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Reported:
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Wet Chemistry - Quality Control

Batch BJD0216 - SM 4500-CN⁻ G-99

Instrument: UV1800-2 Analyst: LRB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJD0216-BLK1)					Prepared: 08-Apr-2021 Analyzed: 09-Apr-2021 15:25						
Cyanide, Total	ND	0.0050	0.0050	mg/L							U
LCS (BJD0216-BS1)					Prepared: 08-Apr-2021 Analyzed: 09-Apr-2021 15:27						
Cyanide, Total	0.128	0.0050	0.0050	mg/L	0.150		85.1	75-125			
Duplicate (BJD0216-DUP1)					Source: 21D0065-01 Prepared: 08-Apr-2021 Analyzed: 09-Apr-2021 15:28						
Cyanide, Total	ND	0.0050	0.0050	mg/L		ND					U
Matrix Spike (BJD0216-MS2)					Source: 21D0065-01 Prepared: 08-Apr-2021 Analyzed: 09-Apr-2021 15:46						
Cyanide, Total	0.126	0.0050	0.0050	mg/L	0.149	ND	84.6	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Certified Analyses included in this Report

Analyte	Certifications
EPA 1613B in Water	
2,3,7,8-TCDF	DoD-ELAP,NELAP,WADOE
2,3,7,8-TCDF	DoD-ELAP,NELAP,WADOE
2,3,7,8-TCDF	DoD-ELAP,NELAP
2,3,7,8-TCDF	DoD-ELAP,WADOE
2,3,7,8-TCDD	DoD-ELAP,NELAP,WADOE
2,3,7,8-TCDD	DoD-ELAP,WADOE
2,3,7,8-TCDD	DoD-ELAP,NELAP
2,3,7,8-TCDD	DoD-ELAP,NELAP,WADOE
1,2,3,7,8-PeCDF	DoD-ELAP,NELAP,WADOE
1,2,3,7,8-PeCDF	DoD-ELAP,NELAP
1,2,3,7,8-PeCDF	DoD-ELAP,WADOE
1,2,3,7,8-PeCDF	DoD-ELAP,NELAP,WADOE
2,3,4,7,8-PeCDF	DoD-ELAP,NELAP,WADOE
2,3,4,7,8-PeCDF	DoD-ELAP,NELAP
2,3,4,7,8-PeCDF	DoD-ELAP,WADOE
2,3,4,7,8-PeCDF	DoD-ELAP,NELAP,WADOE
1,2,3,7,8-PeCDD	DoD-ELAP,NELAP,WADOE
1,2,3,7,8-PeCDD	DoD-ELAP,WADOE
1,2,3,7,8-PeCDD	DoD-ELAP,NELAP,WADOE
1,2,3,7,8-PeCDD	DoD-ELAP,NELAP
1,2,3,4,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
1,2,3,4,7,8-HxCDF	DoD-ELAP,WADOE
1,2,3,4,7,8-HxCDF	DoD-ELAP,NELAP
1,2,3,4,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
1,2,3,6,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
1,2,3,6,7,8-HxCDF	DoD-ELAP,NELAP
1,2,3,6,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
1,2,3,6,7,8-HxCDF	DoD-ELAP,WADOE
2,3,4,6,7,8-HxCDF	DoD-ELAP,NELAP
2,3,4,6,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
2,3,4,6,7,8-HxCDF	DoD-ELAP,NELAP,WADOE
2,3,4,6,7,8-HxCDF	DoD-ELAP,WADOE
1,2,3,7,8,9-HxCDF	DoD-ELAP,NELAP,WADOE
1,2,3,7,8,9-HxCDF	DoD-ELAP,WADOE
1,2,3,7,8,9-HxCDF	DoD-ELAP,NELAP,WADOE



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1,2,3,7,8,9-HxCDF	DoD-ELAP,NELAP
1,2,3,4,7,8-HxCDD	DoD-ELAP,WADOE
1,2,3,4,7,8-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,4,7,8-HxCDD	DoD-ELAP,NELAP
1,2,3,4,7,8-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,6,7,8-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,6,7,8-HxCDD	DoD-ELAP,WADOE
1,2,3,6,7,8-HxCDD	DoD-ELAP,NELAP
1,2,3,6,7,8-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,7,8,9-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,7,8,9-HxCDD	DoD-ELAP,NELAP
1,2,3,7,8,9-HxCDD	DoD-ELAP,WADOE
1,2,3,7,8,9-HxCDD	DoD-ELAP,NELAP,WADOE
1,2,3,4,6,7,8-HpCDF	DoD-ELAP,NELAP,WADOE
1,2,3,4,6,7,8-HpCDF	DoD-ELAP,NELAP
1,2,3,4,6,7,8-HpCDF	DoD-ELAP,NELAP,WADOE
1,2,3,4,6,7,8-HpCDF	DoD-ELAP,WADOE
1,2,3,4,7,8,9-HpCDF	DoD-ELAP,WADOE
1,2,3,4,7,8,9-HpCDF	DoD-ELAP,NELAP,WADOE
1,2,3,4,7,8,9-HpCDF	DoD-ELAP,NELAP,WADOE
1,2,3,4,7,8,9-HpCDF	DoD-ELAP,NELAP
1,2,3,4,6,7,8-HpCDD	DoD-ELAP,WADOE
1,2,3,4,6,7,8-HpCDD	DoD-ELAP,NELAP,WADOE
1,2,3,4,6,7,8-HpCDD	DoD-ELAP,NELAP
1,2,3,4,6,7,8-HpCDD	DoD-ELAP,NELAP,WADOE
OCDF	DoD-ELAP,NELAP,WADOE
OCDF	DoD-ELAP,NELAP
OCDF	DoD-ELAP,WADOE
OCDF	DoD-ELAP,NELAP,WADOE
OCDD	DoD-ELAP,WADOE
OCDD	DoD-ELAP,NELAP,WADOE
OCDD	DoD-ELAP,NELAP
OCDD	DoD-ELAP,NELAP,WADOE
Total TCDF	DoD-ELAP
Total TCDF	DoD-ELAP,NELAP
Total TCDF	DoD-ELAP,NELAP
Total TCDF	DoD-ELAP,NELAP
Total TCDD	DoD-ELAP,NELAP
Total TCDD	DoD-ELAP



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Total TCDD	DoD-ELAP,NELAP
Total TCDD	DoD-ELAP,NELAP
Total PeCDF	DoD-ELAP
Total PeCDF	DoD-ELAP,NELAP
Total PeCDF	DoD-ELAP,NELAP
Total PeCDF	DoD-ELAP,NELAP
Total PeCDD	DoD-ELAP,NELAP
Total PeCDD	DoD-ELAP
Total PeCDD	DoD-ELAP,NELAP
Total PeCDD	DoD-ELAP,NELAP
Total HxCDF	DoD-ELAP,NELAP
Total HxCDF	DoD-ELAP,NELAP
Total HxCDF	DoD-ELAP
Total HxCDF	DoD-ELAP,NELAP
Total HxCDD	DoD-ELAP,NELAP
Total HxCDD	DoD-ELAP,NELAP
Total HxCDD	DoD-ELAP,NELAP
Total HxCDD	DoD-ELAP
Total HpCDF	DoD-ELAP,NELAP
Total HpCDF	DoD-ELAP,NELAP
Total HpCDF	DoD-ELAP
Total HpCDF	DoD-ELAP,NELAP
Total HpCDD	DoD-ELAP,NELAP
Total HpCDD	DoD-ELAP,NELAP
Total HpCDD	DoD-ELAP
Total HpCDD	DoD-ELAP,NELAP
13C12-2,3,7,8-TCDF	DoD-ELAP
13C12-2,3,7,8-TCDF	DoD-ELAP
13C12-2,3,7,8-TCDF	DoD-ELAP
13C12-2,3,7,8-TCDF	DoD-ELAP
13C12-2,3,7,8-TCDD	DoD-ELAP
13C12-2,3,7,8-TCDD	DoD-ELAP
13C12-2,3,7,8-TCDD	DoD-ELAP
13C12-2,3,7,8-TCDD	DoD-ELAP
13C12-1,2,3,7,8-PeCDF	DoD-ELAP
13C12-1,2,3,7,8-PeCDF	DoD-ELAP
13C12-1,2,3,7,8-PeCDF	DoD-ELAP
13C12-1,2,3,7,8-PeCDF	DoD-ELAP
13C12-2,3,4,7,8-PeCDF	DoD-ELAP



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13C12-2,3,4,7,8-PeCDF	DoD-ELAP
13C12-2,3,4,7,8-PeCDF	DoD-ELAP
13C12-2,3,4,7,8-PeCDF	DoD-ELAP
13C12-1,2,3,7,8-PeCDD	DoD-ELAP
13C12-1,2,3,7,8-PeCDD	DoD-ELAP
13C12-1,2,3,7,8-PeCDD	DoD-ELAP
13C12-1,2,3,7,8-PeCDD	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDF	DoD-ELAP
13C12-2,3,4,6,7,8-HxCDF	DoD-ELAP
13C12-2,3,4,6,7,8-HxCDF	DoD-ELAP
13C12-2,3,4,6,7,8-HxCDF	DoD-ELAP
13C12-2,3,4,6,7,8-HxCDF	DoD-ELAP
13C12-1,2,3,7,8,9-HxCDF	DoD-ELAP
13C12-1,2,3,7,8,9-HxCDF	DoD-ELAP
13C12-1,2,3,7,8,9-HxCDF	DoD-ELAP
13C12-1,2,3,7,8,9-HxCDF	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,4,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,6,7,8-HxCDD	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDF	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDF	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDF	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDF	DoD-ELAP
13C12-1,2,3,4,7,8,9-HpCDF	DoD-ELAP
13C12-1,2,3,4,7,8,9-HpCDF	DoD-ELAP
13C12-1,2,3,4,7,8,9-HpCDF	DoD-ELAP
13C12-1,2,3,4,7,8,9-HpCDF	DoD-ELAP



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13C12-1,2,3,4,6,7,8-HpCDD	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDD	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDD	DoD-ELAP
13C12-1,2,3,4,6,7,8-HpCDD	DoD-ELAP
13C12-OCDD	DoD-ELAP
13C12-OCDD	DoD-ELAP
13C12-OCDD	DoD-ELAP
13C12-OCDD	DoD-ELAP
37Cl4-2,3,7,8-TCDD	DoD-ELAP
37Cl4-2,3,7,8-TCDD	DoD-ELAP
37Cl4-2,3,7,8-TCDD	DoD-ELAP
37Cl4-2,3,7,8-TCDD	DoD-ELAP

EPA 335.4 in Water

Cyanide, Total	WA-DW,NELAP
Cyanide, Total	WADOE,WA-DW
Cyanide, Total	WADOE,NELAP
Cyanide, Total	WADOE,WA-DW,NELAP

EPA 608.3 in Water

Aroclor 1016	DoD-ELAP,WADOE
Aroclor 1016	DoD-ELAP,WADOE
Aroclor 1016	DoD-ELAP
Aroclor 1016	DoD-ELAP,WADOE
Aroclor 1016 [2C]	DoD-ELAP,WADOE
Aroclor 1016 [2C]	DoD-ELAP,WADOE
Aroclor 1016 [2C]	DoD-ELAP,WADOE
Aroclor 1016 [2C]	DoD-ELAP
Aroclor 1221	DoD-ELAP,WADOE
Aroclor 1221	DoD-ELAP,WADOE
Aroclor 1221	DoD-ELAP
Aroclor 1221	DoD-ELAP,WADOE
Aroclor 1221 [2C]	DoD-ELAP,WADOE
Aroclor 1221 [2C]	DoD-ELAP,WADOE
Aroclor 1221 [2C]	DoD-ELAP
Aroclor 1221 [2C]	DoD-ELAP,WADOE
Aroclor 1232	DoD-ELAP,WADOE
Aroclor 1232	DoD-ELAP
Aroclor 1232	DoD-ELAP,WADOE
Aroclor 1232	DoD-ELAP,WADOE
Aroclor 1232 [2C]	DoD-ELAP,WADOE



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Aroclor 1232 [2C]	DoD-ELAP,WADOE
Aroclor 1232 [2C]	DoD-ELAP
Aroclor 1232 [2C]	DoD-ELAP,WADOE
Aroclor 1242	DoD-ELAP,WADOE
Aroclor 1242	DoD-ELAP,WADOE
Aroclor 1242	DoD-ELAP
Aroclor 1242	DoD-ELAP,WADOE
Aroclor 1242 [2C]	DoD-ELAP,WADOE
Aroclor 1242 [2C]	DoD-ELAP,WADOE
Aroclor 1242 [2C]	DoD-ELAP,WADOE
Aroclor 1242 [2C]	DoD-ELAP
Aroclor 1248	DoD-ELAP,WADOE
Aroclor 1248	DoD-ELAP,WADOE
Aroclor 1248	DoD-ELAP
Aroclor 1248	DoD-ELAP,WADOE
Aroclor 1248 [2C]	DoD-ELAP,WADOE
Aroclor 1248 [2C]	DoD-ELAP,WADOE
Aroclor 1248 [2C]	DoD-ELAP,WADOE
Aroclor 1248 [2C]	DoD-ELAP
Aroclor 1254	DoD-ELAP,WADOE
Aroclor 1254	DoD-ELAP
Aroclor 1254	DoD-ELAP,WADOE
Aroclor 1254	DoD-ELAP,WADOE
Aroclor 1254 [2C]	DoD-ELAP,WADOE
Aroclor 1254 [2C]	DoD-ELAP,WADOE
Aroclor 1254 [2C]	DoD-ELAP
Aroclor 1254 [2C]	DoD-ELAP,WADOE
Aroclor 1260	DoD-ELAP,WADOE
Aroclor 1260	DoD-ELAP,WADOE
Aroclor 1260	DoD-ELAP
Aroclor 1260	DoD-ELAP,WADOE
Aroclor 1260 [2C]	DoD-ELAP,WADOE
Aroclor 1260 [2C]	DoD-ELAP,WADOE
Aroclor 1260 [2C]	DoD-ELAP
Aroclor 1260 [2C]	DoD-ELAP,WADOE
Aroclor 1262	DoD-ELAP,WADOE
Aroclor 1262	DoD-ELAP,WADOE
Aroclor 1262	DoD-ELAP,WADOE
Aroclor 1262	DoD-ELAP



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Aroclor 1262 [2C]	DoD-ELAP,WADOE
Aroclor 1262 [2C]	DoD-ELAP
Aroclor 1262 [2C]	DoD-ELAP,WADOE
Aroclor 1262 [2C]	DoD-ELAP,WADOE
Aroclor 1268	DoD-ELAP,WADOE
Aroclor 1268	DoD-ELAP,WADOE
Aroclor 1268	DoD-ELAP
Aroclor 1268	DoD-ELAP,WADOE
Aroclor 1268 [2C]	WADOE
Aroclor 1268 [2C]	WADOE
Aroclor 1268 [2C]	
Aroclor 1268 [2C]	WADOE
Aroclor-1268 (4) [2C]	DoD-ELAP
Aroclor-1268 (4) [2C]	DoD-ELAP
Aroclor-1268 (4) [2C]	DoD-ELAP
Aroclor-1268 (4) [2C]	DoD-ELAP
alpha-BHC	WADOE,DoD-ELAP,CALAP
alpha-BHC	DoD-ELAP,NELAP,CALAP
alpha-BHC	WADOE,DoD-ELAP,NELAP,CALAP
alpha-BHC	WADOE,DoD-ELAP,NELAP
alpha-BHC [2C]	WADOE,DoD-ELAP,CALAP
alpha-BHC [2C]	WADOE,DoD-ELAP,NELAP,CALAP
alpha-BHC [2C]	DoD-ELAP,NELAP,CALAP
alpha-BHC [2C]	WADOE,DoD-ELAP,NELAP
beta-BHC	WADOE,DoD-ELAP,CALAP
beta-BHC	WADOE,DoD-ELAP,NELAP,CALAP
beta-BHC	DoD-ELAP,NELAP,CALAP
beta-BHC	WADOE,DoD-ELAP,NELAP
beta-BHC [2C]	DoD-ELAP,NELAP,CALAP
beta-BHC [2C]	WADOE,DoD-ELAP,CALAP
beta-BHC [2C]	WADOE,DoD-ELAP,NELAP
beta-BHC [2C]	WADOE,DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane)	WADOE,DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane)	DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane)	WADOE,DoD-ELAP,CALAP
gamma-BHC (Lindane)	WADOE,DoD-ELAP,NELAP
gamma-BHC (Lindane) [2C]	WADOE,DoD-ELAP,NELAP
gamma-BHC (Lindane) [2C]	DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane) [2C]	WADOE,DoD-ELAP,CALAP



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gamma-BHC (Lindane) [2C]	WADOE,DoD-ELAP,NELAP,CALAP
delta-BHC	DoD-ELAP,NELAP,CALAP
delta-BHC	WADOE,DoD-ELAP,CALAP
delta-BHC	WADOE,DoD-ELAP,NELAP
delta-BHC	WADOE,DoD-ELAP,NELAP,CALAP
delta-BHC [2C]	WADOE,DoD-ELAP,NELAP
delta-BHC [2C]	WADOE,DoD-ELAP,CALAP
delta-BHC [2C]	DoD-ELAP,NELAP,CALAP
delta-BHC [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Heptachlor	WADOE,DoD-ELAP,CALAP
Heptachlor	WADOE,DoD-ELAP,NELAP
Heptachlor	DoD-ELAP,NELAP,CALAP
Heptachlor	WADOE,DoD-ELAP,NELAP,CALAP
Heptachlor [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Heptachlor [2C]	WADOE,DoD-ELAP,NELAP
Heptachlor [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor [2C]	WADOE,DoD-ELAP,CALAP
Aldrin	WADOE,DoD-ELAP,CALAP
Aldrin	DoD-ELAP,NELAP,CALAP
Aldrin	WADOE,DoD-ELAP,NELAP,CALAP
Aldrin	WADOE,DoD-ELAP,NELAP
Aldrin [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Aldrin [2C]	WADOE,DoD-ELAP,NELAP
Aldrin [2C]	WADOE,DoD-ELAP,CALAP
Aldrin [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide	DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide	WADOE,DoD-ELAP,NELAP
Heptachlor Epoxide	WADOE,DoD-ELAP,CALAP
Heptachlor Epoxide	WADOE,DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide [2C]	WADOE,DoD-ELAP,CALAP
Heptachlor Epoxide [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide [2C]	WADOE,DoD-ELAP,NELAP
trans-Chlordane (beta-Chlordane)	WADOE,DoD-ELAP,CALAP
trans-Chlordane (beta-Chlordane)	DoD-ELAP,NELAP,CALAP
trans-Chlordane (beta-Chlordane)	WADOE,DoD-ELAP,NELAP,CALAP
trans-Chlordane (beta-Chlordane)	WADOE,DoD-ELAP,NELAP
trans-Chlordane (beta-Chlordane) [2C]	WADOE,DoD-ELAP,NELAP
trans-Chlordane (beta-Chlordane) [2C]	WADOE,DoD-ELAP,CALAP



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trans-Chlordane (beta-Chlordane) [2C]	DoD-ELAP,NELAP,CALAP
trans-Chlordane (beta-Chlordane) [2C]	WADOE,DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane)	WADOE,DoD-ELAP,CALAP
cis-Chlordane (alpha-chlordane)	WADOE,DoD-ELAP,NELAP
cis-Chlordane (alpha-chlordane)	DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane)	WADOE,DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	WADOE,DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	WADOE,DoD-ELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	WADOE,DoD-ELAP,NELAP
Endosulfan I	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan I	WADOE,DoD-ELAP,NELAP
Endosulfan I	WADOE,DoD-ELAP,CALAP
Endosulfan I	DoD-ELAP,NELAP,CALAP
Endosulfan I [2C]	WADOE,DoD-ELAP,NELAP
Endosulfan I [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan I [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan I [2C]	WADOE,DoD-ELAP,CALAP
4,4'-DDE	WADOE,DoD-ELAP,NELAP,CALAP
4,4'-DDE	WADOE,DoD-ELAP,CALAP
4,4'-DDE	WADOE,DoD-ELAP,NELAP
4,4'-DDE	DoD-ELAP,NELAP,CALAP
4,4'-DDE [2C]	WADOE,DoD-ELAP,NELAP,CALAP
4,4'-DDE [2C]	WADOE,DoD-ELAP,NELAP
4,4'-DDE [2C]	WADOE,DoD-ELAP,CALAP
4,4'-DDE [2C]	DoD-ELAP,NELAP,CALAP
Dieldrin	DoD-ELAP,NELAP,CALAP
Dieldrin	WADOE,DoD-ELAP,NELAP
Dieldrin	WADOE,DoD-ELAP,CALAP
Dieldrin	WADOE,DoD-ELAP,NELAP,CALAP
Dieldrin [2C]	WADOE,DoD-ELAP,NELAP
Dieldrin [2C]	WADOE,DoD-ELAP,CALAP
Dieldrin [2C]	DoD-ELAP,NELAP,CALAP
Dieldrin [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endrin	WADOE,DoD-ELAP,NELAP
Endrin	WADOE,DoD-ELAP,CALAP
Endrin	DoD-ELAP,NELAP,CALAP
Endrin	WADOE,DoD-ELAP,NELAP,CALAP
Endrin [2C]	DoD-ELAP,NELAP,CALAP



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Endrin [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endrin [2C]	WADOE,DoD-ELAP,NELAP
Endrin [2C]	WADOE,DoD-ELAP,CALAP
Endosulfan II	WADOE,DoD-ELAP,NELAP
Endosulfan II	WADOE,DoD-ELAP,CALAP
Endosulfan II	DoD-ELAP,NELAP,CALAP
Endosulfan II	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan II [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan II [2C]	WADOE,DoD-ELAP,CALAP
Endosulfan II [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan II [2C]	WADOE,DoD-ELAP,NELAP
4,4'-DDD	WADOE,DoD-ELAP,NELAP,CALAP
4,4'-DDD	WADOE,DoD-ELAP,NELAP
4,4'-DDD	WADOE,DoD-ELAP,CALAP
4,4'-DDD	DoD-ELAP,NELAP,CALAP
4,4'-DDD [2C]	DoD-ELAP,NELAP,CALAP
4,4'-DDD [2C]	WADOE,DoD-ELAP,CALAP
4,4'-DDD [2C]	WADOE,DoD-ELAP,NELAP
4,4'-DDD [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endrin Aldehyde	WADOE,DoD-ELAP,CALAP
Endrin Aldehyde	WADOE,DoD-ELAP,NELAP
Endrin Aldehyde	DoD-ELAP,NELAP,CALAP
Endrin Aldehyde	WADOE,DoD-ELAP,NELAP,CALAP
Endrin Aldehyde [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endrin Aldehyde [2C]	WADOE,DoD-ELAP,CALAP
Endrin Aldehyde [2C]	WADOE,DoD-ELAP,NELAP
Endrin Aldehyde [2C]	DoD-ELAP,NELAP,CALAP
4,4'-DDT	WADOE,DoD-ELAP,NELAP,CALAP
4,4'-DDT	WADOE,DoD-ELAP,NELAP
4,4'-DDT	WADOE,DoD-ELAP,CALAP
4,4'-DDT	DoD-ELAP,NELAP,CALAP
4,4'-DDT [2C]	WADOE,DoD-ELAP,NELAP
4,4'-DDT [2C]	WADOE,DoD-ELAP,CALAP
4,4'-DDT [2C]	WADOE,DoD-ELAP,NELAP,CALAP
4,4'-DDT [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate	WADOE,DoD-ELAP,NELAP
Endosulfan Sulfate	WADOE,DoD-ELAP,CALAP
Endosulfan Sulfate	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate	DoD-ELAP,NELAP,CALAP



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Endosulfan Sulfate [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate [2C]	WADOE,DoD-ELAP,CALAP
Endosulfan Sulfate [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate [2C]	WADOE,DoD-ELAP,NELAP
Endrin Ketone	WADOE,DoD-ELAP,NELAP
Endrin Ketone	WADOE,DoD-ELAP,CALAP
Endrin Ketone	DoD-ELAP,NELAP,CALAP
Endrin Ketone	WADOE,DoD-ELAP,NELAP,CALAP
Endrin Ketone [2C]	WADOE,DoD-ELAP,NELAP
Endrin Ketone [2C]	WADOE,DoD-ELAP,CALAP
Endrin Ketone [2C]	DoD-ELAP,NELAP,CALAP
Endrin Ketone [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Methoxychlor	WADOE,DoD-ELAP,CALAP
Methoxychlor	WADOE,DoD-ELAP,NELAP
Methoxychlor	DoD-ELAP,NELAP,CALAP
Methoxychlor	WADOE,DoD-ELAP,NELAP,CALAP
Methoxychlor [2C]	WADOE,DoD-ELAP,NELAP
Methoxychlor [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Methoxychlor [2C]	DoD-ELAP,NELAP,CALAP
Methoxychlor [2C]	WADOE,DoD-ELAP,CALAP
Hexachlorobutadiene	WADOE,DoD-ELAP,NELAP
Hexachlorobutadiene	WADOE,DoD-ELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene	WADOE,DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene [2C]	WADOE,DoD-ELAP,NELAP
Hexachlorobutadiene [2C]	WADOE,DoD-ELAP,CALAP
Hexachlorobutadiene [2C]	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Hexachlorobenzene	WADOE,DoD-ELAP,NELAP,CALAP
Hexachlorobenzene	WADOE,DoD-ELAP,NELAP
Hexachlorobenzene	WADOE,DoD-ELAP,CALAP
Hexachlorobenzene	DoD-ELAP,NELAP,CALAP
Hexachlorobenzene [2C]	WADOE,DoD-ELAP,CALAP
Hexachlorobenzene [2C]	DoD-ELAP,NELAP,CALAP
Hexachlorobenzene [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Hexachlorobenzene [2C]	WADOE,DoD-ELAP,NELAP
2,4'-DDE	WADOE,NELAP
2,4'-DDE	WADOE,CALAP
2,4'-DDE	NELAP,CALAP



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2,4'-DDE	WADOE,NELAP,CALAP
2,4'-DDE [2C]	NELAP,CALAP
2,4'-DDE [2C]	WADOE,NELAP,CALAP
2,4'-DDE [2C]	WADOE,NELAP
2,4'-DDE [2C]	WADOE,CALAP
2,4'-DDD	WADOE,NELAP,CALAP
2,4'-DDD	NELAP,CALAP
2,4'-DDD	WADOE,NELAP
2,4'-DDD	WADOE,CALAP
2,4'-DDD [2C]	WADOE,NELAP
2,4'-DDD [2C]	WADOE,NELAP,CALAP
2,4'-DDD [2C]	WADOE,CALAP
2,4'-DDD [2C]	NELAP,CALAP
2,4'-DDT	WADOE,NELAP
2,4'-DDT	WADOE,CALAP
2,4'-DDT	NELAP,CALAP
2,4'-DDT	WADOE,NELAP,CALAP
2,4'-DDT [2C]	NELAP,CALAP
2,4'-DDT [2C]	WADOE,NELAP,CALAP
2,4'-DDT [2C]	WADOE,NELAP
2,4'-DDT [2C]	WADOE,CALAP
Oxychlordane	WADOE,CALAP
Oxychlordane	WADOE,NELAP,CALAP
Oxychlordane	WADOE,NELAP
Oxychlordane	NELAP,CALAP
Oxychlordane [2C]	WADOE,NELAP
Oxychlordane [2C]	WADOE,CALAP
Oxychlordane [2C]	NELAP,CALAP
Oxychlordane [2C]	WADOE,NELAP,CALAP
cis-Nonachlor	WADOE,NELAP,CALAP
cis-Nonachlor	WADOE,CALAP
cis-Nonachlor	WADOE,NELAP
cis-Nonachlor	NELAP,CALAP
cis-Nonachlor [2C]	NELAP,CALAP
cis-Nonachlor [2C]	WADOE,NELAP,CALAP
cis-Nonachlor [2C]	WADOE,NELAP
cis-Nonachlor [2C]	WADOE,CALAP
trans-Nonachlor	WADOE,NELAP,CALAP
trans-Nonachlor	NELAP,CALAP



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trans-Nonachlor	WADOE,CALAP
trans-Nonachlor	WADOE,NELAP
trans-Nonachlor [2C]	WADOE,NELAP
trans-Nonachlor [2C]	WADOE,NELAP,CALAP
trans-Nonachlor [2C]	WADOE,CALAP
trans-Nonachlor [2C]	NELAP,CALAP
Mirex	WADOE,NELAP
Mirex	WADOE,CALAP
Mirex	NELAP,CALAP
Mirex	WADOE,NELAP,CALAP
Mirex [2C]	WADOE,NELAP
Mirex [2C]	WADOE,CALAP
Mirex [2C]	NELAP,CALAP
Mirex [2C]	WADOE,NELAP,CALAP
Hexachloroethane	WADOE,NELAP
Hexachloroethane	NELAP,CALAP
Hexachloroethane	WADOE,NELAP,CALAP
Hexachloroethane	WADOE,CALAP
Hexachloroethane [2C]	WADOE,NELAP
Hexachloroethane [2C]	WADOE,CALAP
Hexachloroethane [2C]	NELAP,CALAP
Hexachloroethane [2C]	WADOE,NELAP,CALAP
Toxaphene	WADOE,DoD-ELAP,CALAP
Toxaphene	WADOE,DoD-ELAP,NELAP,CALAP
Toxaphene	DoD-ELAP,NELAP,CALAP
Toxaphene	WADOE,DoD-ELAP,NELAP
Toxaphene [2C]	WADOE,DoD-ELAP,NELAP
Toxaphene [2C]	WADOE,DoD-ELAP,CALAP
Toxaphene [2C]	DoD-ELAP,NELAP,CALAP
Toxaphene [2C]	WADOE,DoD-ELAP,NELAP,CALAP
Chlordane, technical	WADOE,NELAP
Chlordane, technical	NELAP,CALAP
Chlordane, technical	WADOE,CALAP
Chlordane, technical	WADOE,NELAP,CALAP
Chlordane, technical [2C]	NELAP,CALAP
Chlordane, technical [2C]	WADOE,NELAP
Chlordane, technical [2C]	WADOE,NELAP,CALAP
Chlordane, technical [2C]	WADOE,CALAP

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Chloromethane	DoD-ELAP,WADOE
Chloromethane	DoD-ELAP,WADOE
Chloromethane	DoD-ELAP,WADOE
Chloromethane	DoD-ELAP
Vinyl Chloride	DoD-ELAP
Vinyl Chloride	DoD-ELAP,WADOE
Vinyl Chloride	DoD-ELAP,WADOE
Vinyl Chloride	DoD-ELAP,WADOE
Bromomethane	DoD-ELAP
Bromomethane	DoD-ELAP,WADOE
Bromomethane	DoD-ELAP,WADOE
Bromomethane	DoD-ELAP,WADOE
Chloroethane	DoD-ELAP,WADOE
Chloroethane	DoD-ELAP
Chloroethane	DoD-ELAP,WADOE
Chloroethane	DoD-ELAP,WADOE
Trichlorofluoromethane	DoD-ELAP,WADOE
Trichlorofluoromethane	DoD-ELAP
Trichlorofluoromethane	DoD-ELAP,WADOE
Trichlorofluoromethane	DoD-ELAP,WADOE
Acrolein	DoD-ELAP,WADOE
Acrolein	DoD-ELAP,WADOE
Acrolein	DoD-ELAP
Acrolein	DoD-ELAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP,WADOE
1,1,2-Trichloro-1,2,2-Trifluoroethane	DoD-ELAP
Acetone	DoD-ELAP,WADOE
Acetone	DoD-ELAP
Acetone	DoD-ELAP,WADOE
Acetone	DoD-ELAP,WADOE
1,1-Dichloroethene	DoD-ELAP,WADOE
1,1-Dichloroethene	DoD-ELAP
1,1-Dichloroethene	DoD-ELAP,WADOE
1,1-Dichloroethene	DoD-ELAP,WADOE
Iodomethane	DoD-ELAP,WADOE
Iodomethane	DoD-ELAP,WADOE
Iodomethane	DoD-ELAP



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Iodomethane	DoD-ELAP,WADOE
Methylene Chloride	DoD-ELAP,WADOE
Methylene Chloride	DoD-ELAP
Methylene Chloride	DoD-ELAP,WADOE
Methylene Chloride	DoD-ELAP,WADOE
Acrylonitrile	DoD-ELAP,WADOE
Acrylonitrile	DoD-ELAP,WADOE
Acrylonitrile	DoD-ELAP
Acrylonitrile	DoD-ELAP,WADOE
Carbon Disulfide	DoD-ELAP
Carbon Disulfide	DoD-ELAP,WADOE
Carbon Disulfide	DoD-ELAP,WADOE
Carbon Disulfide	DoD-ELAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP,WADOE
trans-1,2-Dichloroethene	DoD-ELAP
trans-1,2-Dichloroethene	DoD-ELAP,WADOE
Vinyl Acetate	DoD-ELAP,WADOE
Vinyl Acetate	DoD-ELAP,WADOE
Vinyl Acetate	DoD-ELAP
Vinyl Acetate	DoD-ELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,WADOE
1,1-Dichloroethane	DoD-ELAP,WADOE
1,1-Dichloroethane	DoD-ELAP
2-Butanone	DoD-ELAP
2-Butanone	DoD-ELAP,WADOE
2-Butanone	DoD-ELAP,WADOE
2-Butanone	DoD-ELAP,WADOE
2,2-Dichloropropane	DoD-ELAP,WADOE
2,2-Dichloropropane	DoD-ELAP
2,2-Dichloropropane	DoD-ELAP,WADOE
2,2-Dichloropropane	DoD-ELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP
cis-1,2-Dichloroethene	DoD-ELAP,WADOE
cis-1,2-Dichloroethene	DoD-ELAP,WADOE
Chloroform	DoD-ELAP,WADOE
Chloroform	DoD-ELAP,WADOE



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Chloroform	DoD-ELAP
Chloroform	DoD-ELAP,WADOE
Bromochloromethane	DoD-ELAP,WADOE
Bromochloromethane	DoD-ELAP,WADOE
Bromochloromethane	DoD-ELAP
Bromochloromethane	DoD-ELAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP
1,1,1-Trichloroethane	DoD-ELAP,WADOE
1,1,1-Trichloroethane	DoD-ELAP,WADOE
1,1-Dichloropropene	DoD-ELAP,WADOE
1,1-Dichloropropene	DoD-ELAP,WADOE
1,1-Dichloropropene	DoD-ELAP
1,1-Dichloropropene	DoD-ELAP,WADOE
Carbon tetrachloride	DoD-ELAP
Carbon tetrachloride	DoD-ELAP,WADOE
Carbon tetrachloride	DoD-ELAP,WADOE
Carbon tetrachloride	DoD-ELAP,WADOE
1,2-Dichloroethane	DoD-ELAP,WADOE
1,2-Dichloroethane	DoD-ELAP
1,2-Dichloroethane	DoD-ELAP,WADOE
1,2-Dichloroethane	DoD-ELAP,WADOE
Benzene	DoD-ELAP,WADOE
Benzene	DoD-ELAP
Benzene	DoD-ELAP,WADOE
Benzene	DoD-ELAP,WADOE
Trichloroethene	DoD-ELAP,WADOE
Trichloroethene	DoD-ELAP,WADOE
Trichloroethene	DoD-ELAP
Trichloroethene	DoD-ELAP,WADOE
1,2-Dichloropropane	DoD-ELAP,WADOE
1,2-Dichloropropane	DoD-ELAP,WADOE
1,2-Dichloropropane	DoD-ELAP
1,2-Dichloropropane	DoD-ELAP,WADOE
Bromodichloromethane	DoD-ELAP,WADOE
Bromodichloromethane	DoD-ELAP
Bromodichloromethane	DoD-ELAP,WADOE
Bromodichloromethane	DoD-ELAP,WADOE
Dibromomethane	DoD-ELAP,WADOE



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Dibromomethane	DoD-ELAP,WADOE
Dibromomethane	DoD-ELAP
Dibromomethane	DoD-ELAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP,WADOE
2-Chloroethyl vinyl ether	DoD-ELAP
2-Chloroethyl vinyl ether	DoD-ELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP,WADOE
4-Methyl-2-Pentanone	DoD-ELAP
4-Methyl-2-Pentanone	DoD-ELAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP,WADOE
cis-1,3-Dichloropropene	DoD-ELAP
Toluene	DoD-ELAP,WADOE
Toluene	DoD-ELAP
Toluene	DoD-ELAP,WADOE
Toluene	DoD-ELAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP
trans-1,3-Dichloropropene	DoD-ELAP,WADOE
trans-1,3-Dichloropropene	DoD-ELAP,WADOE
2-Hexanone	DoD-ELAP
2-Hexanone	DoD-ELAP,WADOE
2-Hexanone	DoD-ELAP,WADOE
2-Hexanone	DoD-ELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP,WADOE
1,1,2-Trichloroethane	DoD-ELAP
1,3-Dichloropropane	DoD-ELAP,WADOE
1,3-Dichloropropane	DoD-ELAP,WADOE
1,3-Dichloropropane	DoD-ELAP
1,3-Dichloropropane	DoD-ELAP,WADOE
Tetrachloroethene	DoD-ELAP,WADOE
Tetrachloroethene	DoD-ELAP,WADOE
Tetrachloroethene	DoD-ELAP,WADOE
Tetrachloroethene	DoD-ELAP



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Dibromochloromethane	DoD-ELAP,WADOE
Dibromochloromethane	DoD-ELAP
Dibromochloromethane	DoD-ELAP,WADOE
Dibromochloromethane	DoD-ELAP,WADOE
1,2-Dibromoethane	DoD-ELAP,WADOE
1,2-Dibromoethane	DoD-ELAP,WADOE
1,2-Dibromoethane	DoD-ELAP,WADOE
1,2-Dibromoethane	DoD-ELAP
Chlorobenzene	DoD-ELAP,WADOE
Chlorobenzene	DoD-ELAP
Chlorobenzene	DoD-ELAP,WADOE
Chlorobenzene	DoD-ELAP,WADOE
Ethylbenzene	DoD-ELAP
Ethylbenzene	DoD-ELAP,WADOE
Ethylbenzene	DoD-ELAP,WADOE
Ethylbenzene	DoD-ELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP
1,1,1,2-Tetrachloroethane	DoD-ELAP,WADOE
1,1,1,2-Tetrachloroethane	DoD-ELAP,WADOE
m,p-Xylene	DoD-ELAP,WADOE
m,p-Xylene	DoD-ELAP,WADOE
m,p-Xylene	DoD-ELAP
m,p-Xylene	DoD-ELAP,WADOE
o-Xylene	DoD-ELAP,WADOE
o-Xylene	DoD-ELAP,WADOE
o-Xylene	DoD-ELAP
o-Xylene	DoD-ELAP,WADOE
Styrene	DoD-ELAP,WADOE
Styrene	DoD-ELAP
Styrene	DoD-ELAP,WADOE
Styrene	DoD-ELAP,WADOE
Bromoform	DoD-ELAP,WADOE
Bromoform	DoD-ELAP,WADOE
Bromoform	DoD-ELAP
Bromoform	DoD-ELAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP,WADOE
1,1,2,2-Tetrachloroethane	DoD-ELAP



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1,1,2,2-Tetrachloroethane	DoD-ELAP,WADOE
1,2,3-Trichloropropane	
1,2,3-Trichloropropane	WADOE
1,2,3-Trichloropropane	WADOE
1,2,3-Trichloropropane	WADOE
trans-1,4-Dichloro 2-Butene	WADOE
trans-1,4-Dichloro 2-Butene	WADOE
trans-1,4-Dichloro 2-Butene	
trans-1,4-Dichloro 2-Butene	WADOE
n-Propylbenzene	DoD-ELAP,WADOE
n-Propylbenzene	DoD-ELAP
n-Propylbenzene	DoD-ELAP,WADOE
n-Propylbenzene	DoD-ELAP,WADOE
Bromobenzene	DoD-ELAP,WADOE
Bromobenzene	DoD-ELAP,WADOE
Bromobenzene	DoD-ELAP
Bromobenzene	DoD-ELAP,WADOE
Isopropyl Benzene	DoD-ELAP,WADOE
Isopropyl Benzene	DoD-ELAP
Isopropyl Benzene	DoD-ELAP,WADOE
Isopropyl Benzene	DoD-ELAP,WADOE
2-Chlorotoluene	DoD-ELAP,WADOE
2-Chlorotoluene	DoD-ELAP
2-Chlorotoluene	DoD-ELAP,WADOE
2-Chlorotoluene	DoD-ELAP,WADOE
4-Chlorotoluene	DoD-ELAP,WADOE
4-Chlorotoluene	DoD-ELAP,WADOE
4-Chlorotoluene	DoD-ELAP,WADOE
4-Chlorotoluene	DoD-ELAP
t-Butylbenzene	DoD-ELAP,WADOE
t-Butylbenzene	DoD-ELAP,WADOE
t-Butylbenzene	DoD-ELAP,WADOE
t-Butylbenzene	DoD-ELAP
1,3,5-Trimethylbenzene	DoD-ELAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP
1,3,5-Trimethylbenzene	DoD-ELAP,WADOE
1,3,5-Trimethylbenzene	DoD-ELAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP,WADOE



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1,2,4-Trimethylbenzene	DoD-ELAP,WADOE
1,2,4-Trimethylbenzene	DoD-ELAP
s-Butylbenzene	DoD-ELAP,WADOE
s-Butylbenzene	DoD-ELAP,WADOE
s-Butylbenzene	DoD-ELAP
s-Butylbenzene	DoD-ELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP
4-Isopropyl Toluene	DoD-ELAP,WADOE
4-Isopropyl Toluene	DoD-ELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP
1,4-Dichlorobenzene	DoD-ELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP
1,4-Dichlorobenzene	DoD-ELAP,WADOE
n-Butylbenzene	DoD-ELAP,WADOE
n-Butylbenzene	DoD-ELAP
n-Butylbenzene	DoD-ELAP,WADOE
n-Butylbenzene	DoD-ELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP
1,2-Dichlorobenzene	DoD-ELAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP
1,2-Dibromo-3-chloropropane	DoD-ELAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,WADOE
1,2-Dibromo-3-chloropropane	DoD-ELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP
1,2,4-Trichlorobenzene	DoD-ELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP
Hexachloro-1,3-Butadiene	DoD-ELAP,WADOE
Hexachloro-1,3-Butadiene	DoD-ELAP,WADOE
Naphthalene	DoD-ELAP,WADOE



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Naphthalene	DoD-ELAP,WADOE
Naphthalene	DoD-ELAP
Naphthalene	DoD-ELAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP,WADOE
1,2,3-Trichlorobenzene	DoD-ELAP
1,2,3-Trichlorobenzene	DoD-ELAP,WADOE
Dichlorodifluoromethane	DoD-ELAP
Dichlorodifluoromethane	DoD-ELAP
Dichlorodifluoromethane	DoD-ELAP
Dichlorodifluoromethane	DoD-ELAP
Methyl tert-butyl Ether	DoD-ELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP,WADOE
Methyl tert-butyl Ether	DoD-ELAP

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Phenol	DoD-ELAP,NELAP,WADOE
Phenol	DoD-ELAP,CALAP,WADOE
Phenol	DoD-ELAP,NELAP,CALAP,WADOE
Phenol	DoD-ELAP,NELAP,CALAP
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,CALAP,WADOE
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,CALAP
bis(2-chloroethyl) ether	DoD-ELAP,CALAP,WADOE
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,CALAP,WADOE
2-Chlorophenol	DoD-ELAP,CALAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,CALAP
1,3-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,NELAP,CALAP
1,3-Dichlorobenzene	DoD-ELAP,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,CALAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,CALAP
1,2-Dichlorobenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,NELAP,CALAP



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1,2-Dichlorobenzene	DoD-ELAP,CALAP,WADOE
Benzyl alcohol	DoD-ELAP,NELAP,WADOE
Benzyl alcohol	DoD-ELAP,CALAP,WADOE
Benzyl alcohol	DoD-ELAP,NELAP,CALAP
Benzyl alcohol	DoD-ELAP,NELAP,CALAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP,CALAP
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,CALAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP,CALAP,WADOE
2-Methylphenol	DoD-ELAP,CALAP,WADOE
2-Methylphenol	DoD-ELAP,NELAP,WADOE
2-Methylphenol	DoD-ELAP,NELAP,CALAP
2-Methylphenol	DoD-ELAP,NELAP,CALAP,WADOE
Hexachloroethane	DoD-ELAP,NELAP,WADOE
Hexachloroethane	DoD-ELAP,CALAP,WADOE
Hexachloroethane	DoD-ELAP,NELAP,CALAP
Hexachloroethane	DoD-ELAP,NELAP,CALAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,CALAP
N-Nitroso-di-n-Propylamine	DoD-ELAP,CALAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,CALAP,WADOE
4-Methylphenol	DoD-ELAP,NELAP,CALAP,WADOE
4-Methylphenol	DoD-ELAP,NELAP,CALAP
4-Methylphenol	DoD-ELAP,CALAP,WADOE
4-Methylphenol	DoD-ELAP,NELAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,CALAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,CALAP
Nitrobenzene	DoD-ELAP,CALAP,WADOE
Isophorone	DoD-ELAP,NELAP,WADOE
Isophorone	DoD-ELAP,NELAP,CALAP,WADOE
Isophorone	DoD-ELAP,NELAP,CALAP
Isophorone	DoD-ELAP,CALAP,WADOE
2-Nitrophenol	DoD-ELAP,NELAP,CALAP,WADOE
2-Nitrophenol	DoD-ELAP,CALAP,WADOE
2-Nitrophenol	DoD-ELAP,NELAP,CALAP
2-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dimethylphenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4-Dimethylphenol	DoD-ELAP,NELAP,WADOE



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2,4-Dimethylphenol	DoD-ELAP,NELAP,CALAP
2,4-Dimethylphenol	DoD-ELAP,CALAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,CALAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,CALAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,CALAP
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,CALAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,CALAP
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,CALAP
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,CALAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,CALAP,WADOE
Naphthalene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Naphthalene	DoD-ELAP,NELAP,ADEC,WADOE
Naphthalene	DoD-ELAP,NELAP,CALAP,ADEC
Naphthalene	DoD-ELAP,CALAP,ADEC,WADOE
Benzoic acid	DoD-ELAP,NELAP,CALAP
Benzoic acid	DoD-ELAP,CALAP,WADOE
Benzoic acid	DoD-ELAP,NELAP,WADOE
Benzoic acid	DoD-ELAP,NELAP,CALAP,WADOE
4-Chloroaniline	DoD-ELAP,NELAP,CALAP,WADOE
4-Chloroaniline	DoD-ELAP,NELAP,CALAP
4-Chloroaniline	DoD-ELAP,CALAP,WADOE
4-Chloroaniline	DoD-ELAP,NELAP,WADOE
2,6-Dinitrotoluene	DoD-ELAP,NELAP,CALAP,WADOE
2,6-Dinitrotoluene	DoD-ELAP,CALAP,WADOE
2,6-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
2,6-Dinitrotoluene	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,NELAP,CALAP,WADOE
Hexachlorobutadiene	DoD-ELAP,NELAP,WADOE
Hexachlorobutadiene	DoD-ELAP,CALAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,CALAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,CALAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,CALAP
Hexachlorocyclopentadiene	DoD-ELAP,NELAP,CALAP,WADOE



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Hexachlorocyclopentadiene	DoD-ELAP,NELAP,CALAP
Hexachlorocyclopentadiene	DoD-ELAP,CALAP,WADOE
Hexachlorocyclopentadiene	DoD-ELAP,NELAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,CALAP
2,4,6-Trichlorophenol	DoD-ELAP,CALAP,WADOE
2,4,5-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2,4,5-Trichlorophenol	DoD-ELAP,NELAP,CALAP
2,4,5-Trichlorophenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4,5-Trichlorophenol	DoD-ELAP,CALAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,CALAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,CALAP
2-Chloronaphthalene	DoD-ELAP,CALAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,WADOE
2-Nitroaniline	DoD-ELAP,CALAP,WADOE
2-Nitroaniline	DoD-ELAP,NELAP,CALAP,WADOE
2-Nitroaniline	DoD-ELAP,NELAP,CALAP
2-Nitroaniline	DoD-ELAP,NELAP,WADOE
Acenaphthylene	DoD-ELAP,NELAP,CALAP,ADEC
Acenaphthylene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Acenaphthylene	DoD-ELAP,NELAP,ADEC,WADOE
Acenaphthylene	DoD-ELAP,CALAP,ADEC,WADOE
Dimethylphthalate	DoD-ELAP,CALAP,WADOE
Dimethylphthalate	DoD-ELAP,NELAP,CALAP
Dimethylphthalate	DoD-ELAP,NELAP,CALAP,WADOE
Dimethylphthalate	DoD-ELAP,NELAP,WADOE
Acenaphthene	DoD-ELAP,CALAP,ADEC,WADOE
Acenaphthene	DoD-ELAP,NELAP,CALAP,ADEC
Acenaphthene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Acenaphthene	DoD-ELAP,NELAP,ADEC,WADOE
3-Nitroaniline	DoD-ELAP,NELAP,WADOE
3-Nitroaniline	DoD-ELAP,NELAP,CALAP,WADOE
3-Nitroaniline	DoD-ELAP,NELAP,CALAP
3-Nitroaniline	DoD-ELAP,CALAP,WADOE
2-Methylnaphthalene	DoD-ELAP,NELAP,ADEC,WADOE
2-Methylnaphthalene	DoD-ELAP,CALAP,ADEC,WADOE
2-Methylnaphthalene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
2-Methylnaphthalene	DoD-ELAP,NELAP,CALAP,ADEC



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2,4-Dinitrophenol	DoD-ELAP,CALAP,WADOE
2,4-Dinitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dinitrophenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4-Dinitrophenol	DoD-ELAP,NELAP,CALAP
Dibenzofuran	DoD-ELAP,CALAP,WADOE
Dibenzofuran	DoD-ELAP,NELAP,CALAP
Dibenzofuran	DoD-ELAP,NELAP,CALAP,WADOE
Dibenzofuran	DoD-ELAP,NELAP,WADOE
4-Nitrophenol	DoD-ELAP,NELAP,CALAP
4-Nitrophenol	DoD-ELAP,CALAP,WADOE
4-Nitrophenol	DoD-ELAP,NELAP,WADOE
4-Nitrophenol	DoD-ELAP,NELAP,CALAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,CALAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,CALAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,CALAP
Fluorene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Fluorene	DoD-ELAP,NELAP,ADEC,WADOE
Fluorene	DoD-ELAP,CALAP,ADEC,WADOE
Fluorene	DoD-ELAP,NELAP,CALAP,ADEC
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP,CALAP,WADOE
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP,CALAP
4-Chlorophenylphenyl ether	DoD-ELAP,CALAP,WADOE
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP,WADOE
Diethyl phthalate	DoD-ELAP,NELAP,WADOE
Diethyl phthalate	DoD-ELAP,CALAP,WADOE
Diethyl phthalate	DoD-ELAP,NELAP,CALAP
Diethyl phthalate	DoD-ELAP,NELAP,CALAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,CALAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,CALAP
4-Nitroaniline	DoD-ELAP,CALAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,CALAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,CALAP
4,6-Dinitro-2-methylphenol	DoD-ELAP,CALAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,CALAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,CALAP



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N-Nitrosodiphenylamine	DoD-ELAP,CALAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,CALAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,CALAP
4-Bromophenyl phenyl ether	DoD-ELAP,CALAP,WADOE
Hexachlorobenzene	DoD-ELAP,CALAP,WADOE
Hexachlorobenzene	DoD-ELAP,NELAP,CALAP
Hexachlorobenzene	DoD-ELAP,NELAP,CALAP,WADOE
Hexachlorobenzene	DoD-ELAP,NELAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,CALAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,CALAP
Pentachlorophenol	DoD-ELAP,CALAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,WADOE
Phenanthrene	DoD-ELAP,NELAP,ADEC,WADOE
Phenanthrene	DoD-ELAP,CALAP,ADEC,WADOE
Phenanthrene	DoD-ELAP,NELAP,CALAP,ADEC
Phenanthrene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Anthracene	DoD-ELAP,CALAP,ADEC,WADOE
Anthracene	DoD-ELAP,NELAP,ADEC,WADOE
Anthracene	DoD-ELAP,NELAP,CALAP,ADEC
Anthracene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Carbazole	DoD-ELAP,NELAP,ADEC,WADOE
Carbazole	DoD-ELAP,CALAP,ADEC,WADOE
Carbazole	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Carbazole	DoD-ELAP,NELAP,CALAP,ADEC
Di-n-butylphthalate	DoD-ELAP,NELAP,WADOE
Di-n-butylphthalate	DoD-ELAP,NELAP,CALAP,WADOE
Di-n-butylphthalate	DoD-ELAP,CALAP,WADOE
Di-n-butylphthalate	DoD-ELAP,NELAP,CALAP
Fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC
Fluoranthene	DoD-ELAP,CALAP,ADEC,WADOE
Fluoranthene	DoD-ELAP,NELAP,ADEC,WADOE
Pyrene	DoD-ELAP,CALAP,ADEC,WADOE
Pyrene	DoD-ELAP,NELAP,CALAP,ADEC
Pyrene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Pyrene	DoD-ELAP,NELAP,ADEC,WADOE
Butylbenzylphthalate	DoD-ELAP,NELAP,CALAP
Butylbenzylphthalate	DoD-ELAP,NELAP,CALAP,WADOE



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Butylbenzylphthalate	DoD-ELAP,CALAP,WADOE
Butylbenzylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,ADEC,WADOE
Benzo(a)anthracene	DoD-ELAP,CALAP,ADEC,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,CALAP,ADEC
3,3'-Dichlorobenzidine	DoD-ELAP,CALAP,WADOE
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,WADOE
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,CALAP
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,CALAP,WADOE
Chrysene	DoD-ELAP,NELAP,ADEC,WADOE
Chrysene	DoD-ELAP,CALAP,ADEC,WADOE
Chrysene	DoD-ELAP,NELAP,CALAP,ADEC
Chrysene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
bis(2-Ethylhexyl)phthalate	DoD-ELAP,CALAP,WADOE
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,CALAP
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,CALAP,WADOE
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,CALAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,NELAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,NELAP,CALAP
Di-n-Octylphthalate	DoD-ELAP,NELAP,CALAP,WADOE
Benzo(b)fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(b)fluoranthene	DoD-ELAP,CALAP,ADEC
Benzo(b)fluoranthene	DoD-ELAP,NELAP,ADEC
Benzo(b)fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,ADEC
Benzo(k)fluoranthene	DoD-ELAP,CALAP,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(a)pyrene	DoD-ELAP,NELAP,ADEC,WADOE
Benzo(a)pyrene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Benzo(a)pyrene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(a)pyrene	DoD-ELAP,CALAP,ADEC,WADOE
Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,ADEC,WADOE
Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Indeno(1,2,3-cd)pyrene	DoD-ELAP,CALAP,ADEC,WADOE
Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,CALAP,ADEC
Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,CALAP,ADEC



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Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,ADEC,WADOE
Dibenzo(a,h)anthracene	DoD-ELAP,CALAP,ADEC,WADOE
Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,CALAP,ADEC
Benzo(g,h,i)perylene	DoD-ELAP,CALAP,ADEC,WADOE
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,ADEC,WADOE
Benzofluoranthenes, Total	DoD-ELAP,NELAP,ADEC,WADOE
Benzofluoranthenes, Total	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
Benzofluoranthenes, Total	DoD-ELAP,NELAP,CALAP,ADEC
Benzofluoranthenes, Total	DoD-ELAP,CALAP,ADEC,WADOE
N-Nitrosodimethylamine	DoD-ELAP,NELAP,CALAP,WADOE
N-Nitrosodimethylamine	DoD-ELAP,CALAP,WADOE
N-Nitrosodimethylamine	DoD-ELAP,NELAP,WADOE
N-Nitrosodimethylamine	DoD-ELAP,NELAP,CALAP
Aniline	DoD-ELAP,CALAP,WADOE
Aniline	DoD-ELAP,NELAP,CALAP
Aniline	DoD-ELAP,NELAP,CALAP,WADOE
Aniline	DoD-ELAP,NELAP,WADOE
1-Methylnaphthalene	DoD-ELAP,NELAP,CALAP,ADEC,WADOE
1-Methylnaphthalene	DoD-ELAP,NELAP,CALAP,ADEC
1-Methylnaphthalene	DoD-ELAP,CALAP,ADEC,WADOE
1-Methylnaphthalene	DoD-ELAP,NELAP,ADEC,WADOE
Azobenzene (1,2-DP-Hydrazine)	NELAP,WADOE
Azobenzene (1,2-DP-Hydrazine)	NELAP,CALAP,WADOE
Azobenzene (1,2-DP-Hydrazine)	CALAP,WADOE
Azobenzene (1,2-DP-Hydrazine)	NELAP,CALAP
Benzidine	DoD-ELAP,WADOE
Benzidine	DoD-ELAP
Benzidine	DoD-ELAP,WADOE
Benzidine	DoD-ELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022



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Notes and Definitions

*	Flagged value is not within established control limits.
J	Estimated concentration value detected below the reporting limit.
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.