

UST Site documents – 1989-1994

1989

July 7, 1989..... EPA Notice of Noncompliance
December 8, 1989 Environmental Report Tracking System (ERTS) Report

1990

April 13, 1990 UST Inspection Photo log
April 13, 1990 Sample Data & Analysis form
April 17, 1990 Ecology Inspection Report
May 9, 1990 Sampling Results (VOCs)
May 14, 1990 Warning Letter Re: Release of Hazardous Substances
May 21, 1990 Response to Ecology letter of May 14, 1990
June 1, 1990 Response to Ecology letter of May 14, 1990
June 18, 1990 Response to Ecology letter of May 14, 1990
July 11, 1990..... Ecology Inspection Report
August 20, 1990..... Status Update
September 2, 1990..... Response to Ecology letter of May 14, 1990
September 18, 1990..... Water Sample Results and Comments
September 21, 1990..... Chain of Custody form for Sampling on 06-29-1990
September 21, 1990..... Underground and Penta Storage Tanks Removal Plan
September 25, 1990..... UST Removal Info from Ecology
October 5, 1990..... Notice of Penta Tank Removal
November 9, 1990 Requests for Analysis
November 14, 1990 Discharge Authorization – Penta Tank
November 14, 1990 Sample Data & Analysis (Custody form)
November 20, 1990 VOC Analysis (BTEX)
November 28, 1990 Lab Analysis Report (Diesel & Gasoline)

November 28, 1990Soil Analytical Report – Diesel & Gasoline Tank Pits
December 12, 1990Narrative for PNEL 2778 (Data summary sheets)
December 18, 1990Test Results – Gas & Diesel Tanks Excavations
December 24, 1990 Soil Analytical Report
December 26, 1990 UST – Notice of Release (Diesel)

1991

January 7, 1991 Diesel Tank Over Excavation Test Results
January 8, 1991 Tank Removal Data Analysis
January 14, 1991Discharge Authorization – 2nd Extension
February 2, 1991 Notice of Permanent UST Closure (Tanks 1 & 2)
June 1991 Site Hazard Assessment Summary Report
September 11, 1991 Sampling Results
October 23, 1991 Notice of Permanent UST Closure (Tank 5 – Toluene)
October 24, 1991 Toluene Storage Tank Removal – Observations & Soil Sampling
November 13, 1991 UST – Site Assessment Checklist

1993

July 8, 1993.....Department of Health – Health Investigation Assessment
November 19, 1993 Interim Site Status Report
December 6, 1993Ecology correspondence Re: WARM & SHA Methods

1994

February 2, 1994 Notice of Discovery – TPH
June 3, 1994 Memo Re: Notice of Discovery – TPH

DCE



Reply To
Attn of: AT-083

1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

NOTICE OF NONCOMPLIANCE

Frank DeVol

~~Ron Miner~~, General Manager
NORD Company, Inc.
P.O. Box 1187
Everett, Washington 98206

259-9292

Dear Mr. Miner:

This concerns the June 27, 1989 inspection of NORD Company located at 300 West Marine View Drive, Everett, Washington, which was performed by Michael R. Hoyles of the United States Environmental Protection Agency (EPA) pursuant to Section 11 of the Toxic Substances Control Act (TSCA). This inspection was conducted to determine whether activities at the facility were in compliance with EPA Regulations governing polychlorinated biphenyls (PCBs): 40 C.F.R. Part 761.

During the inspection, violations of the regulations were noted. You should be aware that violations of TSCA may result in the issuance of an administrative civil complaint and the assessment of penalties. The following identifies in detail the violations observed during the inspection.

VIOLATION ONE

REGULATION - STORAGE: 40 C.F.R. § 761.65(b) requires that any facility used for the storage of PCBs and PCB Items designated for disposal meet the following criteria:

- 1) Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items;
- 2) An adequate floor which has continuous curbing with a minimum six inch high curb. The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container stored therein or 25 percent of the total internal volume of all PCB Containers stored therein, whichever is greater;
- 3) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area;
- 4) Floors and curbing constructed of continuous smooth and impervious materials, such as Portland cement concrete or steel, to prevent or minimize penetration of PCBs; and
- 5) Not located at a site that is below the 100-year flood water elevation.

7/26/89
inspected by
inspector

VIOLATION ONE: The pole where the three out of service pole-mounted PCB Capacitors were stored did not meet the requirements of a PCB Storage for disposal area.

VIOLATIONS TWO THROUGH EIGHT

REGULATION - MARKING: 40 C.F.R. § 761.40 requires that all PCB Containers, PCB Transformers, Large PCB Capacitors, and PCB storage for disposal areas be marked in accordance with 40 C.F.R. § 761.45. In general, a 6 inch by 6 inch PCB label is required, although the label may be reduced in size proportionately to a minimum of 2 inches by 2 inches for equipment too small to accommodate the standard 6 inch by 6 inch label.

VIOLATIONS TWO THROUGH SEVEN: The following six PCB Capacitors were not marked with the required PCB label.

VIOLATIONS TWO THROUGH FOUR:

Three pole-mounted PCB Capacitors, no model or serial number identified, located in the parking lot south of the facility and west of the warehouse.

VIOLATIONS FIVE THROUGH SEVEN:

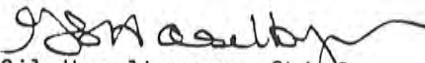
Three out of service pole-mounted PCB capacitors, no model or serial number identified, located on the third pole west of the warehouse.

VIOLATION EIGHT: The area where three out of service pole-mounted PCB Capacitors were located, which are the subject of Violations Five through Seven, was not marked with the PCB label required for a storage area.

EPA has reviewed the information submitted by your company documenting that the PCB Capacitors were removed and disposed of. We appreciate your prompt attention in this matter. Within thirty days of your receipt of this letter, you should also provide EPA with copies of disposal certificates for the PCB Capacitors.

If you have any questions regarding this letter, please contact Eileen Hayes of my staff. She can be reached at EPA Region 10, Pesticides and Toxic Substances Branch, Mail Stop AT-083, 1200 Sixth Avenue, AT-083, Seattle, Washington; telephone (206) 442-2584.

Sincerely,


 Gil Haselberger, Chief
 Toxic Substances Section

cc: John Foley, EPA HQ
 State Ag Dept.

12/15/1989
09:30:14

DEPARTMENT OF ECOLOGY
ENVIRONMENTAL REPORT TRACKING SYSTEM
INITIAL REPORT/FOLLOWUP

PAGE 1 OF 2

=====

COORDINATOR: ELIN ABRAMSON DATE/TIME REC'D: 12/08/1989 15:00:00

REPORT #: 15 REPORT TYPE: INITIAL REGION CODE: N

=====

DETAILS RECEIVED ON REPORTER:

OR ANONYMOUS:

GIL HASELBERGER
EPA REGION 10
SEATTLE

442-1094

WA 98191-0000

BEST TIME TO
RETURN CALL:

SILVIA HAYES - CONTACT (442-2584)

=====

DETAILS RECEIVED ON INCIDENT:

WATER WAY INFORMATION:

COUNTY CODE: ~~SN~~ Snohomish

DESCRIPTION OF INCIDENT: EVERETT
FACILITY ON SITE USED FOR STORAGE OF PCBs IN VIOLATION OF
LOCATION: 40CFR761.65(B)

=====

DETAILS ON ALLEGED VIOLATOR:

CONTACT'S NAME:

ALLEGED VIOLATOR'S NAME & ADDRESS:

RON MINER, GENERAL MANAGER NORD COMPANY,
P.O. BOX 1187
EVERETT, WA 98206-0000

TELEPHONE NUMBER:

ADDITIONAL INFORMATION REGARDING ALLEGED VIOLATOR:

300 WEST MARINE VIEW DRIVE, EVERETT

=====

DESCRIPTION OF CONTAMINANT

MEDIA: 00 OTHER IMPROPER STORE
MATERIAL: OIL/PETROLEUM PCB STORAGE

SOURCES: 00 UNSPECIFIED SOURCE
00 UNSPECIFIED SOURCE

=====

COMMENTS: PCB CAPACITORS UNLABELED, INADEQUATE ROOFING TO PREVENT RAIN FROM REACHING PCBs AND INADEQUATE FLOORING, NO DRAIN VALVES, NOT LOCATED AT SITE THAT IS BELOW 100YR. FLOOD PLAIN. INSPECTION ON 6/27/89

CONTINUED ON NEXT PAGE

12/15/1989
09:30:14

DEPARTMENT OF ECOLOGY
ENVIRONMENTAL REPORT TRACKING SYSTEM
INITIAL REPORT/FOLLOWUP

PAGE 2 OF 2

PROGRAM & SECTION HEAD:

REFERRED TO
FOR REVIEW:

HWIC

LEE DORIGANNEN

INTERNAL REFERRAL

DATE ASSIGNED: _____

DATE DUE: _____

NAME OF STAFF PERSON:

Rachel Friedman-Thomas / Nolan Peck

IMPACT CODE: _____

(H=HUMAN, E=ENVIRONMENT OR B=BOTH)

ADDITIONAL INFORMATION:

*large industrial facility, warrants full inspection
~~###~~ suspect organics, phenols, PCB's, based on general practices
historic to wood fabrication industries + EPA/TOSCA inspection report.*

CROSS-REFERENCES
TO OTHER SYSTEMS: _____

COMPLETED DATE: 29 Mar 90 *ADP*

4/6/90 - contacted Eileen Hayes - EPA has virtually closed the book on this PCB issue. The capacitors have been removed from the site + EPA is awaiting the disposal certificates. This letter was generated from a routine site inspection + was only a "bookkeeping" violation. RFT

I. EPA STATE Hazardous Waste I.D.#

WAD 98 176565 1

NOTIFICATION OF DANGEROUS WASTE ACTIVITIES

DATE IN TO DEPARTMENT

II. Waste Designated By:

RCRA/State SO

State Only
Non-Regulated/Non-Handler/Protective Filing

III. Exemption Status:

RCRA Exempt Recycler
State Exempt Recycler
Below QEL
Other

IV. Handling

Emergency
Remedial Action
One-Time-Only
Other

(send to) Attn: DW Notifications
Washington State Department of Ecology
M/S PV-11 Olympia, WA. 98504-8711
(206) 459- /6305/6306

Init: _____ Date: _____ Region: _____
EPA: _____ Date: _____ Copy: _____
Input: _____ Update: _____ Ack: _____
DEPARTMENT USE ONLY

DEPARTMENT USE ONLY

1. A. FIRST NOTIFICATION

B. REVISED NOTIFICATION
(enter current I.D.# in upper left)
MO. DAY YR

C. WE REQUEST TO HAVE OUR I.D.# WITHDRAWN (enter current I.D.# assigned to you in section 99 in upper left)

D. REACTIVATE OUR NOTIFICATION (complete all sections)

revisions effective: _____ / _____ / _____ E. SITE CLOSED (We are no longer conducting business at this location and want our I.D. No. cancelled)

2.A. WASHINGTON STATE DEPARTMENT OF REVENUE REGISTRATION (TAX) NUMBER

2.B. SIC CODE(S)

PRIMARY SECONDARY OTHER

600-627-882

8. NAME OF COMPANY

WORD

RECEIVED
JAN 01 87

4. MAILING ADDRESS

STREET, P.O. BOX, OR RURAL ROUTE & BOX NO.

TECHNICAL OPERATIONS SECTION

PO BOX 1187

CITY OR TOWN

STATE

ZIP CODE

EVERETT

WA

98206

5. LOCATION OF WASTE ACTIVITIES (Installation)

DESCRIPTION OF PHYSICAL LOCATION (Follow Instructions Carefully)

6. COUNTY WHERE THIS INSTALLATION IS LOCATED

300 W MARINE VIEW

SNOHOMISH

061

CITY OR TOWN

STATE

ZIP CODE

EVERETT

WA

98206

7. DANGEROUS WASTE ACTIVITIES YOUR BUSINESS IS CONDUCTING

(Read & Follow Instructions Carefully—Enter an "X" in appropriate box(es))

A. GENERATOR

B. TRANSPORTER (complete this section only if YOU are transporting waste for hire or your own waste to an off-site facility)

C. WASTE MANAGEMENT FACILITY (TSD) (refer to definitions in instructions)

D. UNDERGROUND INJECTION

(1) We Transport Waste For Hire
(2) Modes of Transport YOU Operate

(a) HIGHWAY (b) AIR (c) RAIL
(d) WATER (e) OTHER

(1) TREATMENT
(2) STORAGE
(3) DISPOSAL
(4) WE ACCEPT OFF-SITE WASTES

8. CONTACT PERSON

NAME (last)

(first)

JOHNSON

ROBERT

TITLE

PHONE NO. (area code & number)

FACILITIES MANAGER

206-259-9292

9A. OWNERSHIP (Legal Owner(s) of this Company)

PRIVATELY HELD CORP

10. TYPE OF OWNERSHIP

(enter letter code in box)

9B. OWNERSHIP (Legal Owner(s) of site (Property))

SAME

P

Description of Waste(s)	C. Hazardous Waste Number (refer to WAC 173-303)		D. Estimated or Actual Annual Waste Quantity				WEIGHT CODE
	WT	CD	1	2	3	4	
	WT02D	001				20,000	P

12. ESTIMATED MAXIMUM QUANTITY of all wastes, listed above, to be produced in any given month or per processing batch.

A. Batch Frequency 30 days QUANTITY 10000 WEIGHT P B. PER MONTH QUANTITY 10000 WEIGHT CODE

13. COMMENTS (Enter Information by Section & Line Number—See Instructions)

14. FORMS AND INFORMATION REQUEST

(Check the box(es) of those items desired and indicate how many)

- A. NOTIFICATION FORM
- B. PART A PERMIT FORM FOR TSD FACILITIES
- C. BIOLOGICAL TEST PROCED.
- D. GENERATOR ANNUAL REPORT FORM
- E. CHEMICAL TEST PROCED.
- F. TSD FACILITY ANNUAL REPORT/UNMANIFESTED WASTE REPORT
- G. DANGEROUS WASTE LEGISLATION (RCW 70.105) AND REGULATIONS (WAC 173-303)
- H. DANGEROUS WASTE FEES LEGISLATION (RCW 70.105A) & REGULATION (WAC 173-305)
- I. OTHER (specify)

15. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE: Ronald J. Miner OFFICIAL TITLE (Print): GENERAL MGR. DATE SIGNED: 1/5/87
 PRINTED NAME: RONALD J. MINER

1
2
3
4
5
6
7
8
9A
9B
9C

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No.

WAO 781765654 | 01-13-01

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

ALDRO INC
BOX 1127 EURETT WA 98206

4. Generator's Phone

(360) 259-7292

5. Transporter's Company Name

6. US EPA ID Number

7. Transporter's Company Name

8. US EPA ID Number

OAK HARBOR FREIGHT

WAO 002799347

9. Designated Facility Name and Site Address

LILYDALE PET
2344 BOX 1 DE TACOMA WA
TACOMA WA 98401

10. US EPA ID Number

WAO 027543032

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

12. Containers

13. Total Quantity

14. Unit Wt/Vol

a.	HM	Description	12. Containers		13. Total Quantity	14. Unit Wt/Vol
			No.	Type		
X		WASTE PAINT RELATED MATERIALS FLAMMABLE LIQ NA 1263 R.Q. 100 #	2	Dr	110	G
X		WASTE ACETONE UN 1090 FLAMMABLE MATERIAL R.Q. 500 #	1	Dr	40	G
X		WASTE PAINT RELATED MATERIALS FLAMMABLE SLUDGE NA 1263 R.Q. 100 #	1	Dr	5	G
d.						

15. Additional Description of Material (if any)

15. Special Handling Instructions and Additional Information

IN CASE OF ACCIDENTAL SPILL OR RELEASE OF R.Q. AMOUNTS
IMMEDIATELY CONTACT - NATIONAL RESPONSE CENTER
AT 1-800-247-4802

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Robert D. Johnson

Signature

[Signature]

Month Day Year

1 13 87

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

B. Potts

Signature

[Signature]

Month Day Year

1 13 87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name

DAVIS J. Taylor

Signature

[Signature]

Month Day Year

1 13 87

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **WAD 981765654** | Manifest Document No. **01-08-2**

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
**NORD INC.
BOX 1189 EVERETT WA. 98206**

A. State Manifest Document Number

B. State Generator's ID

4. Generator's Phone **(206) 259-9292**

C. State Transporter's ID

D. Transporter's Phone **244-3230**

5. Transporter 1 Company Name **OAK HARBOR FREIGHT**

E. State Transporter's ID

F. Transporter's Phone

6. US EPA ID Number **WAD 002788347**

G. State Facility's ID

H. Facility's Phone **206-627-2248**

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
**SOL-PRO/LILYBLAD PETROLEUM
2244 PORT OF TACOMA RD.
TACOMA WA 98401**

10. US EPA ID Number **WAD 027543032**

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

12. Containers No. Type

13. Total Quantity

14. Unit Wt/Vol

15. Waste No.

a. **WASTE FLAMMABLE LIQUID NOS**

X FLAMMABLE LIQUID UN 1993

b.

c.

d.

J. Additional Descriptions for Materials Listed Above
(a) SPENT SOLVENT

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name
Robert D. Johnson

Signature
Robert D. Johnson | Month Day Year | **1 18 87**

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
Ric Johnston

Signature
Ric Johnston | Month Day Year | **1 18 87**

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name

Signature | Month Day Year

19. Discrepancy Indication Space
**1. EXPIRED MANIFEST DATE
2. MISSING RQ VALUE**

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
JAMES C ECKLUND

Signature
James C Ecklund | Month Day Year | **6 18 87**

GENERATOR

TRANSPORTER

FACILITY

Return original manifest to generator 1/18/87

PHOTO NO.:

DATE: 4/13/90

TIME: 3:00pm

TAKEN BY:

Dave Dazy

WITNESS:

Rachel Friedman-Thomas

FILM: Kodak

CAMERA: point + shoot

LOCATION:

Nord Door Co

Everett WA

DESCRIPTION:

Scrap metal storage area
in SW corner of the



site. Drums with no tops and open bungs full to over flowing with rainwater.
Oil stains down sides of drums and on ground surrounding drums

PHOTO NO.:

DATE: 4/13/90

TIME: 3:20pm

TAKEN BY:

Dave Dazy

WITNESS:

Rachel Friedman-Thomas

FILM: point + shoot Kodak

CAMERA: point + shoot

LOCATION:

Nord Door Co

Everett

DESCRIPTION:

Waste product +
empty drum storage



area. Note oil staining in puddles.

PHOTO NO.:

DATE: 4/13/90

TIME: 2:30pm

TAKEN BY:

Norm Peck

WITNESS:

RFT

FILM: fuji

CAMERA:

LOCATION:

Nord Door Co

DESCRIPTION:

Heat + Soak tank located
in NE corner of facility.

Note 15' fire hose

process water discharge point, not falling directly to the paved yard. Noted slight
sheen on the water in the tank



PHOTO NO.:

DATE: 4/13/90

TIME: 2:35pm

TAKEN BY:

Norm Peck

WITNESS:

RFT

FILM: fuji

CAMERA:

LOCATION:

Nord Door Co

DESCRIPTION:

Paint thinner

underground tank

(abandoned). Area

surrounds water. Old pump is retrofitted into a 55 gal drum



PHOTO NO.:
DATE: 4/13/90
TIME: 3:30pm

TAKEN BY:
Norm Peck

WITNESS:
RFT

FILM: fuji
CAMERA:

LOCATION:
Nold Dool Co



DESCRIPTION:
Waste product drum
storage to the
E of kilns in
the center of the facility

PHOTO NO.:
DATE: 4/13/90
TIME: 3:20pm

TAKEN BY:
Norm Peck

WITNESS:
RFT

FILM: fuji
CAMERA:

LOCATION:
Nold Dool Co



DESCRIPTION:
Waste product (oils, glues,
resins) storage area.
Drums without bungs,
drums covered with plywood + oil stains on pavement
Area located to the east of the kilns in the center of the facility

PHOTO NO.: _____
DATE: 4/13/90
TIME: 2:30pm
TAKEN BY: _____
Dave Dazy
WITNESS: _____
RFT
FILM: Kodak
CAMERA: _____
LOCATION: _____
Nord Dool Co



DESCRIPTION: _____
"Wood life" tank
(abandoned). container
Area never pumped out.
There was slight sheen on water. Note corrosion on underside of tank

PHOTO NO.: _____
DATE: 4/13/90
TIME: 2:30pm
TAKEN BY: _____
Norm Peck
WITNESS: _____
RFT
FILM: Fuji
CAMERA: _____
LOCATION: _____
Nord Dool Co



DESCRIPTION: _____
"Wood life" tank.
Note discolored streaks
along bottom 1/4 of the
tank

PHOTO NO.:
DATE: 1/13/90
TIME: 2:35pm
TAKEN BY: Dave Nazy
WITNESS: RPT
FILM: Kodak
CAMERA:
LOCATION: Dord Door Co



DESCRIPTION:
Paint Thinner tank
area. Note black
stains on the pavement

PHOTO NO.:
DATE: 4/13/90
TIME: 2:50pm
TAKEN BY: Dave Nazy
WITNESS: RPT
FILM: Kodak
CAMERA:
LOCATION: Dord Door Co.



DESCRIPTION:
Site of spill of diesel
fuel when truck drove
away without capping
disconnecting the hose. Note proximity to River tidal flats. Note stains on pavement, Note lack
of containment. This is supposedly the one containing functioning UST which will be
switched to an A/GF. wrong

PHOTO NO.: _____
DATE: 4/13/90
TIME: 2:50pm
TAKEN BY: Norm Peck
WITNESS: RFT
FILM: Kodak
CAMERA: _____
LOCATION: Nord Door Co



DESCRIPTION:
1 remaining functioning
UST. Site where spill occurred.
Note proximity to Snohomish
River + lack of containment

PHOTO NO.: _____
DATE: 4/13/90
TIME: 3:45pm
TAKEN BY: Norm Peck
WITNESS: RFT
FILM: Kodak
CAMERA: _____
LOCATION: Nord Door Co



DESCRIPTION:
Center of yard. Machine
pressure wash area in
background center.
Note lack of containment. Washing occurs directly on the pavement. One remaining gas UST in
center photo (UST to be transferred to an AGT). Hog fuel boiler on the R of photo

PHOTO NO.: _____

DATE: _____

TIME: _____

TAKEN BY: _____

WITNESS: _____

FILM: _____

CAMERA: _____

LOCATION: _____

DESCRIPTION: _____



PHOTO NO.: _____

DATE: 4/13/90

TIME: 3:35pm

TAKEN BY: _____

Norm Peck

WITNESS: _____

RFT

FILM: Fuji

CAMERA: _____

LOCATION: _____

World Dool Co

DESCRIPTION: _____

Outside oil shed. Note

drip pockets below each

spigot. Note oil stains around each drip bucket. Sawdust used to absorb stains.

(Told that used sawdust was thrown into garbage bin)

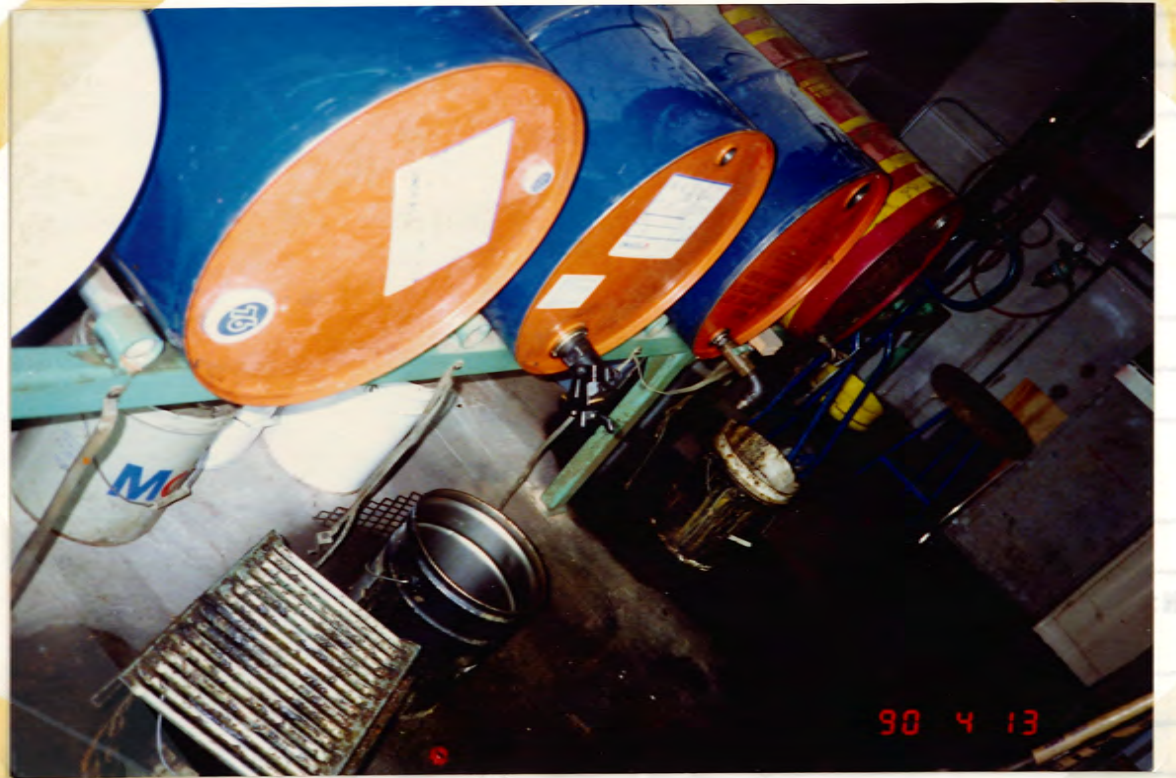


PHOTO NO. _____
DATE: _____
TIME: _____
TAKEN BY: _____
WITNESS: _____
REF: _____
FILM: _____
CAMERA: _____
LOCATION: _____
DESCRIPTION: _____



PHOTO NO. _____
DATE: _____
TIME: _____
TAKEN BY: _____
WITNESS: _____
REF: _____
FILM: _____
CAMERA: _____
LOCATION: _____
DESCRIPTION: _____

(not a spill of any kind, just a drum that was taken out)

PHOTO NO.: _____

DATE: 4/10/90

TIME: 3:35pm

TAKEN BY: _____

Dave Dazy

WITNESS: _____

Rachel Friedman-Thomas

FILM: Kodak

CAMERA: point + shoot

LOCATION: _____

Nord Door Co

Exereth

DESCRIPTION: _____

Outside oil shed. Despite

the use of drip buckets,

staining from spills onto the floor has occurred.

Using sawdust to adsorb spills



PHOTO NO.: _____

DATE: _____

TIME: _____

TAKEN BY: _____

WITNESS: _____

FILM: _____

CAMERA: _____

LOCATION: _____

DESCRIPTION: _____

PHOTO NO.: _____
DATE: 4/13/90
TIME: 3:15pm
TAKEN BY: _____
Nolan Peck
WITNESS: _____
RFT
FILM: Kodak
CAMERA: _____
LOCATION: _____
Dord Door Co



DESCRIPTION: _____
Southerly storm drain
outfall to Sno. Riv. tide flats.
Sample # 01 taken at this point

PHOTO NO.: _____
DATE: 4/13/90
TIME: 2:45pm
TAKEN BY: _____
Nolan Peck
WITNESS: _____
RFT
FILM: Kodak
CAMERA: _____
LOCATION: _____
Dord Door Co



DESCRIPTION: _____
Northerly storm drain
outfall to Sno. Riv.

PHOTO NO.:
DATE: 4/13/90
TIME: 3:20 pm
TAKEN BY: Norm Peck

WITNESS: RFT

FILM: Fuji

CAMERA:

LOCATION: Nord Door Co

DESCRIPTION:

Oil stains on pavement in the vicinity of the large accumulation of waste product drums ^{located} in the center of the facility, just E of the kilns

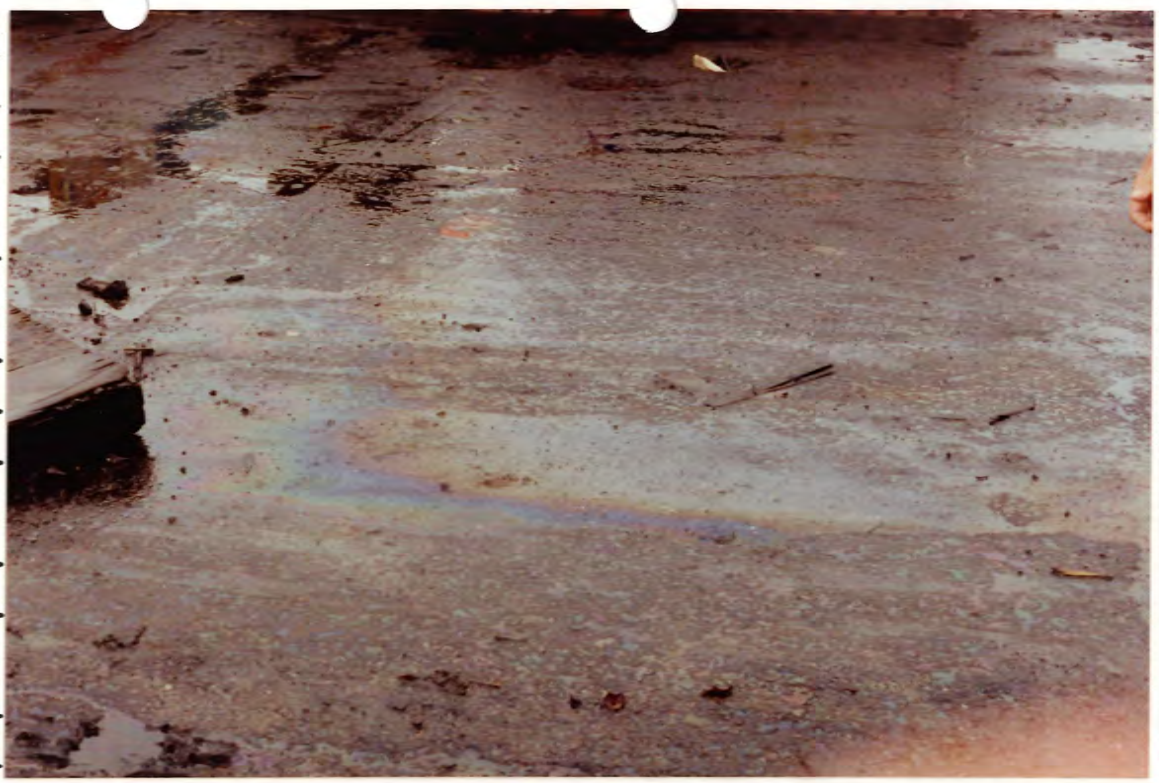


PHOTO NO.:
DATE: 4/13/90
TIME: 2:35 pm
TAKEN BY: Dave Nazy

WITNESS: RFT

FILM: Kodak

CAMERA:

LOCATION: Nord Door Co

DESCRIPTION:

Drum storage area - virgin product NE area of facility



PHOTO NO.:
DATE: 4/13/90
TIME: 2:35 pm
TAKEN BY: Norm Peck

WITNESS: RFT

FILM: Fuji

CAMERA:

LOCATION: Nord Door Co

DESCRIPTION:

Drum storage area located in NE corner of facility



PHOTO NO.:
DATE: 4/13/90
TIME: 3:00 pm
TAKEN BY: Norm Peck
~~Dave Nazy~~

WITNESS: RFT

FILM: Fuji

CAMERA:

LOCATION: Nord Door Co

DESCRIPTION:

Waste product drum disposal in scrap metal storage area in SW corner of the facility. Drums with out covers, oozing black viscous material + filling to overflowing with rain water.



PHOTO NO.:
DATE: 4/13/90
TIME: 3:20pm
TAKEN BY:
Dave Nazy

WITNESS:
Rachel Friedman-Thomas
FILM: Kodak

CAMERA: point + shoot
LOCATION:
Nord Pool Co
Everett

DESCRIPTION:
waste product +
empty drum storage
area. Note staining on pallets + cracks + holes in pavement



PHOTO NO.:
DATE: 4/13/90
TIME: 3:30pm
TAKEN BY:
Dave Nazy

WITNESS:
Rachel Friedman-Thomas
FILM: Kodak

CAMERA: point + shoot
LOCATION:
Nord Pool Co
Everett

DESCRIPTION:
waste product drums
without secondary
containment and sitting directly on the pavement + in the puddles



PHOTO NO.: _____
 DATE: 4/13/90
 TIME: 3:05pm
 TAKEN BY: Nolan Peck
 WITNESS: RFT
 FILM: Fuji
 CAMERA: _____
 LOCATION: Nord Door 6

DESCRIPTION:
View of entire yard taken
from the pier on the
W side of the property. Snohomish River
behind us to the W. Lumber storage on the
left of photo & kilns in center photo.
No storm outfall was noted on the
W side of the property embankment

PHOTO NO.: Scrap metal yard to R of
 DATE: the kilns. Hog fuel burner in
 TIME: the center background of photo
 TAKEN BY: (green + steaming)

WITNESS: _____
 FILM: _____
 CAMERA: _____
 LOCATION: _____

DESCRIPTION:



DEPARTMENT OF ECOLOGY

INSPECTION REPORT

To _____

Inspector WJ/RFT/DN

Date of Visit 13 Apr 90 1319

Permit No. _____

Name of Entity Nord

Permit Expires _____

City Everett County Snohomish

New Industry _____

Person Contacted Leon Wells, Acting Plant Mgr., Production Manager

Type of Facility Wood door and stair manufacturer

Receiving Water _____

Type of Treatment System _____

Operation Satis _____ Fair _____ Unsatis _____

Does not comply with permit conditions

Describe containers for wood dust full, unlined, unsealed, heating tank process also too formal!

no rec. cont. for drum storage diesel tank needs cont./separator

old drums by rd corner old drums by w parking lot, wash oil shed area (2 old kln area)

secondary containment in oil room hot/steam cleaning wastewater disposal

[tank area soil testing]

Litter and Recycling info to set up recycling center for employees

CC

Name: Nord Company
Date: April 17, 1990
Page 2

ANNOUNCED

The hazardous substances that they produce are waste oil, and grease rags. Other non-haz. sub. include waste wood and sawdust.

The company has "some" underground tanks that have been filled. Currently there is one underground tank in use for gas. They will be converting the remaining UST to an aboveground tank.

We asked for copies of both the site storm and sanitary drain plans, and expect to receive them in response to our letter.

Mr. Wells knew of one spill from an aboveground diesel tank but did not know the date. This tank is located very close to the edge of the property and adjacent to the Snohomish River tidal flats.

The historical use of the site was as a pole treating facility. Nord Co. has occupied the site since the mid 1940s.

Site Tour:

Looked at an aboveground tank in the NE corner of the site which had contained "wood life" preservative. We will ask what the constituents of "wood life" are. The tank is surrounded by a 6-8" concrete berm. The containment area is never pumped out. According to Mr. Wells, "we just let it evaporate". At the time of the visit there was standing water with a dark appearance and the paint on the bottom of the tank was peeling off.

Looked at soak and heat tank adjacent to the NE corner of the building. The tank had a 20' section of fire hose leading from the tank to the pavement and presumably to the nearest storm drain catch basin. There was a light sheen on the water in the tank.

Looked at the area where the 500 gal. paint thinner underground storage tank exists. According to Mr. Wells the tank is empty and has not been used for 2-3 years. The area currently impounds stormwater and the liquid has a slight sheen.

Mr. Wells showed us the area where the spill had occurred. This area is adjacent to a tide flat of the Snohomish River and there is no containment. We saw stains and cracks in the pavement.

The company has great need of upgraded drum storage, labeling and maintenance facilities. In the SW corner of

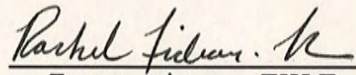
Name: Nord Company
Date: April 17, 1990
Page 3

ANNOUNCED

the site the company has a scrap metal pile. In amongst the pile are two 55 gal. drums, one of which had no cover, had black vicious material oozing down the side, and the drum was filled to overtopping with water and some other substance. Other areas of poor drum storage and handling include the primary storage area, in the center of the facility, which contained both labeled and unlabeled drums. Many did not have the bungs or did not have tops. There were used oil drums mixed in with resins and glue drums. There were quite thick sheens in the area and large holes in the pavement where the soils were stained black.

The floor of the oil shed, located at the center of the compound, was sloped to drain to the yard. Sawdust was used to absorb oil spills and the sawdust was then disposed of in the garbage dumpster. There were oil stains on the floor surrounding every drip bucket.

Lastly, we looked at the area where machinery was pressure-washed. This pressure washing was conducted in the center of the facility and presumably drains to the storm system.



Inspector, EHAT
Rachel Friedman-Thomas

cc: Norm Peck
Dave Nazy



REQUEST FOR ANALYSIS

LAB USE ONLY	
Project Code	_____
Lab Numbers	_____ _____ _____

Approved By: [Signature]

Request Date: 16 Apr 98 Program Code: J1941

Requested By: R. Friedman-Thomson Scan No. 731-7078

Report Data To: _____

Project Name: Nord Co. / Everett Harbor

Enforcement (Chain of Custody REQUIRED)

Project Location: S. storm drain outfall, 3 W. Marine View Dr.

Emergency (enclose separately REASONS and Approval by)

Sampling Dates: 13 Apr 98 Date To Lab: 19 Apr 98

Other Matrix (Describe): _____

Sample Pickup Location: NWRO

No. of Sam.			General Chem	No. of Sam.			Gen Chem, Biology	No. of Sam.			Organics & Toxics
Other	Sed	H2O		Other	Sed	H2O		Other	Sed	H2O	
•••	•••		Turbidity	•••	•••		BOD/5 day				Base/Neutral/Acids
			pH				COD				Acid/Neutrals Only
•••	•••		Conductivity				TOC			1	Volatile Organics / ^{semi} VOA
•••	•••		Total Alkalinity								Pesticides/PCBs
•••	•••		Hardness	•••	•••		Nutrients (3)				PCBs Only
			Chloride	•••	•••		Ammonia				Organophosphate Pest.
			Sulfate	•••	•••		Nitrate-Nitrite				Cl PhenoxyAcid Herb.
			Fluoride	•••	•••		Total Phosphorous				Purgeable Halocarbons
			Cyanide	•••	•••		Ortho-Phosphate				PAH
							Fecal Coll Bacteria				
			SOLIDS (4)								Hydrocarbon Analysis
•••	•••		TSS				PP Metals				Phenolics (AAP)
			TS				EP Tox Metals				Oil & Grease
											Ignitability
							Total Diss				TOX
							Specified Metals (list)				
										•••	Bioassay
		•••	% Solids								NPDES (% effluent)
											HW Designation
	•••	•••	% Lipids								Other:

Comments: VOA/semi VOA, non-QA/QC screen

NOTE: Chain of Custody is recommended on all sampling events.

Sample Bottles Required: VOA, 1 ea. Also send 25 sample tags, rubber bands, zip-lock bags (1qt. size) and seals

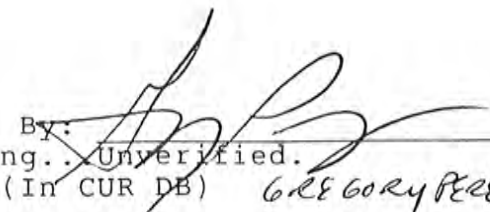
Sample Disposition After Analysis: dispose

==> Transaction #: 04269901 Laboratory: (WE) Ecology, Manchester Lab
 Work Group: (51) VOA - PP Scan (GCMS)
 Instrument: (INCOS-50) GC/MS INCOS 50
 Method: (EP2-624) GC/MS Purge and Trap Scan
 Chemist: (LAB) Lab (General R/O) Hours Worked: _____

Project: DOE-024Z NORD CO./EVERETT HARBOR Prg Ele#: J1941
 Prj Off: Thomas, Ron DOE Analysis Due: 900418 Revised Due:

*** Sample Records in Transaction ***

Seq#	Sample #	QA	Date/Time	Description	Alternate Keys
01	90167065		900413	01	

Record Type: TRNIN3 Date Verified: 5/14/90 By: 
 Transaction Status: Edited Transaction... ~~First Printing...~~ ~~Unverified.~~
 Processed: 9-MAY-90 16:59:08 Status: E Batch: (In CUR DB) GREGORY PEETZ

Transaction #: 04269901 Seq #: 01 (51) VOA - PP Scan (GCMS)
 Proj Code : DOE-024Z NORD CO./EVERETT HARBOR PE # : J1941

Sample No.: 90 167065 Alternate Keys:

Samp Matrix: (10) Water-Total Units: (11) ug/l %Slds: _____
 QA Code: () Unspecified Peaks Total: _____
 Date Extracted: Date Analyzed: 900418 # Days to Ext/Anal: 0/ 5

Line	Par #	Parameter Description	Units	Value
1	74873	Chloromethane	ug/l	1U
2	75718	Methane, Dichlorodifluoro-	ug/l	1U
3	74839	Bromomethane	ug/l	1U
4	75014	Vinyl Chloride	ug/l	1U
5	75003	Chloroethane	ug/l	1U
6	75694	Trichlorofluoromethane	ug/l	1U
7	75092	Methylene Chloride	ug/l	2U
8	67641	Acetone	ug/l	1U
9	75150	Carbon Disulfide	ug/l	1U
10	75354	1,1-Dichloroethene	ug/l	1U
11	75343	1,1-Dichloroethane	ug/l	1U
12	156605	trans-1,2-Dichloroethene	ug/l	1U
13	156592	Cis-1,2-Dichloroethene	ug/l	1U
14	590207	2,2-Dichloropropane	ug/l	1U
15	74975	Bromochloromethane	ug/l	1U
16	67663	Chloroform	ug/l	1U
17	107062	1,2-Dichloroethane	ug/l	1U
18	540841	2,2,4-TRIMETHYLPENTANE	ug/l	1U
19	78933	2-Butanone	ug/l	1U
20	71556	1,1,1-Trichloroethane	ug/l	1U
21	56235	Carbon Tetrachloride	ug/l	1U
22	563586	1,1-Dichloropropene	ug/l	1U
23	108054	Vinyl Acetate	ug/l	1U
24	75274	Bromodichloromethane	ug/l	1U
25	78875	1,2-Dichloropropane	ug/l	1U
26	74953	Dibromomethane	ug/l	1U
27	10061026	trans-1,3-Dichloropropene	ug/l	1U
28	79016	Trichloroethene	ug/l	1U
29	124481	Dibromochloromethane	ug/l	1U
30	106934	1,2-Dibromoethane (EDB)	ug/l	1U
31	79005	1,1,2-Trichloroethane	ug/l	1U
32	142289	1,3-Dichloropropane	ug/l	1U
33	71432	Benzene	ug/l	1U
34	10061015	cis-1,3-Dichloropropene	ug/l	1U
35	75252	Bromoform	ug/l	1U
36	591786	2-Hexanone	ug/l	1U
37	108101	4-Methyl-2-Pentanone	ug/l	1U
38	127184	Tetrachloroethene	ug/l	1U
39	79345	ETHANE, 1,1,2,2-TETRACHLORO-	ug/l	1U
40	630206	Ethane, 1,1,1,2-Tetrachloro-	ug/l	1U
41	108883	Toluene	ug/l	1U
42	108907	Chlorobenzene	ug/l	1U
43	100414	BENZENE, ETHYL-	ug/l	1U
44	100425	BENZENE, ETHENYL-	ug/l	1U
45	108861	Bromobenzene	ug/l	1U
46	96184	1,2,3-Trichloropropane	ug/l	1U
47	95498	2-Chlorotoluene	ug/l	1U
48	106434	4-Chlorotoluene	ug/l	1U
49	95476	Total Xylenes	ug/l	1U
50	95636	1,2,4-Trimethylbenzene	ug/l	1U

(continued on next page)

Transaction #: 04269901 Seq #: 01 (51) VOA - PP Scan (GCMS)

Sample No.: 90 167065 (continued from previous page)

Line	Par #	Parameter Description	Units	Value		
51	98066	Tert-Butylbenzene	ug/l	1U		
52	108678	1,3,5-Trimethylbenzene	ug/l	1U		
53	135988	Sec-Butylbenzene	ug/l	1U		
54	99876	p-Isopropyltoluene	ug/l	1U		
55	104518	Butylbenzene	ug/l	1U		
56	96128	DBCP	ug/l	1U		
57	87616	1,2,3-Trichlorobenzene	ug/l	1U		
58	98828	Isopropylbenzene (Cumene)	ug/l	1U		
59	103651	BENZENE, PROPYL-	ug/l	1U		
60	541731	1,3-Dichlorobenzene	ug/l	1U		
61	106467	1,4-Dichlorobenzene	ug/l	1U		
62	95501	1,2-Dichlorobenzene	ug/l	1U		
63	120821	1,2,4-Trichlorobenzene	ug/l	1U		
64	91203	Naphthalene	ug/l	0.5J		
65	87683	Hexachlorobutadiene	ug/l	1U		
66	-762492	Surrog: 1-Bromo-2-Fluoroetha	% Recov	108	(Surr)	PR
67	-200004	Surrog: D8-Toluene	% Recov	111	(Surr)	PR
68	-200003	Surrog: 1,4-Bromofluorobenze	% Recov	110	(Surr)	PR
69	-200002	Surrog: D4-1,2-Dichloroethan	% Recov	94	(Surr)	PR

CHRISTINE O GREGOIRE
Director



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4350-150th Ave. N.E. • Redmond, Washington 98052-5301 • (206) 867-7000

May 14, 1990

CERTIFIED MAIL

Mr. Leon Wells
Nord Company
P.O. Box 1187
Everett, WA 98206

RE: WARNING LETTER: Discharges to the Storm
Sewer; potential hazardous substance release.

Dear Mr. Wells:

Thank you for your cooperation during Ecology's recent inspection on April 13, 1990. This letter summarizes our findings. The site visit was conducted by David Nazy, Norm Peck, and myself as in initial inspection under the Model Toxics Control Act, Chapter 70.105D RCW. Problem areas and pollutant sources were identified and discussed with you during the site tour and at the debriefing meeting.

The following items describe the areas which were addressed during the inspection. These items must be addressed by your company to eliminate pollutants from entering the storm drain system and underlying ground water, and eliminate the release of toxic pollutants to the environment. I have included a copy of my site inspection report for additional information.

In order to gain a better understanding of your hazardous substance use, handling, and disposal stream I would like to receive copies of the Material Safety Data Sheets (MSDS) for all compounds used at your facility. If there are any other chemicals used which were not discussed at the time of inspection, please forward those MSDS sheets to me as well.

Wood life tank: The abandoned above-ground storage tank in the northeast corner of the site once contained "wood life" and is contained by a 6" concrete berm. We were told that the containment area is never pumped out, it is just left "to evaporate". At the time of the inspection, there was standing water in the

Mr. Leon Wells

May 14, 1990

Page 2

containment area and the paint on the bottom of the tank looked to be peeling off. The liquid within the containment should be analyzed in accordance with 173-303 WAC, Dangerous Waste Regulations, and disposed of properly. You mentioned that this tank was to be dismantled. In order to assure against toxic releases during the dismantling process, inform the Department of how you propose to conduct this process.

Paint thinner tank: The area overlying the abandoned 500 gal. paint thinner tank was impounding stormwater that had a slight sheen. The water and soils in the area should be chemically analyzed to determine whether there is any contamination resulting from a leaking tank. After analysis, inform the Department of the results and what you propose to do with the tank.

Oil Shed: A tour of the shed showed that sawdust is currently used to absorb any minor spills. The threshold of the shed currently slopes into the yard. Norm Peck suggested that some form of secondary containment, such as a lip, be constructed at the threshold of the shed to avoid the potential of a spill flowing into the yard. This shed should also be locked for limited access.

Hazardous substances produced during production:

Waste oil: You indicated that the waste oil is removed from the site by a contractor. There was no mention of how long the waste oil remains on-site prior to removal. I have enclosed a copy of the "Guide for Hazardous Waste Generators, 1988 Edition", and the State of Washington Dangerous Waste Regulations, Chapter 173- 303 WAC. The guide and WAC 173-303-070 discuss designation of dangerous wastes and should assist you in determining whether your company is subject to these regulations.

Tanks: We discussed the reporting requirements for both above-ground as well as underground tanks. We were told that some abandoned underground tanks had been filled. Norm spoke about the problematic nature of such tanks leaking after filling. I have provided a copy of the Underground Storage Tank Regulations (40 CFR Part 280). We were also told that the one remaining underground tank, which contains gasoline, will be abandoned for an above-ground tank.

You should characterize the soil around all of the abandoned and functioning underground tanks to determine whether contamination has occurred. If soil contamination is confirmed, a ground water investigation should be initiated. We have a particular concern about potential corrosion of those tanks as a result of the tidal fluctuations.

Heat and Soak Tank: The heat and soak tank in the northeast corner of the yard had a 20' section of fire hose leading from the tank to the pavement. At the time of the site visit, there was a light oil sheen on the water in the tank. Given that we do not yet have a plan of the storm system we can only assume that this process water runs into the storm drain and out into the Snohomish River. Because of the direct discharge to the River, your facility is in violation of state water pollution control laws. I have enclosed a document entitled "Water Pollution Laws and Regulations" which contains a summary of the applicable laws and regulations related to the discharge of pollutants to waters of the state.

During our site visit, we suggested routing the flow to the sanitary system. We discussed that the process water should be characterized, and the City of Everett's Pretreatment Program Engineer should be contacted to determine whether a pretreatment permit is required. In this way, your facility would come into compliance with water quality laws and would not need an NPDES permit from our Department.

Drum Storage Areas: The company has numerous drum storage areas both inside and outside of the buildings. We observed a few of the outside storage areas.

A scrap metal pile exists in the southwest corner of the lot, on which there were two 55 gallon drums. One of the drums had no cover, had black viscous material flowing down the side, and was overflowing.

Other areas of poor drum storage and handling included the primary storage area located more or less in the center of the facility. This area contained both labeled and unlabeled drums. There were drums of used oil adjacent to those with resins or glue. Numerous drums were uncovered or had plywood covers. There were very thick oil stains on the pavement and holes in the pavement where the soils were stained black.

Mr. Leon Wells

May 14, 1990

Page 4

The current storage of all of these drums could allow for the release of pollutants to the environment. Petroleum products, resins, and glues are hazardous substances under the Model Toxics Control Act, RCW 70.105D. Any contamination of soils by these aforementioned products constitutes a release of hazardous substances and requires remediation.

All outside storage of hazardous materials must be on roofed impervious, bermed pads to prevent spills or leaks from entering the storm system. You may need a permit from the City of Everett to construct such a storage area. We discussed a few practices to minimize the potential for spills. Some simple practices are replacing all bungs, scraping the labels off of the empty drums and designating that they are empty. In addition, you should arrange and manage your incompatible compounds, and characterize and properly dispose of all contaminated soil and asphalt in the vicinity of all drums. I have enclosed a section on container storage for the City of Seattle's "Water Quality, Best Management Practices Manual" to assist you in upgrading you storage areas.

Pressure Wash Area: We ended the inspection with a brief look at the area where machinery was pressure washed. The washing was conducted in the center of the yard on the concrete surface. There did not appear to be any containment of the wash water. Since we do not have information about the storm water drain system, we must assume that the wash water drains directly to the Snohomish River.

Similar to the heat and soak tank the discharge from this pressure wash area directly into the river would constitute a violation of the state water pollution control laws. We suggested that this waste water be characterized, and potentially routed to the sanitary system, after discussions with the City of Everett's Pretreatment Program Engineer.

Spills: We discussed the history of spills at the facility. You mentioned one known spill from a diesel tank when a truck drove away without disconnecting the hose. Please submit all records of spills to the Department.

Storm Drain and Sanitary Sewer System: We discussed the need to have up-to-date blue prints of both the storm drain and sanitary sewer systems. This information will allow us to better evaluate the potential for surface and water contamination. Once we receive these plans we will schedule a time to return to the facility to conduct field verification.

Historical site uses: You mentioned that prior to Nord Company's occupancy on the site, that a pole treating facility operated on the property. If you have the name of the owner of the pole treating company, you should provide us with that information.

Waste Reduction and Recycling Program: You expressed interest in establishing a recycling center for your employees. I contacted with Peter Christiansen (867-7048) from our office's Waste Reduction and Recycling Program. Peter would be very willing to meet with you to help you set up your recycling program.

Because of your cooperation during the inspection and due to your company's interest in bringing the facility into compliance, I propose the following in lieu of initiating formal enforcement actions at this time:

1. Within 5 calendar days of receiving this letter, Nord Company will indicate to the Department of Ecology, in writing, that they intend to work voluntarily to eliminate sources of pollutants to both the storm drain system, and remediate soil and ground water contamination. Upon receipt, Ecology will stay the initiation of formal enforcement proceedings as long as Nord Company makes a good faith effort to correct the problem area noted above.
2. Within 15 calendar days of receiving this letter, Nord Company will submit to the Department, in writing, the following items:
 - a. Copies of all MSDS sheets;
 - b. A plan and schedule for modifying the oil shed;
 - c. The facility's spill history;
 - d. Storm and sanitary system plans;
 - e. A plan and schedule for eliminating sources of pollutants to the storm drain system at both the heat and soak tank, and the pressure wash area;
 - f. Historical site use information.
3. Within 30 calendar days of receiving this letter Nord Company will submit to the Department, in writing, the following items:

received faxed
response 5/22/90

a. MSDS sheets done

b. will implement oil shed
modifications by June 30, 1990

c. spill sheet done

d. a xerox of a blue print done -
a real blue print is forth
coming

e. will meet w/ City to discuss
discharge of heat + soak +
pressure wash areas to sanitary
on June 5, 1990. will tell the
more subsequently

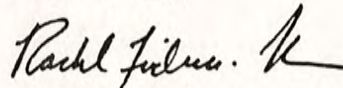
f. Nord's ownership dates
to just after World War I

- a. A plan and schedule for disposing of the liquid in the wood life tank, and dismantling the tank;
- b. A proposal for taking care of the paint thinner underground tank;
- c. A plan and schedule for soil characterization in the vicinity of all underground tanks, and a proposed remediation schedule;
- d. A plan and schedule for the containment of all stored drums;
- e. Locations and uses for all underground storage tanks on the property.

All corrective actions are subject to on-site verification by the Department. Verification inspections will not be announced in advance.

If you have any questions, please call me at (206) 867-7078.

Sincerely,



Rachel Friedman-Thomas
Everett Harbor Action Team
Coordinator

Enclosures:

- Inspection Report
- Guide for Hazardous Waste Generators, 1988 Edition
- State of Washington Dangerous Waste Regulations (WAC 173-303)
- Underground Storage Tank Regulation (40 CFR Part 280)
- Summary entitled Water Pollution Laws and Regulations
- City of Seattle's "Water Quality, Best Management Practices Manual" - container storage section

cc: Dan Cargill, Ecology, UBAT
John Glynn, Ecology, WQ
Dave Nazy, Ecology, UBAT
Norm Peck, Ecology, HWICP
Dan Mathias, City of Everett, Surface Water Management
Jeff Kerwin, City of Everett, Utilities Division
Mary Cunningham, City of Everett, Planning Dept.
File



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P. O. BOX 1540 • 3303 LAKEPORT BLVD. • KLAMATH FALLS, OREGON 97601

PHONE (503) 883-3373

FAX (503) 883-3379 Ext. 336

May 21, 1990

Rachel Friedman-Thomas
Everett Harbor Action Team Coordinator
State of Washington
Department of Ecology
4350 150th Ave. N.E.
Redmond, WA 98052-5301

RE: May 14, 1990 Letter

Dear Ms. Friedman-Thomas:

We have received and reviewed your May 14, 1990, letter regarding your inspection of the Nord facility located at 300 W. Marine Dr., Everett, WA.

Please be advised that, as illustrated by our cooperation to date, Nord looks forward to voluntarily working with the Department of Ecology in developing and implementing plans to address the concerns of the Department.

We will attempt to provide you with requested information within the time frame set forth in your letter.

Please do not hesitate to contact me should you have any questions or concerns.

Sincerely,

Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Frank DeVaul
File



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

June 1, 1990

P. O. BOX 1540 • 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601

PHONE (503) 883-3373

FAX (503) 883-3373 Ext. 338

Ms. Rachel Friedman-Thomas
Everett Harbor Action Team Coordinator
State of Washington
Department of Ecology
4350 150th Avenue N.E.
Redmond, WA 98052-5301

RE: May 14, 1990 Letter

Dear Ms. Friedman-Thomas:

This letter is in response to items listed under item 2 in your letter of May 14.

- a. Copies of all MSDS sheets are enclosed.
- b. Our plan for modifying the oil shed is to place a 2-1/2" high asphalt curb at the entrance. This would be ramped on both sides to allow drums to be taken in and out with a hand truck. The perimeter of the existing walls will be sealed, 4" high, with a fiberglass ribbon and asphalt emulsion compound. This will be in place by June 30, 1990.
- c. A sheet is enclosed reciting the history of the diesel spill in March, 1984. This is the only known spill on record for the site.
- d. A xerox of the only blue print of the storm and sanitary system is enclosed. I will forward a better copy after a reproducible is made from the blue print.
- e. Bob Johnson is in the process of contacting the city to determine the possibility of discharging the heat/soak and pressure wash run-offs to the city sanitary system. As soon as this discussion takes place we will respond more completely on this item. Our initial meeting with the city is set for Tuesday, June 5th.
- f. Jeld-Wen acquired an interest in the Nord plant in May, 1986. Prior to Jeld-Wen's ownership the site was in use by the Nord company as a stile and rail door plant. We have no knowledge of the site usage prior to Nord's ownership which we believe dates to just after World War II.

If you have any questions regarding the above please let me know.

Sincerely,

Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Frank DeVaul
Matt Beddoe

NORD
300 West Marine View Dr.
Everett, WA 98201

Fuel Spill

Date: March 21, 1984
Time: 3:30 p.m. (Approximate)- spill discovered at
3:45 p.m.
Type of fuel: Diesel
Amount: Approximate 100 gallons
Location: Fuel pump by sorter

Description: Day shift yard forklift operator filled forklift # 5 with diesel fuel and then drove off with the nozzle in the fuel pipe. Swing shift employee went to fuel pump to refuel another forklift and noticed nozzle was missing from end of hose and fuel was spilling on ground and going into the water. Sawdust was spread on the ground to form a dike around the spill and 4x4's were placed in the water to form a boom to prevent the fuel from spreading. Sawdust was used to absorb fuel both on the ground and in the water and then later the saturated sawdust was burned in the boiler. The U.S. Coast Guard was notified of the incident and sent a representative to investigate. We were advised that we had taken appropriate measures to resolve the problem.

Corrective

Action: A timer was installed on the fuel pump to shut the pump off when the designated amount of fuel has been pumped into the fuel tank of the forklift.



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P. O. BOX 1540 • 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601
PHONE (503) 883-3373 FAX (503) 883-3373 Ext. 338

June 18, 1990

RECEIVED

JUN 21 1990

DEPT. OF ECOLOGY

Ms. Rachel Friedman-Thomas
Everett Harbor Action Team Co-ordinator
State of Washington
Department of Ecology
4350 150th Avenue N.E.
Redmond, WA 98052-5301

RE: May 14, 1990 Letter

Dear Ms. Friedman-Thomas:

This letter is a follow-up to my letter of June 1, 1990, and also a response to the items under Item 3 in your May 14th letter.

1.0. Additional Information Regarding Item 2 e.

We met with Catherine Foss and Jeff Kerwin from the city of Everett. It appears that the city will be able to receive the soak tank and pressure wash waste streams. Bob Johnson is pursuing the sampling of these streams with the city to verify this. We expect the sampling to be complete, reviewed with the city, and a plan and schedule for implementation by July 15, 1990.

2.0. Items Listed Under Item 3.0

Item 3.a.: We met with 2 contractors on June 5, 1990. These contractors, along with one additional company, are preparing proposals to remove and destroy the Penta tank and its contents. When these proposals are received we will be able to respond with a firm plan of action and time table. I expect us to be able to respond by July 1, 1990.

Item 3.b.: Paint thinner tank. The same action taken for item 3.a. has been taken for this tank.

Item 3.c.: Soil characterization for the underground storage tanks to be removed will be included with the proposals for tank removal. These include the 500 gallon gasoline, 1000 gallon diesel, and the thinner tank.

Item 3.d.: Storage of drums will be limited to three areas. All oil drums will be stored in the storage shed addressed under Item 2. The proposed containment modifications to this shed are to be completed by July 15, 1990.

The acetone drums are to be stored in a metal, secondary containment "box" per Item 8 of the BMP.

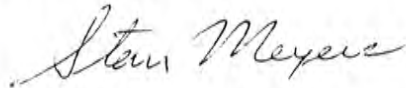
The used oil drums are to be stored in a metal secondary containment "box" per item 8 of the BMP.

Item 3.e.: Location and uses for all UST's are as follows.

- 3.e.1. 1000 gallon diesel tank -- diesel fueling -- to be removed per above.
- 3.e.2. 500 gallon gas -- gasoline fueling -- to be removed -- gasoline fueling to be omitted from premises.
- 3.e.3. 500 gallon (size is not definitely known) thinner storage tank -- tank has been out of service for over 5 years.
- 3.e.4. I am having the plant personnel complete the list of UST's and their status. Bob Johnson has been out of the plant due to illness. Because of this it will be July 1, 1990, before this list is completed and sent to you.

The above information, with our follow-up after we have received the proposals should answer the items in your May 14th letter. Please call me if you have any questions.

Sincerely,



Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Frank DeVaul
Matt Beddoe
Mike Negrete, Nord
File

DOE61290

7/11/90

DEPARTMENT OF ECOLOGY
INSPECTION REPORT

TO: Nord Door Co INSPECTOR R. Friedman-Thomas
DATE OF VISIT: ~~announced follow-up~~ 7/11/90 PERMIT NO.: D. Wazy
NEW INDUSTRY: _____ PERMIT EXPIRES: _____

TYPE OF INSPECTION:

___ PERMIT APPLICATION ___ PERMIT RENEWAL ___ COMPLAINT
___ PERMIT COMPLIANCE ___ ENFORCEMENT X DROP-IN
___ PERMIT CANCELLATION

FACILITY: _____ T _____ R _____
ADDRESS : W Marine View Drive MAP: _____ QUAD: _____
CITY: Everett ZIP: _____ COUNTY: Snoho TEL: _____

PERSON CONTACTED: Leon Wells, John Patton, Charlie from maintenance
TYPE OF FACILITY: wooden door, post construction
RECEIVING WATER: Snohomish River
TYPE OF TREATMENT SYSTEM: none at present, soon to be tied to Everett
WTP

OPERATION Satis X Fair ___ Unsat ___
COMPLIES WITH PERMIT CONDITIONS:

DESCRIPTION: Visited to determine whether oil shed had had
2ndary containment constructed by June 30, 1990 as indicated
in letter of June 1, 1990. Charlie from the maintenance Dept
escorted to the oil shed. A concrete lip had be installed in the
doorway. The lip was flush with the sides of the building.
There seemed to be no area where liquid material could spill or
seep out to the exterior of the building.

According to Charlie, the building is locked in between
each of three shifts.

Left business card with receptionist + asked to have
John Patton call me.

Cont'd on reverse

Rachel Friedman-Thomas
Inspector, EBAT
EHAT

Rachel Friedman-Thomas



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P. O. BOX 1540 • 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601
PHONE (503) 883-3373 FAX (503) 883-3373 Ext. 338

August 20, 1990

RECEIVED
AUG 22 1990
DEPT. OF ECOLOGY

Ms. Rachel Friedman-Thomas
Everett Harbor Action Team Co-ordinator
State of Washington
Department of Ecology
4350 150th Avenue N.E.
Redmond, WA 98052-5301

Dear Ms. Friedman-Thomas:

Thank you for discussing the current status of the various items we are working on for the Nord plant in Everett, Washington. As discussed, we are continuing to make progress on these items and have already completed improvements on several items that lend themselves to quick solutions. Below is an update on the items listed in your letter of May 14, 1990.

Item 1: Complete

Item 2a: Complete

Item 2b: The oil shed has been modified to include a curb at the door and a ramp to provide wheeled access for the barrels. A seal which is to be placed around the joint between the walls and the floor will be in place by 9-3-90.

Item 2c: Complete

Item 2d: You have a copy of the storm and sanitary system plans we provided earlier. This is the most current information we have. I will be happy to review these with you at the visit we have planned for the early part of September.

Item 2e: We have sampled the discharges from the heat/soak tank and the pressure wash areas. The lab results for the heat/soak tanks have been returned and the result for the pressure wash discharges are expected within the next several days. When these are returned we will meet with the City of Everett and try to work out a plan for discharging these to the city sewer system. I expect this meeting to take place by September 14.

Item 2f: Complete

Ms. Rachel Friedman-Thomas
August 20, 1990
Page 2

Item 3a: We have currently received quotes for having the wood life tank cleaned and removed. As we discussed we are looking at the feasibility of performing some of this work with our own work crews and utilizing outside contractors only where necessary. There are still some questions to resolve before making this decision. I hope to have these answered and a plan completed by 9-14-90.

Item 3b: Same as item 3a.

Item 3c: Since our current plans are to remove all underground tanks, we will do the soil characterizations at the time of tank removal.

Item 3d: We have purchased and are now using a twa drum storage container for used oil drum storage and for acetone drum storage. These are of polyethylene construction and meet EPA and UFC requirements for hazardous materials storage. The used oil drums have been removed from the property. The remainder of the drums stored or resident on the property are being removed. This should be complete by 9-1-90. I believe this will bring us into compliance with your requirements.

Item 3e: I now have a complete listing of all the tanks and their uses for this facility. I will compile this and send it to you by 8-22-90.

This should provide you with up-to-date information on our current status in response to your May 14, 1990, letter. I will look forward to meeting with you in September and will be calling on September 7th, to establish a date. If you have any questions please give me a call.

Sincerely yours,



Stanley K. Meyers, P.E.
Vice President of Engineering

SKM\eh

cc: Frank DeVaul
Mike Negrete
File



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P.O. BOX 1540 - 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601
PHONE (503) 883-3373 FAX (503) 884-2231

September 2, 1990

RECEIVED
SEP 10 1990
DEPT. OF ECOLOGY

Ms. Rachel Friedman-Thomas
Everett Harbor Action Team Co-ordinator
State of Washington
Department of Ecology
4350 150th Avenue N. E.
Redmond, WA 98052-5301

Dear Ms. Friedman-Thomas:

Described below and included with this letter is the information requested in your letter of May 14, 1990, item 3e, "locations and uses for all underground storage tanks on the property". I have enclosed a copy of the underground storage tank listing filed with the EPA for this property. Tanks number 3 and 4 were closed in place in April 1987, according to the procedures at that time. I have enclosed copies of the application and permit issued by the fire department for these two closures.

As far as I can determine, tank number 5 is the thinner tank that we will be removing. This tank is located just outside the building wall, on the South-East corner of the plant.

Tanks number 1 and 2 are the currently active gasoline and diesel tanks. Number 1 is the diesel tank and number 2 is the gasoline tank. Both of these tanks are in the removal plan currently being finalized. I have shown the location of these tanks on the enclosed site plan view.

I will call you this Friday, September 7, to discuss the meeting you and I previously talked about. If you have any questions on the above information please let me know.

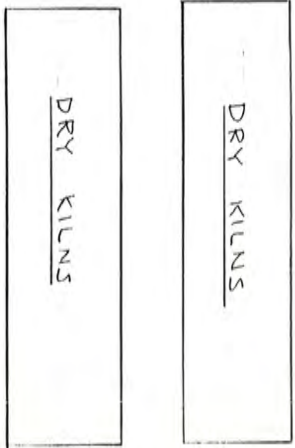
Sincerely yours,

Stanley K. Meyers, P.E.
Vice President of Engineering

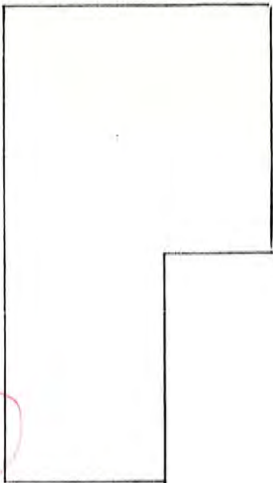
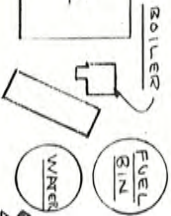
SKM/eh
cc: Frank DeVaul
Mike Nigrete
File



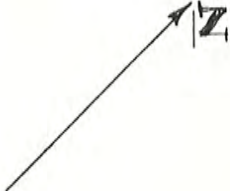
1000 GAL. - DIESEL - No. 1



No. 2 - 500 GAL. - GAS

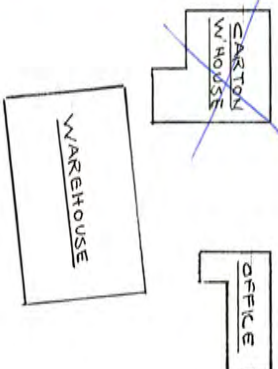


THINNER TANK - No. 5



NORD SITE PLAN
NO SCALE

CLOSED
IN PLACE



MARINE VIEW DR.

OWNER'S NAME = E.A. NORD COMPANY
OWNER'S ADDR = 300 WEST MARINE VILL. DRIVE
CITY, ST ZIP = EVERETT , WA 98201

PLEASE EXAMINE THIS INFORMATION CAREFULLY!

SITE #	SITE NAME AND ADDRESS	# OF TANKS REPORTED	TANK ID #	TANK SIZE (000'S)	YEAR INSTLD	TANK STATUS
000783		5				
			1	1 - 5	78	ACTIVE
			2	.5 - 1	73	ACTIVE
			3	0 - .5	73	PERM OUT
			4	0 - .5	73	PERM OUT
			5	.5 - 1	78	PERM OUT



DESIGN, FABRIC

P.O. BOX 1540 - 3
PHONE (509)

1. Do they lease any
property from DWR?

call - Garry Gideani
234 7158-

The effluent may have
"dirtied" state aquatic
lands.

September 18, 1990

Mr. Dave Nazy
Department of Ecology
State of Washington
4350 150th Avenue N.E.
Redmond, WA 98052-5301

Dear Mr. Nazy:

Thank you for rescheduling our meeting to Tuesday, September 25th. I have enclosed the water samples you requested with this letter. The samples on the lab report dated July 31st, are for the locations as noted. Those on the tests dated August 22nd, are for the equipment pressure wash waste water only. We have met with Catherine Foss and Jeff Kerwin of the Everett Water Department and discussed these results. Comments regarding the test results and the meeting discussion follow.

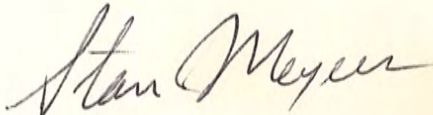
1. Soak tank effluent: This effluent is not a continuous stream and can be a batch discharge approximately every two weeks. The Ph will require adjusting before discharge to the sanitary sewer but is otherwise O.K. We can cool this discharge to less than 140 F before discharging.
2. Boiler blowdown: This is a continuous discharge. Volume is not accurately known but past experience would put it in the 2500 gallon per day range. The temperature at the discharge point to the sanitary sewer will have to be reduced to 140 F or less. This discharge is O.K. in all other respects.
3. Boiler storm drain: This is the same discharge as the boiler blo-down, tested at a different location.
4. Condensate room: This is the same discharge as the boiler blo-down, tested at a different location.
5. Glue room: This effluent comes from the solids settling tanks from the glue wash down for the glue spreaders. It is a batch discharge and is in the range of 60 to 80 gallons per day. We have traced the lead and zinc levels to the glue retaining dams on the glue spreader equipment. We have replaced these dams with plastic units to eliminate the lead and zinc source. We will retest this effluent to verify that this has eliminated this source. Glue room discharges do not have oil and grease from glue spreader washdowns. Any oil and grease in this effluent would be from equipment washdowns.

Mr. Dave Nazy
September 18, 1990
Page 2

6. Compressor cooling water: This is a relatively low volume discharge and should be O.K. for discharge to the sanitary sewer as is.
7. Equipment wash: This sample came from the same trench as the glue washdown. We believe that it will be possible for us to eliminate this as a discharge entirely.

This is the information you requested. I will look forward to further discussions on the 25th.

Sincerely yours,



Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Frank DeVaul
Mike Negrete
file

Laucks 82

Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry Microbiology and Technical Services

Copy of Lab report
results from Mike
Negrette -

rec'd - 8-6-90

CLIENT: City of Everett
Water Department
3200 Cedar Street
Everett, WA 98201
ATTN: Peter Berger

LABORATORY NO. 9007021

DATE: Jul. 31, 1990

REPORT ON: WATER

SAMPLE

IDENTIFICATION: Submitted 6/29/90 and identified as shown below:

- 1) Nord Door ~~Soak Tank~~ Soak Tank 6/29/90 8:35
- 2) Nord Door ~~Boiler Blow Down~~ Boiler Blow Down 6/29/90 9:01
- 3) Nord Door ~~Condensate Room Drain~~ Condensate Room Drain 6/29/90 9:47
- 4) Nord Door ~~Condensate Room~~ Condensate Room 6/29/90 9:39
- 5) Nord Door ~~Glue Room~~ Glue Room 6/29/90 9:55
- 6) Nord Door ~~Camp Office~~ Cooling Water 6/29/90 10:16

*Should be
boiler make-up
water.*

TESTS PERFORMED AND RESULTS:

	1 <i>SOAK TANK</i>	2 <i>BOILER Blow Down</i>	3 <i>BOILER CONDENSATE DRAIN</i>	5 <i>GLUE ROOM</i>
	parts per million (mg/L)			
Tannins & Lignins	420.	-	-	-
Total Organic Carbon	510.	-	-	-
Total Dissolved Solids	-	1100.	490.	-
Oil & Grease	-	-	-	280.
Total Petroleum Hydrocarbons	-	-	-	340.*

Samples were analyzed in accordance with Test Methods for Evaluating Solid Waste (SW-846), U.S.E.P.A., 1986, method 9010 (cyanide), method 6010 and the 7000 series (metals analysis). Phenol analysis was in accordance with Method 420.2, Methods for Chemical Analysis of Water & Wastes, U.S.E.P.A., March, 1983.

Inorganics

	parts per billion (ug/L)					
	2	3	4	5	6	Lab Blank
Antimony	<5.	<5.	<5.	<5.	<5.	<5.
Arsenic	<5.	<5.	<5.	<5.	<5.	<5.
Beryllium	<1.	<1.	<1.	<1.	<1.	<1.
Cadmium	<1.	<1.	<1.	17.	<1.	<1.



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940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

City of Everett

PAGE 2

LABORATORY NO. 9007021

	<i>BOILER BLEEDDOWN</i>	<i>BOILER STORM DRAIN</i>	<i>CONDENSATE ROOM</i>			<i>GLUE ROOM</i>	<i>COMPRESSOR COOLING H₂O</i>
	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Lab Blank</u>	
	<u>parts per billion (ug/L)</u>						
Chromium	4.	3.	2.	230.	1.	<1.	
Copper	740.	210.	45.	710.	13.	1.	
Lead	10.	13.	4.	11,000.	<5.	<5.	
Mercury	2.	<1.	<1.	2.	2.	<1.	
Nickel	2.	<2.	<2.	46.	<2.	<2.	
Selenium	<5.	<5.	<5.	<5.	<5.	<5.	
Silver	<1.	7.	<1.	9.	<1.	<1.	
Thallium	<5.	<5.	<5.	<5.	<5.	<5.	
Zinc	24.	80.	20.	57,000.	12.	2.	

Key

- * Total Oil & Grease should be greater than or equal to TPH. As this sample was submitted in separate containers and both were consumed by the analyses, no further investigation was possible. It is likely that the two bottles contained different amounts of Oil & Grease. ← ?
- < indicates "less than"

Respectfully submitted,

LAUCKS TESTING LABORATORIES, INC.

J. M. Owens

JMO:bv



NORD

FAX COVER SHEET
FACSIMILE NUMBER: (206) 252 - 3269
DATE: 8/30/90

THIS MESSAGE IS BEING SENT ON AN UNATTENDED PITNEY BOWES,
PLEASE DELIVER IMMEDIATELY

TO: STAN MEYERS OF: BEN - FAB
NAME OFFICE

FROM: MIKE NEGRETE OF: NORD/JELD-WEN OF EVERETT
300 W. MARINE VIEW DR.
P.O. BOX 1187
EVERETT, WA. 98206
(206) 259 - 9292

TOTAL PAGES! 11
(including cover sheet)
SPECIAL INSTRUCTIONS:

DECIDED TO FAX REPORT. PAUL
LEFT WHILE I WAS IN A MEETING,

SENT BY: MIKE TIME SENT: 3 40 AM/PM

Laucks⁸² Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-3063

Chemistry, Microbiology, and Technical Services

CLIENT: City of Everett
Water Department
3200 Cedar Street
Everett, WA 98201
ATTN: Don McKinney

LABORATORY NO. 9007245

DATE: August 22, 1990

REPORT ON: WATER

SAMPLE

IDENTIFICATION: Submitted 07/17/90 and identified as shown below:

Equipment Wash/Glue Waste 07/17/90 08:45

TESTS PERFORMED AND RESULTS:

parts per million (mg/L)

Sample

Oil & Grease	79.
Total Petroleum Hydrocarbons Oil & Grease	18.

Sample was analyzed for priority pollutants in accordance with Test Methods for Evaluating Solid Waste (SW-846) U.S.E.P.A., 1986, Method 8240 (volatile organics), 8270 (semi-volatile extractables), and 6010 and the 7000 series (metals analysis).

Metals

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
Antimony	24.	<5.
Arsenic	<5.	<5.
Beryllium	<10.	<10.
Cadmium	88.	<10.
Chromium	31.	<10.
Copper	200.	14.
Lead	710.	<15.
Mercury	<2.	<2.
Nickel	24.	<2.
Selenium	<5.	<5.
Silver	<2.	<2.
Thallium	<5.	<5.
Zinc	2,400.	58.

Laucks⁸²

Testing Laboratories, Inc.

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Chemistry, Microbiology and Technical Services

PAGE NO. 2

LABORATORY NO. 9007245

City of Everett

Volatile Organics (GC/MS)

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
Chloromethane	<5.	<1.
Bromomethane	<5.	<1.
Vinyl Chloride	<5.	<1.
Chloroethane	<15.	<3.
Methylene Chloride	<5.	<1.
*Acetone	<25.	<5.
*Carbon Disulfide	<5.	<1.
1,1-Dichloroethene	<5.	<1.
1,1-Dichloroethane	<5.	<1.
trans-1,2-Dichloroethene	<5.	<1.
cis-1,2-Dichloroethene	<5.	<1.
Chloroform	<5.	<1.
*2-Butanone	<15.	<3.
1,2-Dichloroethane	<5.	<1.
1,1,1-Trichloroethane	<5.	<1.
Carbon Tetrachloride	<5.	<1.
*Vinyl Acetate	1,550.	<1.



Laucks⁸²

Testing Laboratories, Inc.

940 South Harnay St., Seattle, WA 98108 (206) 767-3060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

PAGE NO. 3

LABORATORY NO. 9007245

City of Everett

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
Bromodichloromethane	<5.	<1.
1,2-Dichloropropane	<5.	<1.
Trichloroethene	<5.	<1.
Benzene	<5.	<1.
Dibromochloromethane	<15.	<3.
1,1,2-Trichloroethane	<5.	<1.
Bromoform	<5.	<1.
*4-Methyl-2-pentanone	<15.	<3.
*2-Hexanone	<15.	<3.
1,1,2,2-Tetrachloroethane	<15.	<3.
Tetrachloroethene	<5.	<1.
Toluene	94.	<1.
Chlorobenzene	<15.	<3.
trans-1,3-Dichloropropene	<15.	<3.
Ethylbenzene	<5.	<1.
cis-1,3-Dichloropropene	<15.	<3.
*Styrene	<5.	<1.
*Total Xylenes	<5.	<1.

Laucks⁸² Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology and Technical Services

PAGE NO. 4

City of Everett

LABORATORY NO. 9007245

Extractables (by GC/MS)

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
Phenol	<13.	<1.
*Aniline	<67.	<5.
Bis(2-Chloroethyl)Ether	<13.	<1.
2-Chlorophenol	<13.	<1.
1,3-Dichlorobenzene	<13.	<1.
1,4-Dichlorobenzene	<13.	<1.
*Benzyl Alcohol	<13.	<1.
1,2-Dichlorobenzene	<13.	<1.
*2-Methylphenol	<13.	<1.
Bis(2-Chloroisopropyl)Ether	<13.	<1.
*4-Methylphenol	19.	<1.
N-Nitroso-Di-n-Propylamine	<13.	<1.
Hexachloroethane	<27.	<2.
Nitrobenzene	<13.	<1.
Isophorone	<13.	<1.
2-Nitrophenol	<27.	<2.
2,4-Dimethylphenol	<13.	<1.
*Benzoic Acid	2,100.	<25.
Bis(2-Chloroethoxy)Methane	<13.	<1.
2,4-Dichlorophenol	<27.	<2.
1,2,4-Trichlorobenzene	<13.	<1.



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Aug 28 96 13:23 LAUCKS TESTING P.5

Laucks⁸²

Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-3060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

PAGE NO. 5

City of Everett

LABORATORY NO. 9007245

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
Naphthalene	<27.	<2.
*4-Chloroaniline	<13.	<1.
Hexachlorobutadiene	<13.	<1.
4-Chloro-3-Methylphenol	<27.	<2.
*2-Methylnaphthalene	<13.	<1.
Hexachlorocyclopentadiene	<27.	<2.
2,4,6-Trichlorophenol	<27.	<2.
*2,4,5-Trichlorophenol	<27.	<2.
2-Chloronaphthalene	<13.	<1.
*2-Nitroaniline	<27.	<2.
Dimethyl Phthalate	<13.	<1.
Acenaphthylene	<13.	<1.
2,6-Dinitrotoluene	<27.	<2.
*3-Nitroaniline	<67.	<5.
Acenaphthene	<13.	<1.
2,4-Dinitrophenol	<130.	<10.
4-Nitrophenol	<130.	<10.
*Dibenzofuran	<13.	<1.
2,4-Dinitrotoluene	<27.	<2.
Diethyl Phthalate	<13.	<1.
4-Chlorophenyl-Phenylether	<13.	<1.
Fluorene	<13.	<1.
*4-Nitroaniline	<27.	<2.
4,6-Dinitro-2-Methylphenol	<130.	<10.



Laucks⁸²

Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry Microbiology and Technical Services

PAGE NO. 6

LABORATORY NO. 9007245

City of Everett

parts per billion (ug/L)

	<u>Sample</u>	<u>Method Blank</u>
N-Nitrosodiphenylamine	<13.	<1.
1,2-Diphenylhydrazine	<27.	<2.
4-Bromophenyl-Phenylether	<27.	<2.
Hexachlorobenzene	<13.	<1.
Pentachlorophenol	<130.	<10.
Phenanthrene	<13.	<1.
Anthracene	<13.	<1.
Di-n-Butyl Phthalate	14.	<1.
Fluoranthene	<13.	<1.
Pyrene	<13.	<1.
Benzidine	<330.	<25.
Butylbenzylphthalate	19.	<1.
3,3'-Dichlorobenzidine	<130.	<10.
Benzo(a)Anthracene	<13.	<1.
Chrysene	<13.	<1.
Bis(2-Ethylhexyl)phthalate	470.	<1.
Di-n-Octyl Phthalate	17.	<1.
Benzo(b)Fluoranthene	<27.	<2.
Benzo(k)Fluoranthene	<27.	<2.
Benzo(a)Pyrene	<27.	<2.
Indeno(1,2,3-cd)Pyrene	<27.	<2.
Dibenzo(a,h)Anthracene	<27.	<2.
Benzo(g,h,i)Perylene	<27.	<2.

Laucks 82 Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

City of Everett

PAGE NO. 7

LABORATORY NO. 9007245

Key

- < indicates less than
- * indicates additional compounds from the EPA's Hazardous Substances List. — ?

Respectfully submitted,
Laucks Testing Laboratories, Inc.

J. M. Owens

JMO:ent



Laucks⁸²

Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology and Technical Services

APPENDIX

Surrogate Recovery Quality Control Report

Attached are surrogate (chemically similar) compounds utilized in the analysis of organic compounds. The surrogates are added to every sample prior to extraction and analysis to monitor for matrix effects, purging efficiency, and sample processing errors. The control limits represent the 95% confidence interval established in our laboratory through repetitive analysis of these sample types.



JOB No. 07245 DATE: 07/26/90

Sample No. B0724MVOWF1 Matrix: Water Analysis: MS-VOA

Surrogate Compound	Percent Recovery	Comment	Control Limits
d4-1,2-Dichloroethane	100		78 - 118
d8-Toluene	110		83 - 117
p-Bromofluorobenzene	114		81 - 115

Sample No. 01 Matrix: Water Analysis: MS-VOA

Surrogate Compound	Percent Recovery	Comment	Control Limits
d4-1,2-Dichloroethane	101		78 - 118
d8-Toluene	109		83 - 117
p-Bromofluorobenzene	110		81 - 115

JOB No. 07245 DATE: 07/30/90

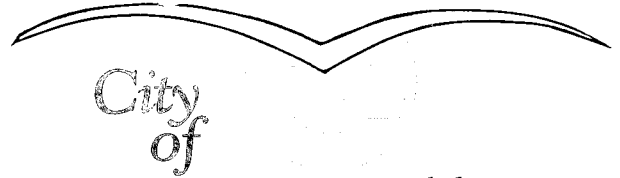
Sample No. B0724MSVWLI Matrix: Water Analysis: MS-ABN

Surrogate Compound	Percent Recovery	Comment	Control Limits
2-Fluorophenol	63		20 - 86
d5-Phenol	65		10 - 69
2-Bromophenol	62		27 - 97
d5-Nitrobenzene	69		37 - 104
2-Fluorobiphenyl	63		37 - 105
d10-Azobenzene	77		35 - 114
2,4,6-Tribromophenol	71		24 - 124
d14-p-Terphenyl	65		20 - 126

Sample No. 01 Matrix: Water Analysis: MS-ABN

Surrogate Compound	Percent Recovery	Comment	Control Limits
2-Fluorophenol	29		20 - 86
d5-Phenol	62		10 - 69
2-Bromophenol	61		27 - 97
d5-Nitrobenzene	55		37 - 104
2-Fluorobiphenyl	56		37 - 105
d10-Azobenzene	63		35 - 114
2,4,6-Tribromophenol	71		24 - 124
d14-p-Terphenyl	67		20 - 126

September 21, 1990



RECEIVED *everett*

SEP 25 1990

DEPT. OF ECOLOGY

Dave Nazy
DOE-NWRO
4350 - 150th Ave NE
Redmond WA 98052

Subject: Fax of Nord Data

Dear Dave,

As per our telephone conversation this fax contains the chain of custody (COC) form for the June 29, 1990 samples taken at Nord. The COC form contains the temperature in °C and the pH. Note that these samples were not COC samples. No COC# (Lab ID#) was assigned. The COC form is also used for requesting analysis. City of Everett personnel assisted Nord personnel in sampling their waste streams to ensure proper sampling technique and to get a faster turn around on the results.

I do not have the COC form for the equipment wash area sample dated July 17, 1990. I would suspect that the temperature and the pH are similar to that of the Glue Room which is directly upstream of the wash area. As we discussed in our conversation, Nord has proposed to eliminate the wash area as a wastewater discharge.

I will be sending you the sewerage map in the mail today. I hope this information will be helpful. Please give me a call at 259-8819, if I can be of further assistance.

Sincerely,

Catherine M. Foss
Industrial Waste Inspector

c: Doug Knutson Ecology
Jerry Vrooman Everett/Adm
Dan Lowell Everett/Util
Chron File
IPT File

CHAIN OF CUSTODY & ANALYSIS REQUEST

EVERETT WWTP LABORATORY
3200 CEDAR STREET
EVERETT, WA 98201
(206) 259-8819



Laboratory ID#

Date: 6/29/90

Client: CITY OF EVERETT / NORD DOOR Address: 3200 CEDAR STREET
EVERETT, WA 98201

Phone: 259-8819 Collected By: Julian Pavesi / Don McKinney Requested By: ROBERT WADDLE
WWTP, WATER QUALITY ANALYST

Purpose: In-Lab Contract Outside Contract
 In-Lab Monitoring Split Sample

Analysis Requested

Sample Description	Date	Time	Type	Matx	# of Cont	Lab ID	Resin Acids Tannins / lignin	pesticides, PC/B (EPA608)	TOC	pH (field) temp.
Soak Tank	6/29	0830	Grab	WW	4		✓	✓	✓	@ 97° C pH 3.76
Boiler Blow down	6/29	0901	Grab	WW	7		OL P.P.	VOA	PEC/RB	@ 92° C pH 10.31
Boiler Storm drain	6/29	0917	Grab	WW	7		OL P.P.	VOA	PEC/PCR	@ 79° C pH 10.25
Condensate return	6/29	0939	Grab	WW	1		OL p. pollutants			@ 80° C pH 8.15
Glue Room	6/29	0956	Grab	WW	7		OL P.P.	FOG	BNA semi	@ 29° C pH 7.80

TEST ID CODES

- A - Acidity
- B - Alkalinity
- C - Chloride
- D - Chlorine
- E - Color
- F - Conductivity
- G - Cyanide
- H - Fluoride
- I - Hardness
- J - Hydrogen Sulfide
- K - pH
- L - Salinity
- M - Sulfate
- N - Turbidity

- O - Metals
- O1 - Total
- O2 - Dissolved
- O3 - Suspended
- O4 - Acid Extr.
- P - EP Tox Metals
- Q - SS
- R - TSS
- S - VS
- T - TS
- U - TVS
- V - Ammonia
- W - TKN
- X - Nitrate

- Y - Nitrite
- Z - Ortho-Phos
- AA - Total-Phos
- AB - Fecal Coliform
- AC - BOD/5
- AD - COD
- AE - TOC
- AF - FOG
- AG - TTO
- AH - Bioassay

KPA Methods

- Water
- 601
- 604
- 608
- 610
- 612
- 614
- 615
- 624
- 625
- 1624
- 1625

Parameters

- Soil
- 8010 - Chlorinated Volatile Organics
- 8040 - Phenols
- 8080 - Chlorinated Pesticides/PCB
- 8100 - Polynuclear Aromatic Hydrocarbons
- 8120 - Chlorinated Hydrocarbons
- 8140 - Organophosphorous Pesticides
- 8150 - Chlorinated Herbicides
- 8240 - Volatile organics
- 8270 - Semivolatile Organics
- Isotope Dilution Volatiles
- Isotope Dilution Semivolatiles

Relinquished By: (Sampler) <u>Julian Pavesi</u>	Received By: <u>Robert W. Jolusa</u>	Date 6-29-90	Time 10:30 AM
Relinquished By:	Received By:	Date	Time
Relinquished By:	Received By:	Date	Time

Comments: page 1 of 2

CHAIN OF CUSTODY &
ANALYSIS REQUEST

EVERETT WWTP LABORATORY
3200 CEDAR STREET
EVERETT, WA 98201
(206) 259-8819



Laboratory ID#

Date: 6/29/90

Client: CITY OF EVERETT / <i>NORD DOOR</i>				Address: 3200 CEDAR STREET EVERETT, WA 98201			
Phone: 259-8819		Collected By: <i>Julian Pavesi / Don McKinney</i>			Requested By: ROBERT WADDLE WWTP, WATER QUALITY ANALYST		
Purpose: <input type="checkbox"/> In-Lab Contract <input type="checkbox"/> Outside Contract <input type="checkbox"/> In-Lab Monitoring <input type="checkbox"/> Split Sample						Analysis Requested	
Sample Description	Date	Time	Type	Matx	# of Cont	Lab ID	OI priority pollutants PH (field) Temp
Compressor cooling H ₂ O	6/29	10:18	<i>grab</i>	ww	1		@ 96°C pH 7.9
Wash down area	Did not sample		-		Ø effluent		

TEST ID CODES

- A - Acidity
- B - Alkalinity
- C - Chloride
- D - Chlorine
- E - Color
- F - Conductivity
- G - Cyanide
- H - Fluoride
- I - Hardness
- J - Hydrogen Sulfide
- K - pH
- L - Salinity
- M - Sulfate
- N - Turbidity

- O - Metals
- O1 - Total
- O2 - Dissolved
- O3 - Suspended
- O4 - Acid Extr.
- P - EP Tox Metals
- Q - SS
- R - TSS
- S - VS
- T - TS
- U - TVS
- V - Ammonia
- W - TKN
- X - Nitrate

- Y - Nitrite
- Z - Ortho-Phos
- AA - Total-Phos
- AB - Fecal Coliform
- AC - BOD/5
- AD - COD
- AE - TOC
- AF - FOG
- AG - TPO
- AH - Bioassay

EPA Methods Parameters

Water	Soil
601	8010 - Chlorinated Volatile Organics
604	8040 - Phenols
608	8080 - Chlorinated Pesticides/PCB
610	8100 - Polynuclear Aromatic Hydrocarbons
612	8120 - Chlorinated Hydrocarbons
614	8140 - Organophosphorous Pesticides
615	8150 - Chlorinated Herbicides
624	8240 - Volatile Organics
625	8270 - Semivolatile Organics
1624	- Isotope Dilution Volatiles
1625	- Isotope Dilution Semivolatiles

Relinquished By: (Sampler) <i>Julian Pavesi</i>	Received By: <i>Robert Waddle</i>	Date 6-29-90	Time 10:30 AM
Relinquished By:	Received By:	Date	Time
Relinquished By:	Received By:	Date	Time

Comments:

page 2 of 2

NORD UNDERGROUND AND PENTA STORAGE TANKS REMOVAL PLAN (rev. 2,
9-21-90)

- 1.0 Pump contents of all three tanks (diesel, thinner, and gas). Fill gas tank with diesel.
- 2.0 Dig up and have the 1000 gall. diesel tank removed and destroyed.
 - Permit from fire marshal
 - Notify DOE
 - Remove according to procedure
- 3.0 Dig up and clean the 3000 gall. thinner tank.
 - Permit from the fire marshal
 - Notify the DOE
 - Clean according to procedure.
 - NOTE: These procedures not presently known.
- 4.0 Replace the diesel tank with an 550 gall. above ground tank. Provide a hand pump only for this tank.
 - Provide this tank with filler neck spill protection.
- 5.0 Dig up and have the 500 gall. old gas tank removed and destroyed.
 - use same procedure as in item 2.0 above.
- 6.0 Remove contents, clean and destroy penta tank.
 - Obtain permit from fire marshal.
 - Give doe 30 day notice.
 - Obtain permits and approvals from DOE.
 - Rent carbon filtration unit and pump system.
 - Pump penta/rainwater through the filtration unit and into 3000 gall. thinner tank (assumes thinner tank can be cleaned on site -- if not rent holding tank for this purpose).
 - Clean the penta tank on site and cycle the rinsate water through the carbon filtration unit. Clean and filter the concrete berm area the same way. NOTES: These cleaning crews must have 40 hours safety training and the supervisor an additional 20 hours. A health and safety plan must be written and on site and maybe submitted to the fire marshal and DOE. Tank may have to be inerted, certified for hot work, and ends cut out for cleaning access to do this work. A contractor may be required or necessary for this work.
 - An allowable "clean" water concentration may have to be agreed upon by the DOE for discharge of the filtered water into the city sewer or storm drains after filtration.
 - Have Sweet Edwards sample the filtered water, the tank, the concrete berm.
 - If all tests are clean, have the tank removed and destroyed, discharge the filtered water to the city sewer, destroy or return the clean filtered water holding tank.
 - If the concrete tests clean, fill with sand and cap off

with an asphalt or concrete layer to prevent entrance of rainwater.

nordrem

CHRISTINE O. GREGOIRE
Director



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4350-150th Ave. N.E. • Redmond, Washington 98052-5301 • (206) 867-7000

September 25, 1990

Mr. Stan Meyers
Vice President of Engineering
BEN-FAB
P.O. Box 1540
Klamath Falls, Oregon 97601

Dear Mr. Meyers:

Enclosed please find the Underground Storage Tank removal information you requested. I have highlighted some of the specific items you had questions on during our meeting on the 25th.

The 30 day notification should be sent to the Storage Tank Unit in Olympia. In talking with some of our UST people, they indicated that the exact date of the removal is not critical but should be as accurate as possible. They did stress that the date has to be at least 30 days after the notification letter.

Regarding your question about if you need a license to remove the tanks. I could not find any regulations on this. I would recommend that you talk to the Everett Fire Department to see if they have any local requirements. It is strongly recommended that qualified personnel conduct the required site assessment.

If you have further questions regarding USTs, you can contact Roger Nye in our office at (206) 867-7215.

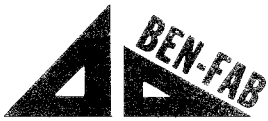
Your question about the designation of used oil is more difficult to answer. The designation of the oil depends on what other wastes are contained in the oil. Dennis Stephani at Chemical Processors (206) 223-0500 and Jerry Barrett at Northwest Enviro Services (206) 622-1090 are two people that can answer specific questions regarding designation of used oil and what can be done with it.

I hope I have been able to answer your immediate questions. I look forward to continuing to work with you to eliminate sources of contaminants from the Nord facility.

Sincerely,

A handwritten signature in cursive script that reads "Dave Nazy".

Dave Nazy
Everett Harbor Action Team



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

October 5, 1990

P.O. BOX 1540 - 3303 LAKEPORT BLVD. METZVILLE OREGON 97601
PHONE (503) 883-3373

RECEIVED
OCT 09 1990

FAX (503) 884-2231

DEPT. OF ECOLOGY

Mr. David Nozy
Department of Ecology
Northwest Regional Office
4350-150th Avenue N.E.
Redmond, WA 98052

Dear Mr. Nozy:

This letter is to notify and inform DOE regarding our plan to clean and remove the abandoned penta storage tank located at our Nord facility in Everett, Washington. Our plans, in outline form are as follows.


1. Provide a temporary storage tank for holding the contaminated rainwater after it has been filtered. This tank would be provided either by rental or by using the underground storage tanks which are to be removed from underground on the property.
2. Rent a carbon filtration unit of a size that will assure penta levels in the filtered water of less than 0.5 ppm. Our experience on our Klamath Falls site indicates this is easy to accomplish.
3. Nord personnel will pump the rainwater through the filtration unit and into the holding tank. This may require two or three batches to filter the total volume of water in the tank and boom area.
4. Obtain a filtered water sample and have it tested for penta concentration. If less than 0.5 ppm, discharge the water in the holding tank to the city sanitary sewer. Repeat until all water has been filtered and discharged.
5. Chempro will provide on-site rinsing of the tank, the 2" underground transfer lines, the concrete berm and remove the tank for cut-up as scrap. The ends of the two underground lines will be grouted to permanently seal them off. Rinsate will be pumped through the carbon filtration unit and into the holding tank. If tested less than 0.5 ppm, the rinsate will be discharged to the sanitary sewer. Compatibility of all detergents with the sanitary sewer treatment works will be verified with the treatment facility before rinsing begins.
6. The concrete berm will be filled with earth fill for safety and left in place.

Mr. David Nazy
October 5, 1990
Page 2

We are scheduling this work to immediately follow the underground storage tank removal which is scheduled for the week of November 5th. This would dictate a start date for the penta tank clean-up between November 8th to 14th. I will inform you of an exact date when it is known.

I will obtain a letter from the Everett water treatment facility regarding their acceptance of the filtered water discharge. If you have any questions please give me a call.

Sincerely yours,



Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Frank DeVaul
Mike Negrete
Mr. Bob Sheller, City of Everett Fire Marshall

doepenta



REQUEST FOR ANALYSIS

LAB USE ONLY	
Project Code	_____
Lab Numbers	_____ _____ _____

Approved By: _____

Request Date: Nov 9 1990

Program Code: 51446

Requested By: Don K...

Scan No. 1577013

Report Data To: Don K...

Project Name: NCRP ... (Chain of Custody)

Enforcement (Chain of Custody REQUIRED)

Project Location: ...

Emergency (enclose separately REASONS and Approval by)

Sampling Dates: 11/9 Date To Lab: _____

Other Matrix (Describe): _____

Sample Pickup Location: NCRP

No. of Sam.			General Chem	No. of Sam.			Gen Chem, Biology	No. of Sam.			Organics & Toxics	
Other	Sed	H2O		Other	Sed	H2O		Other	Sed	H2O		
•••	•••		Turbidity	•••	•••		BOD/5 day				Base/Neutral/Acids	
			pH				COD				Acid/Neutrals Only	
•••	•••		Conductivity				TOC				Volatile Organics	
•••	•••		Total Alkalinity								Pesticides/PCBs	
•••	•••		Hardness	•••	•••		Nutrients (3)				PCBs Only	
			Chloride	•••	•••		Ammonia				Organophosphate Pest.	
			Sulfate	•••	•••		Nitrate-Nitrite				Cl PhenoxyAcid Herb.	
			Fluoride	•••	•••		Total Phosphorous				Purgeable Halocarbons	
			Cyanide	•••	•••		Ortho-Phosphate				PAH	
									4		RTEX	
							Fecal Coll Bacteria		5		TTW	
			SOLIDS (4)								Hydrocarbon Analysis	
•••	•••		TSS				PP Metals				Phenolics (AAP)	
			TS				EP Tox Metals				Oil & Grease	
							Total	Diss			Ignitability	
				Other	Sed	H2O	H2O	Specified			TOX	
								Metals (list)				
									•••	•••	•••	Bioassay
		•••	% Solids									NPDES (% effluent)
		•••	% Lipids									HW Designation
												Other:

Comments:

NOTE: Chain of Custody is recommended on all sampling events.

Sample Bottles Required:

Sample Disposition After Analysis:

Handwritten notes:
 1/20/91
 11/9/90
 11/9/90



REQUEST FOR ANALYSIS

LAB USE ONLY	
Project Code	_____
Lab Numbers	_____

Approved By: _____

Request Date: 11/9

Program Code: J1440

Requested By: DAVE NAZY

Scan No. 731-7258

Report Data To: DAVE NAZY

Project Name: NORD TANK Removal

Enforcement (Chain of Custody REQUIRED)

Project Location: Everett, WA

Emergency (enclose separately REASONS and Approval by)

Sampling Dates: 11/14/90 Date To Lab: _____

Sample Pickup Location: NWRO

Other Matrix (Describe): _____

No. of Sam.			General Chem	No. of Sam.			Gen Chem. Biology	No. of Sam.			Organics & Toxics
Other	Sed	H2O		Other	Sed	H2O		Other	Sed	H2O	
			Turbidity				BOD/5 day				Base/Neutral/Acids
			pH				COD				Acid/Neutrals Only
			Conductivity				TOC				Volatile Organics
			Total Alkalinity								Pesticides/PCBs
			Hardness				Nutrients (3)				PCBs Only
			Chloride				Ammonia				Organophosphate Pest.
			Sulfate				Nitrate-Nitrite				Cl PhenoxyAcid Herb.
			Fluoride				Total Phosphorous				Purgeable Halocarbons
			Cyanide				Ortho-Phosphate				PAH
							Fecal Coli Bacteria		2		BTEX
									4		TPH
			SOLIDS (4)								Hydrocarbon Analysis
			TSS				PP Metals				Phenolics (AAP)
			TS				EP Tox Metals				Oil & Grease
											Ignitability
											TOX
											Bioassay
			% Solids								NPDES (% effluent)
											HW Designation
			% Lipids								Other:

Comments:

NOTE: Chain of Custody is recommended on all sampling events.

Sample Bottles Required:

Sample Disposition After Analysis:



November 14, 1990

RECEIVED

NOV 16 1990

DEPT. OF ECOLOGY

Mr. Stan Meyers
Nord Door
POB 1187
Everett, WA 98206

RE: **Discharge Authorization - Expires 12/15/90**
Nord Door Pentachlorophenol Tank Clean Up

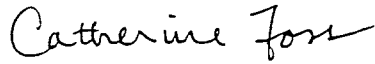
Dear Mr. Meyers:

Nord Door is granted a one time authorization to discharge treated industrial wastewater from the abandoned pentachlorophenol storage tank to the Everett sewerage system. This authorization is based, in part, on the information provided in your October 5, 1990 letter to Dave Nazy, Department of Ecology, and contingent on the additional conditions listed below:

- 1) You shall comply with the general use and discharge requirements of the Industrial Pretreatment Ordinance #1308-86 (attached).
- 2) The daily maximum allowable discharge limit for pentachlorophenol is 0.5 ppm.
- 3) The total volume discharged including rinse water shall not exceed 8500 gallons. The discharge shall not exceed 3500 gallons per day, and shall be discharged over a 24 hour period.
- 4) The filtrate shall be analyzed for pentachlorophenol and be determined to be below the specified discharge limit prior to discharge.
- 5) You shall keep records of the dates, times, pentachlorophenol concentrations and volumes of the discharges. This information shall be reported to this office by December 15, 1990.
- 6) The filtrate shall be discharged at the designated sanitary sewer manhole at the SE corner of the Nord Door property.
- 7) Everett personnel may take samples of the filtrate prior to discharge and may inspect your facility to verify compliance.

Please contact me at 259-8819, if you have any questions. Thank you.

Sincerely,



Catherine Foss
Industrial Waste Inspector

cc:	Doug Knutson,	WDOE
	Dave Nazy	WDOE
	Jerry Vrooman,	Everett/Adm
	Dan Lowell,	Everett/Utl
	Chron. File	(1)
	IPT File	(1)
	Bruce Jones	Everett/Adm

The letter was hand delivered and received by the following authorized representative of Nord Door.

 11/14/90
Stan Meyers Date



Program Code **31940**

SAMPLE DATA & ANALYSIS REQUIRED

Project Code _____
 Project Name NORD TANK REMOVAL

Enforcement/Custody Class II
 Possible Toxic/Hazardous Notes Split soil samples
From 2 tank removals

SAMPLING			FIELD STATION IDENTIFICATION		LAB SAMPLE NUMBER		Matrix Code		Source Code	No. of Containers	General Chemistry								Biology						Organic Chem.															METALS									
DATE	TIME		Yr	Mo	Da	Hr	Mn	Wk	Seq			General Chemistry								Biology						Organic Chem.															METALS								
901114			90	11	14			46	0001	404801	01	Turbidity	pH	Conductivity	Total Hardness	Chloride	TS, TSS, TNVS, TNVSS	TSS	% Solids	Nutrients (4)	Ammonia	Nitrate-Nitrite	Total Phosphorus	Ortho-Phosphate	BOD5 Day	COD Chem Oxy Demand	Fecal Coliform Bacteria	Total Coliform Bacteria	Enterococcus	Fish Bioassay																			
901114			90	11	14			46	0002	404801	01															Volatile Organics Base/Neutrals/Acids Pesticides/CB's PCB's Only Purgeable Halocarbons Herbicides Hydrocarbon Analyls Phenolics (AAP) Oil & Grease TPH WTEX																							
901114			90	11	14			46	0003	404802	02																																						
901114			90	11	14			46	0004	404802	02																																						

Project Officer DAVE NAZY
 Sampler(s) Jahn Neeth-Sweet Edwards
 Recorder DAVE NAZY
 Date 11/14/90

Relinquished By: DAVID J. NAZY
David J. Nagy
 Received By: Refrigerator
 Condition of Seals: INTACT

Yr: 90 Mo: 11 Da: 14 Hr: 30 Mn: Seal I.D.:
 Project Office Copy: Yellow
 Laboratory Copy: White
 Field or Office Copy: Pink

**PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY**

Client Number: 22-890905

VOLATILE ORGANICS ANALYSIS

Client Sample ID.	467133	467134	Blank
PNEL Sample ID.	2778-01	2778-02	2778-MB
Matrix	Soil	Soil	Water
Date Received	11-19-90	11-19-90	NA
Date Analyzed	11-20-90	11-20-90	11-20-90
Units	$\mu\text{g}/\text{kg}$ Wet	$\mu\text{g}/\text{kg}$ Wet	$\mu\text{g}/\text{l}$ Wet <i>sm</i>

Compounds

Benzene	0.5 U	0.8	0.5 U
Toluene	0.5 U	0.6	0.5 U
Ethylbenzene	0.5 U	0.8	0.5 U
Total Xylene	1.0 U	1.0 U	1.0 U

Surrogate

% Fluorobenzene	111	114	107
% 4-Bromofluorobenzene	100	100	100 <i>sm</i>

**PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY**

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

PNEL Sample ID.:	2778-01	Client No.:	22-890905
Client Sample ID.:	467133	Sample Matrix:	Soil
Date Sample Received:	11-19-90	Date Sample Analyzed:	11-20-90

<u>Compound</u>	<u>SPIKE ADDED (μg/kg)</u>	<u>SAMPLE CONC. (μg/kg)</u>	<u>MS CONC. (μg/kg)</u>	<u>MS % REC[#]</u>	<u>QC LIMITS REC</u>
Benzene	10	0.5 U	12.1	121	76-127
Toluene	10	0.5 U	11.1	111	76-125
Chlorobenzene	10	0.5 U	10.8	108	75-130

<u>Compound</u>	<u>SPIKE ADDED (μg/kg)</u>	<u>MSD CONC. (μg/kg)</u>	<u>MSD % REC[#]</u>	<u>% RPD[*]</u>	<u>QC LIMITS RPD REC</u>
Benzene	10	11.8	118	2.5	11 76-127
Toluene	10	11.1	111	0	13 76-125
Chlorobenzene	10	11.0	110	1.8	13 75-130

This method valid for 602/8020 only.

Column to be used to flag recovery and RPD (Relative % Difference) values with an asterisk.

* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Transaction #: 11271408 Seq #: 01 (40) Organics - General
 (WE) Ecology, Manchester Lab
 Project: (DOE-024Q) NORD TANK REMOVAL, EVERETT J1440 DJN
 Param: (82180 S) HYDROCBN ,PET MUD MG/KG

QA Code: () Normal Data
 Instrument: (FTIR-1) FTIR, Laser Precision RFX-40 (DOE)
 Method: (EP3-9073) Total Petroleum Hydrocarbons, Recoverable
 Chemist: (BLC) Carrell, Bob DOE Hours Worked:
 Lab Prep: () Unspecified
 Matrix: (40) Sediment Date Preprd:
 Units: (20) mg/kg Date Anlyzd: 901127

RECEIVED
DEC 17 1990
 DEPT. OF ECOLOGY

Line	Sample #	Result	Sample Location/Description	#Days to Anl
1	90 467131	210	DT-EAST	901114 (13)
2	90 467132	80U	DT-WEST	901114 (13)
3	90 467133	80U	GT-NORTH	901114 (13)
4	90 467134	80U	GT-BELOW	901114 (13)

Record Type: TRNIN2 Date Verified: Nov 28, 1990 By: Carrell
 Transaction Status: New Transaction...First Printing...Unverified.
 Processed: 27-NOV-90 14:09:23 Status: N Batch: (In CUR DB)

*** Lab Analysis Report ***

Transaction #: 11271408 Seq #: 03 (40) Organics - General
 (WE) Ecology, Manchester Lab
 Project: (DOE-024Q) NORD TANK REMOVAL, EVERETT J1440 DJN
 Param: (82180 S) HYDROCBN ,PET MUD MG/KG

QA Code: (LBK2) Lab Blank Sample #2 Blank ID: BS0323D
 Instrument: (FTIR-1) FTIR, Laser Precision RFX-40 (DOE)
 Method: (EP3-9073) Total Petroleum Hydrocarbons, Recoverable
 Chemist: (BLC) Carrell, Bob DOE Hours Worked:
 Lab Prep: () Unspecified
 Matrix: (40) Sediment Date Preprd:
 Units: (20) mg/kg Date Anlyzd: 901127

Line	Sample #	Result	Sample Location/Description	#Days to Anl
1	90 467131	ND (80U)	DT-EAST	901114 (13)

Record Type: TRNIN2 Date Verified: *Nov 28, 1990* By: *Carrell*
 Transaction Status: New Transaction...First Printing...Unverified.
 Processed: 27-NOV-90 14:09:23 Status: N Batch: (In CUR DB)

Fax from Howard Small.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#S69-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/21/90
 WORK ORDER #: B904377

TRPH-IR (*infra red*)
 16th Standard Method 503 D / EPA Method 418.1
 mg/Kg (ppm)
 Dry Weight Basis

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Result</u>
<u>Diesel Tank Pit</u>			
BFD-1190-01 NORTH SIDE PIT	4377K-1	25	1000.
BFD-1190-02 EAST	4377K-2	25	263.
BFD-1190-03 SOUTH	4377K-3	25	296.
BFD-1190-04 WEST	4377K-4	25	68
BFD-1190-05 BOTTOM OF PIT	4377K-5	25	93
BFD-1190-06,-07,-08	4377K-6 to 8 Comp	25	97
Method Blank	4377K-MB	25	ND

*→ Run for HC scan 350 MBIS
 = 160
 See next page.*

MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by *Colin Elliott* Date *11/28/90*

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#359-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/16/90
 WORK ORDER #: B904377

Hydrocarbon Scan *(gas chromatography cap.)*
 EPA Methods 3550/Modified 8015
 mg/Kg (ppm)
 Dry Weight Basis

Diesel Tank Pit

OUTSIDE OF PIT

Sample Name	Lab Code	MRL	Diesel	Jet Fuel	Gasoline	Kerosene	Mineral Spirits	Oil*
BFD-1190-03	4377K-3	10	160	ND	ND	ND	ND	<100
Method Blank	4377K-MB	10	ND	ND	ND	ND	ND	<100

* Quantitated using hydraulic oil as a standard.
 ND means None Detected at or above the MRL
 MRL means Method Reporting Limit

Approved by Colin Elliott Date 11/28/90 00002

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#S59-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/14/90
 WORK ORDER #: B904377

Volatile Hydrocarbons/BTEX Analyses
 EPA Methods 5030/8020/8015
 Dry Weight Basis

Gas Tank Pit

Sample Name:
 Lab Code:

<u>NORTH</u>	<u>EAST</u>	<u>SOUTH</u>
BFG-1190-01	BFG-1190-02	BFG-1190-03
<u>4377B-1</u>	<u>4377B-2</u>	<u>4377B-3</u>

	<u>Units</u>	<u>MRL</u>			
Benzene	µg/Kg	50	ND	ND	ND
Toluene	µg/Kg	50	ND	ND	ND
Ethyl Benzene	µg/Kg	50	ND	ND	ND
Total Xylenes	µg/Kg	50	ND	ND	ND
Gasoline	mg/Kg	1	ND	ND	ND

MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by Colin Elliott Date 11/28/90

0903

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#S59-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/14/90
 WORK ORDER #: B904377

Volatile Hydrocarbons/BTEX Analyses
 EPA Methods 5030/8020/8015
 Dry Weight Basis

Gas Tank Pit *Discontigas tank Stockpile*

Sample Name:
 Lab Code:

WEST	BOTTOM	
BFG-1190-04	BFG-1190-05	BFG-1190-06
<u>4377B-4</u>	<u>4377B-5</u>	<u>4377B-6</u>

	<u>Units</u>	<u>MRL</u>			
Benzene	µg/Kg	50	ND	ND	ND
Toluene	µg/Kg	50	ND	ND	80
Ethyl Benzene	µg/Kg	50	ND	ND	70
Total Xylenes	µg/Kg	50	ND	ND	1,350 <i>ppb</i>
Gasoline	mg/Kg	1	ND	ND	<u>104</u>

MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by Coli Elliott Date 11/28/90

00004

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#S59-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/14/90
 WORK ORDER #: B904377

Volatile Hydrocarbons/BTEX Analyses
 EPA Methods 5030/8020/8015
 Dry Weight Basis

Sample Name:
 Lab Code:

Discrete Gas tank Stockpile
 BFG-1190-07
4377B-7

Discrete Gas tank Stockpile
 BFG-1190-08
4377B-8

Method Blank
4377B-MB

	<u>Units</u>	<u>MRL</u>			
Benzene	µg/Kg	50	ND	ND	ND
Toluene	µg/Kg	50	ND	ND	ND
Ethyl Benzene	µg/Kg	50	ND	ND	ND
Total Xylenes	µg/Kg	50	320	100	ND
Gasoline	mg/Kg	1	<u>16.0</u>	<u>4.4</u>	ND

MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by *Colin Elliott* Date 11/28/90

00005

*Fax from
Howard Small.*

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#S69-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/21/90
 WORK ORDER #: B904377

TRPH-IR (*infra red*)
 16th Standard Method 503 D / EPA Method 418.1
 mg/Kg (ppm)
 Dry Weight Basis

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Result</u>
<u>Diesel Tank Pit</u>			
BFD-1190-01 NORTH SIDE PIT	4377K-1	25	1000.
BFD-1190-02 EAST "	4377K-2	25	263.
BFD-1190-03 SOUTH "	4377K-3	25	296.
BFD-1190-04 WEST "	4377K-4	25	68
BFD-1190-05 BOTTOM OF PIT	4377K-5	25	93
BFD-1190-06,-07,-08	4377K-6 to 8 Comp	25	97
Method Blank	4377K-MB	25	ND

*→ Run for HC scan 3501MB15
 = 160
 See next page.*

MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by *Colin Elliott* Date 11/28/90

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben-Fab/#859-02.01
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 11/14/90
 DATE EXTRACTED: 11/14/90
 DATE ANALYZED: 11/16/90
 WORK ORDER #: B904377

Hydrocarbon Scan *(gas chromatography)*
 EPA Methods 3550/Modified 8015
 mg/Kg (ppm)
 Dry Weight Basis

Diesel Tank Pit

*OUTSIDE
OF PIT*

Sample Name	Lab Code	MRL	Diesel	Jet Fuel	Gasoline	Kerosene	Mineral Spirits	Oil*
BFD-1190-03	4377K-3	10	160	ND	ND	ND	ND	<100
Method Blank	4377K-MB	10	ND	ND	ND	ND	ND	<100

* Quantitated using hydraulic oil as a standard.
 ND means None Detected at or above the MRL
 MRL means Method Reporting Limit

Approved by Colin Elliott Date 11/28/90 00002

REC'D
12/14/90
SM



Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

December 12, 1990

Stuart Magoon
WDOE
7411 Beach Drive East
Port Orchard WA 98366

NARRATIVE FOR PNEL 2778

Enclosed are data summary sheets and supporting documentation for the samples received on November 19, 1990 of the Nord Tank Removal project. The samples were received as follows:

<u>FIELD ID</u>	<u>LAB ID</u>	<u>DATE COLLECTED</u>
467133	2778-01	11-14-90
467134	2778-02	11-14-90

Listed below are anomalies and narratives associated with the receipt and/or analysis of the samples.

Sample Receiving

There were no anomalies associated with the receipt of these samples.

Volatiles Analysis

No anomalies are present with this batch.

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

Sincerely,

\NAR-0905.778
Enclosures

**PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY**

METHOD REFERENCE

Benzene, Toulene,
Ethylbenzene, and Xylene

Method 8020, Test Methods for Evaluating Solid Waste, United States
Environmental Protection Agency, SW-846, 3rd Ed., 1986.



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P. O. BOX 1540 - 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601

PHONE (503) 883-3373

FAX (503) 883-3373 Ext. 338

December 18, 1990

Mr. Dave Nazy
Department of Ecology
Northwest Regional Office
4350-150th Avenue N.E.
Redmond, WA 98052

Dear Mr. Nazy:

I have enclosed the test results for the gas and diesel tank excavations with this letter. At the approval of Sweet-Edwards, we have replaced the fill in the gas tank excavation. Also at their direction, we have over-excavated the North side of the diesel tank excavation and again sampled the north wall of the excavation. I hope that this will be sufficient to obtain a clean sample as further excavation will jeopardize the integrity of the remaining fill between the excavation and the river. I will let you know the status of this work as soon as the lab samples are available.

We have done well with the penta filtering project so far and have filtered, tested, and discharged our first batch of rainwater. We have filtered the second batch and are awaiting positive test results before it can be discharged to the sanitary sewer. When this is complete we will be working with Chempro to complete the tank cleaning and removal.

I am also aware that Howard Small is working with you to finalize the testing requirements for the concrete berm. Please call me if you have any questions.

Sincerely yours,

Stanley K. Meyers, P.E.
Vice President of Engineering

SKM/eh

cc: Mr. Frank DeVaul, JELD-WEN
Mr. Howard Small, Sweet-Edwards/Emcon
file

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
 SUBMITTED BY: John North
 PROJECT: Ben Fab/#S590201
 SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/14/90
 DATE EXTRACTED: 12/18/90
 DATE ANALYZED: 12/20/90
 WORK ORDER #: K904850

Hydrocarbon Scan
 EPA Methods 3550/Modified 8015
 mg/Kg (ppm)
 Dry Weight Basis

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Diesel</u>	<u>Jet Fuel</u>	<u>Gasoline</u>	<u>Kerosene</u>	<u>Mineral Spirits</u>	<u>Oil*</u>
BFD-1290-11	B4850-1	10	ND	ND	ND	ND	ND	ND
BFD-1290-12	B4850-2	10	ND	ND	ND	ND	ND	ND
Method Blank	B4850-MB	10	ND	ND	ND	ND	ND	ND

* Quantitated using hydraulic oil as a standard. The MRL for oil is five times the MRL shown above.
 MRL means Method Reporting Limit
 ND means None Detected at or above the MRL

Approved by B. Selman Date 12/29/90

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: Sweet - Edwards/EMCON
SUBMITTED BY: John North
PROJECT: Ben Fab/#S590201
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/14/90
DATE EXTRACTED: 12/18/90
DATE ANALYZED: 12/20/90
WORK ORDER #: B904850

QA/QC Report
Surrogate Recovery Summary
Hydrocarbon Scan
EPA Methods 3550/Modified 8015

<u>Sample Name</u>	<u>Lab Code</u>	<u>Percent Recovery</u> <u>p-Terphenyl</u>
BFD-1290-11	B4850-1	95.1
BFD-1290-12	B4850-2	91.1
Method Blank	B4850-MB	99.2
CAS Acceptance Criteria		65-115

Approved by

R. S. L.

Date

12/24/90

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: Sweet - Edwards/EMCON
SUBMITTED BY: John North
PROJECT: Ben Fab/#S590201
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/14/90
DATE EXTRACTED: 12/17/90
DATE ANALYZED: 12/17/90
WORK ORDER #: B904850

TRPH-IR
16th Standard Method 503 D / EPA Method 418.1
mg/Kg (ppm)
Dry Weight Basis

<u>Sample Name</u>	<u>Lab Code</u>	<u>MRL</u>	<u>Result</u>
BFD-1290-11	B4850-1	50	ND
BFD-1290-12	B4850-2	50	117
Method Blank	B4850-MB	50	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by B. Salvo Date 12/24/90

DEPT. OF ECOLOGY-NWRO
ENVIRONMENTAL FORM



UNDERGROUND STORAGE TANK
NOTICE OF RELEASE

Pursuant to 40 CFR Part 280, Sept. 1988

Complaint recieved by J. Hickey / Dave Nazy Date 12-26-90
Reporter name Dave Nazy
address Dept. of Ecology, NWRO, TCP
phone no. _____

000783 E.A. NORD Co.
Site name Nord Door Co. site ph. no. _____
site address P.O. Box 1187, W. Marine View Drive 300 W. Marine View Dr.
site city Everett county Snohomish zip 98206
98201?

Inc#2092

Site owner BEN-FAB contact: Stan Meyers
owner's address P.O. Box 1540
city Klamath Falls, Oregon zip 97601

Consultant name Howard Small, John North
company Sweet-Edwards Emcon ph.no. _____

Other party _____ ph.no. _____

Description of Incident

Material: gasoline _____ diesel X waste oil _____ heat fuel _____
other material (describe) _____

No. of tanks _____ tank removal date _____

Status of clean-up on-going

Comments Dave Nazy has a file. Ecology took samples also.

VST: 5 tanks 1 diesel, 1 leaded gas in use
1 leaded, 1 unleaded gas NOT in use
1 other (chemical?) ~~_____~~

Date inspected _____ Investigator _____
Referred to _____

AASFAC

SITE DATA ENTRY SCREEN

Date:27 DEC

01 SITE_NO 000783 02 DATE.REC _____ REGION NW OWN.ID U0002075
03 CONTACT CHET BROWN PREVIOUS OWNER
04 C_TITLE SAFETY SUPERVISOR 05 C_PHONE (206) 259-9292

SITE OWNER
06 NAME E.A. NORD COMPANY E.A. NORD COMPANY
07 ADD1 300 WEST MARINE VIEW DRIVE 300 WEST MARINE VIEW DRIVE
08 ADD2 _____
09 CITY EVERETT 10 ST WA EVERETT ST WA
11 ZIP 98201- 12 CNTY SNOHOMISH 98201- CNTY SNOHOMISH
13 PHONE (206) 259-9292 (206) 259-9292

TANKS AT SITE: PETROLEUM: 14 IN USE 2 15 NOT IN USE 2
REGULATED CHEMICALS: 16 IN USE 0 17 NOT IN USE 1
18 TOTAL TANKS AT SITE 5

19 LOCATED ON INDIAN LANDS 20 STATUS 1: 21 TYPE -
22 CERT.NM CHET BROWN 23 TITLE SAFETY SUPERVISOR
24 DATE SIGNED _____ 25 CLERK _____ 26 ENTRY DATE _____

CODE DATE COMMENT
27 1:30 28 _____ 29 30/10-8-90

(T)anks / (P)ermits / (I)nvoices / (B)rowse / (:)Query / (M)ail

(A)nother site / (V)iew owner / (R)eturn

ONLINE °DSR °CHAR °1 PG ° °GO °SYSTEM RDY ° °

AASTNK1

TANK DATA SUMMARY SCREEN

DATE: 27 DEC

O_ID U0002075 O_NAME E.A. NORD COMPANY
SITE_NO 000783 S_NAME E.A. NORD COMPANY
ORIGINAL CURRENT STATUS TOTAL PETROLEUM CHEMICAL
PETROLEUM IN USE 2 CURRENTLY IN USE 2 2 0
PETROLEUM NOT IN USE 2 TEMP OUT OF USE 0 0 0
REG CHEMICALS IN USE 0 PERM OUT OF USE 3 3 0
REG CHEMICALS NOT IN USE 1 INTO USE AFT 5-8-86 0 0 0
TOTAL TANKS 5 EXEMPT 0 0 0
DEFERRED 0 0 0
CHANGE IN SERVICE 0 0 0
REMOVED 0 0 0
OTHER 0 0 0
TOTAL 5 5 0

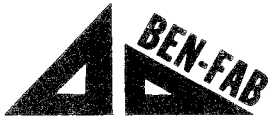
TANK.ID...	SUBSTANCE	SIZE	CALC_YR	CALC_AGE	STAT
1	DIESEL FUEL	1000-4999 GALLONS	78	12	A = in use
2	LEADED GASOLINE	500-999 GALLONS	73	17	A
3	LEADED GASOLINE	UNDER 500 GALLONS	73	17	C = out of use
4	UNLEADED GASOLINE	UNDER 500 GALLONS	73	17	C
5	OTHER	500-999 GALLONS	78	12	C

(T)anks / (I)Tests / (R)eturn

ONLINE °DSR °CHAR °1 PG ° °GO °SYSTEM RDY ° °

Tank #

- 1: Steel 6-10 yrs old
single wall, asphalt coat
- 2: Steel 11-15 yrs.
single wall, asphalt coat
- 3: Steel 11-15 yrs.
single wall asphalt coat
perm. out of use; not filled
last used 7/1/84
- 4: Steel 11-15 yrs.
single wall, asphalt coat
perm. out of use; not filled
last used 7/1/84
- 5: Steel 6-10 yrs.
single wall asphalt coat
perm. out of use; not filled
last used 4/1/82



DESIGN, FABRICATION AND SALES OF CUSTOM MACHINERY

P. O. BOX 1540 • 3303 LAKEPORT BLVD. - KLAMATH FALLS, OREGON 97601

PHONE (503) 883-3373

FAX (503) 883-3373 Ext. 338

Mr. Dave Nazy
Department of Ecology
Northwest Regional Office
4350-150th Avenue N. E.
Redmond, WA. 98052

RECEIVED
JAN 07 1991
DEPT. OF ECOLOGY

Dear Mr. Nazy:

Attached to this letter are the test results from the diesel tank over-excavation for the North side pit wall. Fortunately these show excellent results with the hydrocarbon scans showing ND for all the pertinent tests.

With these and the previous test results in hand I am proposing the following procedure for closing of this excavation.

1. The 11/14/90 infra-red tests show 296 ppm for sample BFD-1190-03 vs. a gas chromatograph reading of 160 ppm for the same sample. The 12/14/90 infra-red test shows 117 ppm vs. a gas chromatograph reading of ND for the BFD-1290-12 sample from the over excavation, North pit wall. I am assuming that the 11/14/90, BFD-1190-02, 04, 05, and the composite sample 06, 07, 08 test results would be approximately 132, 34, 47, and 49 ppm, respectively if run by the gas chromatograph method. All of these are well below the clean-up levels.

2. Based on these results I propose that we replace the originally excavated soil into the diesel tank excavation. Due to the initial high reading on the North wall, I propose that we land farm the over-excavation material on site until it tests below clean-up levels and then return it to the excavation also.

3. On site material would be used to backfill the hole to finish grade and then the asphalt would be replaced.

This game plan is the same as you and I discussed by phone this morning. I will call you Monday to ask for your O.K. to proceed. Thank you for your help on this project.

Sincerely yours,

Stanley K. Meyers, P.E.
Vice President of Engineering

cc. Mr. Frank DeVaul, JELD-WEN
Mr. Howard Small, Sweet-Edwards/Emcon

State of Washington Department of Ecology
Non-toxic Environmental Laboratory
P.O. Box 337 Manchester, WA 98548

Data Review
January 9, 1991

11/11/90

Project: Road Tank Removal

JAN 10 1991

Samples: 467103 467104

DEPT. OF ECOLOGY

Laboratory: Pacific Northwest Environmental Laboratory 2779

By: Stuart Hageco *SH*

These analyses were reviewed for qualitative and quantitative accuracy, validity, and usability. Specific methods used and problems incurred during the analysis are detailed in the Data Narrative and will not be addressed here. Specific problems with the QC will be noted and referenced to the Data Narrative.

DATA QUALIFIER DEFINITIONS

- U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit; this means that the compound is not present in the sample at or above the reported level.
- E - The reported numerical value is an estimated quantity.
- UE - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

REXX analysis

Holding Times:

Sample	Date Collect	Date Man Lab Rec'd	Date Cntr Lab Rec'd	Date Extd	Date Anlz	#Days From Collect
467133	11/14	11/15	11/19	NA	11/20	6 of 14
467134	11/14	11/15	11/19	NA	11/20	6 of 14

These samples were analyzed within the EPA-823 recommended holding time

Surrogates:

Surrogate recoveries for these samples, and the method blank are within the 90 recovery limits.

Matrix Spike/Matrix Spike Duplicate (MS/MSD):

Matrix spike/spike duplicate recovery and precision data are acceptable and within 90 limits.

Sample Data:

This data is acceptable for use.



Sweet-Edwards / EMCON, Inc.

18912 North Creek Parkway, Suite 210 • Bothell, WA 98011
Office (206) 485-5000 • FAX (206) 486-9766

Date January 17, 1991
Project S59-02.01

To: Mr. Dave Nazy
Washington State Department of Ecology
Nothwest Regional Office
4350 150th Avenue Northeast
Redmond, WA 98052

RECEIVED
JAN 18 1991
DEPT. OF ECOLOGY


We are enclosing:

Copies	Description
<u>1 ea.</u>	<u>proposed Concrete Testing in Secondary Pentachlorophenol Containment Area, E.A. Nord Door Facility, Everett, Washington.</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

For your Use Sent by Priority Mail
 Approval Federal Express
 Information Other _____

Comments: Please Contact me at 485-5000 or Mr. Stan Meyers at
(503) 883-3373 if you Have any Questions.

cc: Mr. Stan Meyers


Howard Small-Project Geologist

January 14, 1991

CERTIFIED MAIL P 666 435 561



Mr. Stan Meyers
Nord Door
P O Box 1187
Everett, WA 98206

RECEIVED
JAN 17 1991
DEPT. OF ECOLOGY

RE: **Discharge Authorization Second Extension - Expires 2/15/91
Nord Door Pentachlorophenol Tank Clean Up**

Dear Mr. Meyers:

Nord Door is granted a second 30 day Extension to the Discharge Authorization (DA) that was issued November 14, 1990. The revised expiration date for the DA is February 15, 1991. The report to this office, as specified in the DA, shall be due no later than February 15, 1991.

Mike Negrete of Nord requested this Extension because maintenance personnel were re-assigned from the penta clean up to repairs resulting from the freezing weather and the planer fire. You mentioned that your contractor Chempro diverted equipment needed at your facility to an oil spill emergency in south Puget Sound causing delays at Nord. I understand that you have scheduled Chempro for January 16, 1991.

I would like to remind you that the DA asks you to keep records and report the dates, times, pentachlorophenol concentrations and volumes of the discharges. The report due no later than February 15, 1991.

Please contact me at 259-8819, if you have any questions. Thank you.

Sincerely,

Catherine Foss
Industrial Waste Inspector

c:	Mike Negrete	NORD
	Doug Knutson	WDOE
	Dave Nazy	WDOE
	Jerry Vrooman	Adm
	Bruce Jones	Adm
	Dan Lowell	Utl
	Chron. File	(1)
	IPT File	(1)

NORDNORDEXT2.DOC

OW Leaker List INC# 2092

NOTICE OF PERMANENT CLOSURE OF UNDERGROUND STORAGE TANK(S)

Site Owner/Operator: E. A. NORD COMPANY
Site Address: 300 WEST MARINE VIEW DRIVE
Telephone: (206) 259-9292

SHOHOMISH

Site Notification Number (If known; this is assigned by Ecology): 000783
Tank has been registered with Ecology ; tank was not registered .

Local closure permit (if any) obtained from: EVERETT FIRE DEPT.
(Always contact local authorities regarding permit requirements.)

Tank closure performed by:
Company/Individual: E.A. NORD & CHEMPRO & SWEET-EDWARDS/EMCON
Telephone: (206) 259-9292 Date of Tank Closure: 1-10-91
Method of Closure: Removal In-Place Closure
If closed in place, type of fill material used: _____

If removed, how will the tank(s) be disposed of? Scrap Landfill
 Other method (please specify: _____)
Disposal Location: SEATTLE IRON & METAL, HARBOR ISLAND, WA

Tank ID Number	Age	Tank(s) Closed		Last Material Stored
		Size		
<u>2</u>	<u>28 YRS.</u>	<u>500 GAL.</u>		<u>GASOLINE</u>
<u>1</u>	<u>23 YRS.</u>	<u>1100 GAL.</u>		<u>DIESEL FUEL</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Will the tanks be replaced by new underground tanks? Yes No
(NOTE: If YES, you need to submit a notification form for the new tanks.)

Was a site assessment completed? Yes No If so, was contamination found? Yes No

(NOTE: The appropriate regional office of the Washington Department of Ecology should be contacted for assistance if contamination is found (see attached map). Records of the site closure must also be maintained at the site and must be available upon an inspector's request for at least three years after closure.)

Inspecting Agency: EVERETT FIRE DEPT. Inspector Name: INSPECTOR RAY GRAHAM
(NOTE: This is generally the local fire department or agency enforcing the Uniform Fire Code; in some cases (usually involving contamination) it may be Ecology. In some instances there may be no inspecting agency.)

Signature: Stanley K Meyers Date: 2-25-91
Title: VICE PRESIDENT OF ENGINEERING

Please return the completed form to:

Storage Tank Unit
Department of Ecology
M/S PV-11
Olympia, WA 98504-8711

DEPARTMENT OF ECOLOGY
UNDERGROUND STORAGE TANKS

MAR 06 1991

9/11/574

SITE HAZARD ASSESSMENT

SUMMARY REPORT

FOR

NORD DOOR

Everett,
SEATTLE, WASHINGTON

JUNE, 1991

Prepared for:

Washington Department of Ecology
Mail Stop PU-7
Olympia, Washington 98504

Prepared by:

Parametrix
13020 Northup Way
Bellevue, Washington 98005

&

SAIC

626 Columbia Street N.W. Suite 1C
Olympia, Washington 98501

Contract Number:C0089006
Work Assignment No. 50

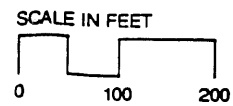
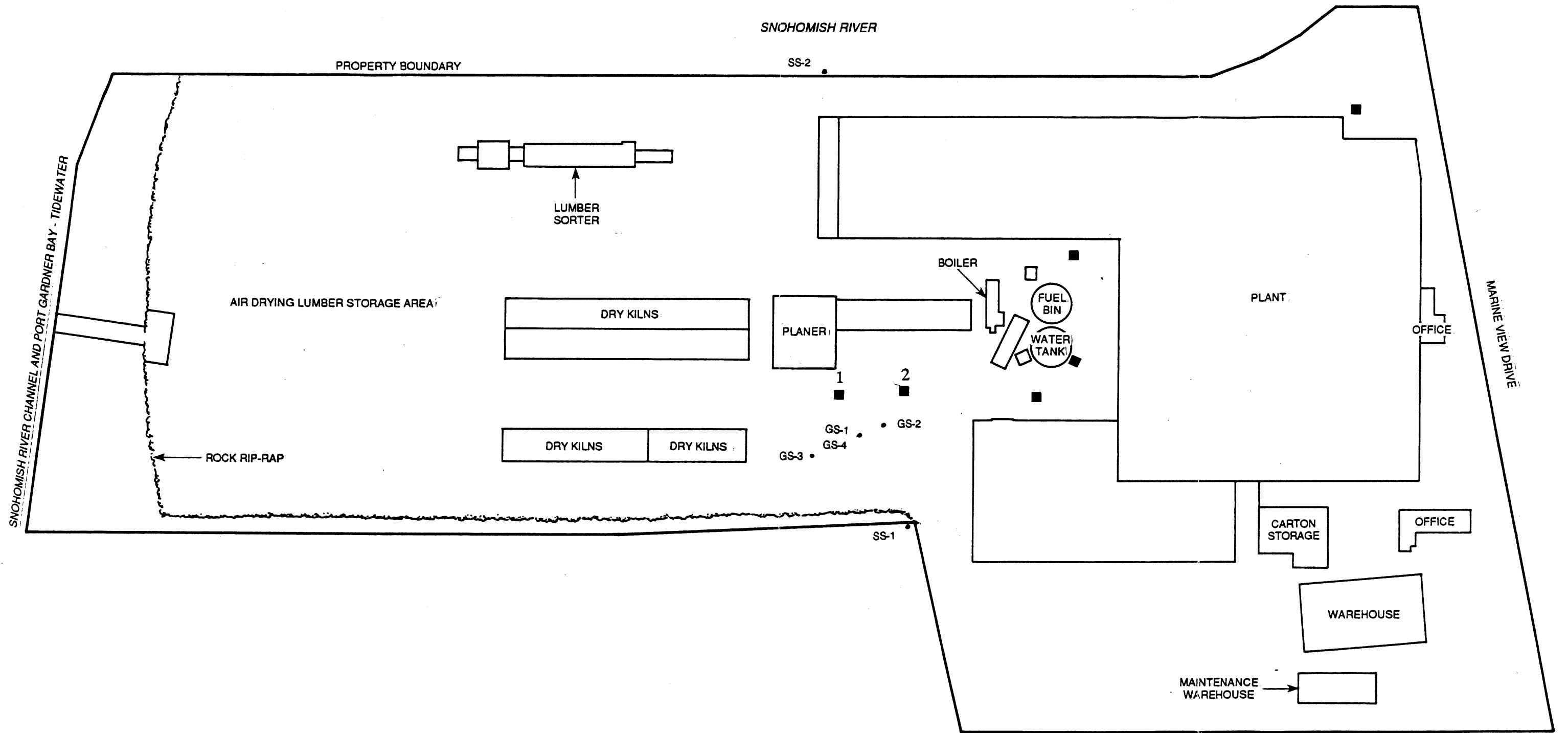
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1.0 INTRODUCTION

This report summarizes the results of a soil and groundwater assessment performed at Nord Door located in Everett, Washington at 300 West Marine Drive (Figure 1). The work was conducted by the SAIC/Parametrix team on behalf of the Washington Department of Ecology (Ecology). The objectives of this project include field screening and sampling to gather sufficient environmental data to assess the site using the Washington Ranking Method (WARM) guidelines. A Site Hazard Assessment (SHA), as defined by WAC 173-340-320 has been generated based on information gathered from this project. The SHA process does not include extensive or complete site characterization, contaminant fate determination or qualitative risk assessment.

This document provides a description of Nord Door and presents the results of the assessment. Included are objectives of the work assignment (Section 2.0), a brief description of the site background (Section 3.0), a discussion of the sampling program (Section 4.0) and a synopsis of sample results (Section 5.0). Data Collection Summary Sheets are included in Appendix A and The analytical lab report and chain of custody documentation is in Appendix B.



■ Transformers

Figure 1.
Nord Door
Site Map

2.0 OBJECTIVES

The primary objective of this project was to perform a SHA at Nord Door and to gather sufficient information to allow the site to be scored by WARM. This information will be compiled along with available data from previous assessments to complete the Site Hazard Data Collection Summary Sheets (SHADCSS). In order to accomplish these objectives, the Scope of Work required collection of data regarding concentrations of hazardous substances present in surface soil and marine sediment; site characteristics that control movement into adjacent environments; and potential for threats to human and environmental health.

Other specific items within the Scope of Work for this SHA included:

1. Collecting two soil samples from the area where the barrels were previously stored;
2. Collecting one soil sample from the asphalt eroded area;
3. Collecting two sediment samples from the storm drains on site.

These samples were analyzed for the compounds listed in Table 1.

TABLE 1
SUMMARY OF FIELD SAMPLES AND
ANALYSES AT NORD DOOR

Sample Name	Sample Type	Date Sampled	Analysis			
			VOC	TPH	BNA	Pesticides
GS-1	Surface soil	5/24/91	X	X	X	X
GS-2	Surface soil	5/24/91	X	X	X	X
GS-3	Surface soil	5/30/91	X			
GS-4 ¹	Surface soil	5/24/91	X	X	X	
SS-1	Sediment	5/30/91	X	X	X	X
SS-2	Sediment	5/30/91	X	X	X	X

1-Duplicate of GS-1

3.0 BACKGROUND

This section presents background information found during while conducting this assessment. Information concerning Nord Door was compiled from a review of Ecology files, a site visit and conversations with Nord personnel.

Ecology files reviewed for this investigation include:

- Ecology Inspection Report, April 13, 1990;
- Letter from Ecology to Nord Company, May 14, 1990;
- Letter from Ben-Fab (Nord) to Ecology, May 21, 1990;
- Letter from Ben-Fab to Ecology, June 1, 1990;
- Letter from Ben-Fab to Ecology, June 18, 1990;
- Ecology Inspection Report, July 11, 1990.

Conversations with Mike Negrete, Personnel Manager at Nord, were conducted in person at the site on May 24 and May 30, 1991 and by phone on June 10 and June 17, 1991.

3.1 GEOLOGY/HYDROGEOLOGY

Nord Door is situated on an area of fill. It is located approximately 1850 feet from Port Gardner (Possession Sound) and adjacent to the Snohomish River. Most of the area was filled around the turn of the century when the railroad was laying tracks along Possession Sound. Fill was extended at the Nord site and the site was used by the Nord Company as a stile and rail door plant.

The depth to groundwater has not been established by previous investigations but it is assumed that the depth to groundwater is heavily influenced by Puget Sound tidal action.

3.2 PAST OPERATIONAL PRACTICES AND PREVIOUS SITE INVESTIGATIONS

3.2.1 Operational Practices

Jeld-Wen acquired an interest in the Nord plant in May, 1986. Prior to Jeld-Wen's ownership, the site was in use as a stile and rail door plant since the mid 1940's. Prior to the 1940's a pole treating facility operated at the site.

An April 13, 1990 Ecology inspection report reveals the Nord Company's current processes involve buying rough, green wood and sorting, stacking, drying, planing and cutting the lumber. They assemble and finish wooden doors, rails, posts, columns and spindles. Occasionally they fabricate their own machinery. According to Mike Negrete (Nord), all wood used on site is untreated.

3.2.2 Hazardous Substances

The hazardous substances used on-site are glues, boiler chemicals, acetone, filler compounds for wood and parts cleaning chemicals. The hazardous substances generated are waste oil and grease rags.

3.2.3 Underground Storage Tanks (USTs)

A 500 gallon paint thinner UST exists near the northeast corner of the most southwesterly dry kilns. It has not been used for three or four years and, according to Mr. Negrete, is slated for removal in July or August, 1991. At the time of the Ecology, April, 1990 inspection, the area overlying the abandoned paint thinner tank was impounding stormwater that had a slight sheen. Ecology suggested that the groundwater and soils in the area be analyzed to determine the existence of contamination.

According to Mr. Negrete, two USTs have been removed. The first is a gasoline UST that was located between the maintenance area and the fuel bin. The second is a diesel UST formerly located along the water approximately 754 yards northeast of the boiler room outfall. It is not known when these USTs were removed.

A review of Ecology's UST list revealed the following:

Tank	Age (years)	Size (gallons)	Status	Contents
1	12	1000-5000	In use	Diesel Fuel
2	17	500-1000	In use	Leaded Gas
3	17	<500	Closed	Leaded Gas
4	17	<500	Closed	Unleaded Gas
5	12	500-1000	Closed	Other

Some discrepancies exist between the Ecology list and other sources. Mr. Negrete explained that some USTs were filled and the only existing UST is the paint thinner tank which is slated for removal.

No information was available on the UST removal or abandonment procedures used at the site.

3.2.4 Above Ground Storage Tanks

An above ground tank in the northeast corner of the site used to contain "wood life" preservative. Apparently "wood life" contains pentachlorophenol. The tank was surrounded by a 6-8" concrete berm. According to Ecology's April, 1990 inspection report, the containment area was never pumped out; any liquid that accumulated was left to evaporate out. Furthermore, at the time of the April, 1990 inspection, there was standing water with a dark appearance in the tank and the paint on the bottom of the tank was peeling off. Ecology recommended that the tank contents be sampled. When Parametrix visited the site in May of 1991, the tank had been removed and only the containment area remained. According to Mr. Negrete, the tank was removed in December, 1990 or January, 1991.

At the time of the April, 1990 inspection a soak tank, located adjacent to the northeast corner of the building had a 20 foot section of fire hose leading from the tank to the pavement and presumably to the nearest storm drain catch basin. Ecology's inspection noted a light oil sheen on the water in the tank. Ecology informed Nord that by discharging this water into the Snohomish River they were in violation of state water pollution control laws. It was suggested that this flow be routed to the sanitary system and that Nord contact the City of Everett's Pretreatment Engineer to determine whether a pretreatment permit was required. Nord's meetings with the City of Everett revealed that the city would be able to accept the waste stream. In a June, 1991 phone call, Mr. Negrete said that this tank had been removed but he did not know when.

An above ground diesel tank located near the east corner of the planer sits very close to the edge of the property and adjacent to the Snohomish River Tidal Flats. Stains and cracks in the pavement were noted during the April, 1990 inspection.

Additionally, two above ground propane tanks are located southwest of the planer.

3.2.5 Potential and Known Releases

Ecology's tour of the oil shed showed that sawdust was used to absorb any minor spills. During the April, 1990 inspection, Ecology suggested that some form of secondary containment be constructed at the threshold of the shed to avoid the potential of a spill flowing into the yard. A July 11, 1990 Ecology inspection conducted to determine whether the oil shed had secondary containment constructed revealed a concrete lip had been installed in the doorway and the inspector was satisfied with the construction.

During the April, 1990 inspection Ecology examined the area where machinery was pressure washed. Washing is conducted at the center of the yard on the concrete surface. There was no apparent containment of the wash water. Discharging of the water directly into the river constituted a violation of the state water pollution control laws. Ecology suggested that Nord characterize the waste and possibly route it through the sanitary system. Discussions

with the City of Everett revealed this to be a possibility. No final agreement for discharge was ever reached.

Three outfalls are located at the Nord site and all drain into the Snohomish River. The outfall that drains from the glue room is located approximately 260 feet south of the planer and the outfall that drains from the boiler room is located approximately 60 feet northeast of the northeast corner of the main plant. The third outfall is located approximately 430 feet southeast of the boiler room outfall.

A spill from the above ground diesel tank occurring at an unknown date was noted in Ecology's April, 1990 inspection report.

A septic tank is located northeast of the planer. Numerous sumps are located throughout the Nord site.

3.2.6 Drum Storage

The company has numerous drum storage areas both inside and outside of the buildings. During the April, 1990 Ecology inspection many drums showed signs of leaking or spills. Areas of asphalt had holes eaten through as though materials had dissolved the surface. A scrap metal pile in the southwest corner of the lot contained two 55-gallon drums. One drum was noted to have no lid and was overflowing with black viscous material. Areas of poor drum storage and handling included the primary storage area located in the approximate center of the site. This area contained both labeled and unlabeled drums. Drums of used oil adjacent to those with resins or glue were noted. Numerous drums were uncovered or had plywood covers. There were very thick oil stains on the pavement and holes in the pavement where the soils were stained black. Based on Ecology's recommendations, Nord decided to limit drum storage to three areas. At the time of the SHA, oil drums are stored in the oil shed and acetone drums were stored in a self contained fiberglass container located in the northeast of the site. Used oil drums were stored in the dry shed. Waste oil that is generated on site is reportedly removed by an independent contractor.

3.2.7 Transformers

A total of six transformers are located at the site. It is not known if they contain PCBs.

4.0 SAMPLING PROGRAM

The field investigation was conducted on May 24 and May 30, 1991. A total of six soil samples (including the duplicate) were collected at the site (Table 1). Three soil samples were collected from the surface soil and two sediment samples were collected from the on-site storm drains. The sampling locations are summarized in Table 2.

Table 2
Sample Location Descriptions (See Figure 1)

Sample Number	Location Description
GS-1	80 feet southwest of transformer 1 (See Figure 1) and 111 feet west of transformer 2
GS-2	97 feet south of transformer 1 and 68 feet southwest of transformer 2
GS-3	Composite sample: 119 feet to 132 feet southwest of transformer 1 and 134 feet southeast of the southern most dry kilns
GS-4	Duplicate of GS-1
SS-1	Glue room outfall: The southwest property boundary runs northwest from Marine View Drive, jogs to the northeast then back to the northwest, at this corner is where the sample was taken.
SS-2	Boiler room outfall: 60 feet northeast of northern most corner of the main plant building

4.1 SURFACE SOIL SAMPLES

Two soil samples (GS-1 and GS-2) and a duplicate (GS-4) were scheduled to be collected from the area (Figure 1) "where the barrels were previously stored". Samples were analyzed for VOCs, BNA, pesticides and TPH. The sample analyzed for VOCs was collected without mixing and without headspace.

Sample GS-3 was collected from asphalt eroded areas that were located southwest of GS 1 and 2. The sample was a composite of five areas and was placed directly into sample jars without mixing and headspace. Sample GS-3 was analyzed for VOCs.

4.2 STORM DRAIN SEDIMENT SAMPLES

Two storm drain sediment samples were collected to assess the potential for off-site migration of contaminated sediment through the storm drains. The samples were analyzed for VOCs, BNA, TPH and pesticides. A sediment sample (SS-1) was collected from the

glue room outfall. The second sediment sample (SS-2) was collected from the boiler room outfall. The samples analyzed for VOCs were placed unmixed into the sample jars and without headspace. Samples were sent to the lab and analyzed for VOCs, BNA, pesticides and TPH.

Samples were collected using a decontaminated stainless steel spoon from a depth of about 0.2 feet. The sampling equipment was washed in Alcanox and rinsed with deionized water. Samples were collected into laboratory supplied, glass wide-mouth jars with screw on lids. Jars were completely filled whenever possible, capped immediately after filling and labeled. After labeling the jars were stored on ice prior to shipment to the selected laboratory under appropriate chain-of-custody.

5.0 RESULTS

5.1 QUALITY ASSURANCE/QUALITY CONTROL

Analytical data obtained from soil and groundwater sampling taken at the Nord Door facility on May 24, 1991 were quality assured by Parametrix personell. Samples were analyzed by National Environmental Testing Inc.

1. Holding times and conditions are acceptable.
2. Method blanks are below detection limits with the exception of methylene chloride.
3. No analytical replicates were taken.
4. The field duplicate for soil is acceptable. No field duplicate for water was taken.
5. Matrix spikes and matrix spike duplicates are acceptable.
6. Surrogate recoveries are acceptable with the exceptions of volatiles for sample SS-2, semivolatiles for sample SS-1, diesel for samples GS-1 and GS-4, pesticides for samples EW, GS-2, and GS-4. Method blank, matrix spike, and matrix spike duplicate for pesticides are also over surrogate recovery limit. However, recoveries are all only slightly above the recommended limit and the consistency of the data suggests that co-eluting interferences are responsible.

Qualifications: Methylene chloride information is unusable (due to blank contamination) except for GS-3 where it can be used as estimated data.

The data is acceptable with the qualifications mentioned above for qualitative and quantitative uses.

5.2 RESULTS

Results of lab analysis conducted by Parametrix on May 24 and May 30, 1991 are shown in Table 3. No contaminants were found to exceed MTCA levels. The analytical lab report can be found in Appendix B.

TABLE 3
Summary Table For Field Sampling at Nord Door

Samples	Concentrations (mg/kg)							
	GS-1	GS-2	GS-3	GS-4	SS-1	SS-2	EW (mg/L)	Cleanup Level
Methylene Chloride	0.014 F	0.023 F	0.13 F	0.012 F	0.068 F	0.082 F	0.023 F	0.5A
Chloroform	ND	ND	ND	ND	ND	ND	0.015 B	.071 B
Acetone	0.13	0.075 J	ND	0.048 J	ND	ND	ND	8 B

S Partial data, Pesticides not included

ND Parameter not present at detection limit

A Method A cleanup level for industrial soil (Model Toxics Control Act Cleanup Regulations: Chapter 173-340 WAC)

B Method B level (MTCA)

F Found in associated method blank

J Compound reported below detection limit, value is estimated. At the writing of this report, no laboratory results were available. Results will be included in the final report.

APPENDIX A
SHA Checklist

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
TOXICS CLEANUP PROGRAM

SITE HAZARD ASSESSMENT DATA COLLECTION SUMMARY SHEETS
FOR
WASHINGTON RANKING METHOD

Site Name: NORD DOOR

Location: NE 1/4 NE 1/4 SE 1/4 SECTION 7 T29NR5E

Site owner/operator: E.A. Nord Company

Address: 300 West Mainline Drive, Everett, WA

Any other known PLP(s): _____

Address: _____

Site Number: _____

Date(s) of field site hazard assessment: 6/24 & 6/30/91

Samples or field measurements: _____ soil
_____ surface water
_____ air _____ ground water

(Attach copies of pertinent sampling and analytical data, as well as all other supporting documentation.)

Photographs: Yes

Weather: 6/24/91 (Rainy) 6/30/91 (Cloudy)

Lead inspector: Ross Goff

Other inspectors: Mike Mondress

Signature: M. G. Mondress

PART I: Hazardous Substances

NOTE: Page numbers (e.g. SW-2) shown in parentheses throughout this checklist refer to the WARM Scoring Manual. WK- numbers refer to pages of the new scoring sheets (not those in the scoring manual).

A. LIST

List hazardous substances, known or suspected (check k or s), currently at the property, or that have been previously (check c or p) at the property (WK-2,3):

Hazardous Substance	K	S	C	P	Quantity	Units
1. Acetone					.13	(mg/kg)
2. Cleaning Chemicals					Unknown	
3. Glues					"	
4. Boiler Chemicals					"	
5. Petroleum Products					"	
6. chloroform					.015	(mg/kg)
7. methylene chloride					.13	mg/kg
8.						
9.						

Additional? _____ (list on attachment)

By which routes are these available?

Number (from above)	Surface Water	Air	Groundwater
1. 3	✓	✓	
2. 4	✓	✓	
3. 3		✓	✓
4. 1	✓	✓	✓
5.			
6.			
7.			
8.			
9.			

B. SOURCES

Check those known or observed (WK-3):

- drums or other containers
- electrical transformers
- above ground tanks
- below ground tanks
- ponds, pits, or other impoundments
- pipelines (other than water, sewer, or gas)
- floor drains
- exterior drains for rainwater, surface waters, spills, etc.
- other? Identify: _____

C. INDICATORS

Check those know or observed:

- discolored soils
- disturbed soils
- discolored standing water
- unusual or noxious odors
- sick or dead vegetation
- groundwater monitoring wells
- other? Identify: _____

If any are checked in B or C, explain details including exact locations (identify location in a map or drawing). *(See Report)*

Additional information: _____

D. CONTAINMENT--STORAGE TANKS

(SW-9; A-11; GW-11)

Present ✓ How many? 24

Check those that apply:

1. _____ Secondary containment with a capacity of 110% of the volume of the tanks
2. _____ Secondary containment at least 50% of the volume of all tanks
3. _____ Containment system with capacity for at least 10% of volume of containers or tanks
4. No containment, or less than 10% capacity (Propane tank)
5. _____ Tank volumes maintained
6. _____ Automatic controls used for volume maintenance
7. Tanks are covered
8. _____ Uncovered tanks have aeration, mixing, or heating of tank contents
9. Containers sealed, protected
10. _____ Containers sealed, not protected
11. _____ Containers deteriorated
12. _____ Containers leaking
13. Record the #s of above which apply only to above ground tank
_____ 7, 9
14. Record the #s of above which apply only to below ground tanks

15. Record the #s of above which apply to both above and below ground tanks:

Additional comments: _____

E. CONTAINMENT--WASTE PILES

(SW-10; A-13; GW-12,13)

Present none observed How many? _____

Check those that apply:

1. _____ Waste pile is outside, no protecting structure
2. _____ Waste pile is outside, in open structure with roof
3. _____ Waste pile is outside, with partial or unmaintained cover
4. _____ Waste pile is outdoors, with maintained cover
5. _____ No cover is present
6. _____ Waste pile is fully enclosed, intact building
7. _____ There is an engineered run-on/run-off control
8. _____ The run-on/run-off is maintained
9. _____ Run-on/runoff control present, unknown condition
10. _____ No run-on/runoff control system present, or unknown if present
11. _____ Liner or base present; _____ Not present
12. _____ Single clay or compacted soil liner
13. _____ Single synthetic liner
14. _____ Double liner
15. _____ Maintained, functioning leachate collection system
16. _____ Leachate collection system; _____ Unknown condition;
or _____ Not functioning

Additional
comments: _____

F. CONTAINMENT--SPILLS, DISCHARGES, AND CONTAMINATED SOIL
(SW-10,11; A-13,14; GW-13)

Check those that apply:

1. _____ Spill, discharge, or contaminated soil only in the subsurface at the site--including dry wells, drain fields, leaking underground storage tanks
2. _____ Soil contamination that has been covered partially excavated and filled with at least 6 inches of clean soil
3. _____ Soil contamination that has been covered or partially excavated and filled with less than 6 inches of clean soil
4. _____ Uncontaminated soil cover >2 feet thick
5. _____ No cover; or _____ Cover <2 feet, but > 6" thick
6. _____ Spill, discharge, or contaminated soil present at the surface in an area with maintained run-on/run-off controls
7. _____ Spill, discharge, or contaminated soil present at the surface in an area with unmaintained run-on/run-off controls
8. _____ Spill, discharge, or contaminated soil present at the surface with no run-on/run-off controls or unknown controls
9. _____ Contaminated soil has been disturbed or excavated and stored above grade
10. _____ A functioning vapor recovery system
11. _____ No vapor recovery system

Additional
comments: _____

G. CONTAINMENT--SITE CHARACTERISTICS (SW-11,12; A-6; GW-14; WK-5,6,8)

1. How would you evaluate the site soils? Circle predominant textural class.

SGS data permeability moderately low due to discontinuous hardpan

- Sand, gravel, sandy gravel, well-graded sand, well-graded gravel, gravelly sand, gravelly sand loam, silty sandy loam?
- Poorly-graded sands with fines, silt-sand mixtures, loam, silt loam, sandy silt loam, clayey sand, clay sand loam?
- Clayey sands, sand-clay mixtures, clayey gravels, clay-sand-gravel mixtures, inorganic silts, clayey silt loam, silty clay loam, porous rock outcrop, sandy silty clay, sandy clay loam?
- Clay (organic and inorganic), clay loam, rock outcrop, peat, peaty clay?

Is the above based on personal observation, lab analysis, or professional judgment by a soil experts? (circle)

- 2. Total annual precipitation = 34.7 in./yr (SW-12; WK-5)
- 3. Max. 2-yr/24-hr precip. = 1.5 inches (SW-14; WK-5)
- 4. Net precipitation (see 2.2, GW-13) = 18.5 in. (WK-9)
- 5. Is the site not in a flood plain? (SW-14; WK-5)
 Is the site in a 500 year flood plain? FIRM Comm Panel No. _____
 Is the site in a 100 year flood plain? 530164 0001B
 Flood Insurance Rate Map Comm. Panel No. _____
- 6. What is the terrain slope to the nearest surface water?
<2 % (SW-14,15; WK-6)
- 7. What is the subsurface hydraulic conductivity?
>10⁻⁵-10⁻³ cm/sec (GW-14; WK-9) (*closer to 10⁻⁵?*)
- 8. What is the vertical depth from the deepest point of known contamination to ground water? _____ feet (GW-15; WK-9)
unknown

Additional comments: _____

IV. Targets

A. DISTANCE TO SURFACE WATER (SW-16; WK-6)

1. What surface water(s) (lake, stream, river, pond, bay, etc.) is/are within 10,000 feet (downgradient) of the site?

<u>Name</u>	<u>Dist. - ft.</u>	<u>Obs.</u>	<u>Meas.</u>
Port Gardner (Passaic Sound)	1850		X

None? _____ Comments _____

2. What drinking water intakes are within 2 miles of the site? (all lake intakes, river intakes downstream only) (SW-12; WK-6)

None? X _____

<u>Source</u>	<u>Location</u>	<u>Pop. Served</u>

3. How much acreage (anywhere) is irrigated by surface water intakes (downstream only) or wells (anywhere) within 2 miles of the site? (SW-16; GW-18; W/S 5; WK-6,9)

None? X _____

SURFACE WATER: Acres _____ (1600 acres max.)

Source(s) _____;

GROUNDWATER: Acres _____ (4500 acres max.)

Source(s) _____

4. What is the distance to the nearest fishery resource (total of overland distance plus downgradient distance)? (SW-17; WK-6)
Possession Sound (Port Gardner) 1850 ft - actually adjacent salmon runs
Over 10,000 feet? _____ Distance if less than 10,000 feet? _____ ft.

5. What are the names of, and the distances to the nearest sensitive environments (total of overland distances plus downgradient distances)? (SW-18; A-15; WK-6)

Over 10,000 feet? _____ Names and distance if less than 10,000 feet:
Wetlands located 500 ft west of site.

6. Is the aquifer a federally-designated sole source aquifer? No (GW-16; WK-9)

7. Is the ground water used for: (GW-16; WK-9)

- private supply
- public supply
- irrigation of human food crops or livestock
- non-food (human) vegetation
- not used due to natural contaminants
- ground water not used, but usable

8. Distance to nearest drinking water well? _____ feet (GW-17; WK-9)

NEAREST WELLS APPEAR TO BE IN T29N24E Section 1 (across Possession Sound) - Exact locations unknown

9. Is there an alternate source available to groundwater for private or public water supply? (WK-9) Yes - Protected Source in Cascades (City of Seattle)

10. Population served by drinking water wells within 2 miles _____? (GW-17; WK-9) *POSSL = 365 (most on other side of Possession Sound)*

11. Distance to the nearest population? adjacent feet (A-15, 16; WK-8)

12. Population within one-half mile radius? 350 (A-16; WK-8)

Additional
comments: _____

REFERENCES

Department of Ecology Inspection Report, April 13, 1990.

Letter from Ecology to Nord Company, May 14, 1990.

Letter from Ben-Fab (Nord) to Ecology, May 21, 1990.

Letter from Ben-Fab to Ecology, June 1, 1990.

Letter from Ben-Fab to Ecology, June 18, 1990.

Ecology Inspection Report, July 11, 1990.

Mike Negrete, Personnel Manager of Nord, site visit and phone conversations, May 24, May 30, June 10 and June 17, 1991.

APPENDIX B
ANALYTICAL LAB REPORT AND CHAIN OF CUSTODY DOCUMENTATION



®

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
4224 Campus Point Ct., Suite 100
San Diego, CA 92121
Tel: (619) 535-7415
Fax: (619) 535-7479

June 18, 1991

William F. Kane
Parametrix Inc.
13020 Northrup Way
Bellevue, WA 98005

Dear Mr. Kane,

Enclosed please find volatile, semivolatile, and diesel data for Washington DoE's Nord Door project. The organophosphorus pesticide data will be sent to you by facsimile June 19, 1991.

If you have any questions, please do not hesitate to contact me at (619) 535-7418.

Sincerely,

A handwritten signature in black ink, appearing to read "N.P. Rottunda", is written over a horizontal line. The signature is somewhat stylized and includes a long horizontal stroke extending to the right.

N.P. Rottunda
Laboratory Project Coordinator

cc: J.Arlauskas
R.Shazer

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

TABLE 1

Project Name: DOE - NORD DOOR

NET SAMPLE ID	CLIENT SAMPLE ID	MATRIX	VOA 8240	BNA 8270	TPH 8015	OP PEST 8140
<u>JOB #: 91.0074</u>						
11019	GS-1	SOIL	X	X	X	X
11020	GS-2	SOIL	X	X	X	X
11021	GS-4	SOIL	X	X	X	X
11022	EW	SOIL	X	X	X	X
<u>JOB #: 91.0080</u>						
11074	GS-3	SOIL	X			
11075	SS-1	SOIL	X	X	X	X
11076	SS-2	SOIL	X	X	X	X

3005 NET

NET Pacific, Inc.
National Environmental Testing
San Diego Division

EXECUTIVE SUMMARY TABLE

Volatile Organics
Method 8240

Project Name: D.O.E - NORD DOOR
Batch No: VW094
Matrix: AQUEOUS

Client Sample ID:	EW	METHOD BLANK
NET Sample ID:	11022	VBMAY30
Date Analyzed:	5/30/91	5/30/91
Dilution Factor:	1	1

Parameter	ug/L	ug/L
Methylene Chloride	23 B	19
Chloroform	15	5 U

Surrogates - % recovery	QC LIMITS		
1,2-Dichloroethane-d4	76-114	114	102
Toluene-d8	88-110	100	100
4-Bromofluorobenzene	86-115	96	86

U - compound was not detected and is below the reported detection limit.

J - compound reported below detection limit, value is estimated.

B - found in associated method blank.

NET Pacific, Inc.
National Environmental Testing
San Diego Division

CH₂Cl₂ MTHCA SOPs
CHLORIDE
0.02 mg/kg
200 = 20 mg/kg

EXECUTIVE SUMMARY TABLE

Volatile Organics
Method 8240

Project Name: D.O.E - NORD DOOR
Batch No: VS093
Matrix: SOIL

Client Sample ID:	GS-1	GS-2	GS-4	GS-3	SS-1
NET Sample ID:	11019	11020	11021	11074	11075
Date Analyzed:	5/30/91	5/31/91	5/31/91	6/07/91	6/07/91
Dilution Factor:	1	1	1	2	5
Parameter	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry
Methylene Chloride	14 B	23 B	12 B	130 B	68 B
Acetone	130	75 J	48 J	295 U	758 U

5050
MTHCA 2007
0.02 mg/kg

Surrogates - % recovery	QCLIMITS					
1,2-Dichloroethane-d4	70-121	92	112	110	114	96
Toluene-d8	81-117	100	112	114	128 *	114
4-Bromofluorobenzene	74-121	94	100	118	78	76

U - compound was not detected and is below the reported detection limit.
J - compound reported below detection limit, value is estimated.
B - compound found in associated method blank.
* - value outside QC limits.

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

EXECUTIVE SUMMARY TABLE

Volatile Organics
 Method 8240

Project Name: D.O.E - NORD DOOR
 Batch No: VS093
 Matrix: SOIL

Client Sample ID:	SS-2	METHOD BLANK	METHOD BLANK	METHOD BLANK
NET Sample ID:	11076	VB MAY30	VB MAY31	VB JUN7
Date Analyzed:	6/07/91	5/30/91	5/31/91	6/07/91
Dilution Factor:	5	1	1	1

Parameter	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry
Methylene Chloride	82 B	8	8	7
Acetone	834 U	100 U	100 U	100 U

Surrogates -
 % recovery

	QC LIMITS				
1,2-Dichloroethane-d4	70-121	100	102	100	94
Toluene-d8	81-117	128 *	102	106	94
4-Bromofluorobenzene	74-121	68 *	104	108	90

U - compound was not detected and is below the reported detection limit.

J - compound reported below detection limit, value is estimated.

B - compound found in associated method blank.

* - value outside QC limits.

NET Pacific, Inc.
National Environmental Testing
San Diego Division

EXECUTIVE SUMMARY TABLE

Semivolatile Organics
Method 8270

Project Name: D.O.E - NORD DOOR
Batch No: SW483
Matrix: AQUEOUS

Client Sample ID:	EW	METHOD BLANK
NET Sample ID:	11022	MB483
Date Extracted:	5/28/91	5/28/91
Date Analyzed:	5/29/91	5/28/91
Dilution Factor:	1	1

Parameter	ug/L	ug/L
	NCD	NCD

Surrogates - % recovery	QC LIMITS		
Nitrobenzene-d5	35-114	69	70
2-Fluorobiphenyl	43-116	82	77
p-Terphenyl-d14	33-141	86	76
Phenol-d5	10-94	33	32
2-Fluorophenol	21-100	49	47
2,4,6-Tribromophenol	10-123	80	75

NCD - no compound detected.

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

EXECUTIVE SUMMARY TABLE

Semivolatile Organics
 Method 8270

Project Name: D.O.E - NORD DOOR
 Batch No: SS496
 Matrix: SOIL

Client Sample ID:	GS-1	GS-2	GS-4	METHOD BLANK
NET Sample ID:	11019	11020	11021	MB496
Date Extracted:	5/30/91	5/30/91	5/30/91	5/30/91
Date Analyzed:	5/31/91	5/31/91	5/31/91	5/31/91
Dilution Factor:	1	1	1	1

Parameter	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry
	NCD	NCD	NCD	NCD

Surrogates - % recovery	QCLIMITS				
Nitrobenzene-d5	35-114	81	79	75	75
2-Fluorobiphenyl	43-116	66	65	65	64
p-Terphenyl-d14	33-141	74	80	73	78
Phenol-d5	10-94	74	72	83	70
2-Fluorophenol	21-100	71	72	83	70
2,4,6-Tribromophenol	10-123	86	80	85	78

NCD - no compound detected.

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

EXECUTIVE SUMMARY TABLE

Semivolatile Organics
 Method 8270

Project Name: D.O.E - NORD DOOR
 Batch No: SS498
 Matrix: SOIL

Client Sample ID:	SS-1	SS-2	METHOD BLANK
NET Sample ID:	11075	11076	MB498
Date Extracted:	6/03/91	6/03/91	6/03/91
Date Analyzed:	6/04/91	6/05/91	6/04/91
Dilution Factor:	10	5	1

Parameter	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry
	NCD	NCD	NCD

Surrogates - % recovery	QC LIMITS			
Nitrobenzene-d5	35-114	0 *	33 *	59
2-Fluorobiphenyl	43-116	12 *	49	61
p-Terphenyl-d14	33-141	13 *	46	78
Phenol-d5	10-94	7 *	33	60
2-Fluorophenol	21-100	10 *	33	66
2,4,6-Tribromophenol	10-123	0 *	48	76

NCD - no compound detected.
 * - value outside of QC limits.

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

EXECUTIVE SUMMARY TABLE

Diesel
 Method 8015

Project Name: D.O.E - NORD DOOR
 Batch No: FS494

Client Sample ID:	GS-1	GS-2	GS-4	EW	Method Blank	Method Blank
NET Sample ID:	11019	11020	11021	11022	MB494	MB489
Date Extracted:	5/30/91	5/30/91	5/30/91	5/31/91	5/30/91	5/31/91
Date Analyzed:	6/03/91	6/03/91	6/03/91	6/03/91	6/03/91	6/03/91
Matrix:	Soil	Soil	Soil	Aqueous	Soil	Aqueous
Dilution Factor:	1	1	1		1	
Parameter	ug/Kg-dry	ug/Kg-dry	ug/Kg-dry	ug/L	ug/Kg-dry	ug/L
Diesel	ND	ND	ND	ND	ND	ND

Surrogates -
 % recovery

	QC LIMITS						
DNOP	20-150	160 *	140	200 *	140	150	140

ND - not detected
 * - outside of QC limits

NET Pacific, Inc.
 National Environmental Testing
 San Diego Division

EXECUTIVE SUMMARY TABLE

Diesel
 Method 8015

Project Name: D.O.E - NORD DOOR
 Batch No: FS516

Client Sample ID:	SS-1	SS-2	METHOD BLANK
NET Sample ID:	11075	11076	MB516
Date Extracted:	6/12/91	6/12/91	6/12/91
Date Analyzed:	6/14/91	6/14/91	6/14/91
Matrix:	SOIL	SOIL	SOIL
Dilution Factor:	1	1	1
Parameter	mg/Kg-Dry	mg/Kg-Dry	mg/Kg-Dry
Diesel	ND	ND	ND

Surrogates - % recovery	QC LIMITS			
Di-N-Octylphthalate	20-150	34	91	100

ND - not detected

VOLATILE ORGANICS

AQUEOUS

Method 8240

Batch No: VW094

Sample Data

NET PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Aqueous)

Client Name: NORD DOOR
Client Sample ID: EW
NET Sample ID: 11022
NET Batch #: VW094
% Moisture (Tot.): NA
Sample Volume (ml): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/30/91

Parameter	Analytical Results ug/L	Reporting Limit ug/L
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	23 B	5
Acetone	ND	100
Carbon disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene (Total)	ND	5
Chloroform	15	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	100
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
2-Chloroethyl vinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

Volatile Organics
Method 8240
(Aqueous)

Client Name: NORD DOOR
Client Sample ID: EW
NET Sample ID: 11022

Parameter	Analytical Results ug/L	Reporting Limit ug/L
Iodomethane	ND	5
Trichlorofluoromethane	ND	5
Dibromomethane	ND	5
1,2,3-Trichloropropane	ND	10
1,4-Dichlorobutane	ND	5
Ethyl Methacrylate	ND	10
Dichlorodifluoromethane	ND	30
Acrolein	ND	50
Acrylonitrile	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	57	114	76-114
Toluene-d8	50	50	100	88-110
4-Bromofluorobenzene	50	48	96	86-115

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

REV 03/90

Prepared by: 

Release Authorized by: 

VOLATILE ORGANICS

AQUEOUS

Method 8240

Batch No: VW094

Method Blank Data

NET PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Aqueous)

Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VB MAY30
NET Batch #: VW094
% Moisture (Tot.): NA
Sample Volume (ml): 5.00
Dilution Factor: 1.00

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 05/30/91

Parameter	Analytical Results ug/L	Reporting Limit ug/L
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	19	5
Acetone	ND	100
Carbon disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene (Total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	100
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
2-Chloroethyl vinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

Volatile Organics
Method 8240
(Aqueous)

Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBMAY30

Parameter	Analytical Results ug/L	Reporting Limit ug/L
Iodomethane	ND	5
Trichlorofluoromethane	ND	5
Dibromomethane	ND	5
1,2,3-Trichloropropane	ND	10
1,4-Dichlorobutane	ND	5
Ethyl Methacrylate	ND	10
Dichlorodifluoromethane	ND	30
Acrolein	ND	50
Acrylonitrile	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	51	102	76-114
Toluene-d8	50	50	100	88-110
4-Bromofluorobenzene	50	43	86	86-115

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

REV 03/90

Prepared by:



Release Authorized by:



VOLATILE ORGANICS

SOIL

Method 8240

Batch No: VS093

Sample Data

NET-PACIFIC INC..
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-1
NET Sample ID: 11019
NET Batch #: VS093
% Moisture (Tot.): 9.99
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/30/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	11
Bromomethane	ND	11
Vinyl chloride	ND	11
Chloroethane	ND	11
Methylene Chloride	14 B	6
Acetone	130	111
Carbon disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
trans-1,2-Dichloroethene (Total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	111
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
Vinyl acetate	ND	56
Bromodichloromethane	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
2-Chloroethyl vinyl ether	ND	11
Bromoform	ND	6
2-Hexanone	ND	56
4-Methyl-2-pentanone	ND	56
Tetrachloroethene	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethyl benzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: GS-1
NET Sample ID: 11019

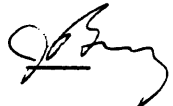
Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	6
Trichlorofluoromethane	ND	6
Dibromomethane	ND	6
1,2,3-Trichloropropane	ND	11
1,4-Dichlorobutane	ND	6
Ethyl Methacrylate	ND	11
Dichlorodifluoromethane	ND	33
Acrolein	ND	56
Acrylonitrile	ND	56

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	46	92	70-121
Toluene-d8	50	50	100	81-117
4-Bromofluorobenzene	50	47	94	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-2
NET Sample ID: 11020
NET Batch #: VS093
% Moisture (Tot.): 16.61
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	12
Bromomethane	ND	12
Vinyl chloride	ND	12
Chloroethane	ND	12
Methylene Chloride	23 B	6
Acetone	75 J	120
Carbon disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
trans-1,2-Dichloroethene (Total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	120
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
Vinyl acetate	ND	60
Bromodichloromethane	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
2-Chloroethyl vinyl ether	ND	12
Bromoform	ND	6
2-Hexanone	ND	60
4-Methyl-2-pentanone	ND	60
Tetrachloroethene	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethyl benzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-2
NET Sample ID: 11020

Parameter -----	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	6
Trichlorofluoromethane	ND	6
Dibromomethane	ND	6
1,2,3-Trichloropropane	ND	12
1,4-Dichlorobutane	ND	6
Ethyl Methacrylate	ND	12
Dichlorodifluoromethane	ND	36
Acrolein	ND	60
Acrylonitrile	ND	60

Surrogates -----	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	56	112	70-121
Toluene-d8	50	56	112	81-117
4-Bromofluorobenzene	50	50	100	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: *GL*
REV 03/90

Release Authorized by: *Sperry*

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-4
NET Sample ID: 11021
NET Batch #: VS093
% Moisture (Tot.): 10.20
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	11
Bromomethane	ND	11
Vinyl chloride	ND	11
Chloroethane	ND	11
Methylene Chloride	12 B	6
Acetone	48 J	111
Carbon disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
trans-1,2-Dichloroethene (Total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	111
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
Vinyl acetate	ND	56
Bromodichloromethane	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
2-Chloroethyl vinyl ether	ND	11
Bromoform	ND	6
2-Hexanone	ND	56
4-Methyl-2-pentanone	ND	56
Tetrachloroethene	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethyl benzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: GS-4
NET Sample ID: 11021


Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	6
Trichlorofluoromethane	ND	6
Dibromomethane	ND	6
1,2,3-Trichloropropane	ND	11
1,4-Dichlorobutane	ND	6
Ethyl Methacrylate	ND	11
Dichlorodifluoromethane	ND	33
Acrolein	ND	56
Acrylonitrile	ND	56

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	55	110	70-121
Toluene-d8	50	57	114	81-117
4-Bromofluorobenzene	50	59	118	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-3
NET Sample ID: 11074
NET Batch #: VS093
% Moisture (Tot.): 32.23
Sample Wt. (g): 5.00
Dilution Factor: 2.00

Date Sampled: 05/30/91
Date Received: 05/31/91
Date Analyzed: 06/07/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	30
Bromomethane	ND	30
Vinyl chloride	ND	30
Chloroethane	ND	30
Methylene Chloride	130 B	15
Acetone	ND	295
Carbon disulfide	ND	15
1,1-Dichloroethene	ND	15
1,1-Dichloroethane	ND	15
trans-1,2-Dichloroethene (Total)	ND	15
Chloroform	ND	15
1,2-Dichloroethane	ND	15
2-Butanone	ND	295
1,1,1-Trichloroethane	ND	15
Carbon tetrachloride	ND	15
Vinyl acetate	ND	148
Bromodichloromethane	ND	15
1,1,2,2-Tetrachloroethane	ND	15
1,2-Dichloropropane	ND	15
trans-1,3-Dichloropropene	ND	15
Trichloroethene	ND	15
Dibromochloromethane	ND	15
1,1,2-Trichloroethane	ND	15
Benzene	ND	15
cis-1,3-Dichloropropene	ND	15
2-Chloroethyl vinyl ether	ND	30
Bromoform	ND	15
2-Hexanone	ND	148
4-Methyl-2-pentanone	ND	148
Tetrachloroethene	ND	15
Toluene	90	15
Chlorobenzene	ND	15
Ethyl benzene	ND	15
Styrene	ND	15
Total Xylenes	54	15

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: GS-3
NET Sample ID: 11074

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	15
Trichlorofluoromethane	ND	15
Dibromomethane	ND	15
1,2,3-Trichloropropane	ND	30
1,4-Dichlorobutane	ND	15
Ethyl Methacrylate	ND	30
Dichlorodifluoromethane	ND	89
Acrolein	ND	148
Acrylonitrile	ND	148

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	57	114	70-121
Toluene-d8	50	64	128	81-117
4-Bromofluorobenzene	50	39	78	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: SS-1
NET Sample ID: 11075
NET Batch #: VS093
% Moisture (Tot.): 34.03
Sample Wt. (g): 5.00
Dilution Factor: 5.00

Date Sampled: 05/30/91
Date Received: 05/31/91
Date Analyzed: 06/07/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	76
Bromomethane	ND	76
Vinyl chloride	ND	76
Chloroethane	ND	76
Methylene Chloride	68 B	38
Acetone	ND	758
Carbon disulfide	ND	38
1,1-Dichloroethene	ND	38
1,1-Dichloroethane	ND	38
trans-1,2-Dichloroethene (Total)	ND	38
Chloroform	ND	38
1,2-Dichloroethane	ND	38
2-Butanone	ND	758
1,1,1-Trichloroethane	ND	38
Carbon tetrachloride	ND	38
Vinyl acetate	ND	379
Bromodichloromethane	ND	38
1,1,2,2-Tetrachloroethane	ND	38
1,2-Dichloropropane	ND	38
trans-1,3-Dichloropropene	ND	38
Trichloroethene	ND	38
Dibromochloromethane	ND	38
1,1,2-Trichloroethane	ND	38
Benzene	ND	38
cis-1,3-Dichloropropene	ND	38
2-Chloroethyl vinyl ether	ND	76
Bromoform	ND	38
2-Hexanone	ND	379
4-Methyl-2-pentanone	ND	379
Tetrachloroethene	ND	38
Toluene	ND	38
Chlorobenzene	ND	38
Ethyl benzene	ND	38
Styrene	ND	38
Total Xylenes	ND	38

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: SS-1
NET Sample ID: 11075

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	38
Trichlorofluoromethane	ND	38
Dibromomethane	ND	38
1,2,3-Trichloropropane	ND	76
1,4-Dichlorobutane	ND	38
Ethyl Methacrylate	ND	76
Dichlorodifluoromethane	ND	227
Acrolein	ND	379
Acrylonitrile	ND	379

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	48	96	70-121
Toluene-d8	50	57	114	81-117
4-Bromofluorobenzene	50	38	76	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: *gc*
REV 03/90

Release Authorized by: *gc*

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: SS-2
NET Sample ID: 11076
NET Batch #: VS093
% Moisture (Tot.): 40.04
Sample Wt. (g): 5.00
Dilution Factor: 5.00

Date Sampled: 05/30/91
Date Received: 05/31/91
Date Analyzed: 06/07/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	83
Bromomethane	ND	83
Vinyl chloride	ND	83
Chloroethane	ND	83
Methylene Chloride	82 B	42
Acetone	ND	834
Carbon disulfide	ND	42
1,1-Dichloroethene	ND	42
1,1-Dichloroethane	ND	42
trans-1,2-Dichloroethene (Total)	ND	42
Chloroform	ND	42
1,2-Dichloroethane	ND	42
2-Butanone	ND	834
1,1,1-Trichloroethane	ND	42
Carbon tetrachloride	ND	42
Vinyl acetate	ND	417
Bromodichloromethane	ND	42
1,1,2,2-Tetrachloroethane	ND	42
1,2-Dichloropropane	ND	42
trans-1,3-Dichloropropene	ND	42
Trichloroethene	ND	42
Dibromochloromethane	ND	42
1,1,2-Trichloroethane	ND	42
Benzene	ND	42
cis-1,3-Dichloropropene	ND	42
2-Chloroethyl vinyl ether	ND	83
Bromoform	ND	42
2-Hexanone	ND	417
4-Methyl-2-pentanone	ND	417
Tetrachloroethene	ND	42
Toluene	ND	42
Chlorobenzene	ND	42
Ethyl benzene	ND	42
Styrene	ND	42
Total Xylenes	ND	42

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: SS-2
NET Sample ID: 11076

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	42
Trichlorofluoromethane	ND	42
Dibromomethane	ND	42
1,2,3-Trichloropropane	ND	83
1,4-Dichlorobutane	ND	42
Ethyl Methacrylate	ND	83
Dichlorodifluoromethane	ND	250
Acrolein	ND	417
Acrylonitrile	ND	417

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	50	100	70-121
Toluene-d8	50	64	128	81-117
4-Bromofluorobenzene	50	34	68	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: *gr*
REV 03/90

Release Authorized by: *gr*

VOLATILE ORGANICS

SOIL

Method 8240

Batch No: VS093

Method Blank Data

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBMAY30
NET Batch #: VS093
% Moisture (Tot.): NA
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 05/30/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	8	5
Acetone	ND	100
Carbon disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene (Total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	100
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
2-Chloroethyl vinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

Volatile Organics
Method 8240
(Solid)

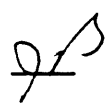
Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBMAY30

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	5
Trichlorofluoromethane	ND	5
Dibromomethane	ND	5
1,2,3-Trichloropropane	ND	10
1,4-Dichlorobutane	ND	5
Ethyl Methacrylate	ND	10
Dichlorodifluoromethane	ND	30
Acrolein	ND	50
Acrylonitrile	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	51	102	70-121
Toluene-d8	50	51	102	81-117
4-Bromofluorobenzene	50	52	104	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBMAY31
NET Batch #: VS093
% Moisture (Tot.): NA
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 05/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	8	5
Acetone	ND	100
Carbon disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene (Total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	100
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
2-Chloroethyl vinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBMAY31

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	5
Trichlorofluoromethane	ND	5
Dibromomethane	ND	5
1,2,3-Trichloropropane	ND	10
1,4-Dichlorobutane	ND	5
Ethyl Methacrylate	ND	10
Dichlorodifluoromethane	ND	30
Acrolein	ND	50
Acrylonitrile	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	52	104	70-121
Toluene-d8	50	53	106	81-117
4-Bromofluorobenzene	50	54	108	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBJUN7
NET Batch #: VS093
% Moisture (Tot.): NA
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 06/07/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	7 B	5
Acetone	ND	100
Carbon disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene (Total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	100
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
2-Chloroethyl vinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: VBJUN7

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	5
Trichlorofluoromethane	ND	5
Dibromomethane	ND	5
1,2,3-Trichloropropane	ND	10
1,4-Dichlorobutane	ND	5
Ethyl Methacrylate	ND	10
Dichlorodifluoromethane	ND	30
Acrolein	ND	50
Acrylonitrile	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	47	94	70-121
Toluene-d8	50	47	94	81-117
4-Bromofluorobenzene	50	45	90	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET PACIFIC INC.,
SAN DIEGO DIVISION

QUALITY CONTROL REPORT

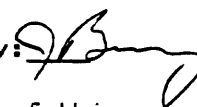
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
NET Batch #: VS093

NET Sample ID: 11021
Client Sample ID: GS-4

PARAMETERS	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% RECOVERY	CONC. MSD	% RECOVERY	% RPD	CONTROL LIMITS RPD RECOVERY
1,1-Dichloroethene	50.0	0.0	60.4	121%	51.9	104%	15%	22 59-172
Trichloroethene	50.0	0.0	52.8	106%	50.4	101%	5%	24 62-137
Benzene	50.0	0.0	56.9	114%	55.3	111%	3%	21 66-142
Toluene	50.0	0.0	56.2	112%	53.2	106%	6%	21 59-139
Chlorobenzene	50.0	0.0	56.5	113%	53.3	107%	6%	21 60-133

Release Authorized by: 

The accompanying narrative is an integral part of this report.

VOLATILE ORGANICS

SOIL

Method 8240

Batch No: VS093

QC Data

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: GS-4 MATR SP
NET Sample ID: 11021MS


Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	6
Trichlorofluoromethane	ND	6
Dibromomethane	ND	6
1,2,3-Trichloropropane	ND	11
1,4-Dichlorobutane	ND	6
Ethyl Methacrylate	ND	11
Dichlorodifluoromethane	ND	33
Acrolein	ND	56
Acrylonitrile	ND	56

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	54	108	70-121
Toluene-d8	50	57	114	81-117
4-Bromofluorobenzene	50	56	112	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-4 MATR SP
NET Sample ID: 11021MS
NET Batch #: VS093
% Moisture (Tot.): 10.20
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	11
Bromomethane	ND	11
Vinyl chloride	ND	11
Chloroethane	ND	11
Methylene Chloride	10 B	6
Acetone	54 J	111
Carbon disulfide	ND	6
1,1-Dichloroethene	60	6
1,1-Dichloroethane	ND	6
trans-1,2-Dichloroethene (Total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	111
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
Vinyl acetate	ND	56
Bromodichloromethane	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	53	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	57	6
cis-1,3-Dichloropropene	ND	6
2-Chloroethyl vinyl ether	ND	11
Bromoform	ND	6
2-Hexanone	ND	56
4-Methyl-2-pentanone	ND	56
Tetrachloroethene	ND	6
Toluene	56	6
Chlorobenzene	56	6
Ethyl benzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

NET-PACIFIC INC.,
SAN DIEGO DIV.

Volatile Organics
Method 8240
(Solid)

Client Name: NORD DOOR
Client Sample ID: GS-4 MATR SP DUP
NET Sample ID: 11021MSD
NET Batch #: VS093
% Moisture (Tot.): 10.20
Sample Wt. (g): 5.00
Dilution Factor: 1.00

Date Sampled: 05/24/91
Date Received: 05/25/91
Date Analyzed: 05/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Chloromethane	ND	11
Bromomethane	ND	11
Vinyl chloride	ND	11
Chloroethane	ND	11
Methylene Chloride	11 B	6
Acetone	60 J	111
Carbon disulfide	ND	6
1,1-Dichloroethene	52	6
1,1-Dichloroethane	ND	6
trans-1,2-Dichloroethene (Total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	111
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
Vinyl acetate	ND	56
Bromodichloromethane	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	50	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	55	6
cis-1,3-Dichloropropene	ND	6
2-Chloroethyl vinyl ether	ND	11
Bromoform	ND	6
2-Hexanone	ND	56
4-Methyl-2-pentanone	ND	56
Tetrachloroethene	ND	6
Toluene	53	6
Chlorobenzene	53	6
Ethyl benzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

Volatile Organics
Method 8240
(Solid)


Client Name: NORD DOOR
Client Sample ID: GS-4 MATR SP DUP
NET Sample ID: 11021MSD


Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Iodomethane	ND	6
Trichlorofluoromethane	ND	6
Dibromomethane	ND	6
1,2,3-Trichloropropane	ND	11
1,4-Dichlorobutane	ND	6
Ethyl Methacrylate	ND	11
Dichlorodifluoromethane	ND	33
Acrolein	ND	56
Acrylonitrile	ND	56

Surrogates	Spiked	Found	% Recovery	Limits
1,2-Dichloroethane-d4	50	54	108	70-121
Toluene-d8	50	54	108	81-117
4-Bromofluorobenzene	50	50	100	74-121

*ND=Compound of interest is not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by: 
REV 03/90

Release Authorized by: 

SEMIVOLATILE ORGANICS

AQUEOUS

Method 8270

Batch No: SW483

Sample Data

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR	Date Sampled: 05/24/91
Client Sample ID: EW	Date Received: 05/25/91
NET Sample ID: 11022	Date Extracted: 05/28/91
NET Project #: SW483	Date Analyzed: 05/29/91
% Moisture (Tot.): NA	
Sample Volume (ml): 400.00	
Dilution Factor: 1	
Final Extract Volume (ml): 1	

Parameter	Analytical Results ug/L	Reporting Limit ug/L
Phenol	ND	25
bis(2-Chloroethyl) ether	ND	25
2-Chlorophenol	ND	25
1,3-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
Benzyl Alcohol	ND	50
1,2-Dichlorobenzene	ND	25
2-Methylphenol	ND	25
bis(2-Chloroisopropyl) ether	ND	25
4-Methylphenol	ND	25
N-Nitroso-Di-N-propylamine	ND	25
Hexachloroethane	ND	25
Nitrobenzene	ND	25
Isophorone	ND	25
2-Nitrophenol	ND	25
2,4-Dimethylphenol	ND	25
Benzoic Acid	ND	130
bis(2-Chloroethoxy) methane	ND	25
2,4-Dichlorophenol	ND	25
1,2,4-Trichlorobenzene	ND	25
Naphthalene	ND	25
4-Chloroaniline	ND	50
Hexachlorobutadiene	ND	25
4-Chloro-3-methylphenol	ND	50
2-Methylnaphthalene	ND	25
Hexachlorocyclopentadiene	ND	25
2,4,6-Trichlorophenol	ND	25
2,4,5-Trichlorophenol	ND	25
2-Chloronaphthalene	ND	25
2-Nitroaniline	ND	130
Dimethyl phthalate	ND	25
Acenaphthylene	ND	25
3-Nitroaniline	ND	130
Acenaphthene	ND	25
2,4-Dinitrophenol	ND	130
4-Nitrophenol	ND	130
Dibenzofuran	ND	25
2,4-Dinitrotoluene	ND	25
2,6-Dinitrotoluene	ND	25
Diethylphthalate	ND	25

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR
Client Sample ID: EW
NET Sample ID: 11022

Parameter	Analytical Results ug/L	Reporting Limit ug/L
4-Chlorophenyl phenyl ether	ND	25
Fluorene	ND	25
4-Nitroaniline	ND	130
4,6-Dinitro-2-methylphenol	ND	130
N-Nitrosodiphenylamine	ND	25
4-Bromophenyl phenyl ether	ND	25
Hexachlorobenzene	ND	25
Pentachlorophenol - WOOD LGFE	ND	130
Phenanthrene	ND	25
Anthracene	ND	25
Di-n-butylphthalate	ND	25
Fluoranthene	ND	25
Pyrene	ND	25
Butyl benzyl phthalate	ND	25
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	25
bis(2-ethylhexyl)phthalate	ND	25
Chrysene	ND	25
Di-n-octyl phthalate	ND	25
Benzo(b)fluoranthene	ND	25
Benzo(k)fluoranthene	ND	25
Benzo(a)pyrene	ND	25
Indeno(1,2,3-cd)pyrene	ND	25
Dibenz(a,h)anthracene	ND	25
Benzo(g,h,i)perylene	ND	25
2-Picoline	ND	25
Methyl methanesulfonate	ND	25
Ethyl methanesulfonate	ND	25
Acetophenone	ND	25
N-Nitrosopiperidine	ND	25
Dimethylphenethylamine	ND	25
2,6-Dichlorophenol - BMA	ND	25
N-Nitrosodibutylamine	ND	25
1,2,4,5-Tetrachlorobenzene	ND	25
1-Chloronaphthalene	ND	25
Pentachlorobenzene	ND	25
1-Naphthylamine	ND	25
2-Naphthylamine	ND	25
Diphenylamine	ND	25
1,2-Diphenylhydrazine	ND	25
Phenacetin	ND	25
4-Aminobiphenyl	ND	25
Pronamide	ND	25

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR
Client Sample ID: EW
NET Sample ID: 11022

Parameter	Analytical Results ug/L	Reporting Limit ug/L
p-Dimethylaminoazobenzene	ND	25
7,12-Dimethylbenz(a)anthr	ND	25
3-Methylcholanthrene	ND	130

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	250	170	69	35-114
2-Fluorobiphenyl	250	210	82	43-116
p-Terphenyl-d14	250	210	86	33-141
Phenol-d5	500	160	33	10-94
2-Fluorophenol	500	240	49	21-100
2,4,6-Tribromophenol	500	400	80	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

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6-3-91

SEMIVOLATILE ORGANICS

AQUEOUS

Method 8270

Batch No: SW483

Method Blank Data

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB483
NET Project #: SW483
% Moisture (Tot.): NA
Sample Volume (ml): 1000.00
Dilution Factor: 1
Final Extract Volume (ml): 1

Date Sampled: NA
Date Received: NA
Date Extracted: 05/28/91
Date Analyzed: 05/28/91

Parameter -----	Analytical Results ug/L -----	Reporting Limit ug/L -----
Phenol	ND	10
bis(2-Chloroethyl) ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl Alcohol	ND	20
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-Di-N-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	10
Benzoic Acid	ND	50
bis(2-Chloroethoxy) methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	20
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	20
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethyl phthalate	ND	10
Acenaphthylene	ND	10
3-Nitroaniline	ND	50
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
2,6-Dinitrotoluene	ND	10
Diethylphthalate	ND	10

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB483

Parameter	Analytical Results ug/L	Reporting Limit ug/L
4-Chlorophenyl phenyl ether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
4,6-Dinitro-2-methylphenol	ND	50
N-Nitrosodiphenylamine	ND	10
4-Bromophenyl phenyl ether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	50
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butyl benzyl phthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
bis(2-ethylhexyl)phthalate	ND	10
Chrysene	ND	10
Di-n-octyl phthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10
2-Picoline	ND	10
Methyl methanesulfonate	ND	10
Ethyl methanesulfonate	ND	10
Acetophenone	ND	10
N-Nitrosopiperidine	ND	10
Dimethylphenethylamine	ND	10
2,6-Dichlorophenol	ND	10
N-Nitrosodibutylamine	ND	10
1,2,4,5-Tetrachlorobenzene	ND	10
1-Chloronaphthalene	ND	10
Pentachlorobenzene	ND	10
1-Naphthylamine	ND	10
2-Naphthylamine	ND	10
Diphenylamine	ND	10
1,2-Diphenylhydrazine	ND	10
Phenacetin	ND	10
4-Aminobiphenyl	ND	10
Pronamide	ND	10

Semi-Volatile Organics
NET Method 8270
(Aqueous)

Client Name: DOE-NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB483

Parameter	Analytical Results ug/L	Reporting Limit ug/L
p-Dimethylaminoazobenzene	ND	10
7,12-Dimethylbenz(a)anthr	ND	10
3-Methylcholanthrene	ND	50

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	100	70	70	35-114
2-Fluorobiphenyl	100	77	77	43-116
p-Terphenyl-d14	100	76	76	33-141
Phenol-d5	200	64	32	10-94
2-Fluorophenol	200	94	47	21-100
2,4,6-Tribromophenol	200	150	75	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

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6-3-91

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6-3-91

SEMIVOLATILE ORGANICS

SOIL

Method 8270

Batch No: SS496

Sample Data

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
 Client Sample ID: GS-1
 NET Sample ID: 11019
 NET Project #: SS496
 % Moisture (Tot.): 10
 Sample Weight (g): 30.36
 Dilution Factor: 1
 Final Extract Volume (ml): 1

Date Sampled: 5/24/91
 Date Received: 5/25/91
 Date Extracted: 5/30/91
 Date Analyzed: 5/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	370
bis(2-Chloroethyl) ether	ND	370
2-Chlorophenol	ND	370
1,3-Dichlorobenzene	ND	370
1,4-Dichlorobenzene	ND	370
Benzyl Alcohol	ND	730
1,2-Dichlorobenzene	ND	370
2-Methylphenol	ND	370
bis(2-Chloroisopropyl) ether	ND	370
4-Methylphenol	ND	370
N-Nitroso-Di-N-propylamine	ND	370
Hexachloroethane	ND	370
Nitrobenzene	ND	370
Isophorone	ND	370
2-Nitrophenol	ND	370
2,4-Dimethylphenol	ND	370
Benzoic Acid	ND	1800
bis(2-Chloroethoxy) methane	ND	370
2,4-Dichlorophenol	ND	370
1,2,4-Trichlorobenzene	ND	370
Naphthalene	ND	370
4-Chloroaniline	ND	730
Hexachlorobutadiene	ND	370
4-Chloro-3-methylphenol	ND	730
2-Methylnaphthalene	ND	370
Hexachlorocyclopentadiene	ND	370
2,4,6-Trichlorophenol	ND	370
2,4,5-Trichlorophenol	ND	370
2-Chloronaphthalene	ND	370
2-Nitroaniline	ND	1800
Dimethyl phthalate	ND	370
Acenaphthylene	ND	370
3-Nitroaniline	ND	1800
Acenaphthene	ND	370
2,4-Dinitrophenol	ND	1800
4-Nitrophenol	ND	1800
Dibenzofuran	ND	370
2,4-Dinitrotoluene	ND	370
2,6-Dinitrotoluene	ND	370
Diethylphthalate	ND	370

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-1
NET Sample ID: 11019

Parameter -----	Analytical Results ug/Kg-dry -----	Reporting Limit ug/Kg-dry -----
4-Chlorophenyl phenyl ether	ND	370
Fluorene	ND	370
4-Nitroaniline	ND	1800
4,6-Dinitro-2-methylphenol	ND	1800
N-Nitrosodiphenylamine	ND	370
4-Bromophenyl phenyl ether	ND	370
Hexachlorobenzene	ND	370
Pentachlorophenol <i>WOOD LIFE</i>	ND	1800
Phenanthrene	ND	370
Anthracene	ND	370
Di-n-butylphthalate	ND	370
Fluoranthene	ND	370
Pyrene	ND	370
Butyl benzyl phthalate	ND	370
3,3'-Dichlorobenzidine	ND	730
Benzo(a)anthracene	ND	370
bis(2-ethylhexyl)phthalate	ND	370
Chrysene	ND	370
Di-n-octyl phthalate	ND	370
Benzo(b)fluoranthene	ND	370
Benzo(k)fluoranthene	ND	370
Benzo(a)pyrene	ND	370
Indeno(1,2,3-cd)pyrene	ND	370
Dibenz(a,h)anthracene	ND	370
Benzo(g,h,i)perylene	ND	370
2-Picoline	ND	370
Methyl methanesulfonate	ND	370
Ethyl methanesulfonate	ND	370
Acetophenone	ND	370
N-Nitrosopiperidine	ND	370
Dimethylphenethylamine	ND	370
2,6-Dichlorophenol <i>BNA</i>	ND	370
N-Nitrosodibutylamine	ND	370
1,2,4,5-Tetrachlorobenzene	ND	370
1-Chloronaphthalene	ND	370
Pentachlorobenzene	ND	370
1-Naphthylamine	ND	370
2-Naphthylamine	ND	370
Diphenylamine	ND	370
1,2-Diphenylhydrazine	ND	370
Phenacetin	ND	370
4-Aminobiphenyl	ND	370
Pronamide	ND	370

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOGR
Client Sample ID: GS-1
NET Sample ID: 11019

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	370
7,12-Dimethylbenz(a)anthr	ND	370
3-Methylcholanthrene	ND	1800

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	3700	3000	81	35-114
2-Fluorobiphenyl	3700	2400	66	43-116
p-Terphenyl-d14	3700	2700	74	33-141
Phenol-d5	7300	5400	74	10-94
2-Fluorophenol	7300	5200	71	21-100
2,4,6-Tribromophenol	7300	6300	86	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by up

Released by Her

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-2
NET Sample ID: 11020
NET Project #: SS496
% Moisture (Tot.): 17
Sample Weight (g): 29.95
Dilution Factor: 1
Final Extract Volume (ml): 1

Date Sampled: 5/24/91
Date Received: 5/25/91
Date Extracted: 5/30/91
Date Analyzed: 5/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	400
bis(2-Chloroethyl) ether	ND	400
2-Chlorophenol	ND	400
1,3-Dichlorobenzene	ND	400
1,4-Dichlorobenzene	ND	400
Benzyl Alcohol	ND	800
1,2-Dichlorobenzene	ND	400
2-Methylphenol	ND	400
bis(2-Chloroisopropyl) ether	ND	400
4-Methylphenol	ND	400
N-Nitroso-Di-N-propylamine	ND	400
Hexachloroethane	ND	400
Nitrobenzene	ND	400
Isophorone	ND	400
2-Nitrophenol	ND	400
2,4-Dimethylphenol	ND	400
Benzoic Acid	ND	2000
bis(2-Chloroethoxy) methane	ND	400
2,4-Dichlorophenol	ND	400
1,2,4-Trichlorobenzene	ND	400
Naphthalene	ND	400
4-Chloroaniline	ND	800
Hexachlorobutadiene	ND	400
4-Chloro-3-methylphenol	ND	800
2-Methylnaphthalene	ND	400
Hexachlorocyclopentadiene	ND	400
2,4,6-Trichlorophenol	ND	400
2,4,5-Trichlorophenol	ND	400
2-Chloronaphthalene	ND	400
2-Nitroaniline	ND	2000
Dimethyl phthalate	ND	400
Acenaphthylene	ND	400
3-Nitroaniline	ND	2000
Acenaphthene	ND	400
2,4-Dinitrophenol	ND	2000
4-Nitrophenol	ND	2000
Dibenzofuran	ND	400
2,4-Dinitrotoluene	ND	400
2,6-Dinitrotoluene	ND	400
Diethylphthalate	ND	400

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-2
NET Sample ID: 11020

Parameter -----	Analytical Results ug/Kg-dry -----	Reporting Limit ug/Kg-dry -----
4-Chlorophenyl phenyl ether	ND	400
Fluorene	ND	400
4-Nitroaniline	ND	2000
4,6-Dinitro-2-methylphenol	ND	2000
N-Nitrosodiphenylamine	ND	400
4-Bromophenyl phenyl ether	ND	400
Hexachlorobenzene	ND	400
Pentachlorophenol	ND	2000
Phenanthrene	ND	400
Anthracene	ND	400
Di-n-butylphthalate	ND	400
Fluoranthene	ND	400
Pyrene	ND	400
Butyl benzyl phthalate	ND	400
3,3'-Dichlorobenzidine	ND	800
Benzo(a)anthracene	ND	400
bis(2-ethylhexyl)phthalate	ND	400
Chrysene	ND	400
Di-n-octyl phthalate	ND	400
Benzo(b)fluoranthene	ND	400
Benzo(k)fluoranthene	ND	400
Benzo(a)pyrene	ND	400
Indeno(1,2,3-cd)pyrene	ND	400
Dibenz(a,h)anthracene	ND	400
Benzo(g,h,i)perylene	ND	400
2-Picoline	ND	400
Methyl methanesulfonate	ND	400
Ethyl methanesulfonate	ND	400
Acetophenone	ND	400
N-Nitrosopiperidine	ND	400
Dimethylphenethylamine	ND	400
2,6-Dichlorophenol	ND	400
N-Nitrosodibutylamine	ND	400
1,2,4,5-Tetrachlorobenzene	ND	400
1-Chloronaphthalene	ND	400
Pentachlorobenzene	ND	400
1-Naphthylamine	ND	400
2-Naphthylamine	ND	400
Diphenylamine	ND	400
1,2-Diphenylhydrazine	ND	400
Phenacetin	ND	400
4-Aminobiphenyl	ND	400
Pronamide	ND	400

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-2
NET Sample ID: 11020

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	400
7,12-Dimethylbenz(a)anthr	ND	400
3-Methylcholanthrene	ND	2000

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	4000	3200	79	35-114
2-Fluorobiphenyl	4000	2600	65	43-116
p-Terphenyl-d14	4000	3200	80	33-141
Phenol-d5	8000	5800	72	10-94
2-Fluorophenol	8000	5800	72	21-100
2,4,6-Tribromophenol	8000	6500	80	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by af

Released by SW

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
 Client Sample ID: GS-4
 NET Sample ID: 11021
 NET Project #: SS496
 % Moisture (Tot.): 10
 Sample Weight (g): 30.30
 Dilution Factor: 1
 Final Extract Volume (ml): 1

Date Sampled: 5/24/91
 Date Received: 5/25/91
 Date Extracted: 5/30/91
 Date Analyzed: 5/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	370
bis(2-Chloroethyl) ether	ND	370
2-Chlorophenol	ND	370
1,3-Dichlorobenzene	ND	370
1,4-Dichlorobenzene	ND	370
Benzyl Alcohol	ND	730
1,2-Dichlorobenzene	ND	370
2-Methylphenol	ND	370
bis(2-Chloroisopropyl) ether	ND	370
4-Methylphenol	ND	370
N-Nitroso-Di-N-propylamine	ND	370
Hexachloroethane	ND	370
Nitrobenzene	ND	370
Isophorone	ND	370
2-Nitrophenol	ND	370
2,4-Dimethylphenol	ND	370
Benzoic Acid	ND	1800
bis(2-Chloroethoxy) methane	ND	370
2,4-Dichlorophenol	ND	370
1,2,4-Trichlorobenzene	ND	370
Naphthalene	ND	370
4-Chloroaniline	ND	730
Hexachlorobutadiene	ND	370
4-Chloro-3-methylphenol	ND	730
2-Methylnaphthalene	ND	370
Hexachlorocyclopentadiene	ND	370
2,4,6-Trichlorophenol	ND	370
2,4,5-Trichlorophenol	ND	370
2-Chloronaphthalene	ND	370
2-Nitroaniline	ND	1800
Dimethyl phthalate	ND	370
Acenaphthylene	ND	370
3-Nitroaniline	ND	1800
Acenaphthene	ND	370
2,4-Dinitrophenol	ND	1800
4-Nitrophenol	ND	1800
Dibenzofuran	ND	370
2,4-Dinitrotoluene	ND	370
2,6-Dinitrotoluene	ND	370
Diethylphthalate	ND	370

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-4
NET Sample ID: 11021

Parameter -----	Analytical Results ug/Kg-dry -----	Reporting Limit ug/Kg-dry -----
4-Chlorophenyl phenyl ether	ND	370
Fluorene	ND	370
4-Nitroaniline	ND	1800
4,6-Dinitro-2-methylphenol	ND	1800
N-Nitrosodiphenylamine	ND	370
4-Bromophenyl phenyl ether	ND	370
Hexachlorobenzene	ND	370
Pentachlorophenol	ND	1800
Phenanthrene	ND	370
Anthracene	ND	370
Di-n-butylphthalate	ND	370
Fluoranthene	ND	370
Pyrene	ND	370
Butyl benzyl phthalate	ND	370
3,3'-Dichlorobenzidine	ND	730
Benzo(a)anthracene	ND	370
bis(2-ethylhexyl)phthalate	ND	370
Chrysene	ND	370
Di-n-octyl phthalate	ND	370
Benzo(b)fluoranthene	ND	370
Benzo(k)fluoranthene	ND	370
Benzo(a)pyrene	ND	370
Indeno(1,2,3-cd)pyrene	ND	370
Dibenz(a,h)anthracene	ND	370
Benzo(g,h,i)perylene	ND	370
2-Picoline	ND	370
Methyl methanesulfonate	ND	370
Ethyl methanesulfonate	ND	370
Acetophenone	ND	370
N-Nitrosopiperidine	ND	370
Dimethylphenethylamine	ND	370
2,6-Dichlorophenol	ND	370
N-Nitrosodibutylamine	ND	370
1,2,4,5-Tetrachlorobenzene	ND	370
1-Chloronaphthalene	ND	370
Pentachlorobenzene	ND	370
1-Naphthylamine	ND	370
2-Naphthylamine	ND	370
Diphenylamine	ND	370
1,2-Diphenylhydrazine	ND	370
Phenacetin	ND	370
4-Aminobiphenyl	ND	370
Pronamide	ND	370

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: GS-4
NET Sample ID: 11021

Parameter -----	Analytical Results ug/Kg-dry -----	Reporting Limit ug/Kg-dry -----
p-Dimethylaminoazobenzene	ND	370
7,12-Dimethylbenz(a)anthr	ND	370
3-Methylcholanthrene	ND	1800

Surrogates -----	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	3700	2700	75	35-114
2-Fluorobiphenyl	3700	2400	65	43-116
p-Terphenyl-d14	3700	2700	73	33-141
Phenol-d5	7300	6100	83	10-94
2-Fluorophenol	7300	6100	83	21-100
2,4,6-Tribromophenol	7300	6200	85	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by up

Released by hcn

SEMIVOLATILE ORGANICS

SOIL

Method 8270

Batch No: SS496

Method Blank Data

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
 Client Sample ID: METHOD BLANK
 NET Sample ID: MB496
 NET Project #: SS496
 % Moisture (Tot.): NA
 Sample Weight (g): 30.14
 Dilution Factor: 1
 Final Extract Volume (ml): 1

Date Sampled: NA
 Date Received: NA
 Date Extracted: 5/30/91
 Date Analyzed: 5/31/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	330
bis(2-Chloroethyl) ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl Alcohol	ND	660
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-Di-N-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	330
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1700
bis(2-Chloroethoxy) methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	660
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	660
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700
Dimethyl phthalate	ND	330
Acenaphthylene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
2,6-Dinitrotoluene	ND	330
Diethylphthalate	ND	330

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB496

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
4-Chlorophenyl phenyl ether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
N-Nitrosodiphenylamine	ND	330
4-Bromophenyl phenyl ether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butyl benzyl phthalate	ND	330
3,3'-Dichlorobenzidine	ND	660
Benzo(a)anthracene	ND	330
bis(2-ethylhexyl)phthalate	ND	330
Chrysene	ND	330
Di-n-octyl phthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330
2-Picoline	ND	330
Methyl methanesulfonate	ND	330
Ethyl methanesulfonate	ND	330
Acetophenone	ND	330
N-Nitrosopiperidine	ND	330
Dimethylphenethylamine	ND	330
2,6-Dichlorophenol	ND	330
N-Nitrosodibutylamine	ND	330
1,2,4,5-Tetrachlorobenzene	ND	330
1-Chloronaphthalene	ND	330
Pentachlorobenzene	ND	330
1-Naphthylamine	ND	330
2-Naphthylamine	ND	330
Diphenylamine	ND	330
1,2-Diphenylhydrazine	ND	330
Phenacetin	ND	330
4-Aminobiphenyl	ND	330
Pronamide	ND	330

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB496

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	330
7,12-Dimethylbenz(a)anthr	ND	330
3-Methylcholanthrene	ND	1700

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	3300	2500	75	35-114
2-Fluorobiphenyl	3300	2100	64	43-116
p-Terphenyl-d14	3300	2600	78	33-141
Phenol-d5	6600	4600	70	10-94
2-Fluorophenol	6600	4700	70	21-100
2,4,6-Tribromophenol	6600	5200	78	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by up

Released by Allyson

SEMIVOLATILE ORGANICS

SOIL

Method 8270

Batch No: SS496

QC Data

QUALITY CONTROL REPORT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Semi-volatile Organics
NET Method 8270
(Solid)

Client Name: DOE-NORD DOOR
NET Project: SS496

NET Sample ID: 11019
Client Sample ID: GS-1

PARAMETERS	CONC. SPIKE ADDED (ug/ml)	SAMPLE RESULT	CONC. MS	% RECOVERY	CONC. MSD	% RECOVERY	% RPD	CONTROL LIMITS RPD RECOVERY	
Phenol	200.0	0.0	103.7	52%	100.8	50%	3%	35	26-90
2-Chlorophenol	200.0	0.0	98.1	49%	98.8	49%	1%	50	25-102
1,4-Dichlorobenzene	100.0	0.0	59.8	60%	58.8	59%	2%	27	28-104
N-Nitroso-di-n-prop	100.0	0.0	82.9	83%	78.7	79%	5%	38	41-126
1,2,4-Trichlorobenz	100.0	0.0	78.1	78%	73.8	74%	6%	23	38-107
4-Chloro-3-methylph	200.0	0.0	148.5	74%	135.5	68%	9%	33	26-103
Acenaphthene	100.0	0.0	58.0	58%	59.0	59%	2%	19	31-137
4-Nitrophenol	200.0	0.0	119.1	60%	119.5	60%	0%	50	11-114
2,4-Dinitrotoluene	100.0	0.0	70.1	70%	70.9	71%	1%	47	28-89
Pentachlorophenol	200.0	0.0	184.2	92%	169.8	85%	8%	47	17-109
Pyrene	100.0	0.0	79.1	79%	69.9	70%	12%	36	35-142

Release Authorized by: *SM*

4/6-4-91

The accompanying narrative is an integral part of this report.

SEMIVOLATILE ORGANICS

SOIL

Method 8270

Batch No: SS498

Sample Data

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-1
NET Sample ID: 11075
NET Project #: SS498
% Moisture (Tot.): 34
Sample Weight (g): 30.76
Dilution Factor: 10
Final Extract Volume (ml): 1

Date Sampled: 5/30/91
Date Received: 5/31/91
Date Extracted: 6/03/91
Date Analyzed: 6/04/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	4900
bis(2-Chloroethyl) ether	ND	4900
2-Chlorophenol	ND	4900
1,3-Dichlorobenzene	ND	4900
1,4-Dichlorobenzene	ND	4900
Benzyl Alcohol	ND	9900
1,2-Dichlorobenzene	ND	4900
2-Methylphenol	ND	4900
bis(2-Chloroisopropyl) ether	ND	4900
4-Methylphenol	ND	4900
N-Nitroso-Di-N-propylamine	ND	4900
Hexachloroethane	ND	4900
Nitrobenzene	ND	4900
Isophorone	ND	4900
2-Nitrophenol	ND	4900
2,4-Dimethylphenol	ND	4900
Benzoic Acid	ND	25000
bis(2-Chloroethoxy) methane	ND	4900
2,4-Dichlorophenol	ND	4900
1,2,4-Trichlorobenzene	ND	4900
Naphthalene	ND	4900
4-Chloroaniline	ND	9900
Hexachlorobutadiene	ND	4900
4-Chloro-3-methylphenol	ND	9900
2-Methylnaphthalene	ND	4900
Hexachlorocyclopentadiene	ND	4900
2,4,6-Trichlorophenol	ND	4900
2,4,5-Trichlorophenol	ND	4900
2-Chloronaphthalene	ND	4900
2-Nitroaniline	ND	25000
Dimethyl phthalate	ND	4900
Acenaphthylene	ND	4900
3-Nitroaniline	ND	25000
Acenaphthene	ND	4900
2,4-Dinitrophenol	ND	25000
4-Nitrophenol	ND	25000
Dibenzofuran	ND	4900
2,4-Dinitrotoluene	ND	4900
2,6-Dinitrotoluene	ND	4900
Diethylphthalate	ND	4900

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-1
NET Sample ID: 11075

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
4-Chlorophenyl phenyl ether	ND	4900
Fluorene	ND	4900
4-Nitroaniline	ND	25000
4,6-Dinitro-2-methylphenol	ND	25000
N-Nitrosodiphenylamine	ND	4900
4-Bromophenyl phenyl ether	ND	4900
Hexachlorobenzene	ND	4900
Pentachlorophenol	ND	25000
Phenanthrene	ND	4900
Anthracene	ND	4900
Di-n-butylphthalate	ND	4900
Fluoranthene	ND	4900
Pyrene	ND	4900
Butyl benzyl phthalate	ND	4900
3,3'-Dichlorobenzidine	ND	9900
Benzo(a)anthracene	ND	4900
bis(2-ethylhexyl)phthalate	ND	4900
Chrysene	ND	4900
Di-n-octyl phthalate	ND	4900
Benzo(b)fluoranthene	ND	4900
Benzo(k)fluoranthene	ND	4900
Benzo(a)pyrene	ND	4900
Indeno(1,2,3-cd)pyrene	ND	4900
Dibenz(a,h)anthracene	ND	4900
Benzo(g,h,i)perylene	ND	4900
2-Picoline	ND	4900
Methyl methanesulfonate	ND	4900
Ethyl methanesulfonate	ND	4900
Acetophenone	ND	4900
N-Nitrosopiperidine	ND	4900
Dimethylphenethylamine	ND	4900
2,6-Dichlorophenol	ND	4900
N-Nitrosodibutylamine	ND	4900
1,2,4,5-Tetrachlorobenzene	ND	4900
1-Chloronaphthalene	ND	4900
Pentachlorobenzene	ND	4900
1-Naphthylamine	ND	4900
2-Naphthylamine	ND	4900
Diphenylamine	ND	4900
1,2-Diphenylhydrazine	ND	4900
Phenacetin	ND	4900
4-Aminobiphenyl	ND	4900
Pronamide	ND	4900

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-1
NET Sample ID: 11075

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	4900
7,12-Dimethylbenz(a)anthr	ND	4900
3-Methylcholanthrene	ND	25000

Surrogates	Spiked	Found	% Recovery [⊗]	Limits
Nitrobenzene-d5	4900	ND	0	35-114
2-Fluorobiphenyl	4900	600	12	43-116
p-Terphenyl-d14	4900	640	13	33-141
Phenol-d5	9900	720	7	10-94
2-Fluorophenol	9900	980	10	21-100
2,4,6-Tribromophenol	9900	ND	0	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

⊗ SAMPLE DILUTION 1/10, SURROGATES BELOW RECOMMENDED LIMITS.

Prepared by H. BIESIADA

Released by Sally C. n
6-12-91

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-2
NET Sample ID: 11076
NET Project #: SS498
% Moisture (Tot.): 40
Sample Weight (g): 30.64
Dilution Factor: 5
Final Extract Volume (ml): 1

Date Sampled: 5/30/91
Date Received: 5/31/91
Date Extracted: 6/03/91
Date Analyzed: 6/05/91

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
Phenol	ND	2700
bis(2-Chloroethyl) ether	ND	2700
2-Chlorophenol	ND	2700
1,3-Dichlorobenzene	ND	2700
1,4-Dichlorobenzene	ND	2700
Benzyl Alcohol	ND	5400
1,2-Dichlorobenzene	ND	2700
2-Methylphenol	ND	2700
bis(2-Chloroisopropyl) ether	ND	2700
4-Methylphenol	ND	2700
N-Nitroso-Di-N-propylamine	ND	2700
Hexachloroethane	ND	2700
Nitrobenzene	ND	2700
Isophorone	ND	2700
2-Nitrophenol	ND	2700
2,4-Dimethylphenol	ND	2700
Benzoic Acid	ND	14000
bis(2-Chloroethoxy) methane	ND	2700
2,4-Dichlorophenol	ND	2700
1,2,4-Trichlorobenzene	ND	2700
Naphthalene	ND	2700
4-Chloroaniline	ND	5400
Hexachlorobutadiene	ND	2700
4-Chloro-3-methylphenol	ND	5400
2-Methylnaphthalene	ND	2700
Hexachlorocyclopentadiene	ND	2700
2,4,6-Trichlorophenol	ND	2700
2,4,5-Trichlorophenol	ND	2700
2-Chloronaphthalene	ND	2700
2-Nitroaniline	ND	14000
Dimethyl phthalate	ND	2700
Acenaphthylene	ND	2700
3-Nitroaniline	ND	14000
Acenaphthene	ND	2700
2,4-Dinitrophenol	ND	14000
4-Nitrophenol	ND	14000
Dibenzofuran	ND	2700
2,4-Dinitrotoluene	ND	2700
2,6-Dinitrotoluene	ND	2700
Diethylphthalate	ND	2700

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-2
NET Sample ID: 11076

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
4-Chlorophenyl phenyl ether	ND	2700
Fluorene	ND	2700
4-Nitroaniline	ND	14000
4,6-Dinitro-2-methylphenol	ND	14000
N-Nitrosodiphenylamine	ND	2700
4-Bromophenyl phenyl ether	ND	2700
Hexachlorobenzene	ND	2700
Pentachlorophenol	ND	14000
Phenanthrene	ND	2700
Anthracene	ND	2700
Di-n-butylphthalate	ND	2700
Fluoranthene	ND	2700
Pyrene	ND	2700
Butyl benzyl phthalate	ND	2700
3,3'-Dichlorobenzidine	ND	5400
Benzo(a)anthracene	ND	2700
bis(2-ethylhexyl)phthalate	ND	2700
Chrysene	ND	2700
Di-n-octyl phthalate	ND	2700
Benzo(b)fluoranthene	ND	2700
Benzo(k)fluoranthene	ND	2700
Benzo(a)pyrene	ND	2700
Indeno(1,2,3-cd)pyrene	ND	2700
Dibenz(a,h)anthracene	ND	2700
Benzo(g,h,i)perylene	ND	2700
2-Picoline	ND	2700
Methyl methanesulfonate	ND	2700
Ethyl methanesulfonate	ND	2700
Acetophenone	ND	2700
N-Nitrosopiperidine	ND	2700
Dimethylphenethylamine	ND	2700
2,6-Dichlorophenol	ND	2700
N-Nitrosodibutylamine	ND	2700
1,2,4,5-Tetrachlorobenzene	ND	2700
1-Chloronaphthalene	ND	2700
Pentachlorobenzene	ND	2700
1-Naphthylamine	ND	2700
2-Naphthylamine	ND	2700
Diphenylamine	ND	2700
1,2-Diphenylhydrazine	ND	2700
Phenacetin	ND	2700
4-Aminobiphenyl	ND	2700
Pronamide	ND	2700

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: SS-2
NET Sample ID: 11076

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	2700
7,12-Dimethylbenz(a)anthr	ND	2700
3-Methylcholanthrene	ND	14000

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	5400	1800	33	35-114
2-Fluorobiphenyl	5400	2700	49	43-116
p-Terphenyl-d14	5400	2500	46	33-141
Phenol-d5	11000	3600	33	10-94
2-Fluorophenol	11000	3600	33	21-100
2,4,6-Tribromophenol	11000	5300	48	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by H. BIESIADA

Released by S. J. M.
6-12-91

SEMIVOLATILE ORGANICS

SOIL

Method 8270

Batch No: SS498

Method Blank Data

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name:	NORD-DOOR	Date Sampled:	NA
Client Sample ID:	METHOD BLANK	Date Received:	NA
NET Sample ID:	MB498	Date Extracted:	6/03/91
NET Project #:	SS498	Date Analyzed:	6/04/91
% Moisture (Tot.):	0		
Sample Weight (g):	29.96		
Dilution Factor:	1		
Final Extract Volume (ml):	1		

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
-----	-----	-----
Phenol	ND	330
bis(2-Chloroethyl) ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl Alcohol	ND	670
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-Di-N-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	330
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1700
bis(2-Chloroethoxy) methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	670
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	670
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700
Dimethyl phthalate	ND	330
Acenaphthylene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
2,6-Dinitrotoluene	ND	330
Diethylphthalate	ND	330

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB498

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
4-Chlorophenyl phenyl ether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
N-Nitrosodiphenylamine	ND	330
4-Bromophenyl phenyl ether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butyl benzyl phthalate	ND	330
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	330
bis(2-ethylhexyl)phthalate	ND	330
Chrysene	ND	330
Di-n-octyl phthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330
2-Picoline	ND	330
Methyl methanesulfonate	ND	330
Ethyl methanesulfonate	ND	330
Acetophenone	ND	330
N-Nitrosopiperidine	ND	330
Dimethylphenethylamine	ND	330
2,6-Dichlorophenol	ND	330
N-Nitrosodibutylamine	ND	330
1,2,4,5-Tetrachlorobenzene	ND	330
1-Chloronaphthalene	ND	330
Pentachlorobenzene	ND	330
1-Naphthylamine	ND	330
2-Naphthylamine	ND	330
Diphenylamine	ND	330
1,2-Diphenylhydrazine	ND	330
Phenacetin	ND	330
4-Aminobiphenyl	ND	330
Pronamide	ND	330

Semi-Volatile Organics
NET Method 8270
(Solid)

Client Name: NORD-DOOR
Client Sample ID: METHOD BLANK
NET Sample ID: MB498

Parameter	Analytical Results ug/Kg-dry	Reporting Limit ug/Kg-dry
p-Dimethylaminoazobenzene	ND	330
7,12-Dimethylbenz(a)anthr	ND	330
3-Methylcholanthrene	ND	1700

Surrogates	Spiked	Found	% Recovery	Limits
Nitrobenzene-d5	3300	2000	59	35-114
2-Fluorobiphenyl	3300	2000	61	43-116
p-Terphenyl-d14	3300	2600	78	33-141
Phenol-d5	6700	4000	60	10-94
2-Fluorophenol	6700	4400	66	21-100
2,4,6-Tribromophenol	6700	5100	76	10-123

*ND=Compound of interest not detected in sample.

**J=Value is an estimate because it is less than the method quantitation reporting limit.

Prepared by H. BIESIADA

Released by *Ally M.*

6-12-91

<i>DIESEL</i>
<i>SOIL/AQUEOUS</i>
<i>Method 8015</i>
<i>Batch No: FS494</i>

Sample Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: GS-1

11019

Project Name: NOORDOOR

File: G02U19

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 11.5 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 90.0%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	G
	DIESEL	19000.00	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	G
DNOP	100	164	20- 150	160	*

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8015

NET LIMS NO.

Client Sample ID: GS-2

11020

Project Name: NOORDOOR

File: G02U20

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 10.3 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 83.4%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	Q
	DIESEL	23000.00	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DNOP	100	142	20- 150	140	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: GS-4

11021

Project Name: NOORDOOR

File: Q02U21

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 10.2 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 89.8%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	Q
	DIESEL	22000.00	U

SURROGATE DATA	SPIKED FOUND	GC LIMITS(%)	RECOVERY(%)	Q
DNOP	100 205	20- 150	200	*

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8015

NET LIMS NO.

Client Sample ID: LAB CONTROL SPIKE

11022

Project Name: NOORDOOR

File: Q02U9

BatchNo: FS494

Project No: EW

Matrix: WATER

Date Sampled: 05/24/91

Sample wt/vol: 30 (g/mL) ML

Date Received: 05/25/91

Final vol (mL): 3

Date Extracted: 05/31/91

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS	ug/L	Q
	DIESEL		2000.00	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DNOP	100	135	20- 150	140	

FORM I

1/87 Mod.

<i>DIESEL</i>
<i>SOIL/AQUEOUS</i>
<i>Method 8015</i>
<i>Batch No: FS494</i>

Method Blank Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID:

MB494

Project Name: NOORDOOR

File: Q02U17

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 10.2 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 100%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	Q
	DIESEL	20000.00	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DNOP	100	148	20- 150	150	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: METHOD BLANK

MB489

Project Name: NOORDOOR

File: Q02U7

BatchNo: FS494

Project No:

Matrix: WATER

Date Sampled: 05/24/91

Sample wt/vol: 30 (g/mL) ML

Date Received: 05/25/91

Final vol (mL): 3ML

Date Extracted: 05/31/91

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS	ug/L	Q
	DIESEL		2000.00	U

SURROGATE DATA	SPIKED	FOUND	GC LIMITS(%)	RECOVERY(%)	Q
DNOP	100	139	20- 150	140	

FORM I

1/87 Mod.

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

FUEL HYDROCARBONS
Method 3015 Mod
(Solid)

Client Name: SCE

NET Sample ID: 11019

Client Sample ID: 68-1

PARAMETERS	CONC. SPIKE ADDED(ug/Kg)	SAMPLE RESULT	CONC. MS	% RECOVERY	CONC. SPIKE ADDED(ug/Kg)	CONC. MSD	% RECOVERY	RPD	CONTROL LIMITS RECOVERY
DIESEL	220.00	0.0	300.00	13%	220.00	330.00	150%	10%	20-150

COMMENTS:

Prepared by: AMK

Release Authorized by: VF

The accompanying narrative is an integral part of this report.

<i>DIESEL</i>
<i>SOIL/AQUEOUS</i>
<i>Method 8015</i>
<i>Batch No: FS494</i>

QC Data

Client Name-----DOE

NET Sample ID:---11019

Client Sample ID:--XGS-1

Matrix: SOLID

SOLID SAMPLE INFO	NON SPIKED SAMPLE	MAT SPK SAMPLE	MS DUP SAMPLE
SAMPLE WGT(g)----->	11.5	10.3	10.2
% DRY----->	90.0	90.0	90.0
SPLITS (ML)----->	10.0	10.0	10.0
DILUTION----->	1.0	1.0	1.0

SPIKED COMPOUNDS	SPIKED STD CONC(UG/ML)	VOLUME SPIKED(ML)
DIESEL----->	4,100.0	1 0.50

COMPOUNDS	SAMPLE RESULTS (UG/ML)	MAT SPK SAMPLE (UG/ML)	MS DUP SAMPLE (UG/ML)
DIESEL----->	0.00	296.00	309.00

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8015

NET LIMS NO.

Client Sample ID: GS-1

11019MS

Project Name: NOORDOOR

File: Q02U22

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 10.6 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 90.0%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	G
	DIESEL	300000.00	

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	G
DNOP	100	134	20- 150	130	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: GS-1

11019MSD

Project Name: NOORDOOR

File: G02U23

BatchNo: FS494

Project No:

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 10.5 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/30/91

% Dry: 90.0%

Date Analyzed (P): 06/03/91

Dilution Factor: 1

Date Analyzed (S):

CAS NUMBER	COMPOUND NAME	UNITS ug/Kg	Q
	DIESEL	330000.00	

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DNOP	100	135	20- 150	140	

FORM I

1/87 Mod.

DIESEL

SOIL

Method 8015

Batch No: FS516

Sample Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: CS-1

11075

Project Name: DOE/NOOR 000R

File: Q12U24

CatchNo: FS515

Project No: N/A

Matrix: SOIL

Date Sampled: 05/30/91

Sample wt/vol: 10.8 (g/mL) G

Date Received: 05/31/91

Final vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 66.0%

Date Analyzed (P): 06/14/91

Dilution Factor: 1

Date Analyzed (S): 06/14/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	10.0	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DI-N-OCTYLPHTHALATE	100	34.3	20- 150	34.0	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 0015

NET LIMS NO.

Client Sample ID: 00-2

11076

Project Name: DOE/NOOR DOOR

File: 012026

BatchNo: FS515

Project No: N/A

Matrix: SOIL

Date Sampled: 05/30/91

Sample wt/vol: 10.3 (g/mL) G

Date Received: 05/31/91

Final vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 60.0%

Date Analyzed (P): 06/14/91

Dilution Factor: 1

Date Analyzed (S): 06/14/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	10.0	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DI-N-OCTYLPHTHALATE	100	91.1	20- 150	91.0	

FORM I

1/87 Mod.

DIESEL

SOIL

Method 8015

Batch No: FS516

Method Blank Data

GAS CHROMATOGRAPHY ANALYTIC DATA SHEET

Method: 8015

NET LIMS NO.

Client Sample ID. METHOD GLANE

M8515

Project Name: 800/DOOR DOOR

File: Q1LU21

BatchNo: F8515

Project No: N/A

Matrix: SOIL

Date Sampled: N/A

Sample wt/vol: 10.0 (g/mL) g

Date Received: N/A

Final vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 100%

Date Analyzed (P): 06/14/91

Dilution Factor: 1

Date Analyzed (S): 06/14/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	10.0	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
OI-N-OCTYLPHTHALATE	100	100	20- 150	100	

FORM I

1/87 Mod.

DIESEL

SOIL

Method 8015

Batch No: FS516

QC Data

WEST PACIFIC IND., SAN DIEGO DIVISION
ENVIRONMENTAL CHEMISTRY

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

FUEL HYDROCARBONS
Method 8015 Mod
(Solid)

Client Name: OBE/MOOR 0006

NET Sample ID: 11251
Client Sample ID: MLV-VS2-1

PARAMETERS	CONC. SPIKE ADDED(MG/KG)	SAMPLE RESULT	CONC. MS	% RECOVERY	CONC. SPIKE ADDED(MG/KG)	CONC. MSD	% RECOVERY	RPD	CONTROL LIMIT RECOVER
DIESEL	220.00	0.0	220.00	100%	220.00	210.00	95%	5%	10-150

COMMENTS:

Prepared by: HS

Release Authorized by: JE

The accompanying narrative is an integral part of this report.

Client Name----- DOE/NOOR 000R

NET Sample ID:---111551

Client Sample ID:--MLV-102-1

Matrix: 80000

SOLID SAMPLE INFO	WET SPIKED SAMPLE	MAT SPK SAMPLE	MS DUP SAMPLE
SAMPLE WGT(g)----->	10.4	10.2	10.3
% DRY----->	90.8	90.8	90.8
SPLITS (ML)----->	10.0	10.0	10.0
DILUTION----->	1.0	1.0	1.0

SPIKED COMPOUNDS	SPIKED STD CONC(UG/ML)		VOLUME SPIKED(ML)
DIESEL----->	4,100.0	1	0.50

COMPOUNDS	SAMPLE RESULTS (MG/KG)	MAT SPK SAMPLE (MG/KG)	MS DUP SAMPLE (MG/KG)
DIESEL----->	0.00	200.00	200.00

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8015

NET LIMS NO.

Client Sample ID: MLV-702-1

11251

Project Name: 00E

File: 012040

BatchNo: FSS15

Project No.

Matrix: SOIL

Date Sampled: 06/07/91

Sample wt/vol: 10.4 (g/mL) G

Date Received: 06/08/91

Final vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 90.3%

Date Analyzed (P): 06/16/91

Dilution Factor: 1

Date Analyzed (S): 06/16/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	10.0	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DI-N-OCTYLPHTHALATE	100	47.0	20- 150	47.0	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
METHOD 8015

NET LIMS NO.

Client Sample ID: MLV-752-1

11251MS

Project Name: DOE

File: Q12U41

Batch No. F9516

Project No:

Matrix: SOIL

Date Sampled: 06/07/91

Sample wt/vol: 10.2 (g/mL) G

Date Received: 06/08/91

Final vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 90.3%

Date Analyzed (P): 06/16/91

Dilution Factor: 1

Date Analyzed (S): 06/16/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	200.0	S

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DI-N-OCTYLPHTHALATE	100	71.2	20- 150	71.0	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 9015

NET LIMS NO.

Client Sample ID: MLV-V92-1

11251MSD

Project Name: 000

File: Q12U42

BatchNo: FS516

Project No:

Matrix: SOIL

Date Sampled: 06/07/91

Sample wt/Vol: 10.3 (g/mL) G

Date Received: 06/08/91

Final Vol (mL): 10ML

Date Extracted: 06/12/91

% Dry: 90.3%

Date Analyzed (P): 06/16/91

Dilution Factor: 1

Date Analyzed (S): 06/16/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	GASOLINE	10.0	U
	DIESEL	200.0	S

SURROGATE DATA	SPIKED FOUND	QC LIMITS(%)	RECOVERY(%)	Q
DI-N-OCTYLPHTHALATE	100	69.2	20- 150	69.0

FORM I

1/87 Mod.

OP PESTICIDES

AQUEOUS

Method 8140

Batch No: OW488

Sample Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8140

NET LIMS NO.

Client Sample ID: EW

11022

Project Name: NOOR DOOR

File: r17u17

BatchNo: OW488

Project No: N/A

Matrix: WATER

Date Sampled: 05/24/91

Sample wt/vol: 400 (g/mL) ML

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS	mg/L	Q
	DICHLOROVOS		1.20	U
	MEVINPHOS		3.50	U
	DEMETON		2.00	U
	ETHOPROP		2.00	U
	NALED		2.50	U
	PHORATE		5.80	U
	DIAZINON		3.00	U
	DISULFOTON		2.20	U
	RONNEL		2.80	U
	PARATHION METHYL		3.00	U
	CHLOROPYRIFOS		3.20	U
	FENTHION		8.80	U
	TRICHLORONATE		2.20	U
	MERPHOS		2.80	U
	STIROPHOS		6.50	U
	TOKUTHION		3.20	U
	BOLSTAR		3.80	U
	FENSULFOTHION		4.80	U
	AZINPHOS METHYL		9.00	U
	COUMAPHOS		4.20	U

SURROGATE DATA	SPIKED	FOUND	GC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	11	20- 150	110	
TRIPHENYL PHOSPHATE	10	16	20- 150	160	*

FORM I

1/87 Mod.

OP PESTICIDES

AQUEOUS

Method 8140

Batch No: OW488

Method Blank Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8140

NET LIMS NO.

Client Sample ID: METHOD BLANK

MB488

Project Name: NOOR DOOR

File: R17U8

BatchNo: DW488

Project No: N/A

Matrix: WATER

Date Sampled: N/A

Sample wt/vol: 1000 (g/mL) ML

Date Received: N/A

Final vol (mL): 10

Date Extracted: 05/31/91

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS	mg/L	Q
	DICHLOROVOS		0.50	U
	MEVINPHOS		1.40	U
	DEMETON		0.80	U
	ETHOPROP		0.80	U
	NALED		1.00	U
	PHORATE		2.30	U
	DIAZINON		1.20	U
	DISULFOTON		0.90	U
	RONNEL		1.10	U
	PARATHION METHYL		1.20	U
	CHLOROPYRIFOS		1.30	U
	FENTHION		3.50	U
	TRICHLORONATE		0.90	U
	MERPPOS		1.10	U
	STIROPPOS		2.60	U
	TOKUTHION		1.30	U
	BOLSTAR		1.50	U
	FENSULFOTHION		1.90	U
	AZINPHOS METHYL		3.60	U
	COUMAPHOS		1.70	U

SURROGATE DATA	SPIKED	FOUND	GC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	9	20- 150	87	
TRIPHENYL PHOSPHATE	10	3	20- 150	32	

FORM I

1/87 Mod.

OP PESTICIDES

SOIL

Method 8140

Batch No: OS493

Sample Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8140

NET LIMS NO.

Client Sample ID: GS-1

11019

Project Name: NOOR DOOR

File: R17U20

BatchNo: 05493

Project No: N/A

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 30.35 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 90.01

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.11	U
	MEVINPHOS	0.11	U
	DEMETON	0.11	U
	ETHOPROP	0.11	U
	NALED	0.11	U
	PHORATE	0.11	U
	DIAZINON	0.11	U
	DISULFOTON	0.11	U
	RONNEL	0.11	U
	PARATHION METHYL	0.11	U
	CHLORPYRIFOS	0.11	U
	FENTHION	0.11	U
	TRICHLORONATE	0.11	U
	MERPHOS	0.11	U
	STIROPHOS	0.11	U
	TOKUTHION	0.11	U
	BOLSTAR	0.11	U
	FENSULFOTHION	0.11	U
	AZINPHOS METHYL	0.11	U
	COUMAPHOS	0.11	U

SURROGATE DATA	SPIKED FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10 11	20- 150	110	
TRIPHENYL PHOSPHATE	10 15	20- 150	150	

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8140

NET LIMS NO.

Client Sample ID: GS-2

11020

Project Name: NOOR DOOR

File: R17U21

BatchNo: OS493

Project No: N/A

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 30.41 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 83.39

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.12	U
	MEVINPHOS	0.12	U
	DEMETON	0.12	U
	ETHOPROP	0.12	U
	NALED	0.12	U
	PHORATE	0.12	U
	DIAZINON	0.12	U
	DISULFOTON	0.12	U
	RONNEL	0.12	U
	PARATHION METHYL	0.12	U
	CHLORPYRIFOS	0.12	U
	FENTHION	0.12	U
	TRICHLORONATE	0.12	U
	MERPHOS	0.12	U
	STIROPHOS	0.12	U
	TOKUTHION	0.12	U
	BOLSTAR	0.12	U
	FENSULFOTHION	0.12	U
	AZINPHOS METHYL	0.12	U
	COUMAPHOS	0.12	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	11	20- 150	110	
TRIPHENYL PHOSPHATE	10	17	20- 150	170	*

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8140

NET LIMS NO.

11021

Client Sample ID: GS-4

Project Name: NOOR DOOR

File: R17U22

BatchNo: OS493

Project No: N/A

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 30.24 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 89.80

Date Analyzed (P): 06/19/91

Dilution Factor: 1

Date Analyzed (S): 06/19/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.11	U
	MEVINPHOS	0.11	U
	DEMETON	0.11	U
	ETHOPROP	0.11	U
	NALED	0.11	U
	PHORATE	0.11	U
	DIAZINON	0.11	U
	DISULFOTON	0.11	U
	RONNEL	0.11	U
	PARATHION METHYL	0.11	U
	CHLORPYRIFOS	0.11	U
	FENTHION	0.11	U
	TRICHLORONATE	0.11	U
	MERPHOS	0.11	U
	STIROPHOS	0.11	U
	TOKUTHION	0.11	U
	BOLSTAR	0.11	U
	FENSULFOTHION	0.11	U
	AZINPHOS METHYL	0.11	U
	COUMAPHOS	0.11	U

SURROGATE DATA	SPIKED FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10 11	36- 150	110	
TRIPHENYL PHOSPHATE	10 17	20- 150	170	*

<i>OP PESTICIDES</i>
SOIL
<i>Method 8140</i>
Batch No: OS493

Method Blank Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8140

NET LIMS NO.

Client Sample ID: METHOD BLANK

Project Name: NOOR DOOR

File: R17U18

MB493

BatchNo: 0S493

Project No: N/A

Matrix: SOIL

Date Sampled: N/A

Sample wt/vol: 30.82 (g/mL) G

Date Received: N/A

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 99.96

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.10	U
	MEVINPHOS	0.10	U
	DEMETON	0.10	U
	ETHOPROP	0.10	U
	NALED	0.10	U
	PHORATE	0.10	U
	DIAZINON	0.10	U
	DISULFOTON	0.10	U
	RONNEL	0.10	U
	PARATHION METHYL	0.10	U
	CHLORPYRIFOS	0.10	U
	FENTHION	0.10	U
	TRICHLORONATE	0.10	U
	MERPHOS	0.10	U
	STIROPHOS	0.10	U
	TOKUTHION	0.10	U
	BOLSTAR	0.10	U
	FENSULFOTHION	0.10	U
	AZINPHOS METHYL	0.10	U
	COUMAPHOS	0.10	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	10	20- 150	100	
TRIPHENYL PHOSPHATE	10	16	20- 150	160	*

FORM I

1/87 Mod.

OP PESTICIDES

SOIL

Method 8140

Batch No: OS493

QC Data

NET PACIFIC INC., SAN DIEGO DIVISION
ENVIRONMENTAL CHEMISTRY

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ORGANOPHOSPHORUS PESTICIDES
Method 8140
(Solid)

Client Name: MOOR DOOR

NET Sample ID: 11021
Client Sample ID: 6S-4

PARAMETERS	CONC. SPIKE ADDED(ug/Kg)	SAMPLE RESULT	CONC. MS	% RECOVERY	CONC. SPIKE ADDED(ug/Kg)	CONC. MSD	% RECOVERY	RPD	CONTROL LIMITS RECOVERY
Dichlorovos	3.60	0.0	5.50	153%	3.60	5.80	161%	5%	20-150
Diazinon	3.60	0.0	3.60	100%	3.60	3.60	100%	0%	20-150
Chloropyrifos	3.60	0.0	3.90	108%	3.60	3.90	108%	0%	20-150

Prepared by: VF

Release Authorized by: HS

The accompanying narrative is an integral part of this report.

Client Name-----)NOOR DOOR

NET Sample ID:----)11021

Client Sample ID:-)6S-4

Matrix: SOLID

SOLID SAMPLE INFO	NOM SPIKED SAMPLE	NAT SPK SAMPLE	NS DUP SAMPLE
SAMPLE WGT(g)----->	30.2	30.6	30.6
% DRY----->	89.8	89.8	89.8
SPLITS (ML)----->	10.0	10.0	10.0
DILUTION----->	1.0	1.0	1.0

SPIKED COMPOUNDS	SPIKED STD CONC(UG/ML)	VOLUME SPIKED(NL)
Dichlorovos----->	100.0	1.00
Diazinon----->	100.0	1.00
Chloropyrifos----->	100.0	1.00

COMPOUNDS	SAMPLE RESULTS (UG/ML)	NAT SPK SAMPLE (UG/ML)	NS DUP SAMPLE (UG/ML)
Dichlorovos----->	0.00	15.18	15.87
Diazinon----->	0.00	9.76	9.79
Chloropyrifos----->	0.00	10.67	10.79

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 3140

NET LIMS NO.

Client Sample ID: GS-4

11021MS

Project Name: NOOR DOOR

File: R17U23

BatchNo: 0S493

Project No: N/A

Matrix: SOIL

Date Sampled: 05/24/91

Sample wt/vol: 30.57 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 89.80

Date Analyzed (P): 06/19/91

Dilution Factor: 1

Date Analyzed (S): 06/19/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	5.50	S
	MEVINPHOS	0.11	U
	DEMETON	0.11	U
	ETHOPROP	0.11	U
	NALED	0.11	U
	PHORATE	0.06	J
	DIAZINON	3.60	S
	DISULFOTON	0.11	U
	RONNEL	0.11	U
	PARATHION METHYL	0.11	U
	CHLORPYRIFOS	3.90	S
	FENTHION	0.11	U
	TRICHLORONATE	0.11	U
	MERPHOS	0.11	U
	STIROPHOS	0.11	U
	TOKUTHION	0.11	U
	BOLSTAR	0.11	U
	FENSULFOTHION	0.11	U
	AZINPHOS METHYL	0.11	U
	COUMAPHOS	0.11	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	12	20- 150	120	
TRIPHENYL PHOSPHATE	10	17	20- 150	170	*

FORM I

1/87 Mod.

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 3140

NET LIMS NO.

Client Sample ID: GS-4

Project Name: NOOR DOOR

File: R17U24

11021MSD

BatchNo: 05493

Project No: N/A

Matrix: 30IL

Date Sampled: 05/24/91

Sample wt/vol: 30.57 (g/mL) G

Date Received: 05/25/91

Final vol (mL): 10

Date Extracted: 05/31/91

% Dry: 39.80

Date Analyzed (P): 06/19/91

Dilution Factor: 1

Date Analyzed (S): 06/19/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	5.80	S
	MEVINPHOS	0.11	U
	DEMETON	0.11	U
	ETHOPROP	0.11	U
	NALED	0.11	U
	PHORATE	0.05	J
	DIAZINON	3.60	S
	DISULFOTON	0.11	U
	RONNEL	0.11	U
	PARATHION METHYL	0.11	U
	CHLORPYRIFOS	3.90	S
	FENTHION	0.11	U
	TRICHLORONATE	0.11	U
	MERPHOS	0.11	U
	STIROPHOS	0.11	U
	TOKUTHION	0.11	U
	BOLSTAR	0.11	U
	FENSULFOTHION	0.11	U
	AZINPHOS METHYL	0.11	U
	COUMAPHOS	0.11	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	11	20- 150	110	
TRIPHENYL PHOSPHATE	10	17	20- 150	170	*

OP PESTICIDES

SOIL

Method 8140

Batch No: OS501

Sample Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET
Method: 8140

NET LIMS NO.

Client Sample ID: SS-1

11075

Project Name: NOOR DOOR

File: R17U16

BatchNo: 09501

Project No: N/A

Matrix: SOIL

Date Sampled: 05/30/91

Sample wt/vol: 30.74 (g/mL) G

Date Received: 05/31/91

Final vol (mL): 10

Date Extracted: 06/03/91

% Dry: 65.98

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.15	U
	MEVINPHOS	0.15	U
	DEMETON	0.15	U
	ETHOPROP	0.15	U
	NALED	0.15	U
	PHORATE	0.15	U
	DIAZINON	0.15	U
	DISULFOTON	0.15	U
	RONNEL	0.15	U
	PARATHION METHYL	0.15	U
	CHLORPYRIFOS	0.15	U
	FENTHION	0.15	U
	TRICHLORONATE	0.15	U
	MERPHOS	0.15	U
	STIROPHOS	0.15	U
	TOKUTHION	0.15	U
	BOLSTAR	0.15	U
	FENSULFOTHION	0.15	U
	AZINPHOS METHYL	0.15	U
	COUMAPHOS	0.15	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	5	20- 150	47	
TRIPHENYL PHOSPHATE	10	5	20- 150	54	

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8140

NET LIMS NO.

Client Sample ID: 65-2

11076

Project Name: NOOR DOOR

File: R17U15

BatchNo: 05501

Project No: N/A

Matrix: SOIL

Date Sampled: 05/30/91

Sample wt/vol: 30.72 (g/mL) G

Date Received: 05/31/91

Final vol (mL): 10

Date Extracted: 06/03/91

% Dry: 59.96

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.16	U
	MEVINPHOS	0.16	U
	DEMETON	0.16	U
	ETHOPROP	0.16	U
	NALED	0.16	U
	PHORATE	0.16	U
	DIAZINON	0.16	U
	DISULFOTON	0.16	U
	RONNEL	0.16	U
	PARATHION METHYL	0.16	U
	CHLORPYRIFOS	0.16	U
	FENTHION	0.16	U
	TRICHLORONATE	0.16	U
	MERPHOS	0.16	U
	STIROPHOS	0.16	U
	TOKUTHION	0.16	U
	BOLSTAR	0.16	U
	FENSULFOTHION	0.16	U
	AZINPHOS METHYL	0.16	U
	COUMAPHOS	0.16	U

SURROGATE DATA	SPIKED FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10 6	20- 150	56	
TRIPHENYL PHOSPHATE	10 8	20- 150	82	

FORM I

1/87 Mod.

<i>OP PESTICIDES</i>
SOIL
<i>Method 8140</i>
Batch No: OS501

Method Blank Data

GAS CHROMATOGRAPHY ANALYSIS DATA SHEET

Method: 8140

NET LIMS NO.

Client Sample ID: METHOD BLANK

MB501

Project Name: NOOR DOOR

File: R17U11

BatchNo: 05501

Project No: N/A

Matrix: SOIL

Date Sampled: N/A

Sample wt/vol: 30.86 (g/mL) G

Date Received: N/A

Final vol (mL): 10

Date Extracted: 06/03/91

% Dry: 99.96

Date Analyzed (P): 06/18/91

Dilution Factor: 1

Date Analyzed (S): 06/18/91

CAS NUMBER	COMPOUND NAME	UNITS mg/Kg	Q
	DICHLOROVOS	0.10	U
	MEVINPHOS	0.10	U
	DEMETON	0.10	U
	ETHOPROP	0.10	U
	NALED	0.10	U
	PHORATE	0.10	U
	DIAZINON	0.10	U
	DISULFOTON	0.10	U
	RONNEL	0.10	U
	PARATHION METHYL	0.10	U
	CHLORPYRIFOS	0.10	U
	FENTHION	0.10	U
	TRICHLORONATE	0.10	U
	MERPHOS	0.10	U
	STIROPHOS	0.10	U
	TOKUTHION	0.10	U
	BOLSTAR	0.10	U
	FENSULFOTHION	0.10	U
	AZINPHOS METHYL	0.10	U
	COUMAPHOS	0.10	U

SURROGATE DATA	SPIKED	FOUND	QC LIMITS(%)	RECOVERY(%)	Q
TRIBUTYL PHOSPHATE	10	6	20- 150	61	
TRIPHENYL PHOSPHATE	10	3	20- 150	33	

FORM I

1/87 Mod.

CHAIN OF CUSTODY COPIES

Field Sample Chain of Custody Sheet

91.0074

Parametrix, Inc. • 13020 Northup Way, Suite 8 • Bellevue, Washington 98005

PROJECT NAME: SAIC - Noyd Deer PROJECT NO. 55-138-27

CLIENT: Ecology RECORDER: M. Mendriss

SAMPLERS: Scott Elkind, Rossbeff, Mike Mendriss

MATRIX	# OF CONTAINERS AND PRESERVATIVE	LOCATION/NO.	DATE			STATION AND SAMPLE DESCRIPTION	MISCELLANEOUS INFORMATION
			MONTH	DAY	YEAR		
WATER							
AIR							
SEDIMENT							
UNPRESERVED							
H ₂ O ₂							
HNO ₃							
NaOH							
NaOH AND ZINC ACETATE							
OTHER							
		GS-1	5	24	91	VOC (SWD/SWB/D), TPH (SIS), BNA (S3D), Pesticides (S110)	
		GS-2	5	24	91	" " " " " "	
		GS-4	5	24	91	" " " " " "	
		EW	5	24	91	" " " " " "	
						In sufficient EW Sample Volume	
						for TPH, BNA, PEST.	
						Cooler Temp: 4C	
						Sample Cond: Good	
						No Preservatives (Chemical)	

TOTAL CONTAINERS:

LOCATION/NO.	MEASURING POINT	DEPTH TO WATER	TEMPERATURE DEGREES	pH	CONDUCTIVITY (UNITS)	VOLUME PURGED (GAL)	RELINQUISHED BY: (NAME)	DATE TIME	RECEIVED BY: (NAME)	DATE TIME
							Mike Mendriss	5/24/91	(Fuller)	
									Fuller	5/29/91
									Fuller	5/29/91

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Field Sample Chain of Custody Sheet

91.0080

Parametrix, Inc. • 13020 Northup Way, Suite 8 • Bellevue, Washington 98005

PROJECT NAME: SAC - North Deer
 PROJECT NO.: SS-1038-07
 CLIENT: Ecology
 SAMPLERS: Ross Goff, Michael Mendez
 RECORDER: M. McInchoss

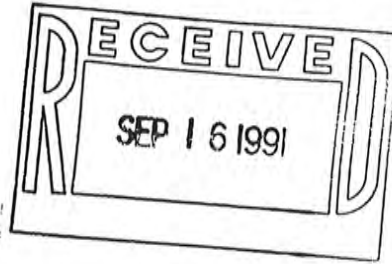
MATRIX	# OF CONTAINERS AND PRESERVATIVE	LOCATION NO.	DATE			STATION AND SAMPLE DESCRIPTION	MISCELLANEOUS INFORMATION	
			MONTH	DAY	YEAR			
								TIME
X	5	AS-3	5	30	91	12:00	VOA	
X	3	SS-1	5	30	91	12	VOA, BVA, TPH, Pesticides	
✓	1	SS-2	5	30	91		VOA, BVA, TPH, Pesticides	
							Sample Cont: Cool	
							Control Sample: 6°C	
							Sample intact	4/5/91

TOTAL CONTAINERS :

LOCATION NO.	MEASURING POINT	DEPTH TO WATER	TEMPERATURE DEGREES	pH	CONDUCTIVITY (UNITS)	VOLUME PURGED (GAL)
103						

CHAIN OF CUSTODY RECORD (PLEASE PRINT)			
RELINQUISHED BY: (NAME)	DATE	TIME	RECEIVED BY: (NAME)
M. McInchoss	5/2	1:00 PM	(initials)
			NET

ORIGINAL IS
IN PROJECT
FILING



September 11, 1991

Howard Small
Sweet-Edwards/EMCON, Inc.
18912 N Creek Parkway
Suite 210
Bothell, WA 98011

Re: Ben Fab - Everett/Project #S5902.02

Dear Howard:

Enclosed are the results of the sample submitted to our lab on August 22, 1991. Preliminary results were transmitted via facsimile on September 4, 1991. For your reference, our service request number for this work is B914792.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

A handwritten signature in cursive script that reads "Colin B. Elliott".

Colin B. Elliott
Senior Project Chemist

CBE/so

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
 Project: Ben Fab - Everett/#S5902.02
 Sample Matrix: Soil

Date Received: 08/22/91
 Work Order #: B914792

Inorganic Parameters
 mg/Kg (ppm)
 As Received Basis

Sample Name:
 Lab Code:

TT-Comp-1
 K4792-1

Method Blank
 K4792-MB

Analyte	Method	MRL	TT-Comp-1 K4792-1	Method Blank K4792-MB
Corrosivity (pH)	9045	--	5.22	--
Ignitability (°F)	1020	--	> 200	--
Cyanide, Total	9010M	25	ND	ND
Sulfide, Reactive	9030*	50	ND	ND

MRL Method Reporting Limit

M Modified

ND None Detected at or above the method reporting limit

* *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition, Section 7, 1986.*

Approved by _____

Colmi Elliott

Date _____

9/13/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Date Extracted: 08/23/91
Work Order #: B914792

BTEX and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name:
Lab Code:
Date Analyzed:

TT-Comp-1
B4792-1
08/23/91

Method Blank
B4792-MB
08/23/91

Analyte	MRL		
Benzene	0.05	ND	ND
Toluene	0.05	0.95	ND
Ethylbenzene	0.05	ND	ND
Total Xylenes	0.05	0.09	ND
TPH as Gasoline	1	4	ND

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Alan Elliott Date 9/13/91

APPENDIX A
LABORATORY QC RESULTS

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Work Order #: B914792

QA/QC Report
Duplicate Summary
Inorganic Parameters
mg/Kg (ppm)
As Received Basis

Sample Name: TT-Comp-1
Lab Code: K4792-1

Analyte	Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Cyanide, Total	9010	25	ND	ND	ND	--
Sulfide, Reactive	9030	50	ND	ND	ND	--

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by

Colin Elliott

Date

9/13/91

00004

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
 Project: Ben Fab - Everett/#S5902.02
 Sample Matrix: Soil

Date Received: 08/22/91
 Work Order #: B914792

QA/QC Report
 Matrix Spike Summary
 Inorganic Parameters
 mg/Kg (ppm)
 As Received Basis

Sample Name: TT-Comp-1
 Lab Code: K4792-1

Analyte	Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Criteria
Cyanide, Total	9010	25	2.0	ND	2.0	100	85-115
Sulfide, Reactive	9030	50	132	ND	70	53	40-100

MRL Method Reporting Limit
 ND None Detected at or above the method reporting limit

Approved by Colin Elliott Date 9/13/91

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Date Extracted: 08/23/91
Date Analyzed: 08/23/91
Work Order #: B914792

QA/QC Report
Surrogate Recovery Summary
BTEX and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
TT-Comp-1	B4792-1	69.4
Method Blank	B4792-MB	89.4
	CAS Acceptance Criteria	50-130

TPH Total Petroleum Hydrocarbons

Approved by Colmi Elliott Date 9/13/91



Sweet-Edwards / EMCON, Inc.
 Kelso, WA (206) 423-3580
 Bothell, WA (206) 485-5000

Chain of Custody / Laboratory Analysis Request

DATE 8/22/91 PAGE 1 OF 1

K 4792

PROJECT Ben Esh Eschert # 5590202
 CLIENT INFO. _____
 CONTACT Howard Judd
 ADDRESS _____
 TELEPHONE# 485 5000
 SAMPLERS NAME MICHAEL PHONE# 485-5000
 SAMPLERS SIGNATURE Michael S. Judd

ANALYSIS REQUESTED	GENERAL CHEMISTRY (Specify)										OTHER (Specify)	NUMBER OF CONTAINERS									
	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE ORGANICS 601/8010	PHENOLICS 604/8040	POLYNUCLEAR AROMATIC 610/8310	TOTAL ORGANIC CARBON (TOC) 415/9060	TOTAL ORGANIC HALIDE (TOX) 9020	EP TOX/TCLP METALS (Circle One)			METALS (TOTAL) (See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ , Cl	SO ₄	Ca, Mg, Na, K	BIEX-GAS	HI-SPECIAL TECHNIQUE
																		X	X	4	

Relinquished By Sweet, Edwards & Assoc.
 Signature [Signature]
 Printed Name Mich R D. M
 STS/K
 Firm 8/22/91 1000
 Date/Time

Relinquished By [Signature]
 Signature _____
 Printed Name _____
 Firm _____
 Date/Time _____

Received By [Signature]
 Signature Stan Spurgeon
 Printed Name Stan Spurgeon
 CTS
 Firm 8/22/91 1015
 Date/Time

Received By [Signature]
 Signature Marlene Tokrek
 Printed Name Marlene Tokrek
 Firm [Signature]
 Date/Time 2:00

PROJECT INFORMATION

Shipping I.D. No. _____

VIA _____

Project 891 4792

SAMPLE RECEIPT

Total No. of Containers _____

Chain of Custody Seals _____

Received in good condition _____

LAB NO. 891 4792

SPECIAL INSTRUCTIONS/COMMENTS
Normal T-QT.

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

NOTICE OF PERMANENT CLOSURE OF UNDERGROUND STORAGE TANK(S)

Site Owner/Operator: E.A. NORD COMPANY
 Site Address: 300 W MARINE VIEW DRIVE
 Telephone: (206) 259-9292

Site Notification Number (If known; this is assigned by Ecology): _____
 Tank has been registered with Ecology (); tank was not registered (.

Local closure permit (if any) obtained from: _____
 (Always contact local authorities regarding permit requirements.)

Tank closure performed by:
 Company/Individual: E A NORD & CHEMPRO & SWEET-EDWARDS & EMCON
 Telephone: (206) 259-9292 Date of Tank Closure: AUGUST, 1991
 Method of Closure: () Removal () In-Place Closure
 If closed in place, type of fill material used: _____

If removed, how will the tank(s) be disposed of? () Scrap () Landfill
 () Other method (please specify: _____)
 Disposal Location: _____

Tank ID Number	Age	Tank(s) Closed		Last Material Stored
		Size		
5	13	500 GAL		TOLVENE

Will the tanks be replaced by new underground tanks? () Yes () No
 (NOTE: If YES, you need to submit a notification form for the new tanks.)

Was a site assessment completed? () Yes () No If so, was contamination found? () Yes () No

(NOTE: The appropriate regional office of the Washington Department of Ecology should be contacted for assistance if contamination is found (see attached map). Records of the site closure must also be maintained at the site and must be available upon an inspector's request for at least three years after closure.)

Inspecting Agency: EVERETT FIRE DEPT Inspector Name: SAM PRESTON, ASST FIRE MARSHALL
 (NOTE: This is generally the local fire department or agency enforcing the Uniform Fire Code; in some cases (usually involving contamination) it may be Ecology. In some instances there may be no inspecting agency.)

Signature: *S K Meyers* Date: OCTOBER 23, 1991
 Title: STANLEY K MEYERS P.E. VICE PRESIDENT ENGINEERING

Please return the completed form to:

Storage Tank Unit
 Department of Ecology
 M/S PV-11
 Olympia, WA 98504-8711



Sweet-Edwards/EMCON, Inc.

18912 North Creek Parkway, Suite 210
Bothell, Washington 98011
(206) 485-5000
FAX (206) 486-9766

DEPARTMENT OF ECOLOGY
UNDERGROUND STORAGE TANKS

October 24, 1991
Project S59-02.02

NOV 13 1991

Mr. Stan Meyers
Ben Fab
P.O. Box 1540
Klamath Falls, Oregon 97601

Re: Toluene Storage Tank Removal
Observations and Soil Sampling
Jeld Wen Door Facility
Everett, Washington

Dear Mr. Meyers:

Sweet-Edwards/EMCON, Inc., is pleased to submit this letter report summarizing work performed in association with the removal of the underground toluene product storage tank at the above-referenced facility located at 300 West Marine View Drive, Everett, Washington. The purpose of our work was to document soil conditions adjacent to the removed tank with respect to toluene and petroleum hydrocarbons. Figure 1 shows the former tank location and areas sampled. Table 1 presents a summary of the analytical results from soil samples analyzed. Laboratory reports are attached.

FIELD OBSERVATIONS AND SOIL SAMPLING - AUGUST 6, 1991

Sweet-Edwards/EMCON, Inc., personnel observed the removal of one approximately 500-gallon toluene tank on August 6, 1991. Jeld Wen personnel reported that the tank contents had been removed and the tank cleaned previously by Burlington Environmental, Chempro Division (Chempro), and that the wastes had been appropriately disposed of. The tank was excavated and removed by Jeld Wen employees. Mike Noll of Sweet-Edwards/EMCON, Inc., a licensed Washington tank removal supervisor, was present on site during the removal process.

W001331

S001351

BEN/TSTR-LR.o22/me:2

Field Observations

Surface paving and soil above the tank was removed and the tank exposed. Dry ice was placed into the tank and the tank removed from the ground and placed on truck for disposal off site. We understand that Chempro disposed of the tank in accordance with applicable local, state, and federal regulations.

The tank was constructed of single-wall steel and was supported by a concrete cradle. The tank showed no visible evidence of leakage or holes. The west end of the tank was slightly rusted. The concrete saddle appeared to be in good condition with no cracks or discoloration beneath the tank. The product supply line was removed and capped at the edge of the building. Excavated soil (approximately 2 cubic yards) was stockpiled adjacent to the tank excavation on 10-mil visqueen placed on asphalt paving. The perimeter was bermed and the pile covered with 8-mil visqueen pending laboratory analysis of stockpile samples.

Soil Sampling

Soil samples collected from the former toluene tank excavation's north, east, south, and west sidewalls and the base of the excavation were designated NW-1, SW-1, EW-1, WW-1, and FL-1 respectively (Figure 2). One sample of stockpiled soil, consisting of two discrete samples, was collected for compositing by the analytical laboratory and designated TT-Comp-1. The four sidewall samples, base sample, and the stockpile composite were analyzed for toluene (EPA Methods 5030/8020), and volatile fuel hydrocarbons (TPH as gasoline, EPA Methods 5030/Modified 8015).

Soil samples were collected using stainless steel spoons, cleaned between samples with a distilled water and non-phosphate soap solution, distilled water rinse, 1:1 methanol and distilled water rinse, and a final distilled water rinse. The samples were submitted under Chain-of-Custody procedures to Columbia Analytical Services of Bothell, Washington.

Toluene was detected at concentrations of 9.4 mg/kg, and 14.6 mg/kg in soil samples from the north sidewall and excavation base respectively. Analytical results for TPH as gasoline indicated concentrations of 20 mg/kg

Mr. Stan Meyers
October 24, 1991
Page 3

Project S59-02.02

and 30 mg/kg from samples collected from the north sidewall and excavation base respectively. Analyses performed on the composite sample from the stockpiled soils indicated a toluene concentration of 0.95 mg/kg and a TPH as gasoline concentration of 4 mg/kg. Laboratory analysis of the other samples collected did not detect the presence of toluene or TPH as gasoline at concentrations at or above the analytical method reporting limits.

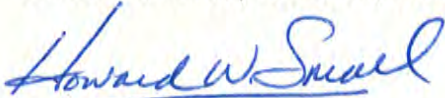
Soil sample TT-Comp-1 (stockpile) was also analyzed to determine if the soil exhibited any hazardous waste characteristics. Analyses for corrosivity, ignitability, total cyanide, and sulfide were conducted. Results indicated that the soil did not exhibit hazardous waste characteristics. Excavated soil was placed back into the former tank excavation as backfill material.

FINDINGS

Soils sampled from the former toluene tank excavation contained concentrations below the 40 mg/kg cleanup level for toluene and 100 mg/kg for TPH as gasoline presented in the Method A tables under MTCA¹. Additionally, samples collected from the stockpiled soils from the tank excavation did not exhibit hazardous waste characteristics.

Sincerely,

Sweet-Edwards/EMCON, Inc.



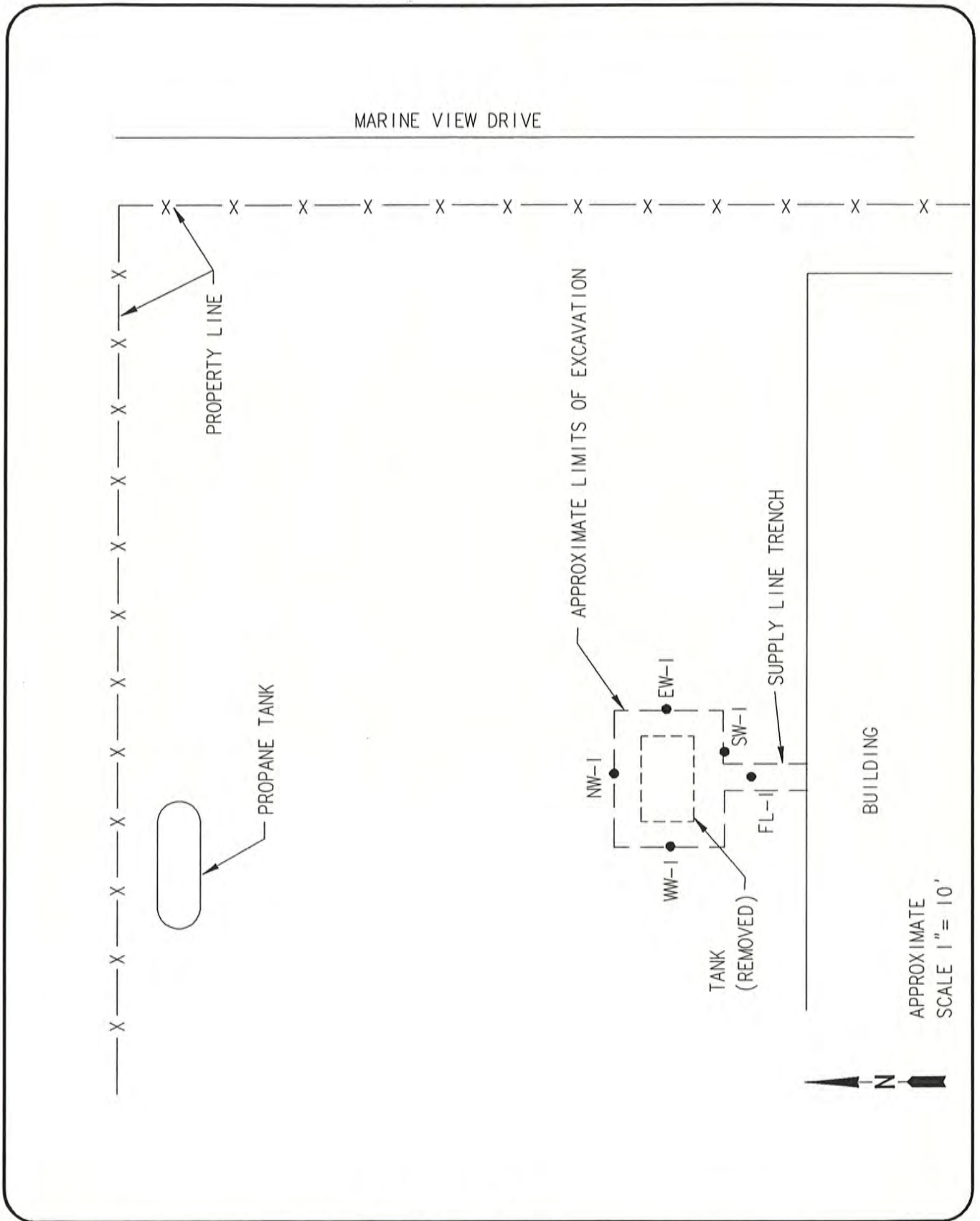

Howard W. Small
Project Manager



David W. Ashcom, P.E.
Director, Hydrocarbon Services

Attachments: Figure 1 - Soil Sample Locations
Table 1 - Summary of Soil Analytical Results
Attachment A - Laboratory Reports B914405 and B914792

¹ Chapter 173-340 WAC, Model Toxics Control Act, Method A Compliance Cleanup Levels-Soil. Adopted February 28, 1991.

Sweet-Edwards
EMCON

DATE 9-91
 DWN. KLM
 REV.
 APPR. *HWS*
 PROJECT NO. S5902.02

FIGURE 1
 JELDWEN DOOR FACILITY
 EVERETT, WASHINGTON
SOIL SAMPLE LOCATIONS

Table 1

**Soil Sample Analytical Results
Jeld Wen Facility Toluene Tank Excavation
Everett, Washington**

Sample Designation	Sample Location	Sample Depth	Toluene ¹ (mg/kg)	TPH as Gasoline ² (mg/kg)
NW-1	North Wall	4	9.4	20
SW-1	South Wall	4	ND	ND
EW-1	East Wall	4	ND	ND
WW-1	West Wall	4	ND	ND
FL-1	Supply Line Trench	1	14.6	30
TT-Comp-1	Stockpile Soil	—	0.95	4
MTCA ³ Soil Standard			40	100
NOTE: ND = None detected Mg/kg units approximate parts per million (ppm) concentrations				
1	Toluene analysis by EPA Methods 5030/8020			
2	TPH as gasoline analysis by EPA Methods 5030/Modified 8015			
3	MTCA means Chapter 173-340 WAC, Model Toxics Control Act, Method A Compliance Cleanup Levels - Soil, adopted February 28, 1991			

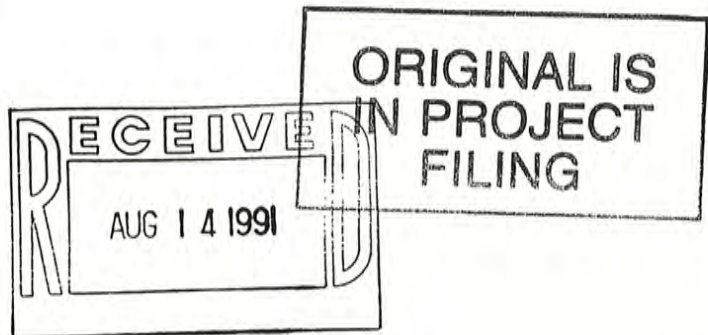
Attachment A

Laboratory Reports B914405 and B914792



August 12, 1991

Howard Small
Sweet-Edwards/EMCON, Inc.
18912 N Creek Parkway
Suite 210
Bothell, WA 98011



Re: Ben Fab/Project #S5902.02

Dear Howard:

Enclosed are the results of the rush samples submitted to our lab on August 6, 1991. For your reference, our service request number for this work is B914405.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Charles Morrow
Colin B. Elliott *for*
Senior Project Chemist

CBE/das

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab/#S5902.02
Sample Matrix: Soil

Date Received: 08/06/91
Date Extracted: 08/07/91
Work Order #: B914405

Toluene and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

	NORTH WALL	SOUTH WALL	EAST WALL
Sample Name:	NW-1	SW-1	EW-1
Lab Code:	B4405-1	B4405-2	B4405-3
Date Analyzed:	08/07/91	08/07/91	08/07/91

Analyte	MRL			
Toluene	0.1	9.40	ND	ND
TPH as Gasoline	5	20	ND	ND

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Charles Morrow Date 8/12/91

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab/#S5902.02
Sample Matrix: Soil

Date Received: 08/06/91
Date Extracted: 08/07/91
Work Order #: B914405

Toluene and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name:	WEST WALL	SUPPLY LINE	
Lab Code:	WW-1	TRENCH	
Date Analyzed:	B4405-4	FL-1	Method Blank
	08/07/91	B4405-5	B4405-MB
		08/07/91	08/07/91

Analyte	MRL			
Toluene	0.1	ND	14.6	ND
TPH as Gasoline	5	ND	30	ND

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Charles Morrow Date 8/12/91

00002

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab/#S5902.02
Sample Matrix: Water

Date Received: 08/06/91
Date Extracted: 08/07/91
Date Analyzed: 08/07/91
Work Order #: B914405

QA/QC Report
Surrogate Recovery Summary
Toluene and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
MW-1	B4405-1	108
SW-1	B4405-2	102
EW-1	B4405-3	104
WW-1	B4405-4	91.6
FL-1	B4405-5	98.0
Method Blank	B4405-MB	104

CAS Acceptance Criteria 50-130

TPH Total Petroleum Hydrocarbons

Approved by Charles Morrow Date 8/12/91

00003



Sweet-Edwards / EMCON, Inc.

Keiso, WA (206) 423-3580

Bothell, WA (206) 485-5000

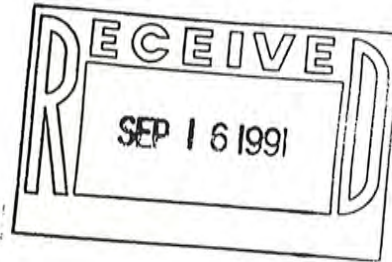
Chain of Custody / Laboratory Analysis Request

DATE 8-6-91 PAGE 1 OF 1

PROJECT <u>BETH FAB</u> # <u>55902.02</u>		ANALYSIS REQUESTED										GENERAL CHEMISTRY (Specify)					OTHER (Specify)														
CLIENT INFO. CONTACT <u>Howard Small</u>		ADDRESS <u>Bothell</u>		TELEPHONE# <u>485-5000</u> Ext <u>240</u>		SAMPLERS NAME <u>Michael Hill</u> PHONE# <u>485-5500</u>		SAMPLERS SIGNATURE <u>Michael Hill</u>		TYPE		OTHER (Specify)																			
SAMPLE I.D.		DATE		TIME		LAB I.D.		TYPE		NUMBER OF CONTAINERS																					
1. NW-1		8/6/91		1215		Soil		Soil		Ca, Mg, Na, K																					
2. SW-1		8/6/91		1200		Soil		Soil		NO ₃ /NO ₂ , Cl																					
3. EW-1		8/6/91		1220		Soil		Soil		PH, COND																					
4. WW-1		8/6/91		1230		Soil		Soil		TCLP ORGANICS																					
5. FL-1		8/6/91		1245		Soil		Soil		METALS (TOTAL) (See Special Inst.)																					
6.										EP TOX/TCLP METALS (Circle One)																					
7.										TOTAL ORGANIC HALIDE (TOX) 9020																					
8.										TOTAL ORGANIC CARBON (TOC) 415/9060																					
Relinquished By <u>Michael Small</u>		Signature		Printed Name		Firm		Date/Time		Relinquished By		Signature		Printed Name		Firm		Date/Time		Project Information		Shipping I.D. No.		Total No. of Containers		Chain of Custody Seals		Received in good condition		LAB NO. <u>391 4405</u>	
Received By <u>John L. Case</u>		Signature		Printed Name		Firm		Date/Time		Received By		Signature		Printed Name		Firm		Date/Time		SPECIAL INSTRUCTIONS/COMMENTS		* BTEX for toluene only		Push (48-hv)							

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

ORIGINAL IS
IN PROJECT
FILING



September 11, 1991

Howard Small
Sweet-Edwards/EMCON, Inc.
18912 N Creek Parkway
Suite 210
Bothell, WA 98011

Re: Ben Fab - Everett/Project #S5902.02

Dear Howard:

Enclosed are the results of the sample submitted to our lab on August 22, 1991. Preliminary results were transmitted via facsimile on September 4, 1991. For your reference, our service request number for this work is B914792.

All analyses were performed in accordance with our laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

A handwritten signature in cursive script that reads "Colin B. Elliott".

Colin B. Elliott
Senior Project Chemist

CBE/so

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Work Order #: B914792

Inorganic Parameters
mg/Kg (ppm)
As Received Basis

Sample Name:
Lab Code:

TT-Comp-1
K4792-1

Method Blank
K4792-MB

Analyte	Method	MRL		
Corrosivity (pH)	9045	--	5.22	--
Ignitability (°F)	1020	--	> 200	--
Cyanide, Total	9010M	25	ND	ND
Sulfide, Reactive	9030*	50	ND	ND

MRL Method Reporting Limit

M Modified

ND None Detected at or above the method reporting limit

* *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition, Section 7, 1986.*

Approved by

Colmi Elliott

Date

9/13/91

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Date Extracted: 08/23/91
Work Order #: B914792

BTEX and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name:
Lab Code:
Date Analyzed:

TT-Comp-1
B4792-1
08/23/91

Method Blank
B4792-MB
08/23/91

Analyte	MRL		
Benzene	0.05	ND	ND
Toluene	0.05	0.95	ND
Ethylbenzene	0.05	ND	ND
Total Xylenes	0.05	0.09	ND
TPH as Gasoline	1	4	ND

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Oliver Elliott Date 9/13/91

00002

APPENDIX A
LABORATORY QC RESULTS

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Work Order #: B914792

QA/QC Report
Duplicate Summary
Inorganic Parameters
mg/Kg (ppm)
As Received Basis

Sample Name: TT-Comp-1
Lab Code: K4792-1

Analyte	Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Cyanide, Total	9010	25	ND	ND	ND	--
Sulfide, Reactive	9030	50	ND	ND	ND	--

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Chris Elliott Date 9/13/91

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Work Order #: B914792

QA/QC Report
Matrix Spike Summary
Inorganic Parameters
mg/Kg (ppm)
As Received Basis

Sample Name: TT-Comp-1
Lab Code: K4792-1

Analyte	Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Criteria
Cyanide, Total	9010	25	2.0	ND	2.0	100	85-115
Sulfide, Reactive	9030	50	132	ND	70	53	40-100

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by Colin Elliott Date 9/13/91

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sweet-Edwards/EMCON, Inc.
Project: Ben Fab - Everett/#S5902.02
Sample Matrix: Soil

Date Received: 08/22/91
Date Extracted: 08/23/91
Date Analyzed: 08/23/91
Work Order #: B914792

QA/QC Report
Surrogate Recovery Summary
BTEX and TPH as Gasoline
EPA Methods 5030/8020/Modified 8015

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
TT-Comp-1	B4792-1	69.4
Method Blank	B4792-MB	89.4
	CAS Acceptance Criteria	50-130

TPH Total Petroleum Hydrocarbons

Approved by Colin Elliott Date 9/13/91

00006



Sweet-Edwards / EMCON, Inc.
 Kelso, WA (206) 423-3580
 Bothell, WA (206) 485-5000

Chain of Custody / Laboratory Analysis Request

K 4792

DATE 8/22/91 PAGE 1 OF 1

PROJECT # 5590202	CLIENT INFO.				ANALYSIS REQUESTED																OTHER (Specify)		NUMBER OF CONTAINERS																
	CONTACT	ADDRESS	TELEPHONE#	SAMPLERS NAME	SAMPLE I.D.	DATE	TIME	LAB I.D.	TYPE	BASE/NEU/ACID ORGAN.	GC/MS/625/8270	VOLATILE ORGANICS	GC/MS/624/8240	HALOGENATED VOLATILE	ORGANICS 601/8010	PHENOLICS	604/8040	POLYNUCLEAR	AROMATIC 610/8310	TOTAL ORGANIC CARBON	(TOC) 415/9060	TOTAL ORGANIC HALIDE		(TOX) 9020	EP TOX/TCLP METALS	(Circle One)	METALS (TOTAL)	(See Special Inst.)	TCLP ORGANICS	PH. COND	ALK	NO ₃ /NO ₂ . Cl	SO ₄	Ca, Mg, Na, K	GC/MS/620/800	BIEX-GAS	Heavy Metals	Composite Testing	
	Ben Edwards	Howard Judd	485 5000	MILWAU	TT-CAMP-1	8/22/91	0800		Soil																														7
	Relinquished By Sweet Edwards & Assoc.																			PROJECT INFORMATION				SAMPLE RECEIPT															
Signature	Signature	Signature	Signature																	Shipping I.D. No.		Total No. of Containers																	
Printed Name	Printed Name	Printed Name	Printed Name																	VIA		Chain of Custody Seals																	
Firm	Firm	Firm	Firm																	Received in good condition		LAB NO. B91 4792																	
Date/Time	Date/Time	Date/Time	Date/Time																	SPECIAL INSTRUCTIONS/COMMENTS Normal T-OT.																			
Received By	Received By	Received By	Received By																																				
Signature	Signature	Signature	Signature																																				
Printed Name	Printed Name	Printed Name	Printed Name																	Date/Time		Date/Time																	
Firm	Firm	Firm	Firm																	Date/Time		Date/Time																	
Signature	Signature	Signature	Signature																	Date/Time		Date/Time																	
Printed Name	Printed Name	Printed Name	Printed Name																	Date/Time		Date/Time																	
Firm	Firm	Firm	Firm																	Date/Time		Date/Time																	
Date/Time	Date/Time	Date/Time	Date/Time																	Date/Time		Date/Time																	



UNDERGROUND STORAGE TANK Site Check/Site Assessment Checklist

EA NORD CO. AKA NL DOOR Inc. # 2092
Snohomish JMS/3e/NW
file, no SR
MTC-A-A

The purpose of this form is to certify the proper investigation of an UST site for the presence of a release. These activities shall be conducted in accordance with Chapter 173.360 WAC. A description of the various situations requiring a site check or site assessment is provided in the guidance document for UST site checks and site assessments.

This Site Check/Site Assessment Checklist shall be completed and signed by a person registered with the Department of Ecology to perform site assessments.

Two copies of the results of the site check or site assessment should be included with this checklist according to the reporting requirements in the guidance document for UST site checks and site assessments.

For further information about completing this form, please contact the Department of Ecology UST Program.

The completed checklist should be mailed to the following address:

DEPARTMENT OF ECOLOGY
UNDERGROUND STORAGE TANKS

Underground Storage Tank Section
Department of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

NOV 13 1991

RECEIVED
OCT 08 1993
DEPT. OF ECOLOGY

1. UST SYSTEM OWNER AND LOCATION

UST Owner/Operator: JELD-WEN INC

Owners Address: P.O. BOX 1329 3303 LAKEPORT BOULEVARD
Street P.O. Box

KLAMATH FALLS, OR 97601
City State ZIP-Code

Telephone: (503) 882-3451

Site ID Number (on invoice or available from Ecology if tank is registered): 000783

Site/Business Name: NORD

Site Address: 300 W MARINE DRIVE SNOHOMISH
Street County

EVERETT WA 98206
City State ZIP-Code

2. SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Registered Person: Michael D. Noll

Address: 18912 North Creek Parkway, Suite 210
Street P.O. Box

Bothell WA 98011
City State ZIP-Code

Telephone: (206) 485-5000

OWNER'S NAME = E.A. NORD COMPANY
OWNER'S ADDR = 300 WEST MARINE VIEW DRIVE
CITY, ST ZIP = EVERETT, WA 98201

PLEASE EXAMINE THIS INFORMATION CAREFULLY!

SITE #	SITE NAME AND ADDRESS	# OF TANKS REPORTED	TANK ID #	TANK SIZE (000'S)	YEAR INSTLD	TANK STATUS
000783		5				
			1	1 - 5	78	ACTIVE
			2	.5 - 1	73	ACTIVE
			3	0 - .5	73	PERM OUT
			4	0 - .5	73	PERM OUT
			5	.5 - 1	78	PERM OUT



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
OFFICE OF TOXIC SUBSTANCES
Airustrial Center, Building 4 • P.O. Box 47825 • Olympia, Washington 98504-7825

July 8, 1993

Michael J. Gallagher, Section Manager
Toxics Cleanup Program
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008-5452

RE: Health Investigation-Nord Door Co., Snohomish County, Everett, Washington

The Department of Health (DOH) has conducted a health investigation of Nord Door Co., which has been declared a hazardous waste site by the Department of Ecology. A DOH health investigation is a preliminary assessment of the potential for a hazardous waste site to affect public health. DOH concludes that this site does not present a significant hazard to public health at this time.

This conclusion is based on a site visit and a review of the existing environmental data. The available information was evaluated regarding the potentially affected population, possible exposure pathways, types of contaminants, types of contaminated media, and community concerns.

Although this site has the potential to impact public health, it is not of immediate concern because of the lack of a current completed human exposure pathway, and it has a low priority for further investigation by this department. Should further environmental data indicate that human health is, or soon will be impacted, and/or if there is increased community concern, a more in depth assessment may be conducted in the future.

Sincerely,

Milo A. Straus
Public Health Advisor
Hazardous Waste Section



RZA AGRA, Inc.

Engineering & Environmental Services

11335 NE 122nd Way
Suite 100
Kirkland, WA 98034-6918
(206) 820-4669
FAX (206) 821-3914

Jeld Wen (Everett) SIT 2.1

19 November 1993

11-08390-03

Sterling Asphalt, Inc.
P.O. Box 369
Lynnwood, Washington 98046

To: Charlie Taylor
From: D. Kintzinger

Attention: Mr. Forrest Bailey

Subject: Interim Site Status Report
Proposed Sterling Asphalt Batch Plant
Jeld-Wen (Nord Door) Site
Everett, Washington

Info for your review +
files related to JW of
Everett property.

Dear Mr. Bailey:

RZA AGRA, Inc. (RZA AGRA) is pleased to present this letter summarizing analytical testing results completed at the subject site. Also addressed in this letter are geotechnical concerns raised by environmental impact study (EIS) regarding the proposed development of the site.

Analytical Laboratory Testing

Soil samples were collected from seven soil borings advanced at the site during August of 1992. The locations of these borings, labeled C-1, C-2, C-4, C-5, C-6, MW-1, and MW-2, are shown on the Site and Exploration Plan, Figure 1. Analytical testing conducted on the samples collected included total petroleum hydrocarbons (TPH by methods WTPH-D, WTPH-G, and WTPH 418.1), BTEX (benzene, toluene, ethylbenzene, and xylenes), lead, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs). A total petroleum hydrocarbon concentration in excess of the Model Toxics Control Act (MTCA) Method A cleanup level was measured in a soil sample collected from boring MW-1 at a depth of approximately 7.5 to 9 feet below ground surface. The concentration of TPH by method WTPH 418.1 was reported by the laboratory as 700 parts per million (ppm), which exceeded MTCA minimum cleanup levels of 200 ppm. Due to site plan revisions, we understand the area which includes boring MW-1 is no longer within the proposed project boundaries. A summary of analytical laboratory results for the soil samples tested has been included in Table 1.

Borings MW-1 and MW-2 were completed as monitoring wells. Groundwater samples were collected from each of these wells on 4 September 1992. The samples were tested for total petroleum hydrocarbons (TPH) using State Methods WTPH-G and WTPH-418.1. Method WTPH-G is designed for analysis of light end petroleum products such as gasoline. Method WTPH-418.1 is best used for analysis of heavier petroleum products such as fuel oils and lubricating oils. Total petroleum hydrocarbon concentrations of 16 and 1.2 parts per million (ppm) were measured in groundwater samples collected from monitoring wells MW-1 and MW-2, respectively. Both of these values are above the MTCA Method A cleanup level of 1.0 ppm. Concentrations of TPH as determined using State Method WTPH-G were found to be below the detection limit of 0.050 ppm. A summary of analytical laboratory results for the groundwater samples tested has been included in Table 2. Copies of the analytical laboratory certificates have also been enclosed with this letter.

The original subsurface exploration program was performed in order to evaluate the site soil conditions and identify the most suitable means of providing foundation support, site preparation, and pavement design. Additionally, the soil data would provide the necessary information to perform slope stability and liquefaction analyses. After completing our analyses, we prepared a preliminary subsurface exploration and geotechnical engineering report. This report was intended to provide preliminary foundation design and construction considerations. Once structural design is initiated, we intend to provide a final geotechnical engineering report which reflects site and structure specific recommendations. Due to the relatively consistent subsurface conditions, we do not anticipate that any further subsurface explorations will be necessary for the present site configuration.

The remainder of this letter will address the geotechnical concerns presented to us by Huckell/Weinman Associates, Inc. The following comments were forwarded to us for our response:

1. Q: The construction site is over "uncontrolled fill" meaning no one knows what was used. A very extensive soil investigation will be needed before a permit is allowed. Without a detailed investigation, there is no way to predict the reaction of the fill when an earthquake happens. If the soils liquefy, the structures could topple...

A: There is no question that the site is underlain by variable thicknesses of uncontrolled fill. In this context, "uncontrolled fill" refers to soils placed without any known record of compaction or density testing to confirm that an accepted minimum level of compaction has been achieved. However, we do have

subsurface data obtained by drilling and dutch cone techniques, which give us a reasonable evaluation of the composition of the fill materials. Based on our original site explorations, the soils typically consist of loose to medium dense sand and very soft to medium stiff silts. Testing soils by Dutch cone methods is an accepted method of in-situ soils testing and several methods of data interpretation have been established. The investigation which was performed in February 1993 also gave us the opportunity to develop engineering properties of the soils in order to evaluate the liquefaction potential. Due to this liquefaction potential, we have recommended in our preliminary report that settlement-sensitive structures be supported on the pile foundations in order to transfer the weight of the structures to more suitable bearing stratum at depth.

2. Q: Boring B-1 (W-8390-2) indicates trace organics and fibrous woody fragments at various depths. Can you say anything about these materials?
- A: Boring B-1 encountered soils which contained organics and fibrous woody fragments at various depths. In our opinion, these materials were deposited by natural processes as the native soils have accumulated over time. In our opinion, these materials do not decrease the quality of the soils with respect to development of this site, provided engineering design of foundations accounts for their properties.
3. Q: A study including the need for pile support (which will further disturb the shoreline) should be included as part of the EIS.
- A: The results of our subsurface exploration program indicate that, at a minimum, the most settlement-sensitive structures will require pile foundation support. We would also anticipate that the dolphins in the barge moorage area would also be constructed with piling.
4. Q: The shoreline is defined as 200 feet from water. Will any pile foundations be required for transfer span or conveyor? They are the only structures within the "shoreline".

A: We anticipate that pile foundations will be required to support all or portions of the transfer span and conveyor system near the shoreline. Additionally, we anticipate that piles will be used to construct the dolphins in the barge moorage area. Actual determination of foundation support requirements will most likely be determined by the structural engineer.

5. Q: Is there a potential for displacement of soils into the river due to pile installation?

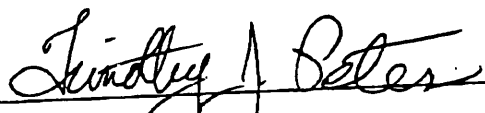
A: In our opinion, the potential for displacement of soils into the river due to pile installation is extremely low. The soils, both fill and native, are loose. These loose soils would be densified by driven displacement piles, such as timber or premanufactured concrete piles. We would not expect the piles to influence the soils more than about 10 feet away from each pile. Again, we would expect densification of the loose soils rather than displacement, due to their soft and loose nature. Augercast piles are also a deep foundation alternative which will be considered. Augercast piles are formed by drilling into the soils with a continuous flight hollow-stem auger. The cuttings are deposited at the ground surface and cement grout is then pumped down the stem of the auger under high pressure as the auger is withdrawn. Due to the installation method, soils will be replaced with concrete rather than displaced as with the piles mentioned above. We would also anticipate some densification of the surrounding soils due to the pressure at which the grout would be injected. We do not anticipate that this method of pile installation would create any displacement of soils into the river.

Sterling Asphalt, Inc.
19 November 1993

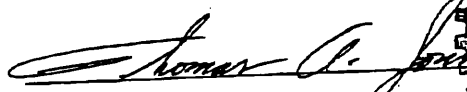
We appreciate being of continued service to you on this project. If you have any questions or comments regarding the contents of this interim site status report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

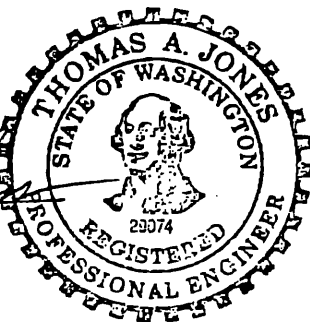
RZA AGRA, Inc.



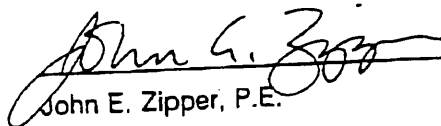
Timothy J. Peter
Project Environmental Scientist



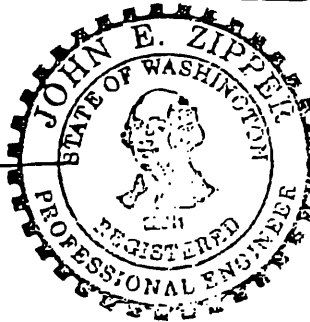
Thomas A. Jones, P.E.
Project Geotechnical Engineer



EXPIRES 4/27/95



John E. Zipper, P.E.
Associate



EXPIRES 1/24/95

TJP/KDM/lad

SNOHOMISH RIVER CHANNEL

CONVEYER

C-4
65'

AGGREGATE
STORAGE PILES

TYPICAL BARGE

C-3
70'

MW-2
15'

C-7
80'

BATCH
PLANT

C-1
90'

EXISTING
BARGE PIER

B-1
100'

C-2
75'

SOIL
STORAGE
BLDG.

SHOP

AGGREGATE STORAGE PILES

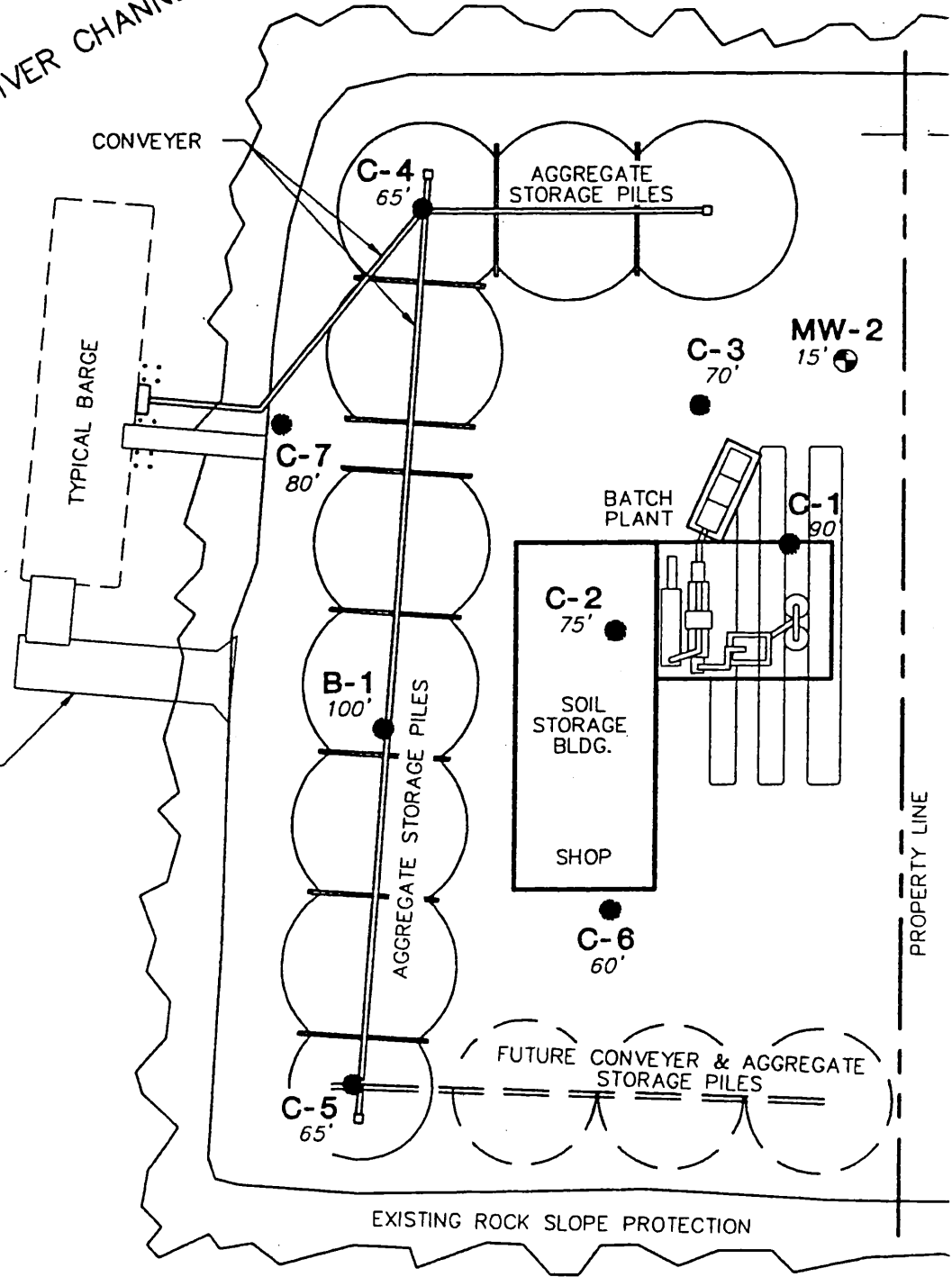
C-6
60'

PROPERTY LINE

FUTURE CONVEYER & AGGREGATE
STORAGE PILES

C-5
65'

EXISTING ROCK SLOPE PROTECTION



EXISTING ROCK SLOPE PROTECTION

30' ACCESS EASEMENT

LEGEND

C-7



DUTCH CONE/SOIL BORING NUMBER, LOCATION, AND DEPTH

MW-2

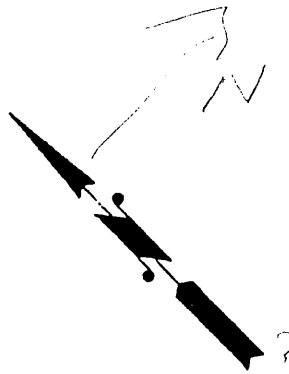


MONITORING WELL NUMBER, LOCATION, AND DEPTH

EXISTING JELD-WEN
(NORD DOOR) SITE
DEVELOPMENT

MW-1

15'



0 100 200
SCALE IN FEET



RZA AGRA, INC.

Engineering & Environmental Services

11335 N.E. 122nd Way
Suite 100
Kirkland, Washington 98034-6918

W.O. 11-08390-03
DESIGN TJP
DRAWN MJF
DATE NOV 1993
SCALE 1"=100'

STERLING ASPHALT
EVERETT, WASHINGTON
SITE AND EXPLORATION PLAN

FIGURE 1

Table 1. Summary of Soil Analytical Results
Proposed Steriling Asphalt Facility
300 West Marine Drive
Everett, Washington

Sample No.	Date	Depth (feet)	HCID as gasoline (ppm)	HCID as diesel (ppm)	HCID as heavy oil (ppm)	WTPH-D (ppm)	WTPH-G (ppm)	TPH 418.1 (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylene (ppm)	Lead (ppm)	PCBs (ppm)	PAHs (ppm)
C1-S1	8/27/92	2.5-4.0	<20	<50	<100	NA	<1	<10	<0.05	<0.05	<0.05	<0.01	<10	<0.050	ND
C2-S2	8/27/92	7.5-9.0	<20	<50	<100	NA	<1	<10	<0.05	<0.05	<0.05	<0.01	<10	<0.050	ND
C4-S1	8/27/92	2.5-4.0	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
C5-S1	8/27/92	2.5-4.0	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
C6-S1	8/27/92	2.5-4.0	<20	<50	<100	NA	<1	<10	<0.05	<0.05	<0.05	<0.01	17	NA	NA
MW-1,S-2	8/31/92	7.5-9.0	<20	Present	Present	NA	NA	700	NA	NA	NA	NA	11	NA	NA
MW-2,S-1	8/31/92	2.5-4.0	<20	<50	Present	NA	NA	87	NA	NA	NA	NA	<10	NA	NA
MTCA	--	--	100	200	200	200	100	200	0.5	40	20	20	250	1	1*

Notes:
 NA - Not Analyzed
 ND - Not Detectable
 ppm - parts per million (equivalent to milligrams per kilogram soil)
 MTCA - Model Toxics Control Act Method A Cleanup Level (WAC 173-340-740)
 HCID - Hydrocarbon Identification by State Method WTPH-HCID
 WTPH-D - Total Extractable Petroleum Hydrocarbons by State Method WTPH-D
 WTPH-G - Total Purgeable Petroleum Hydrocarbons by State Method WTPH-G
 TPH 418.1 - Total Petroleum Hydrocarbons by State Method WTPH-G
 PAHs - Polychlorinated Biphenyls by EPA Method 8080
 * Values preceded by "<" represent analyte concentrations below the method detection limit indicated.
 † Sum of combined concentrations of individual carcinogenic PAH compounds.
 ‡ Shaded areas represent values in excess of the MTCA Method A cleanup level

**Table 2. Summary of Groundwater Analytical Results
Proposed Sterling Asphalt Facility
300 West Marine Drive
Everett, Washington**

Well ID	Date	WTPH-G (ppm)	TPH 418.1 (ppm)
MW-1	9/4/92	<0.050	15
MW-2	9/4/92	<0.050	1.2
MTCA	—	1.0	1.0

Notes:

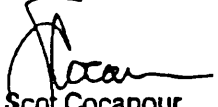
ppm - parts per million (equivalent to milligrams per liter of sample)
 MTCA - Model Toxics Control Act Method A Cleanup Level (WAC 173-340-720)
 WTPH-G - Total Purgeable Petroleum Hydrocarbons by State Method WTPH-G
 TPH 418.1 - Total Petroleum Hydrocarbons by State Method WTPH-418.1 modified
 Values preceded by "<" represent analyte concentrations below the method detection limit indicated.
 Shaded areas represent values in excess of the MTCA Method A cleanup level.

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Matrix: Soil Analysis for: Total Solids First Sample #: 208-1658	Received: Aug 31, 1992 Reported: Sep 17, 1992
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LABORATORY ANALYSIS FOR: Total Solids

Sample Number	Sample Description	Sample Result %
208-1658	C1-S1	95
208-1661	C2-S2	87
208-1662	C4-S1	95
208-1663	C5-S1	93
208-1664	C6-S1	96
208-1665	MW-1, S-2	58
208-1666	MW-2, S-1	94

North Creek Analytical routinely provides analytical results for soils, sediments or sludges on a WET WEIGHT "as received" basis. To attain dry weight equivalents for regulatory compliance, divide the soil result by the decimal fraction of percent solids. The results in this report apply only to the samples analyzed, as indicated on the custody document. This analytical report is to be reproduced only in its entirety.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way, #100	Matrix Descript: Soil	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis Method: Qualitative GC-FID	Extracted: Sep 1, 1992
Attention: John Cooper	First Sample #: 208-1658	Analyzed: Sep 9, 1992
		Reported: Sep 17, 1992

HYDROCARBON IDENTIFICATION (WTPH-HCID)

Sample Number	Sample Description	HCID as Gasoline nC7 - nC12 mg/kg (ppm)	GRO Surrogate Recovery %	HCID as Diesel nC12 - nC24 mg/kg (ppm)	DRO Surrogate Recovery %	HCID Heavy Oil >nC24 mg/kg (ppm)
208-1658	C1-S1	<20	140	<50	109	<100
208-1661	C2-S2	<20	112	<50	100	<100
208-1664	C6-S1	<20	87	<50	107	<100
208-1665	MW-1, S-2 8/31/92	<20	70	Present	67	Present
208-1666	MW-2, S-1 8/31/92	<20	98	<50	98	Present
BLK090192	Method Blank	<20	86	<50	77	<100

WTPH-HCID is a qualitative screen to determine the presence and the type of petroleum products that exist at a site. It is intended to be performed on representative soils from a site when the type of petroleum hydrocarbon contamination is unknown. When the analytical results for gasoline range organics, diesel range organics or heavy oils are shown as "Present", thereby exceeding the reporting limits, the specific quantitation method must be employed.

NORTH CREEK ANALYTICAL inc


 Scott Cocanour
 Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way. #100	Matrix Descript: Soil	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis Method: WTPH-G, EPA 5030/8020	Analyzed: Sep 9, 1992
Attention: John Cooper	First Sample #: 208-1658	Reported: Sep 17, 1992

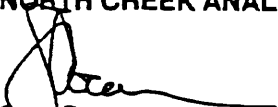
TOTAL PETROLEUM HYDROCARBONS with BTEX DISTINCTION (WTPH-G/BTEX)

Sample Number	Sample Description	Volatile Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)	Surrogate Recovery %
208-1658	C1-S1	N.D.	N.D.	N.D.	N.D.	N.D.	93
208-1661	C2-S2	N.D.	N.D.	N.D.	N.D.	N.D.	94
208-1664	C6-S1	N.D.	N.D.	N.D.	N.D.	N.D.	96
BLK090992	Method Blank	N.D.	N.D.	N.D.	N.D.	N.D.	100

Detection Limits:	1.0	0.05	0.05	0.05	0.1
--------------------------	------------	-------------	-------------	-------------	------------

Volatile Hydrocarbons are quantitated as Gasoline Range Organics (nC7 - nC12). Surrogate recovery reported is for Bromofluorobenzene. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Matrix Descript: Soil Analysis Method: WTPH-D First Sample #: 208-1662	Sampled: Aug 27, 1992 Received: Aug 31, 1992 Extracted: Sep 4, 1992 Analyzed: Sep 12, 1992 Reported: Sep 17, 1992
--	---	---

TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
208-1662	C4-S1	N.D.	90
208-1663	C5-S1	N.D.	85
BLK	Method Blank	N.D.	96

Detection Limits:

10.0

Extractable Hydrocarbons are quantitated as Diesel Range Organics (nC12 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scott Cocanour
 Laboratory Director

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Matrix Descript: Soil Analysis Method: WTPH-418.1 Modified First Sample #: 208-1658	Sampled: Aug 27, 1992 Received: Aug 31, 1992 Extracted: Sep 2, 1992 Analyzed: Sep 3, 1992 Reported: Sep 17, 1992
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TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (WTPH-418.1)

Sample Number	Sample Description	Petroleum Oil mg/kg (ppm)
208-1658	C1-S1	N.D.
208-1661	C2-S2	N.D.
208-1664	C6-S1	N.D.
208-1665	MW-1, S-2 8/31/92	700
208-1666	MW-2, S-1 8/31/92	87
BLK090292	Method Blank	N.D.

Detection Limits: 10.0

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

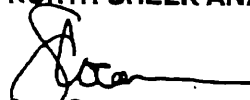
RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way, #100	Analysis Method: EPA 7420	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis for: Total Lead	Digested: Sep 11, 1992
Attention: John Cooper	First Sample #: 208-1658	Analyzed: Sep 14, 1992
	Matrix: Soil	Reported: Sep 17, 1992

METALS ANALYSIS FOR: Total Lead

Sample Number	Sample Description	Detection Limit mg/kg (ppm)	Sample Result mg/kg (ppm)
208-1658	C1-S1	10	N.D.
208-1661	C2-S2	10	N.D.
208-1664	C6-S1	10	17
208-1665	MW-1, S-2 8/31/92	10	11
208-1666	MW-2, S-1 8/31/92	10	N.D.
BLK090292	Method Blank	0.20 mg/L	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


Scot Cocanour
Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way, #100	Sample Descript: Soll, C1-S1	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis Method: EPA 8080	Extracted: Sep 3, 1992
Attention: John Cooper	Sample Number: 208-1658	Analyzed: Sep 7, 1992
		Reported: Sep 17, 1992

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
PCB 1016.....	0.050	N.D.
PCB 1221.....	0.050	N.D.
PCB 1232.....	0.050	N.D.
PCB 1242.....	0.050	N.D.
PCB 1248.....	0.050	N.D.
PCB 1254.....	0.050	N.D.
PCB 1260.....	0.050	N.D.

Tetrachloro-m-xylene Surrogate Recovery, %: 74
 Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way, #100	Sample Descript: Soil, C2-S2	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis Method: EPA 8080	Extracted: Sep 3, 1992
Attention: John Cooper	Sample Number: 208-1661	Analyzed: Sep 7, 1992
		Reported: Sep 17, 1992

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
PCB 1016.....	0.050	N.D.
PCB 1221.....	0.050	N.D.
PCB 1232.....	0.050	N.D.
PCB 1242.....	0.050	N.D.
PCB 1248.....	0.050	N.D.
PCB 1254.....	0.050	N.D.
PCB 1260.....	0.050	N.D.

Tetrachloro-m-xylene Surrogate Recovery, %: 66
 Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scott Cocanour
 Laboratory Director

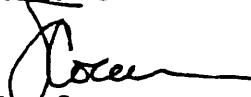
RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	
11335 NE 122nd Way, #100	Sample Descript: Method Blank	
Kirkland, WA 98034	Analysis Method: EPA 8080	Extracted: Sep 3, 1992
Attention: John Cooper	Sample Number: BLK090392	Analyzed: Sep 7, 1992
		Reported: Sep 17, 1992

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
PCB 1016.....	0.050	N.D.
PCB 1221.....	0.050	N.D.
PCB 1232.....	0.050	N.D.
PCB 1242.....	0.050	N.D.
PCB 1248.....	0.050	N.D.
PCB 1254.....	0.050	N.D.
PCB 1260.....	0.050	N.D.

Tetrachloro-m-xylene Surrogate Recovery, %: 128
 Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Sample Descript: Soil, C1-S1 Analysis Method: EPA 8100 Sample Number: 208-1658	Sampled: Aug 27, 1992 Received: Aug 31, 1992 Extracted: Sep 2, 1992 Analyzed: Sep 12, 1992 Reported: Sep 17, 1992
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POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8100)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acenaphthene.....	0.50	N.D.
Acenaphthylene.....	0.50	N.D.
Anthracene.....	1.0	N.D.
Benzo (a) anthracene.....	0.50	N.D.
Benzo (a) pyrene.....	0.50	N.D.
Benzo (b) fluoranthene.....	1.0	N.D.
Benzo (ghi) perylene.....	1.0	N.D.
Benzo (k) fluoranthene.....	1.0	N.D.
Chrysene.....	0.50	N.D.
Dibenzo (a,h) anthracene.....	1.0	N.D.
Fluoranthene.....	0.50	N.D.
Fluorene.....	0.50	N.D.
Indeno (1,2,3-cd) pyrene.....	1.0	N.D.
Naphthalene.....	0.50	N.D.
Phenanthrene.....	0.50	N.D.
Pyrene.....	0.50	N.D.

2-Fluorobiphenyl Surrogate Recovery, %: 110
 Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scott Cocanour
 Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Aug 27, 1992
11335 NE 122nd Way, #100	Sample Descript: Soil, C2-S2	Received: Aug 31, 1992
Kirkland, WA 98034	Analysis Method: EPA 8100	Extracted: Sep 2, 1992
Attention: John Cooper	Sample Number: 208-1661	Analyzed: Sep 12, 1992
		Reported: Sep 17, 1992

POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8100)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acenaphthene.....	0.50	N.D.
Acenaphthylene.....	0.50	N.D.
Anthracene.....	1.0	N.D.
Benzo (a) anthracene.....	0.50	N.D.
Benzo (a) pyrene.....	0.50	N.D.
Benzo (b) fluoranthene.....	1.0	N.D.
Benzo (ghi) perylene.....	1.0	N.D.
Benzo (k) fluoranthene.....	1.0	N.D.
Chrysene.....	0.50	N.D.
Dibenzo (a,h) anthracene.....	1.0	N.D.
Fluoranthene.....	0.50	N.D.
Fluorene.....	0.50	N.D.
Indeno (1,2,3-cd) pyrene.....	1.0	N.D.
Naphthalene.....	0.50	N.D.
Phenanthrene.....	0.50	N.D.
Pyrene.....	0.50	N.D.

2-Fluorobiphenyl Surrogate Recovery, %: 110

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA
 11335 NE 122nd Way, #100
 Kirkland, WA 98034
 Attention: John Cooper

Client Project ID: Sterling Asphalt, W-8390-2
 Sample Descript: Method Blank
 Analysis Method: EPA 8100
 Sample Number: BLK090292

Extracted: Sep 2, 1992
 Analyzed: Sep 12, 1992
 Reported: Sep 17, 1992

POLYNUCLEAR AROMATIC HYDROCARBONS (EPA 8100)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acenaphthene.....	0.50	N.D.
Acenaphthylene.....	0.50	N.D.
Anthracene.....	1.0	N.D.
Benzo (a) anthracene.....	0.50	N.D.
Benzo (a) pyrene.....	0.50	N.D.
Benzo (b) fluoranthene.....	1.0	N.D.
Benzo (ghi) perylene.....	1.0	N.D.
Benzo (k) fluoranthene.....	1.0	N.D.
Chrysene.....	0.50	N.D.
Dibenzo (a,h) anthracene.....	1.0	N.D.
Fluoranthene.....	0.50	N.D.
Fluorene.....	0.50	N.D.
Indeno (1,2,3-cd) pyrene.....	1.0	N.D.
Naphthalene.....	0.50	N.D.
Phenanthrene.....	0.50	N.D.
Pyrene.....	0.50	N.D.

2-Fluorobiphenyl Surrogate Recovery, %: 110
 Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA
 11335 NE 122nd Way, #100
 Kirkland, WA 98034
 Attention: John Cooper

Client Project ID: Sterling Asphalt, W-8390-2
 EPA Method: WTPH-G
 Sample Matrix: Soil
 Units: mg/kg (ppm)

Analyst: R. Lister
 Analyzed: Sep 9, 1992
 Reported: Sep 17, 1992

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Gasoline

PRECISION ASSESSMENT Sample Duplicate

Volatile
 Hydrocarbons

Spike Conc.
 Added: 100

Spike
 Result: 106

%
 Recovery: 106

Upper Control
 Limit %: 120

Lower Control
 Limit %: 80

Sample
 Number: 208-1422

Original
 Result: N.D.

Duplicate
 Result: N.D.

Relative
 % Difference: 0

Maximum
 RPD: 50

NORTH CREEK ANALYTICAL inc

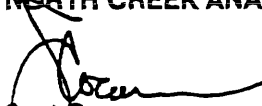

 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 EPA Method: 5030/8020 Sample Matrix: Soil Units: mg/kg (ppm) QC Sample #: 208-1658	Analyst: R. Lister K. Wilke Analyzed: Sep 9, 1992 Reported: Sep 17, 1992
--	--	---

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene		Ethyl Benzene Xylenes	
	Benzene	Toluene	Benzene	Xylenes
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.50	0.50	0.50	0.50
Conc. Matrix Spike:	0.46	0.46	0.51	0.45
Matrix Spike % Recovery:	92	92	102	90
Conc. Matrix Spike Dup.:	0.44	0.45	0.50	0.44
Matrix Spike Duplicate % Recovery:	88	90	100	88
Upper Control Limit %:	93	96	117	109
Lower Control Limit %:	57	58	69	63
Relative % Difference:	4.4	2.2	2.0	2.2
Maximum RPD:	8.6	9.6	8.8	9.5

NORTH CREEK ANALYTICAL inc

 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

RZA/AGRA
 11335 NE 122nd Way, #100
 Kirkland, WA 98034
 Attention: John Cooper

Client Project ID: Sterling Asphalt, W-8390-2
 EPA Method: WTPH-D
 Sample Matrix: Soil
 Units: mg/kg (ppm)

Analyst: L Dutton
 Extracted: Sep 4, 1992
 Analyzed: Sep 12, 1992
 Reported: Sep 17, 1992

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Diesel

PRECISION ASSESSMENT Sample Duplicate

Extractable
 Hydrocarbons

**Spike Conc.
 Added:** 67

**Spike
 Result:** 80

**%
 Recovery:** 119

**Upper Control
 Limit %:** 120

**Lower Control
 Limit %:** 80

**Sample
 Number:** 208-1662


**Original
 Result:** N.D.

**Duplicate
 Result:** N.D.

**Relative
 % Difference** 0

**Maximum
 RPD:** 50

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2	Analyst: S. Kimball
	EPA Method: WTPH-418.1	Extracted: Sep 2, 1992
	Sample Matrix: Soil	Analyzed: Sep 3, 1992
	Units: mg/kg (ppm)	Reported: Sep 17, 1992

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Petroleum
Oil

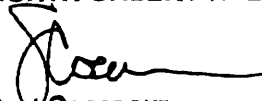
Spike Conc. Added:	51
Spike Result:	48
% Recovery:	94
Upper Control Limit %:	120
Lower Control Limit %:	80

PRECISION ASSESSMENT Sample Duplicate

Petroleum
Oil

Sample Number:	208-1658
Original Result:	N.D.
Duplicate Result:	N.D.
Relative % Difference	0
Maximum RPD:	50

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Sample Matrix : Water Units: mg/L (ppm)	Analyst: B. Oaks
		Reported: Sep 17, 1992

INORGANIC QUALITY CONTROL DATA REPORT

ANALYTE	Lead
----------------	------

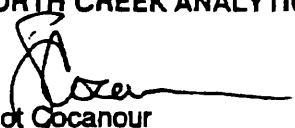
EPA Method: 7420
 Date Analyzed: Sep 4, 1992

ACCURACY ASSESSMENT

LCS Spike Conc. Added: 0.50
 LCS Spike Result: 0.53
 LCS Spike % Recovery: 106
 Upper Control Limit: 124
 Lower Control Limit: 87
 Matrix Spike Sample #: 208-1586
 Matrix Spike % Recovery: 120

PRECISION ASSESSMENT

Sample #: 208-1586
 Original: N.D.
 Duplicate: N.D.
 Relative % Difference: 0

NORTH CREEK ANALYTICAL inc

 Scot Gocanour
 Laboratory Director

Lab Control Sample % Recovery:	$\frac{\text{Conc. of L.C.S.}}{\text{L.C.S. Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2	Analyst: M. Bender
	EPA Method: 8080	Extracted: Sep 3, 1992
	Sample Matrix: Soil	Analyzed: Sep 7, 1992
	Units: µg/kg (ppb)	Reported: Sep 17, 1992
	QC Sample #: 209-0120	

QUALITY CONTROL DATA REPORT

ANALYTE

Aroclor 1260

Sample Conc.:	N.D.
Spike Conc. Added:	67
Conc. Matrix Spike:	46
Matrix Spike % Recovery:	69
Conc. Matrix Spike Dup.:	57
Matrix Spike Duplicate % Recovery:	85
Upper Control Limit %:	120
Lower Control Limit %:	60
Relative % Difference:	21
Maximum RPD:	50

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

RZA-AGRA

Environmental & Engineering Services
11335 Northeast 122nd Way
Kirkland, Washington 98034-6918
(206) 820-4669/FAX (206) 821-3914

Chain of Custody Record / Analysis Request

No 11230

Project Name: Sterling Asphalt Job No: W-8390-2
Project Manager: John Cooper Phone #: 820-4669
Sampler: Dave St. John / Brian Evans

Analysis Requested: (circle, check box or write preferred method in box)

RZA-AGRA Sample ID	Lab Samp ID	Date Collected	Time Collected	Matrix (S=Soil, W=Water, A=Air)	# Containers/Preservation						CHILL
					40 ml VOA /	1 L Glass /	8 oz Glass /				
C1-S1	2081658	8-27-92	PM	S							✓
C1-S2	2081659		PM	S							✓
C2-S1	2081660		PM	S							✓
C2-S2	2081661		PM	S							✓
C4-S1	2081662		PM	S							✓
C5-S1	2081663		PM	S							✓
C6-S1	2081664		PM	S							✓
MW-1, S-2	2081665	8-31-92	AM	S							✓
MW-2, S-1	2081666		AM	S							✓
MW-1, S-1	2081667		AM	S							✓
MW-1, S-3	2081668		AM	S							✓
MW-2, S-2	2081669		AM	S							✓

GTEX by EPA 9020 Soil / EPA 802 Water	<input checked="" type="checkbox"/>											
WTP-H-G	<input checked="" type="checkbox"/>											
BTEX/WTP-H-G	<input checked="" type="checkbox"/>											
WTP-H-G-H	<input checked="" type="checkbox"/>											
WTP-H-G	<input checked="" type="checkbox"/>											
TPH by EPA 8015 Mod.	<input checked="" type="checkbox"/>											
TPH 418.1 Modified	<input checked="" type="checkbox"/>											
LEAD EPA 6010 7420	<input checked="" type="checkbox"/>											
LEAD EPA 6010 7420	<input checked="" type="checkbox"/>											
TOTAL METALS	<input checked="" type="checkbox"/>											
TCLP EPA 1311	<input checked="" type="checkbox"/>											
P.C.B.s EPA 8080	<input checked="" type="checkbox"/>											
VOCs EPA 8010 8020	<input checked="" type="checkbox"/>											
EPA 801 802 Water	<input checked="" type="checkbox"/>											
GC/MS EPA 8240 Volatiles	<input checked="" type="checkbox"/>											
GC/MS EPA 8270 Semt-volatiles	<input checked="" type="checkbox"/>											
Hold for Further Analysis	<input checked="" type="checkbox"/>											
RUSH (see below)	<input checked="" type="checkbox"/>											

X PNAS EPA 8100

RELIQUISHED BY SAMPLER:	Signature: <u>[Signature]</u> Printed Name: <u>Brian Evans</u> Firm: <u>RZA ASEA</u>	RELIQUISHED BY:	Signature: _____ Printed Name: _____ Firm: _____	
Date/Time: <u>8/31/92 9:00</u>	RECEIVED BY:	Signature: <u>[Signature]</u> Printed Name: <u>DANA HELOZ</u> Firm: <u>RZA</u>	RECEIVED BY:	Signature: _____ Printed Name: _____ Firm: _____
LABORATORY: <u>Northeack</u>	Total # Containers: _____	Condition of Containers? _____	Condition of Seals? _____	
Special Handling: <input type="checkbox"/> 8 hour <input type="checkbox"/> 24 hour <input type="checkbox"/> 5 business day <input checked="" type="checkbox"/> 10 business day <input type="checkbox"/> other _____ (#) business day		PURPOSE OF SAMPLING / COMMENTS:		
Date/Time: <u>8/31/92 4:00</u>		Date/Time: _____		

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

RZA-AGRA

Environmental & Engineering Services
 11335 Northeast 122nd Way
 Kirkland, Washington 98034-6918
 (206) 820-4663/FAX (206) 821-3914

No 11232

Project Name: Sterling Asphalt Job No.: W-8390-2
 Project Manager: John Coopy Phone #: 820-4669
 Sampler: Dave St. John / Brian Evans

RZA-AGRA Sample ID	Lab Samp ID	Date Collected	Time Collected	Matrix (S=soil, W=water, A=air)	# Containers/Preservation
MW-2, S-2A	2081670	8-31-92	AM 5	S	40
MW-2, S-3	2081671	8-31-92	AM 5	S	2

Analysis Requested: (circle, check box or write preferred method in box)

<input type="checkbox"/> BTEX by EPA 8020 Soil / EPA 602 Water	<input type="checkbox"/> WTPH-G	<input type="checkbox"/> BTEX/WTPH-G	<input type="checkbox"/> WTPH-D	<input type="checkbox"/> WTPH-418.1 Modified	<input type="checkbox"/> TPH by EPA 8015 Mod.	<input type="checkbox"/> TPH by EPA 418.1	<input type="checkbox"/> LEAD EPA 6010 7420 7421 Soil	<input type="checkbox"/> Total / Dissolved EPA 7421 Water	<input type="checkbox"/> TCLP EPA 1311	<input type="checkbox"/> PCBs EPA 8080 Soil	<input type="checkbox"/> EPA 808 Water	<input type="checkbox"/> VOCs EPA 8010 8020 Soil	<input type="checkbox"/> EPA 801 802 Water	<input type="checkbox"/> GCMS EPA 8240 Volatiles	<input type="checkbox"/> GCMS EPA 8270 Semi-volatiles	<input type="checkbox"/> Hold for Further Analysis	<input type="checkbox"/> RUSH (see below)
--	---------------------------------	--------------------------------------	---------------------------------	--	---	---	---	---	--	---	--	--	--	--	---	--	---

RELINQUISHED BY SAMPLER: Signature: <i>Brian Evans</i> Printed Name: Brian Evans Firm: RZA AGRA Date/Time: 8/31/92 4:00	RELINQUISHED BY: Signature: Printed Name: Firm: Date/Time:	RELINQUISHED BY: Signature: Printed Name: Firm: Date/Time:	LABORATORY: <i>Northcreek</i>	Special Handling Turnaround: <input type="checkbox"/> 8 hour <input type="checkbox"/> 24 hour <input type="checkbox"/> 5 business day <input checked="" type="checkbox"/> 10 business day <input type="checkbox"/> other _____ (#)business day
RECEIVED BY: Signature: <i>ANA HEINE</i> Printed Name: ANA HEINE Firm: RZA Date/Time: 8/31/92 4:00	RECEIVED BY: Signature: Printed Name: Firm: Date/Time:	RECEIVED BY: Signature: Printed Name: Firm: Date/Time:	Total # Containers: Condition of Containers? Condition of Seals?	PURPOSE OF SAMPLING / COMMENTS:

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 Matrix Descript: Water Analysis Method: WTPH-G First Sample #: 209-0384	Sampled: Sep 4, 1992 Received: Sep 8, 1992 Analyzed: Sep 16, 1992 Reported: Sep 18, 1992
--	--	---

TOTAL PETROLEUM FUEL HYDROCARBONS (WTPH-G)

Sample Number	Sample Description	Volatile Hydrocarbons $\mu\text{g/L}$ (ppb)	Surrogate Recovery %
209-0384	MW-1	N.D.	101
209-0385	MW-2	N.D.	100
BLK091692	Method Blank	N.D.	94

Detection Limits:

50.0

Volatile Hydrocarbons are quantitated as Gasoline Range Organics (nC7 - nC12). Surrogate recovery reported is for Bromofluorobenzene. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


Scot Cocanour
Laboratory Director

RZA/AGRA	Client Project ID: Sterling Asphalt, W-8390-2	Sampled: Sep 4, 1992
11335 NE 122nd Way, #100	Matrix Descript: Water	Received: Sep 8, 1992
Kirkland, WA 98034	Analysis Method: WTPH-418.1	Extracted: Sep 9, 1992
Attention: John Cooper	First Sample #: 209-0384	Analyzed: Sep 10, 1992
		Reported: Sep 18, 1992

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (WTPH-418.1)

Sample Number	Sample Description	Petroleum Oil mg/L (ppm)
209-0384	MW-1	16
209-0385	MW-2	1.2
BLK090992	Method Blank	N.D.

Detection Limits:	1.0
--------------------------	------------

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

RZA/AGRA 11335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sterling Asphalt, W-8390-2 EPA Method: WTPH-418.1 Sample Matrix: Water Units: mg/L (ppm)	Analyst: S. Kimball Extracted: Sep 9, 1992 Analyzed: Sep 10, 1992 Reported: Sep 18, 1992
--	--	---

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Petroleum Oil

Spike Conc. Added:	3.0
Spike Result:	2.7
% Recovery:	90
Upper Control Limit %:	120
Lower Control Limit %:	80

PRECISION ASSESSMENT Sample Duplicate

Petroleum Oil

Sample Number:	209-0451
Original Result:	N.D.
Duplicate Result:	N.D.
Relative % Difference	0
Maximum RPD:	30

NORTH CREEK ANALYTICAL inc

% Recovery:	$\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$


 Scot Cocanour
 Laboratory Director

RZA/AGRA
 11335 NE 122nd Way, #100
 Kirkland, WA 98034
 Attention: John Cooper

Client Project ID: Sterling Asphalt, W-8390-2
 EPA Method: WTPH-G
 Sample Matrix: Water
 Units: µg/L (ppb)

Analyst: R. Lister
 S. Stowell
 Analyzed: Sep 16, 1992
 Reported: Sep 18, 1992

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Gasoline

Spike Conc. Added: 100
 Spike Result: 113
 % Recovery: 113
 Upper Control Limit %: 120
 Lower Control Limit %: 80

PRECISION ASSESSMENT Sample Duplicate

Volatile Hydrocarbons

Sample Number: 209-0385
 Original Result: N.D.
 Duplicate Result: N.D.
 Relative % Difference: 0
 Maximum RPD: 20

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$
Relative % Difference:	$\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

RZA-AGRA

Environmental & Engineering Services
 11335 Northeast 122nd Way
 Kirkland, Washington 98034-6918
 (206) 820-4669/FAX (206) 821-3914

Project Name: Sterling Alpha II, Everett Job No.: W-9390-2
 Project Manager: John T. Cooper Phone #: 820-4669
 Sampler: JTC/OAJ

Chain of Custody Record / Analysis Request

Analysis Requested: (circle, check box or write preferred method in box)

BTEX by EPA 8020 Soil / EPA 602 Water	<input checked="" type="checkbox"/>	WTPH-G	
BTEX/WTPH-G	<input checked="" type="checkbox"/>		
WTPH-D	<input checked="" type="checkbox"/>		
TPH by EPA 8015 Mod.	<input checked="" type="checkbox"/>		
WTPH-418.1 Modified	<input checked="" type="checkbox"/>		
TPH by EPA 418.1	<input checked="" type="checkbox"/>		
LEAD EPA 6010 7420 7421 Soil			
Total / Dissolved EPA 7421 Water			
TCLP EPA 1311			
PCBs EPA 8080 Soil			
EPA 808 Water			
VOCs EPA 8010 8020 Soil			
EPA 801 802 Water			
GCMS EPA 8240 Volatiles			
GCMS EPA 8270 Semi-volatiles			
Hold for Further Analysis			
RUSH (see below)			

WTPH-AID CANCELled per HPL

Lab Samp ID	Date Collected	Time Collected	Matrix (S=soil, W=water, A=air)	40 ml VOA /	1 L Glass /	8 oz Glass /	# Containers/Preservation	CHILL
MW-1	2090389	9-4-92	A.M.	W	2	1		<input checked="" type="checkbox"/>
MW-2	2090385	9-4-92	A.M.	W	2	1		<input checked="" type="checkbox"/>

RELINQUISHED BY SAMPLER:	RELINQUISHED BY:	RELINQUISHED BY:
Signature: <u>John T. Cooper</u>	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Firm: <u>RZA AGRA, Inc.</u>	Firm:	Firm:
Date/Time: <u>9-8-92</u>	Date/Time:	Date/Time:
RECEIVED BY:	RECEIVED BY:	RECEIVED BY:
Signature: <u>[Signature]</u>	Signature:	Signature:
Printed Name: <u>S. EDWARDS</u>	Printed Name:	Printed Name:
Firm: <u>NCA</u>	Firm:	Firm:
Date/Time: <u>9/8/92</u>	Date/Time:	Date/Time: <u>10:50</u>

LABORATORY: <u>NCA</u>	Special Handling
Total # Containers:	Turnaround: <input type="checkbox"/> 8 hour <input type="checkbox"/> 24 hour <input type="checkbox"/> 5 business day <input checked="" type="checkbox"/> 10 business day <input type="checkbox"/> other _____ (#)business day
Condition of Containers?	
Condition of Seals?	
PURPOSE OF SAMPLING / COMMENTS:	

122nd Way - 11335 Northeast - 98034-6918 - (206) 820-4669 - FAX (206) 821-3914 - RZA-AGRA - Environmental & Engineering Services



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

December 6, 1993

Mr. John Glascock
JELD-WEN
P.O. Box 1329
Klamath Falls, OR 97601

Re: Nord Door Company, Everett, Washington

Dear Mr. Glascock:

Per your request, I have enclosed a copy of the Department of ecology's Washington Ranking Method manual. I have also enclosed a copy of Ecology's Site Hazard Assessment guidance and procedures manual. In addition, I have enclosed 3 focus sheets regarding the Hazardous sites List, the Washington Ranking Method, and Site Hazard Assessments.

Also, for your information, I have enclosed a copy of the site hazard assessment summary report for the Nord Door facility.

If you have any further questions, please call me at (206) 649-7258.

Sincerely,

Dave Nazy
Hydrogeologist
Toxics Cleanup Program

DN:DN

enclosures

February 11, 1994

RECEIVED

FEB 14 1994

DEPT. OF ECOLOGY

TO: State of Washington
Department of Ecology
Northwest Regional Office
Attn: Michael Gallagher
3190 160th Ave. S.E.
Bellvue, WA 98008-5452

RE: Nord Door/JELD-WEN of Everett
300 W. Marine View Drive
Everett, WA 98026

Dear Mr. Gallagher:

With this letter, I would like to formally report the discovery of waste in the environment in excess of Model Toxics Control Act recommended clean-up levels. On November 19, 1993, I received a fax from Huckel/Weinman Associates, Inc. (HWA) outlining the discovery on our industrial site.

JELD-WEN is in the process of leasing a portion of the Everett, WA. facility. Through the independent site review that Huckel/Weinman Associates, Inc. performed, for the prospective lessee, the discovery was made. RZA AGRA, Inc. performed the site assessment under contract to HWA. The package of information was made available to JELD-WEN through the Environmental Impact Statement HWA produced for Sterling Asphalt, the prospective lessee.

The contamination discovered was Total Petroleum Hydrocarbons. One soil sample showed a result of 700 ppm, which exceeds the Model Toxics Control Act recommended level of 200 ppm. This Table 2 Method A Cleanup level is based on protection of ground water.

Two ground water samples produced levels of 16 ppm and 1.6 ppm, which exceeds MTCA levels of 1.0 ppm. The cleanup level indicated is a conservative level, but exceedance in the values indicated in Table 1 of the Method A levels do not necessarily trigger requirements for cleanup action. The indicated cleanup level is based on prevention of adverse aesthetic characteristics. The location of the samples are identified on the enclosed map.

Historical review of the site indicates that this has been a wood products manufacturing plant since early in the century. The site has grown through periodic fill in the Port Gardner tide lands. The latest reclaim occurred in 1978 after an extensive Environmental Impact Statement was received and approved.

By using dated aerial photographs, available from the 1940's to present, there does not appear to be any process which would produce or cause a petroleum contamination. The approximate area of contamination is by the reclaimed portion of the Port Gardner tide lands where, years ago, loading of materials and moorage of boats occurred.

On August 21, 1991 you, as a representative of the Department of Ecology, offered a relative health and environmental risk for this site of a 5: representing the lowest risk. This ranking was based on historical review and site reconnaissance. Parametrix completed their study for the D.O.E. in June of 1991.

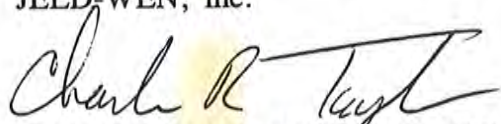
There has been no independent action at this time. A review of historical site procedures, previous reports, interviews with employees, and aerial photographs have been done to determine the need for further investigation.

Based on the information available, it does not appear that this discovery is of major impact. The levels of TPH, though in excess of Model Toxics Control Act closure levels which are advisory, based on the occupancy and exposure, should be protective of human health and the environment and closure at such levels should be appropriate.

After review of the attached data and information or if you have need of further information, please contact me. Thank you.

Sincerely yours,

JELD-WEN, inc.



Charles R. Taylor WSO CSM, CHMS
Safety & Environmental Manager

attachments

wpdoc\johng\ndcontam

cc: Matt Beddoe
Randy Cox

ATTACHMENT A

**D.O.E. RANKING AND SUMMARY
SCORE SHEET FOR NORD FACILITY**



CHRISTINE O. GREGOIRE
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

August 21, 1991

Mr. Mike Negrete
Nord Door
300 W. Marine View Drive
Everett, WA 98026

Dear Mr. Negrete:

The Department of Ecology has now assessed the relative health and environmental risk of Nord Door site. A ranking of 5 (with 1 being highest risk and 5 being lowest risk) has been calculated.

For your information, Ecology will be publishing the ranking of this and other sites in the August 27 Site Register. The rankings will be used in conjunction with other considerations in determining Ecology's priority for future actions at sites. It is not anticipated this ranking will affect the current activities at the site.

The site ranking effort is being conducted under the Model Toxics Control Act. A fact sheet on the ranking method is enclosed for your information.

For further information, please contact Judith Altken at 649-7135.

Sincerely,

Michael Gallagher
Supervisor
Toxics Cleanup Program

MG:cs
Enclosure

8/26/91

RECEIVED
AUG 26 1991
NORD/JELD-WEN

cc: RANDY COX
STAN MEYERS
Bill Schaefermann

11/23193

Post-It™ brand fax transmittal memo 7671 # of pages ▶ 4

To	JOHN	From	MIKE
Co.	JELD-WEN	Co.	NORD
Dept.	SAFETY	Phone #	
Fax #	(503) 885-7424	Fax #	(206) 252-7422

WORKSHEET 1
SUMMARY SCORE SHEET

Site Name/Location (City, County, Section/Township/Range):

NORD DOOR
Everett, Snohomish County

The site is in NE1/4, NE1/4, SE1/4 of Section 7, T29N, R5E.

Site Description (Include management areas, compounds of concern, and quantities):

Nord Door is situated adjacent to the Snohomish on an area of fill. Current processes involve sorting, stacking, drying, planing and cutting lumber and assembling and finishing doors, rails, posts, columns and spindles. They occasionally fabricate their own machinery. No contaminants were found to exceed MCA levels.

Management Areas Surface and ground soils, and surface water.

Compounds of Concern Acetone, chloroform, and Methylene Chloride.

Quantities Unknown

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

None

ROUTE SCORES:

Surface Water/Human Health: 1.8

Surface Water/Environ.: 6.5

Air/Human Health: 7.1

Air/Environmental: 18.9

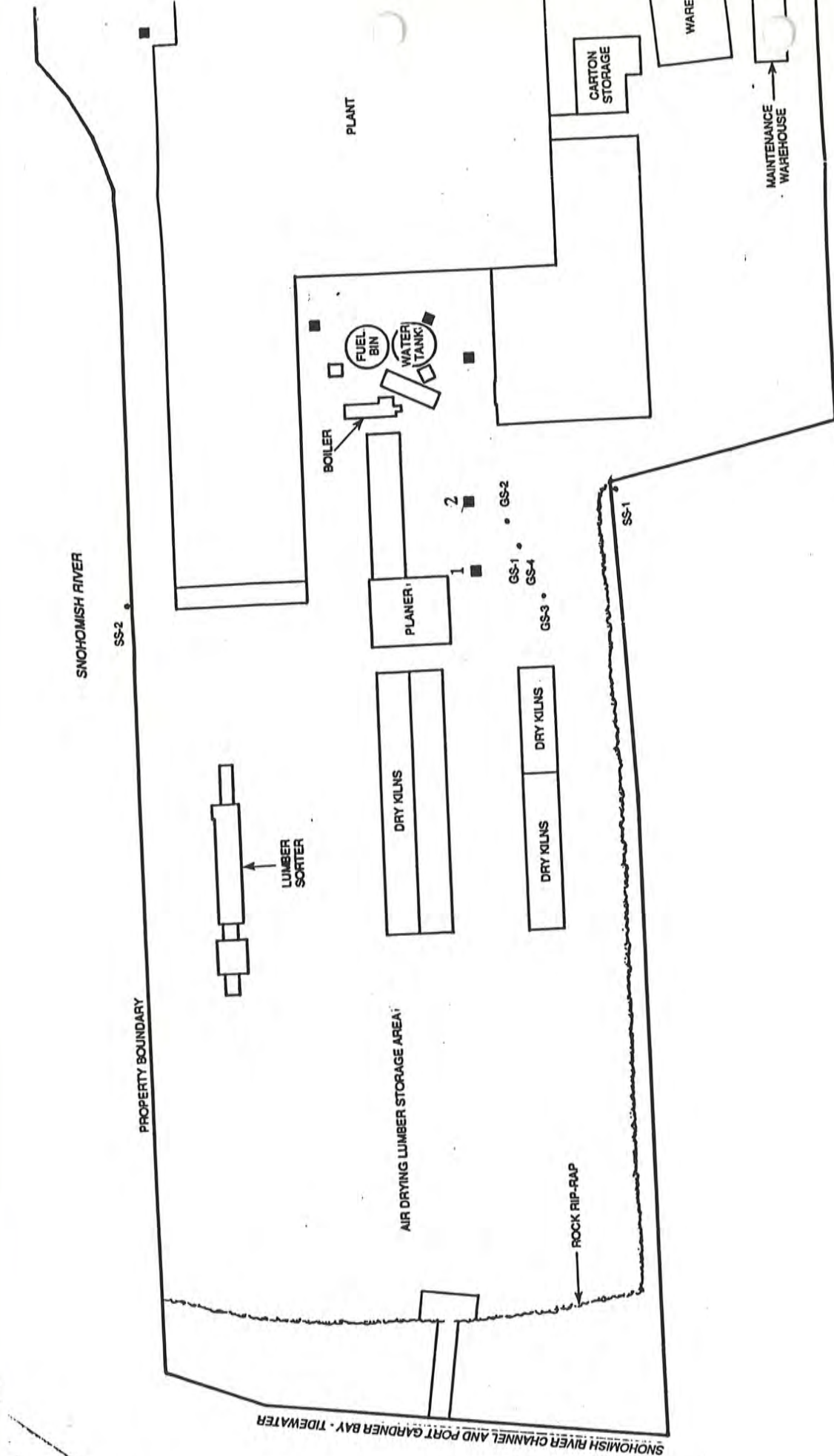
Ground Water/Human Health: 10.2

OVERALL RANK: 5

Rev. 5/31/91

ATTACHMENT B

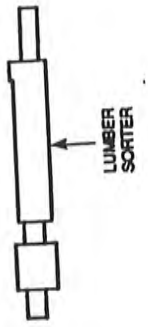
**SITE LOCATION OF PARAMETRIX
SAMPLE LOCATIONS FOR D.O.E.
RISK ASSESSMENT JUNE 1991**



SNOHOMISH RIVER

SS-2

PROPERTY BOUNDARY



SNOHOMISH RIVER CHANNEL AND PORT GARDNER BAY - TIDEWATER

PLANT

BOILER



PLANER

DRY KILNS

DRY KILNS

ROCK RIP-RAP

CARTON STORAGE

WAREHC

MAINTENANCE WAREHOUSE

1 2

GS-1 GS-2

GS-3 GS-4

SS-1



Transformers

ATTACHMENT C

**SCHEMATIC OF PROPOSED ASPHALT PLANT.
SOIL AND WATER SAMPLES INDICATED BY MW-1
AND MW-2.**

ANALYTICAL:

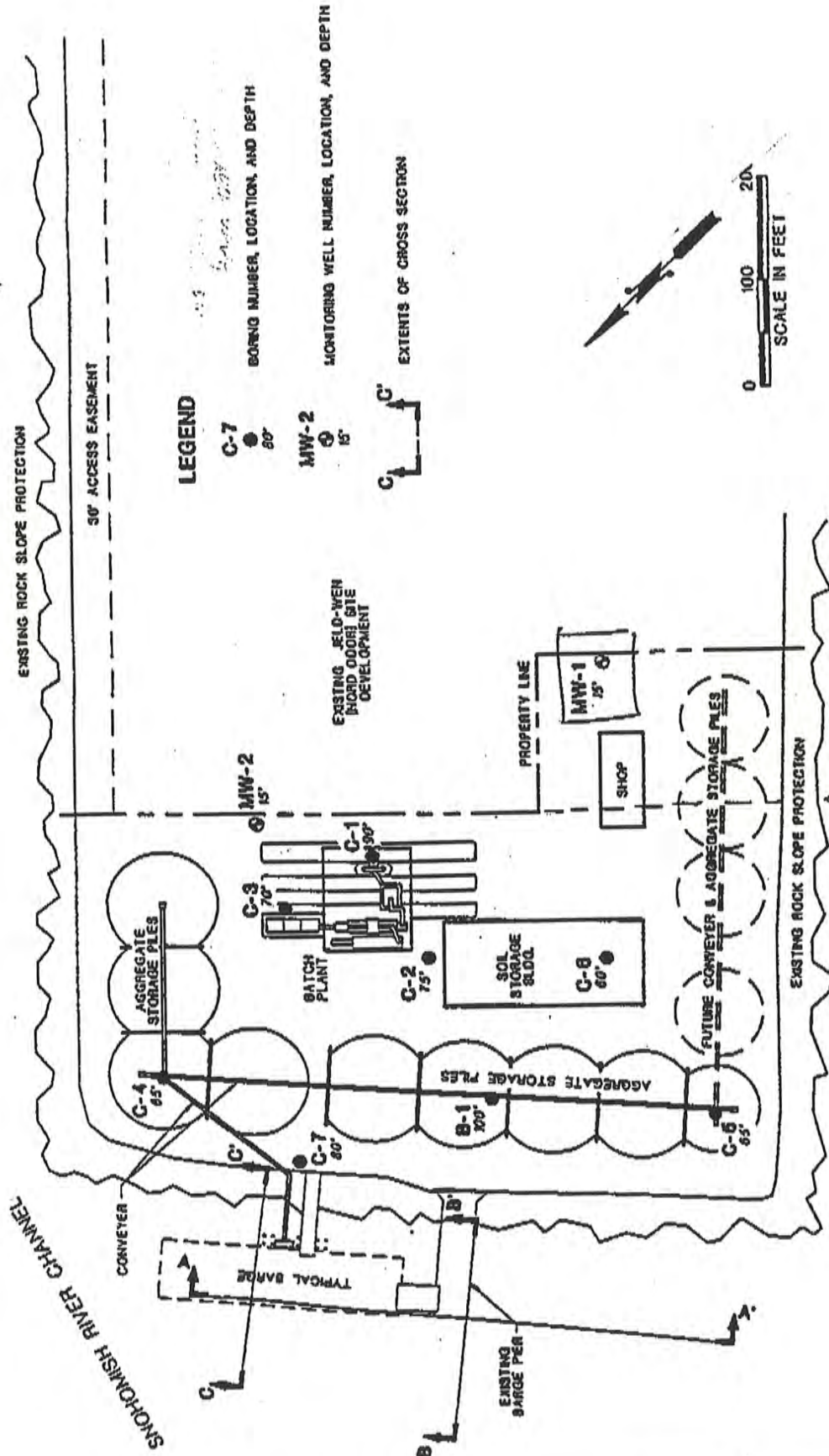
MW-1

SOIL 700 ppm TPH

GROUNDWATER 16 ppm TPH

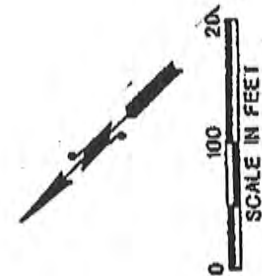
MW-2

GROUND WATER 1.2 ppm TPH



LEGEND

- C-7 ● 60'
- MW-2 ⊕ 15'
- Monitoring Well Number, Location, and Depth
- Extents of Cross Section



RZA AGRA, INC. <i>Engineering & Environmental Services</i>		VI-9390-2	
1635 N.E. 122nd Way Suite 100 Bellevue, Washington 98004-6948		W.D. DEWITT	JIC
		DRAWN	MJF
		DATE	SEP 1992
		SCALE	1"=100'

STERLING ASPHALT
EVERETT, WASHINGTON
SITE AND EXPLORATION PLAN
FIGURE 2
DRAWING NO. 98004-6948-2

ATTACHMENT D
NARRATIVE AND SCHEMATIC OF 1978
E.I.S. PROPOSED RECLAIM AREA

D Major Physical and Engineering Aspects of the Proposal

Construction Phase I

The first phase of the project involves the placement of 198,800 cubic yards of fill on 11.2 acres of tideland owned by Nord immediately south of the existing factory (See Figures 4, and 5). The Nord Company anticipates obtaining the fill material from Snohomish River channel maintenance dredging. Because of competing uses of these river dredge spoils by the Port of Everett and others, Nord may not be able to utilize dredge spoils for its proposed fill. In this event Nord will be required to find another source of fill material. One possible source of fill may be Nord's own maintenance dredging which it will undertake to keep its recently constructed barge dock in operation. Periodic dredging will be required to maintain a channel for Nord's barges. Another potential source of fill material may be other private maintenance dredging in the area. Still another source of fill material could be large scale public or private construction projects which generate exported fill material.

The timetable for placement of fill for the Nord Expansion Project is therefore quite flexible, and will be determined by the availability of acceptable fill material. The Nord Company would like to commence the fill process shortly after all permits have been obtained so as to maximize its potential of receiving fill material from any or all sources.

The fill would create a finished ground elevation of + 15 feet above mean lower low water (MLLW). The fill will be contained on all waterward sides by a retention berm with a top elevation of + 15 feet MLLW. The retention berm is proposed to be composed of approximately 12,700 cubic yards of granular material, with a two foot rock riprap outer surface to protect the fill from wave action. The proposed fill area, together with the existing 3.8 acre upland, will create a total of about 15 acres of new land available for development. The 15 acre expansion area was purchased by the Nord Company in late 1976 in anticipation of this expansion project.

In December, 1976 the E.A. Nord Company submitted an application to the Army Corps of Engineers to fill the 11.2 acres of tideland. That application was later withdrawn. Upon completion of the state and local environmental review process, a new application for the proposed fill will be submitted. This will begin the federal review process for the project.

Construction Phase II

The second phase of the project consists of the expansion of the main factory building, support facilities, and parking area (See Figure 4).

The existing main factory building will be redesigned and reorganized on the interior to create more efficient use of the space. A new 363,600 square foot factory building will be constructed partially on the new fill area. Reinforced concrete piles will be driven into the fill to provide structural support for the building. The new building will be aligned parallel to Norton Avenue and perpendicular to the main production flow in the existing building. This new "L-shaped" configuration will permit the separation of the three major products - doors, louvers and turnings - into three separate production lines. Doors will be made in the new building, with production flowing northward toward finishing and shipping (See Figure 4).

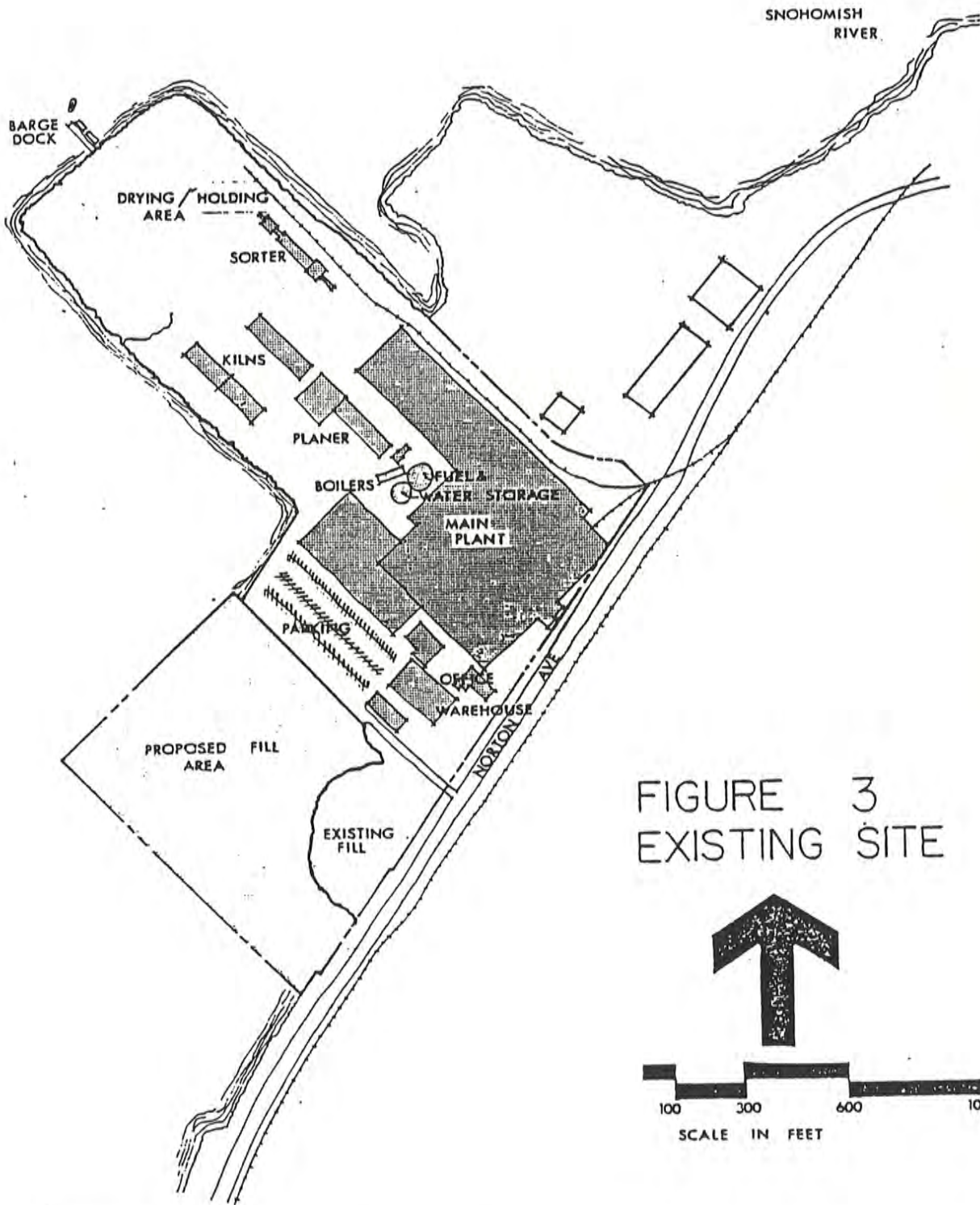
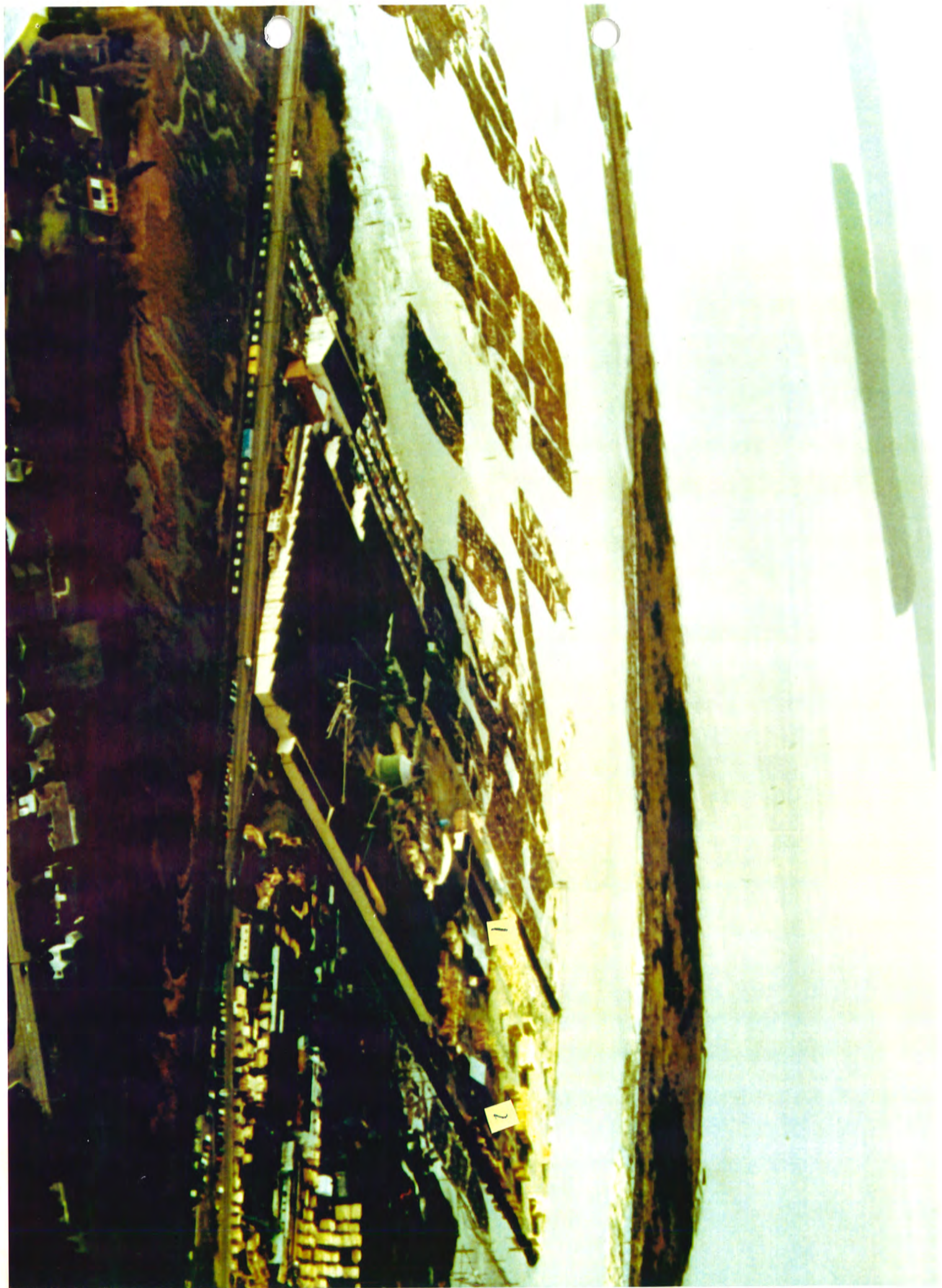


FIGURE 3
EXISTING SITE

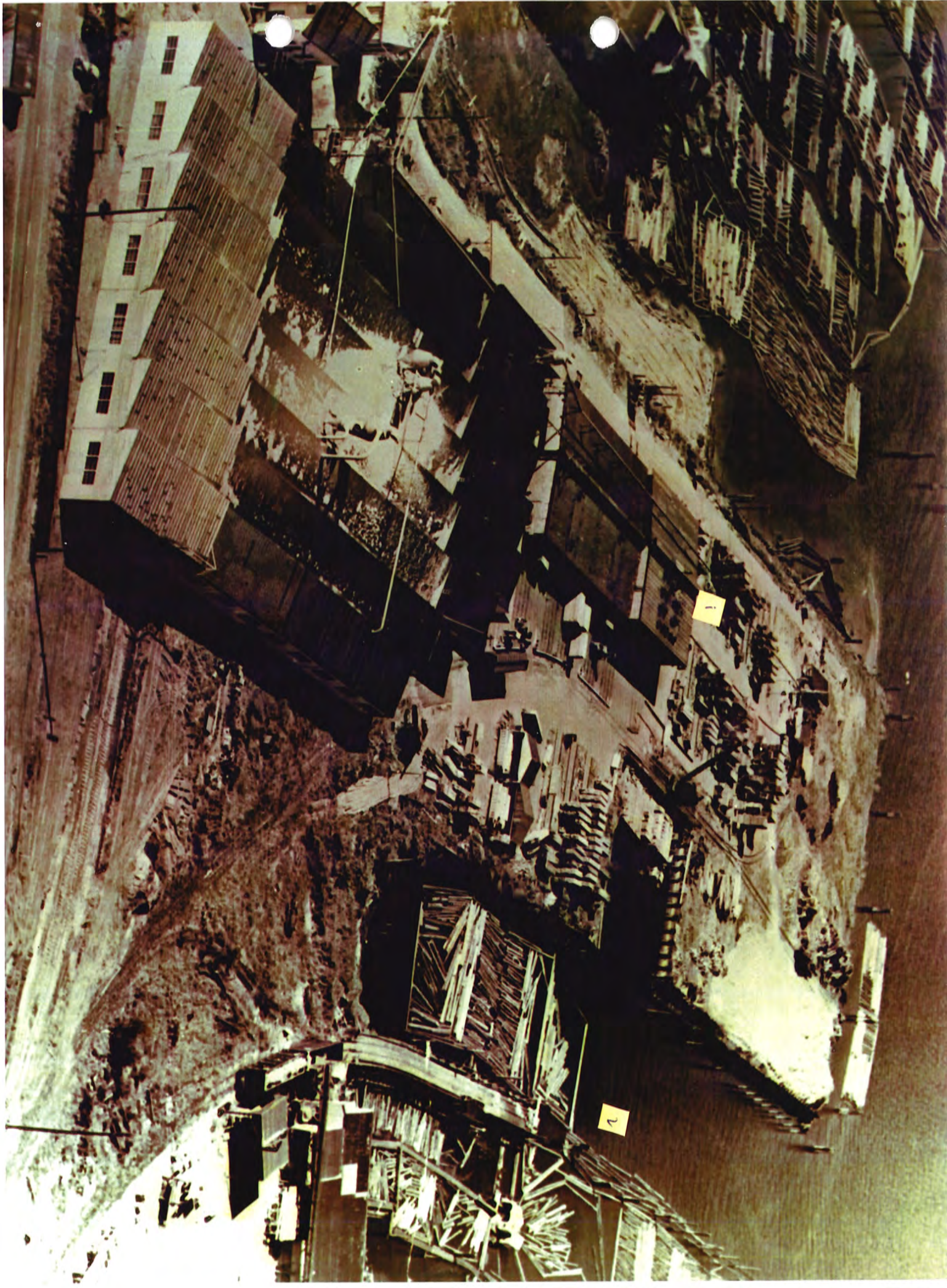
ATTACHMENT E

**APPROXIMATELY 1965 PHOTO OF LOCATION.
1 AND 2 INDICATE EST. LOCATIONS OF
MW-1 AND MW-2**

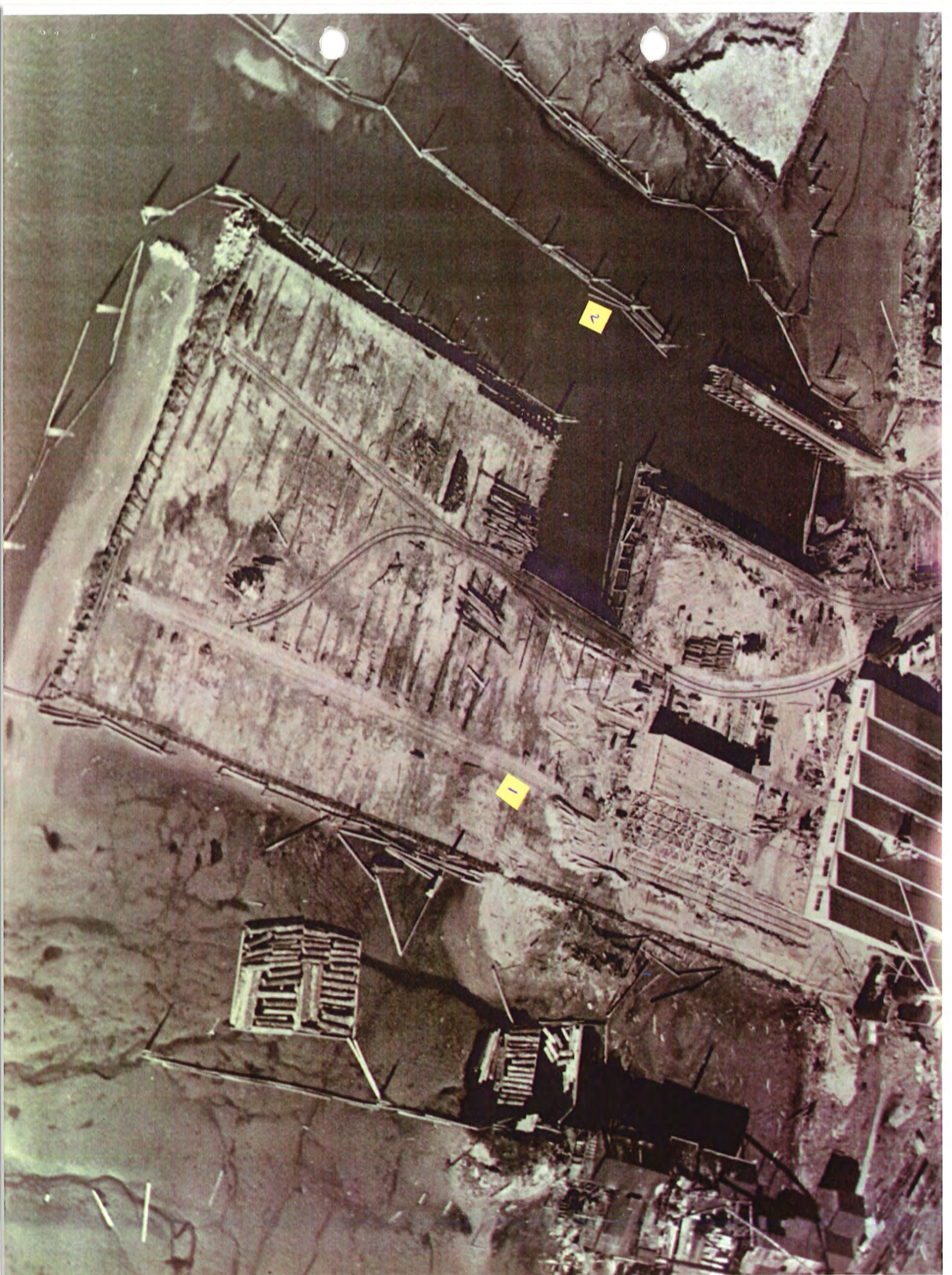


ATTACHMENT F

**ESTIMATED LOCATION MW-1 AND MW-2.
OCTOBER 1954 PHOTOGRAPH**



ATTACHMENT G
ESTIMATED LOCATION MW-1 AND MW-2
APRIL 1947 PHOTOGRAPH



RECEIVED**JUN - 6 1994**

DATE: June 3, 1994

TO: Gail Colburn, Washington D.O.E., Toxics Clean-up Program

FROM: Karen Olsen, JELD-WEN, inc., Special Projects Env. Dept.

RE: Nord Door/JELD-WEN of Everett

DEPT. OF ECOLOGY

Through the week of May 30 we had several conversations with your department concerning our Everett facility. In addition to you, we talked extensively with Michael Spenser and Elaine Atkinson.

The Everett facility was ranked in August of 1991 by the Toxics Clean-up Program. Our ranking at the time was 5 by your Washington Ranking Method.

In February of 1994 we reported to your department the discovery of TPH contaminated soil in excess of the Model Toxics Control Act at the same facility. Not having received a reply to that letter, we wanted to clarify that we had reported the situation in a satisfactory manner.

Our conversations with Michael, Elaine and yourself have resolved the issue. The second finding did not justify reranking the site due to the minor impact of the contamination. We understand the ranking of this facility will remain a 5 on the WARM.

Thank you for your time concerning this manner.

S:doeverm.603

cc: Charlie Taylor
Randy Cox