7003 2260 0003 1472 9109

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

PORTLAND, OR 97203

Postage	$ 0.49	UNIT: [illegible]-0008
Certified Fee	2.30	
Return Reciept Fee (Endorsement Required)	1.75	Postmark Here
Restricted Delivery Fee (Endorsement Required)		Clerk: TWK[illegible]
Total Postage & Fees	$ 4.54	11/12/04

PORTLAND OR MAIN OFFICE USPS NOV 2002

Sent To
Street, Apt. 1
or PO Box N
City, State, Z

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

PS Form 38[illegible]

871451

SCOEPA00033945

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

PS Form 3800, June 2002 (Reverse)

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Susan DiPaula
☑ Agent
☑ Addressee

B. Received by (*Printed Name*) Susan DiPaula
C. Date of Delivery 11/15/04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

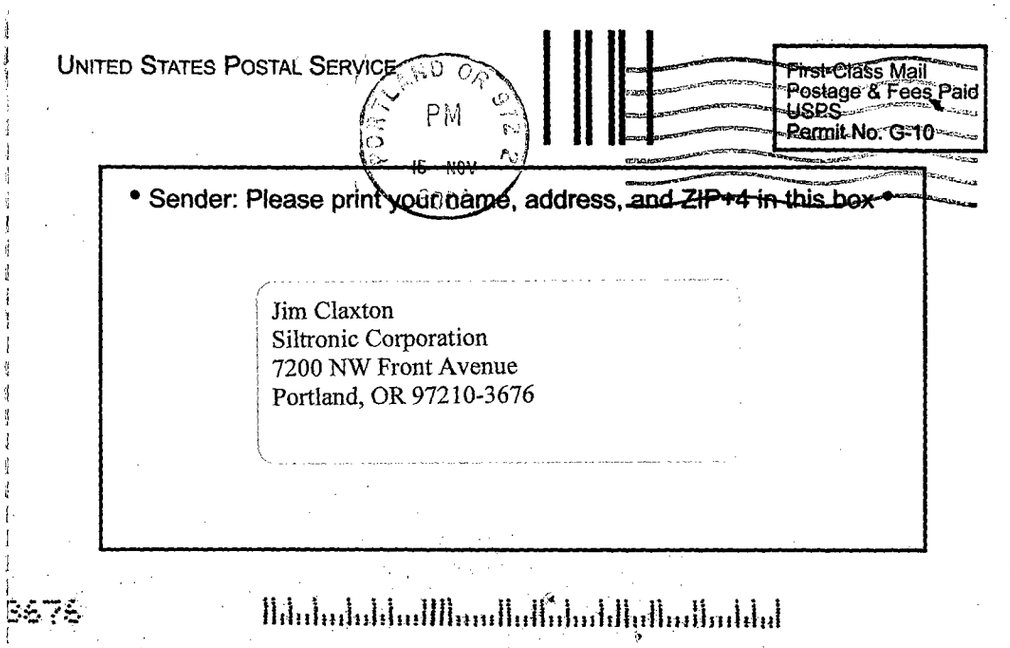
PORTLAND, OR 97203-9998 USPS NOV 15 2004 STATION SNHO

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number (*Transfer from service label*) 7003 2260 0003 1472 9109

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540


UNITED STATES POSTAL SERVICE
PORTLAND OR
PM
15 NOV
First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10
• Sender: Please print your name, address, and ZIP+4 in this box •
Jim Claxton
Siltronic Corporation
7200 NW Front Avenue
Portland, OR 97210-3676
3675

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 074.JWC

2004-November-12

October 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the September 2004 Industrial Discharge Report for Siltronic Corporation Municipal Discharge permit 469-001.

There were no excursions recorded for October 2004. October 2, 2004, an electrical power outage caused an upset at the Siltronic WWTP. For about 90 minutes no pH data was collected.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton

Environmental Engineer

Enclosure:
POTW-IDR Monthly Report
Special Account Meter Report Document

cc: Tom Rothschild
POTW-IDR File

4640175004
SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

10/31/2003

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2	
PAST READING	109367	526,261	(100s of GALLONS)
CURRENT READING	109367	705,396	(100s of GALLONS)
CONSUMPTION	0	179,135	(100s of GALLONS)
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)
TOTAL CONSUMPTION	1,791,350	(10s of GALLONS)	

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,791,350	* 10 GAL / 7.48 GAL/CF =	2,394,853	CF
TOTAL THROUGH OVERFLOW LI	0	* 10 GAL / 7.48 GAL/CF =	0	CF
TOTAL CONSUMPTION			2,394,853	CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	855,145	(10s of GALLONS)
CURRENT READING	913,755	(10s of GALLONS)
CONSUMPTION	58,610	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	58,610	* 10 GAL / 7.48 GAL/CF=	78,356	CF

This meter reading was reported by: C. Justin Darr on 11/6/04
C. Justin Darr date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
Portland, Oregon 97203-5452

SCOEPA00033950

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: November 15, 2004

SAMPLING PERIOD: October 2004

For Industrial Source Control Division Use Only

Date Postmarked/Received **Date Entered**

Entered By

Comments:

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	Power Outage Oct 2, see letter dated Oct 14, 2004, Upset to WWTP
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Clayton Date: 11/12/2004

Document1

7003 2260 0001 3454 3107

al Service™
FIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

PORTLAND OR OAK GROVE BR 97268
SEP 16 2004
Postmark Here
USPS

CLAXTON

Sent To
Tim Dean
Street, or PO B Bureau of Environmental Services
City, St City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

PS Form ... uctions

SCOEPA00033952

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

SCOEPA00033953

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X L. K. Westerberg ☐ Agent ☐ Addressee

B. Received by (Printed Name) L. K. WESTERBERG C. Date of Delivery 9-13-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

USPS PORTLAND, OR SAINT JOHNS SEP 13 2004 97203-9998

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7003 2260 0001 3454 3107

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

PORTLAND OR 972
PM
13 SEP

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue
Portland, OR 97210-3676

97210+3676

siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 063.JWC

2004-September-10

August 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the August 2004 Industrial Discharge Report for Siltronic Corporation Municipal Discharge permit 469-01. Siltronic has operated in compliance with the Permit for this reporting period.

Siltronic did experience an operational upset August 22. Due to a valve failure, Siltronic's Organic Wastewater (OWW) from Fab 1 was diverted directly to the City, bypassing Siltronic's Wastewater Treatment Plant (WWTP). Under normal operations Siltronic's OWW wastestreams from Fab 1 and Fab 2 are sent to the City after pH adjustments, if needed, at the WWTP. The upset condition was an exceptional incident in which there was an unintentional release of the Fab 1 OWW directly to the City due to the failure of a valve and by-pass line for that valve. During the upset the pH of the OWW wastestream was measured manually every 15 minutes. Based on data collected by Siltronic's Facilities Operations Staff, the pH permit conditions were not exceeded during the upset period. The permit pH limit for this wastestream is 5.0 to 11.5.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR
Special Account Meter Report Document

cc: Tom Rothschild
POTW-IDR File

7003 2260 0001 3454 3107

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: September 15,2004

SAMPLING PERIOD: August 2004

For Industrial Source Control Division Use Only

Date Postmarked/Received **Date Entered**

Entered By

Comments

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit
#1B (Fab 2)	FOXBORO	861	5.0 - 11.5 S.U.

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Clayton Date: 9/10/04

Document2

7003 2260 0003 1472 9031

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ 60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

FOREST PARK STA
AUG 11 2004
Postmark Here

Sent To Tim Dean CLAXTON
Street, or PO B Bureau of Environmental Services
City, St City of Portland
6543 N. Burlington Avenue
PS For Portland, OR 97203-5452 uctions

SCOEPA00033958

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

PS Form 3800, June 2002 (Reverse)

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x K Westerberg ☐ Agent ☐ Addressee

B. Received by (Printed Name) K. WESTERBERG C. Date of Delivery 8-12-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

PORTLAND, OR SAINT JOHNS USPS AUG 12 2004 97203

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7003 2260 0003 1472 9031

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

SCOEPA00033960

UNITED STATES POSTAL SERVICE

PORTLAND OR 972 6
PM
12 AUG

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue
Portland, OR 97210-3676

24

siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 052.JWC

2004-August-10

July 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the July 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR

cc: Tom Rothschild
POTW-IDR File

7002 2030 0003 5905 2028

4640175004
SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

7/31/2004

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2		
PAST READING	109367	118,592	(100s of GALLONS)	
CURRENT READING	109367	912,442	(100s of GALLONS)	
CONSUMPTION	0	206,150	(100s of GALLONS)	
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)	
TOTAL CONSUMPTION	2,061,500	(10s of GALLONS)		

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	2,061,500	* 10 GAL / 7.48 GAL/CF =	2,756,016	CF
TOTAL THROUGH OVERFLOW LI	0	* 10 GAL / 7.48 GAL/CF =	0	CF
TOTAL CONSUMPTION			2,756,016	CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	617,550	(10s of GALLONS)
CURRENT READING	690,851	(10s of GALLONS)
CONSUMPTION	73,301	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	73,301	* 10 GAL / 7.48 GAL/CF=	97,996	CF

This meter reading was reported by: C. Justin Darr on 8/4/04 date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00033963

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: August 15TH

SAMPLING PERIOD: July 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments	

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

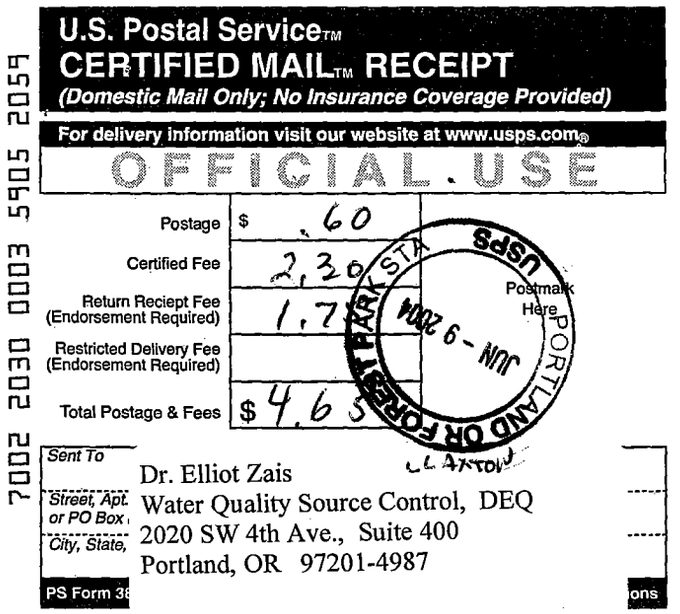
Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Claxton Date: 8/10/04

N:\Environmental\Enviromental Affairs\Enviromental-NPDES\PERMITS\WATER\POTW\2004 reports\July04.doc



U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

USPS PORTLAND OR FOREST PARK STA JUN - 9 2004 Postmark Here

7002 2030 0003 5905 2059

Sent To
Street, Apt. or PO Box
City, State,

Dr. Elliot Zais
Water Quality Source Control, DEQ
2020 SW 4th Ave., Suite 400
Portland, OR 97201-4987

PS Form 3

ons

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

PS Form 3800, June 2002 *(Reverse)*
102595-02-M-1692

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dr. Elliot Zais
Water Quality Source Control, DEQ
2020 SW 4th Ave., Suite 400
Portland, OR 97201-4987

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x DEQ/NWR ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery
JUN 10 2004

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 2030 0003 5905 2059

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

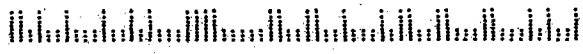
UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue M/S 30
Portland, OR 97210-3676

24



siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 039.JWC

2004-June-09

May 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the May 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR File

cc: Tom Rothschild
POTW-IDR File

7002 2030 0003 5905 2028

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: June 15, 2004

SAMPLING PERIOD: May 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments	

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit		
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.		
DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)	COMMENTS
No Excursions				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Claxton Date: 6/9/04

Document1

4640175004
SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

5/31/2004

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2	
PAST READING	109367	559,955	(100s of GALLONS)
CURRENT READING	109367	736,186	(100s of GALLONS)
CONSUMPTION	0	176,231	(100s of GALLONS)
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)
TOTAL CONSUMPTION	1,762,310	(10s of GALLONS)	

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,762,310	* 10 GAL / 7.48 GAL/CF =	2,356,029	CF
TOTAL THROUGH OVERFLOW LINE	0	* 10 GAL / 7.48 GAL/CF =	0	CF
TOTAL CONSUMPTION			2,356,029	CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	468,805	(10s of GALLONS)
CURRENT READING	541,421	(10s of GALLONS)
CONSUMPTION	72,616	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	72,616	* 10 GAL / 7.48 GAL/CF=	97,080	CF

This meter reading was reported by: C. Justin Darr on 6/1/04 (date)

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00033971

7002 2030 0003 5905 2028

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 4.65

CLAXTON

OAK GROVE BR 97268 PORTLAND OR USPS Postmark Here MAY 2024

Sent To
Tim Dean
Street, or PO B
Bureau of Environmental Services
City, St
City of Portland
6543 N. Burlington Avenue
PS For
Portland, OR 97203-5452
uctions

SCOEPA00033972

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

PS Form 3800, June 2002 *(Reverse)* 102595-02-M-1692

SCOEPA00033973

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X K. Westerberg ☐ Agent ☐ Addressee

B. Received by (Printed Name) K. WESTERBERG C. Date of Delivery 5-13-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 2030 0003 5905 2028

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

SCOEPA00033974

UNITED STATES POSTAL SERVICE

PORTLAND OR 972
PM
15 MAY

GREETINGS FROM USPS
Far Far Away

First Class Mail
Postage & Fees Paid
Permit No. G-10

• Sender: Please print your name, address, and ~~ZIP+4 in this box~~ •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue M/S 30
Portland, OR 97210-3676

97210+3676

siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 033.JWC

2004-May-11

April 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the April 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J. Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR File

cc: Tom Rothschild
POTW-IDR File

7002 2030 0003 5905 2028

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: May 15th, 2004

SAMPLING PERIOD: April 2001

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments	

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Clayton Date: May 11/2004

Document1

4640175004
SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

4/30/2003

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2	
PAST READING	109367	370,460	(100s of GALLONS)
CURRENT READING	109367	559,955	(100s of GALLONS)
CONSUMPTION	0	189,495	(100s of GALLONS)
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)
TOTAL CONSUMPTION	1,894,950	(10s of GALLONS)	

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,894,950	* 10 GAL / 7.48 GAL/CF =	2,533,356 CF
TOTAL THROUGH OVERFLOW LINE	0	* 10 GAL / 7.48 GAL/CF =	0 CF
TOTAL CONSUMPTION			2,533,356 CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	399,072	(10s of GALLONS)
CURRENT READING	468,805	(10s of GALLONS)
CONSUMPTION	69,733	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	69,733	* 10 GAL / 7.48 GAL/CF=	93,226 CF

This meter reading was reported by: C. Justin Darr on 5/11/04
C. Justin Darr — date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00033978

7002 2030 0003 5905 2004

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .83
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$4.88

PORTLAND OR FOREST PARK STA
APR 9 2004
USPS
Postmark Here

Sent Tim Dean
Bureau of Environmental Services
Street or P City of Portland
City 6543 N. Burlington Avenue
Portland, OR 97203-5452

PS Form 3800, June 2002 See Reverse for Instructions

SCOEPA00033979

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.
Internet access to delivery information is not available on mail addressed to APOs and FPOs.

PS Form 3800, June 2002 (Reverse)
102595-02-M-1692

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☒ Addressee

B. Received by (Printed Name) Tim Dean
C. Date of Delivery 4/9/04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 2030 0003 5905 2004

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

SCOEPA00033981

UNITED STATES POSTAL SERVICE

PORTLAND OR 972
PM
15 APR
2004

GREETINGS
FROM
Far Far Away

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue M/S 30
Portland, OR 97210-3676

97210+3676

siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 023.JWC

2004-April-8

March 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the March 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR File
Special Account Meter Report

cc: Tom Rothschild
POTW-IDR File

SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

3/31/2003

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2	
PAST READING	109367	184,461	(100s of GALLONS)
CURRENT READING	109367	370,460	(100s of GALLONS)
CONSUMPTION	0	185,999	(100s of GALLONS)
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)
TOTAL CONSUMPTION	1,859,990	(10s of GALLONS)	

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,859,990	* 10 GAL / 7.48 GAL/CF =	2,486,618	CF
TOTAL THROUGH OVERFLOW LI	0	* 10 GAL / 7.48 GAL/CF =	0	CF
TOTAL CONSUMPTION			2,486,618	CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	322,458	(10s of GALLONS)
CURRENT READING	399,072	(10s of GALLONS)
CONSUMPTION	76,614	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	76,614	* 10 GAL / 7.48 GAL/CF=	102,425	CF

This meter reading was reported by: C. Justin Darr on 4/1/04
C. Justin Darr date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00033984

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: April 15TH

SAMPLING PERIOD: January – March 2004

For Industrial Source Control Division Use Only

Date Postmarked/Received Date Entered

Entered By

Comments

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	#1B (Fab 2)	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
pH	SM 4500-H	SU	0.1	5.0 - 11.5	N/A	
TTOs (Volatiles)	EPA 8260	<0.01 mg/L	0.005	1.37 mg/L	N/A	SEE CERTIFICATION STATEMENT BELOW

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	#1B (Fab 2)	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Arsenic (Total)	EPA 200.8	<0.002 mg/L	0.002	0.2 mg/L	0.83 mg/L	
Total Suspended Solids	EPA 160.8	70 mg/L	0.1	N/A	N/A	

Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J Clayton Date: 4/8/04

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: April 15TH.

SAMPLING PERIOD: March 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
Comments	Entered By

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit		
#1B (Fab 2)	FOXBORO	861	5.0 - 11.5 S.U.		
DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)	COMMENTS
NO EXCURSIONS				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J. Clayton Date: 4/8/04

Document2

BENCHSHEET

TOTAL SUSPENDED SOLIDS (TSS)

Sample Date: 3/4/04 Oven Temp: 104 C Analyst: Di

Date In: 3/4/04 Time In/Out: 1030 / 1330

Tin #	Sample	Vol, ml	Gross Wt, g	Tare Wt, g	TSS, mg/L
1	Blank	NA	0.0866	0.0866	
	CE FAB-1				
	CE FAB-1				
				Average CE FAB-1 TSS	
2	CE FAB-2	500	0.0905	0.0879	5.2
3	CE FAB-2	500	0.0921	0.0894	5.4
				Average CE FAB-2 TSS	5.3
4	OWW	100	0.0980	0.0889	91
5	OWW	100	0.0986	0.0888	98
				Average OWW TSS	94.5
				Average TSS	

Comments: _____

Calculation: TSS, mg/L = $\frac{\text{(Gross Wt, g - Tare Wt, g) X 1,000,000}}{\text{Volume of Sample, ml}}$

Note: NPDES permit: monthly avg. 23 mg/L, daily max. 61 mg/L.
POTW permit: daily max 350 mg/L.

Reference: 1. Standard Methods for the Examination of Water and Wastewater, 1998, 20th Edition, Section 2540 D, page 2-57.
2. National Pollution Discharge Elimination System Permit #101128.

TJR 21 Mar 1987
DEI 17 Jun 2003 Revised

L:\FACLAB\WWTP\BENCH\TSSB.DOC

SCOEPA00033987

BENCHSHEET

TOTAL SUSPENDED SOLIDS (TSS)

Sample Date: 3/11/04 Oven Temp: 103 C Analyst: DI

Date In: 3/11/04 Time In/Out: 1030 / 1300

Tin #	Sample	Vol, ml	Gross Wt, g	Tare Wt, g	TSS, mg/L
1	Blank	NA	0.0866	0.0866	
	CE FAB-1				
	CE FAB-1				
				Average CE FAB-1 TSS	
2	CE FAB-2	500	0.0938	0.0887	10.2
3	CE FAB-2	506	0.0939	0.0885	10.8
				Average CE FAB-2 TSS	10.5
4	OWW	100	0.0973	0.0900	73
5	OWW	100	0.0966	0.0892	74
				Average OWW TSS	73.5
				Average TSS	

Comments: _____

Calculation: TSS, mg/L = $\frac{\text{(Gross Wt, g - Tare Wt, g) X 1,000,000}}{\text{Volume of Sample, ml}}$

Note: NPDES permit: monthly avg. 23 mg/L, daily max. 61 mg/L.
POTW permit: daily max 350 mg/L.

Reference: 1. Standard Methods for the Examination of Water and Wastewater, 1998, 20th Edition, Section 2540 D, page 2-57.
2. National Pollution Discharge Elimination System Permit #101128.

TJR 21 Mar 1987
DEI 06 Mar 2004 Revised

N:ENVIRONMENTAL\FACLAB\WWTP\BENCH\TSSB.DOC

BENCHSHEET

TOTAL SUSPENDED SOLIDS (TSS)

Sample Date: 3-18-04 Oven Temp: 104 C Analyst: DEI

Date In: 3-18-04 Time In/Out: 1000 / 1330

Tin #	Sample	Vol, ml	Gross Wt, g	Tare Wt, g	TSS, mg/L
1	Blank	NA	0.0882	0.0882	
	CE FAB-1				
	CE FAB-1				
				Average CE FAB-1 TSS	
2	CE FAB-2	500	0.0918	0.0886	6.4
3	CE FAB-2	500	0.0925	0.0890	7
				Average CE FAB-2 TSS	6.7
4	OWW	100	0.0928	0.0886	42
5	OWW	100	0.0927	0.0886	41
				Average OWW TSS	41.5
				Average TSS	

Comments: _____

Calculation: TSS, mg/L = $\frac{\text{(Gross Wt, g - Tare Wt, g) X 1,000,000}}{\text{Volume of Sample, ml}}$

Note: NPDES permit: monthly avg. 23 mg/L, daily max. 61 mg/L.
POTW permit: daily max 350 mg/L.

Reference: 1. Standard Methods for the Examination of Water and Wastewater, 1998, 20th Edition, Section 2540 D, page 2-57.
2. National Pollution Discharge Elimination System Permit #101128.

TJR 21 Mar 1987
DEI 06 Mar 2004 Revised

N:ENVIRONMENTAL\FACLAB\WWTP\BENCH\TSSB.DOC

SCOEPA00033989

COFFEY LABO. TORIES, INC.
CHAIN OF CUSTODY AGREEMENT

CENTRAL OREGON BRANCH
827 SW 7th
Redmond, OR 97756
PHONE/FAX (541) 548-0972

CORPORATE HEADQUARTERS
12423 NE Whitaker Way
Portland, OR 97230
(503) 254-1794 FAX: (503) 254-1452

EASTERN OREGON BRANCH
419 SW 5th
Pendleton, OR 97801
PHONE/FAX (541) 276-0385

Report Attention: Tom Rothschild
Company Name: Siltronic
Mailing Address: 7200 NW Front Ave
Portland, Oregon
Phone: (503) 219-7274 FAX: (503) 417-4141

Report Instructions (Special - Additional- Job Specific):

PO Number: 4500075102
Project Number: 19~23
Project Name: Monthly
EPA Protocol Containers: Y/N Other:

Sample Turnaround
- [x] Standard
- [ ] Priority (Additonal Fee)
- [ ] Rush (Additional Fee)
- [ ] Emergency (Additional Fee)

Reporting Request
- [ ] State Compliance Format
- [x] FAX Results - Preliminary
- [ ] FAX Results-Final
- [ ] Verbals Results
- [ ] Extra Report Copy (Fees Associated)

Initials: DI

FOR LABORATORY USE ONLY Page ___ of ___
Job Number:
Custabbr: NEW
VISA M/C Cardholder:
Card #: Exp:
Cash / Check / CC $ #
Billing Code: 1 2 3 4
QC LEVEL: 1 2 3 4
FEDX BUS COURIERS UPS LAB CLIENT MAIL AIR

Sample ID	Loc	ID	#	Collection Date	Collection Time	Media	Analysis Requested	Test/Profile
04-19-CE-C				3/4/04	0730		BOD, Cr (T)	
04-21-CE-G				3/4/04	0730		8260, 8270, 1-2, Diphenolhydrazine	
04-22-OWW-C				3/4/04	0730		As (T)	
04-23-OWW-G				3/4/04	0730		8260, IPA	

Sampled By: Dianne Irish
AUTHORIZED CUSTOMER SIGNATURE Dianne Irish DATE: 3/4/04

Sample Comments	Relinquished by: (Please Sign)	Date	Time	Received by: (Sign)	Date	Time
	Dianne Irish	3/4/04	1040	[signature]	3-4-04	1040
				LAB		

White Copy-Laboratory Yellow Copy - Customer

COMPLETE THIS FORM PER INSTRUCTIONS ON REVERSE SIDE

SUBMISSION OF SAMPLES WITH TESTING REQUIREMENTS TO CLI WILL BE UNDERSTOOD TO BE AN AGREEMENT FOR SERVICES IN ACCORDANCE WITH THE CONDITIONS LISTED ON THE BACK OF THE CLIENT COPY.

SCOEPA00033990

RECEIVED MAR 1 9 2004

Report Date: March 12, 2004
Job Number: A40305H
PO Number: 4500075102
Project No: 19-23
Project Name: Monthly

Tom Rothschild
Wacker Siltronic
7200 NW Front Avenue
Portland, OR 97210-3676

Analytical Narrative

The sample was received on 03/05/04 by Coffey Laboratories, Inc. (CLI) Sample Reception personnel under strict chain of custody protocol. The following information was provided at the time of sample reception:

Laboratory Sample ID	Field Identification	Matrix	Collection Date	Collection Time
A40305H-1	04-19-CE-C	Waste Water	03/04/04	0730
A40305H-2	04-21-CE-G	Waste Water	03/04/04	0730
A40305H-3	04-22-OWW-C	Waste Water	03/04/04	0730
A40305H-4	04-23-OWW-G	Waste Water	03/04/04	0730

The recommended holding time for each batch of analyses was in accordance with the data quality objectives as specified in the CLI Quality Assurance Plan unless otherwise noted.

Acceptable precision and accuracy were achieved for all analyses associated with this work order as demonstrated by the recoveries of the quality control samples analyzed concurrently with each batch.

The data submitted in this report is for the sole and exclusive use of the above-named client. All samples associated with the work order will be retained a maximum of 15 days from the report date or until the maximum holding time expires. All results pertain only to samples submitted.

Thank you for allowing Coffey Laboratories to be of service to you. If you have questions or need further assistance, please do not hesitate to call our Customer Services Department.

Sincerely,

John A. Guild

Technical Services

TS /atc

Coffey Laboratories, Inc.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

Analytical Data

Wacker Siltronic

Job Number: A40305H

Lab Sample ID: A40305H-3
Field ID: 04-22-OWW-C
Date/Time: 03/04/04 0730
Matrix: Waste Water

EPA Category: Inorganic Chemicals

Parameter	Method	Detection Limit	Analytical Result	Units	Analysis Date	Analyst
Arsenic	EPA 200.8	0.002	ND	mg/L	03/10/04	CV

ND means none detected at or above the detection limit listed.

Coffey Laboratories, Inc.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

SCOEPA00033992

Analytical Data

Wacker Siltronic

Job Number: A40305H

Lab Sample ID: A40305H-4
Field ID: 04-23-OWW-G
Date/Time: 03/04/04 0730
Matrix: Waste Water

EPA Category: Extractable Organics
Analysis Performed: CLISolventScan; Solvent Scan.
Analysis Date: 03/08/04
Analyst: MKM

Parameter	Detection Limit	Laboratory Blank	Analytical Result
Isopropanol	1.	ND	3.

Results expressed as mg/l unless otherwise noted.

Coffey Laboratories, Inc.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

SCOEPA00033993

Analytical Data

Wacker Siltronic

Job Number: A40305H

Lab Sample ID: A40305H-4
Field ID: 04-23-OWW-G
Date/Time: 03/04/04 0730
Matrix: Waste Water

EPA Category: Volatile Organic Chemicals
Analysis Performed: EPA 8260; Volatile Organics by GC/MS.
Analysis Date: 03/05/04
Analyst: AB

Parameter	Detection Limit	Laboratory Blank	Analytical Result
Acetone	0.015	ND	0.14
Benzene	0.005	ND	ND
Bromobenzene	0.005	ND	ND
Bromochloromethane	0.005	ND	ND
Bromodichloromethane	0.005	ND	ND
Bromoform	0.005	ND	ND
Bromomethane	0.005	ND	ND
2-Butanone (MEK)	0.005	ND	ND
n-Butylbenzene	0.005	ND	ND
sec-Butylbenzene	0.005	ND	ND
tert-Butylbenzene	0.005	ND	ND
Carbon Disulfide	0.005	ND	ND
Carbon tetrachloride	0.005	ND	ND
Chlorobenzene	0.005	ND	ND
Chloroethane	0.005	ND	ND
2-Chloroethylvinyl ether	0.005	ND	ND
Chloroform	0.005	ND	ND
Chloromethane	0.005	ND	ND
2-Chlorotoluene	0.005	ND	ND
4-Chlorotoluene	0.005	ND	ND
1,2-Dibromo-3-chloropropane	0.005	ND	ND
Dibromochloromethane	0.005	ND	ND
1,2-Dibromoethane	0.005	ND	ND
Dibromomethane	0.005	ND	ND
1,2-Dichlorobenzene	0.005	ND	ND
1,3-Dichlorobenzene	0.005	ND	ND
1,4-Dichlorobenzene	0.005	ND	ND
Dichlorodifluoromethane	0.005	ND	ND
1,1-Dichloroethane	0.005	ND	ND
1,2-Dichloroethane	0.005	ND	ND

Results expressed as mg/L unless otherwise noted.
ND means none detected at or above the detection limit listed.

Coffey Laboratories, Inc.
12423 N.E. Whitaker Way • Portland, OR • 97230 • (503) 254-1794 • FAX (503) 254-1452

SCOEPA00033994

Analytical Data

Wacker Siltronic

Job Number: A40305H

Lab Sample ID: A40305H-4
Field ID: 04-23-OWW-G
Date/Time: 03/04/04 0730
Matrix: Waste Water

EPA Category: Volatile Organic Chemicals
Analysis Performed: EPA 8260; Volatile Organics by GC/MS.
Analysis Date: 03/05/04
Analyst: AB

Parameter	Detection Limit	Laboratory Blank	Analytical Result
1,1-Dichloroethene	0.005	ND	ND
cis-1,2-Dichloroethene	0.005	ND	ND
trans-1,2-Dichloroethene	0.005	ND	ND
1,2-Dichloropropane	0.005	ND	ND
1,3-Dichloropropane	0.005	ND	ND
2,2-Dichloropropane	0.005	ND	ND
1,1-Dichloropropene	0.005	ND	ND
cis-1,3-Dichloropropene	0.005	ND	ND
trans-1,3-Dichloropropene	0.005	ND	ND
Ethylbenzene	0.005	ND	ND
Hexachlorobutadiene	0.005	ND	ND
2-Hexanone	0.005	ND	ND
Iodomethane	0.005	ND	ND
Isopropylbenzene	0.005	ND	ND
4-Isopropyltoluene	0.005	ND	ND
4-Methyl-2-pentanone	0.005	ND	ND
Methylene chloride	0.005	ND	ND
Naphthalene	0.005	ND	ND
n-Propylbenzene	0.005	ND	ND
Styrene	0.005	ND	ND
1,1,1,2-Tetrachloroethane	0.005	ND	ND
1,1,2,2-Tetrachloroethane	0.005	ND	ND
Tetrachloroethene	0.005	ND	ND
Toluene	0.005	ND	ND
1,2,3-Trichlorobenzene	0.005	ND	ND
1,2,4-Trichlorobenzene	0.005	ND	ND
1,1,1-Trichloroethane	0.005	ND	ND
1,1,2-Trichloroethane	0.005	ND	ND
Trichloroethene	0.005	ND	ND
Trichlorofluoromethane	0.005	ND	ND

Results expressed as mg/L unless otherwise noted.
ND means none detected at or above the detection limit listed.

SCOEPA00033995

Analytical Data

Wacker Siltronic

Job Number: A40305H

Lab Sample ID: A40305H-4
Field ID: 04-23-OWW-G
Date/Time: 03/04/04 0730
Matrix: Waste Water

EPA Category: Volatile Organic Chemicals
Analysis Performed: EPA 8260; Volatile Organics by GC/MS.
Analysis Date: 03/05/04
Analyst: AB

Parameter	Detection Limit	Laboratory Blank	Analytical Result
1,2,3-Trichloropropane	0.005	ND	ND
1,2,4-Trimethylbenzene	0.005	ND	ND
1,3,5-Trimethylbenzene	0.005	ND	ND
Vinyl acetate	0.005	ND	ND
Vinyl chloride	0.005	ND	ND
m,p-Xylene	0.01	ND	ND
o-Xylene	0.005	ND	ND
Dibromofluoromethane (Surr.)	---	---	103.%
1,2-Dichloroethane-d4 (Surr.)	---	---	94.%
Toluene-d8 (Surr.)	---	---	107.%
4-Bromofluorobenzene (Surr.)	---	---	90.%

Results expressed as µg/L unless otherwise noted.
ND means none detected at or above the detection limit listed.

SCOEPA00033996

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Wacker Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: **April 15, 2004**

SAMPLING PERIOD: January - March, 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments:	

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
March 2004	#1B (Fab 2)	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION		MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
pH	SM4500-H	SU		0.1	5.0 - 11.5	N/A	
TTOs (Volatiles)	EPA 8260	< 0.01	mg/L	0.005	1.37 mg/L	N/A	SEE CERTIFICATION STATEMENT BELOW

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	#1B (Fab 2)	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION		MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Arsenic (Total)	EPA 200.8	< 0.002	mg/L	0.002	0.2 mg/L	0.83 mg/L	
Total Suspended Solids	EPA 160.2	70	mg/L	0.1	N/A	N/A	

Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

SCOEPA00033997

All self-monitoring reports (SMR) must include the following to be considered complete. For more detailed information regarding these items, please refer to the colored reference sheet. If you have any questions, please contact your permit manager for assistance.

Self Monitoring Report Check List:

- ☐ Chain of Custody form
- ☐ Analytical Results with Method Detection Limits (MDL)
- ☐ QA/QC Results, if applicable
- ☐ Signed Signatory Certification Statement (Printed on bottom of SMR)
- ☐ Completed Self Monitoring Report form

Whenever appropriate:

- ☐ Hand Composite Sample form
- ☐ Copies of pH charts showing the violation
- ☐ Calculations of monthly average
- ☐ Any other required reports

To assure prompt delivery, mail all monitoring results to:

Industrial Source Control Division
Water Pollution Control Laboratory
6543 N. Burlington Avenue
Portland, OR 97203-5452

Attn: Tim Dean

SCOEPA00033998

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Wacker Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: **April 15, 2004**

SAMPLING PERIOD: March 2004

For Industrial Source Control Division Use Only

Date Postmarked/Received **Date Entered**

Entered By

Comments:

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit	
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.	

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

All self-monitoring reports (SMR) must include the following to be considered complete. For more detailed information regarding these items, please refer to the colored reference sheet. If you have any questions, please contact your permit manager for assistance.

Self Monitoring Report Check List:

- ☐ Chain of Custody form
- ☐ Analytical Results with Method Detection Limits (MDL)
- ☐ QA/QC Results, if applicable
- ☐ Signed Signatory Certification Statement (Printed on bottom of SMR)
- ☐ Completed Self Monitoring Report form

Whenever appropriate:

- ☐ Hand Composite Sample form
- ☐ Copies of pH charts showing the violation
- ☐ Calculations of monthly average
- ☐ Any other required reports

To assure prompt delivery, mail all monitoring results to:

Industrial Source Control Division
Water Pollution Control Laboratory
6543 N. Burlington Avenue
Portland, OR 97203-5452

Attn: Tim Dean

SCOEPA00034000

7002 2030 0003 5905 1939

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$4.65

FOREST PARK STA 97210 USPS
Postmark Here
DEC 9 2004

Sent To
Street, Apt. N
or PO Box N
City, State, Z

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

PS Form 380 ns

SCOEPA00034001

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.
Internet access to delivery information is not available on mail addressed to APOs and FPOs.

PS Form 3800, June 2002 *(Reverse)*
102595-02-M-1692

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X K Westerberg ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) K. WESTERBERG C. Date of Delivery 3-10-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

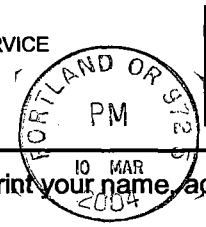
3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 2030 0003 5905 1939

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Siltronic Corporation
7200 NW Front Avenue M/S 30
Portland, OR 97210-3676

97210+3676

siltronic
perfect silicon solutions

Jim Claxton
Environmental Engineer

Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland OR 97210-3676, USA
Tel. 503-219-7313
Fax 503-219-7599
jim.claxton@siltronic.com

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER: 011.JWC

2004-March-8

February 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the February 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

If you have any questions, please contact Jim Claxton.

Regards,
Siltronic Corporation

J Claxton

Jim Claxton
Environmental Engineer

Enclosure:
POTW-IDR File
Special Account Meter Report

cc: Tom Rothschild
POTW-IDR File

SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

2/28/2004

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2	
PAST READING	109367	18,047	(100s of GALLONS)
CURRENT READING	109367	184,461	(100s of GALLONS)
CONSUMPTION	0	166,414	(100s of GALLONS)
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)
TOTAL CONSUMPTION	1,664,140	(10s of GALLONS)	

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,664,140	* 10 GAL / 7.48 GAL/CF =	2,224,786 CF
TOTAL THROUGH OVERFLOW LINE	0	* 10 GAL / 7.48 GAL/CF =	0 CF
TOTAL CONSUMPTION			2,224,786 CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	237,105	(10s of GALLONS)
CURRENT READING	322,458	(10s of GALLONS)
CONSUMPTION	85,353	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	85,353	* 10 GAL / 7.48 GAL/CF=	114,108 CF

This meter reading was reported by: C. Justin Darr on 3/8/04 date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00034006

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Wacker Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: March 15, 2004

SAMPLING PERIOD: February 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments:	

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit	
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.	

DATE	STARTING TIME (military time)	MOST EXTREME pH EXCURSION	DURATION (minutes)	VIOLATION? (circle one)		COMMENTS
No Excursions				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	
				YES	NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: J. Clayton Date: 3/8/04

Document1

7002 2030 0003 5905 1007

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .60
Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$4.65

PORTLAND OR FOREST PARK STA
Postmark Here
FEB 11 2004
USPS

Sent To
Tim Dean (CLAXTON)
Street or PO
Bureau of Environmental Services
City of Portland
City, State
6543 N. Burlington Avenue
Portland, OR 97203-5452

PS Form ... Instructions

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry. Internet access to delivery information is not available on mail addressed to APOs and FPOs.

PS Form 3800, June 2002 (Reverse)
102595-02-M-1092

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, OR 97203-5452

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X K Westerberg ☐ Agent ☐ Addressee

B. Received by (Printed Name) K WESTERBERG C. Date of Delivery 2-12-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7002 2030 0003 5905 1007

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

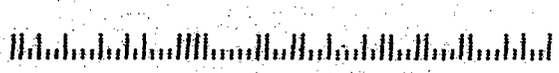
UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Jim Claxton
Wacker Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland, Oregon 97210-3676

97210+3676



WACKER SILTRONIC

JIM CLAXTON
ENVIRONMENTAL ENGINEER

Wacker Siltronic Corporation
7200 NW Front Avenue
Portland OR 97210-3676, USA
Tel. (503) 219-7313
Fax (503) 219-7599
jim.claxton@wacker.com

Wacker Siltronic Corporation
7200 NW Front Avenue, Portland OR 97210-3676, USA

Tim Dean
Bureau of Environmental Services
City of Portland
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

ER:005.JWC

2004-Februaru-10

January 2004 Industrial Discharge Report

Dear Mr. Dean,

Enclosed is the January 2004 Industrial Discharge Report for Wacker Siltronic Corporation Municipal Discharge permit 469-01. Wacker Siltronic has operated in compliance with the Permit for this reporting period.

A split sample was taken January 29, 2004. The chain of custody and analytical result for that split sample are enclosed.

If you have any questions, please contact Jim Claxton.

Regards,

WACKER SILTRONIC CORPORATION

Thomas C. McCue
Environmental Manager

Enclosure:
Industrial Discharge Report
Lab Bench sheet for Split Sample taken January 29, 2004
Chain of Custody for Split Sample
Special Account Meter Report

cc: Tom Rothschild
POTW-IDR File

4640175004
SUSC SILTRONICS OWW & MV2
C. Justin Darr
243-2020 x7131

Siltronic Corporation
PO Box 83180
Portland, Oregon 97283-0180

SPECIAL ACCOUNT METER REPORT DOCUMENT

January-04

1. OWW DISCHARGE

ACTUAL READINGS

	FAB 1	FAB 2		
PAST READING	109367	312,842	(100s of GALLONS)	
CURRENT READING	109367	479,223	(100s of GALLONS)	
CONSUMPTION	0	166,381	(100s of GALLONS)	
TOTAL THROUGH OVERFLOW LINE	0		(100s of GALLONS)	
TOTAL CONSUMPTION	1,663,810	(10s of GALLONS)		

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	1,663,810	* 10 GAL / 7.48 GAL/CF =	2,224,345 CF
TOTAL THRU' OVERFLOW LINE	0	* 10 GAL / 7.48 GAL/CF =	0 CF
TOTAL CONSUMPTION			2,224,345 CF

2. METER VAULT #2 (Sanitary)

ACTUAL READINGS

PAST READING	164,160	(10s of GALLONS)
CURRENT READING	237,105	(10s of GALLONS)
CONSUMPTION	72,945	(10s of GALLONS)

READINGS CONVERTED TO CUBIC FEET

CONSUMPTION	72,945	* 10 GAL / 7.48 GAL/CF=	97,520 CF

This meter reading was reported by: C. Justin Darr on 2/4/04 date

Sent to: Buereau of Enviromental Services City of Portland
Water Pollution Control Lab, Attn: Tim Dean
6543 N Burlington Avenue, Portland, Oregon 97203-5452

SCOEPA00034013

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Wacker Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: **February 15, 2004**

SAMPLING PERIOD: January 2004

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments:	

CONTINUOUSLY MONITORED pH - EPA METHOD 150.1

POINT OF COMPLIANCE	pH METER BRAND	pH METER MODEL	pH Limit		
#1B (Fab 2)	Foxboro	861	5.0 - 11.5 S.U.		
DATE	**STARTING TIME (military time)**	**MOST EXTREME pH EXCURSION**	**DURATION (minutes)**	**VIOLATION? (circle one)**	**COMMENTS**
No Excursions				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	
				YES NO	

Instructions: Industrial Source Control Division (ISCD) must be notified of all discharge violations within 24 hours of your knowledge of the violation. Report all pH excursions on this form and circle YES if they are a violation. Include any appropriate comments in the Comment column regarding the nature of the excursion. Attach supporting data or explanations to this report. You are also required to document corrective actions you have taken in response to the excursion.

Violations:
1. pH excursions outside the range of 5.0 - 11.5 SU for a total duration of more than 15 minutes in any 24 hour period.
2. pH excursions less than or equal to 4.5 SU or greater than or equal to 12.5 SU regardless of duration.

Non-Violations: You may contend an excursion does not represent a pH discharge violation if it does not meet the criteria listed above. Circle NO in the VIOLATION? Column and include a copy of the pH log or pH chart recording showing the excursion. The final violation status of the excursion will be determined by the ISCD.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Thomas C. McCune Date: 2/10/04

C:\WINNT\Profiles\jzc\Temporary Internet Files\OLK2F\Jan2004MonthReport1.doc

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SELF-MONITORING REPORT

INDUSTRY NAME: Wacker Siltronic Corporation

PERMIT NUMBER: 469.001

REPORT DUE DATE: **February 15, 2004**

SAMPLING PERIOD: Split Sample taken 1/29/04

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments	

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	#1B (Fab 2)	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Total Suspended Solids	EPA 160.8	33 mg/L	0.1	N/A	N/A	Split sample with BES taken Jan 29, 2004

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Thomas G. McCue Date: 2/10/04

SCOEPA00034016

WACKER SILTRONIC CORPORATION

CHAIN OF CUSTODY

REPORT TO:

Attn: Thomas Rothschild
7200 N. W. Front Ave.
Portland, Oregon 97210
ph: 243-2020 X-7374
fax: 417-4114

INVOICE TO:

Wacker Siltronic Corporation
Accounts Payable
7200 N.W. Front Ave.
Portland, Oregon 97210
P.O. NUMBER:

Project Name:_____

Analysis Requested

Sample ID #	Date	Time	Matrix (W,S,A,	# of contain	Preser	Comments:
1. 04-10	1-29-04		WW	1	No	
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

RELIQUISHED BY: _____ COMPANY: BES DATE / TIME: 1/29/04 1230

RECEIVED BY: _____ COMPANY: Wacker DATE / TIME: 1/29/04 1250

RELIQUISHED BY: COMPANY: DATE / TIME:

RECEIVED BY: COMPANY: DATE / TIME:

RELIQUISHED BY: COMPANY: DATE / TIME:

BENCHSHEET

TOTAL SUSPENDED SOLIDS (TSS)

Sample Date: 1-29-04 Oven Temp: 105 C Analyst: DI

Date In: 1-29-04 Time In/Out: 1200 / 1500

Tin #	Sample	Vol, ml	Gross Wt, g	Tare Wt, g	TSS, mg/L
1	Blank	NA	0.0865	0.0865	
	CE FAB-1				
	CE FAB-1				
				Average CE FAB-1 TSS	
6	CE FAB-2	500	0.0920	0.0885	7
7	CE FAB-2	500	0.0919	0.0886	6.6
				Average CE FAB-2 TSS	6.8
8	OWW	100	0.0917	0.0883	34
12	OWW	100	0.0910	0.0878	32
				Average OWW TSS	33
				Average TSS	

Comments: #8+12- OWW split w/ City WS# 04-10

Calculation: TSS, mg/L = $\frac{\text{(Gross Wt, g - Tare Wt, g) X 1,000,000}}{\text{Volume of Sample, ml}}$

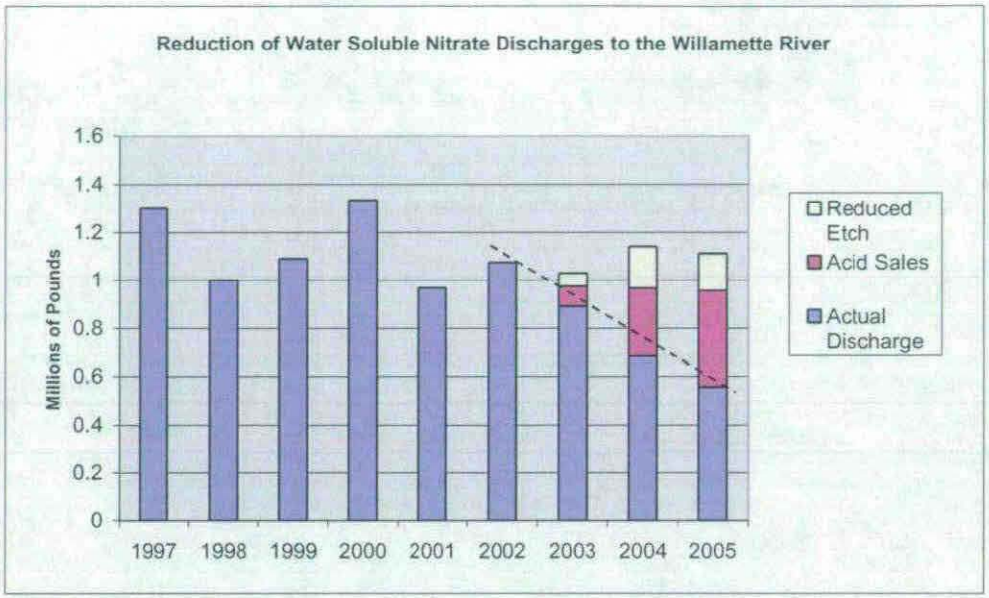
Note: *NPDES permit: monthly avg. 23 mg/L, daily max. 61 mg/L.
POTW permit: daily max 350 mg/L.

Reference: 1. Standard Methods for the Examination of Water and Wastewater, 1998, 20th Edition, Section 2540 D, page 2-57.
2. National Pollution Discharge Elimination System Permit #101128.

TJR 21 Mar 1987
DEI 17 Jun 2003 Revised

L:\FACLAB\WWTP\BENCH\TSSB.DOC

	Actual Discharge	Acid Sales Reduction	Reduced Etch Reduction	Discharge w/o Reductions	Overall Reduction (%)
1995	0.57				
1996	0.96				
1997	1.3				
1998	1				
1999	1.09				
2000	1.334				
2001	0.967				
2002	1.074				
2003	0.891	0.083	0.055	1.029	
2004	0.685938	0.280	0.174	1.140	
2005	0.556	0.400	0.155	1.111	49.9%
		134766.3	lbs of product		



	1997	1998	1999	2000	2001	2002	2003	2004	2005
Actual Discharge	1.3	1	1.09	1.334	0.967	1.074	0.891	0.685938	0.556
Acid Sales							0.083	0.280	0.400
Reduced Etch							0.055	0.174	0.155

Critical Consumption Report	Date: 8/09/98		Operator: JT
NATURAL GAS	**Number**		**Location**
FAB 1 NATURAL GAS	364511	OOO	By OWW Fwd Sump
Boiler 5	12491		
Boiler 6	12023		
Boiler 7	12525		
WATER USE			
FAB 1 DEAERATOR #1 MAKEUP	8006	OO	CFB
FAB 1 DEAERATOR #2 MAKEUP	3491	OO	CFB
FAB 2 DEAERATOR #3 MAKEUP	8783	OO	CFB
COOLING LOOPS			
LOOP #1 MAKEUP	75842	OO	Blend tanks
LOOP #2 MAKEUP	732094	OO	Blend tanks
LOOP #3 MAKEUP	428655	OO	Blend tanks
LOOP #4 MAKEUP	151915	OO	By North Sump
LOOP #5a EPI MAKEUP	4528	OO	EPI
LOOP #5b EPI MAKEUP	10519		EPI digital readout
FAB 2 PCW MAKEUP	2070	OO	UPW
FAB 2 CHILLER MAKEUP	1245	OO	CFB
FAB 2 GLYCOL MAKEUP	198	O	Behind Chillers
HEAT RECOVERY MAKEUP	1180	OO	Behind RO Primary Filters
COOLING TOWERS			
HVAC TOWER MAKEUP	2670	OOO	By Fab 1 Comp Building
GROWING TOWER MAKEUP	52189	OO	By Fab 1 Comp Building
3-CELL MAKEUP	423487	O	By Fab 1 Comp Building
FAB 1 TOWER # 16 MAKE UP	NA	OO	CFB Behind Chiller 10
FAB 1 TOWER # 10 MAKE UP	55026	OO	CFB Behind Chiller 16
FAB 1 TOWER # 11 MAKE UP	18943	OO	CFB Behind Chiller 16
FAB 2 TOWER #17	4783	OO	CFB Behind Chillers
FAB 2 TOWER #18	4042	OO	CFB Behind Chillers
FAB 2 TOWER #19	37042	OO	CFB Behind Chillers
FAB 2 TOWER #20	2705	OO	CFB Behind Chillers
FAB 2 TOWER #21	5155	OO	CFB Behind Chillers

SCOEPA00034019

RODI PRODUCTION			
RO METER 1A	7407246	O	RODI Room
RO METER 1B	6199360	O	RODI Room
RO METER 1C	4688035	O	RODI Room
RO METER 2A	2697237	O	RODI Room
RO METER 2B	607294	O	RODI Room
RO METER 2C	9175700	O	RODI Room
FAB 2 UPW PRODUCTION			
FAB 2 RO TRAIN 1, BANK 1	3267	OOO	UPW
FAB 2 RO TRAIN 1, BANK 2	3269	OOO	UPW
FAB 2 RO TRAIN 2, BANK 1	5332	OOO	UPW
FAB 2 RO TRAIN 2, BANK 2	6226	OOO	UPW
FAB 2 RO TRAIN 3, BANK 1	4661	OOO	UPW
FAB 2 RO TRAIN 3, BANK 2	4037	OOO	UPW
FAB 2 RO TRAIN 4, BANK 1	NA	OOO	UPW
FAB 2 RO TRAIN 4, BANK 2	NA	OOO	UPW
WASTE TREATMENT:			
Fab 1 to Fab 2 Flows			
OWW	2.662 E08		
CAD	8.985 E07		
WAD	2.416 E08		
FAB 1 CE	15932	OO	WWTP
FAB 2 CE	829399	OO	WWTP
FAB 1 OWW	21242	OO	WWTP
FAB 2 OWW	360677	OO	WWTP
MV-3	941646 00		By Nox Road
SANITARY/MV-2	4502505	O	WWTP Road
CITY METER			
FAB 1 CITY WATER	566622	OOCF	Back Gate
FAB 2 CITY WATER	593726	OOCF	

SCOEPA00034020

HF Air Emissions Testing 3/31/03-5/9/03		F		HF			
Fab 1		**ug/m3**	**cfm**	**lbs/yr**			
Section 8 Acid Scrubber		0.6	18000	0.37			
Acid Etch Fume Scrubber		226	13000	101.41			
Epi Fume Scrubber		0.21	21000	0.15			
NOx Scrubber	<	2.5	15000	1.29			
Furnace Center Exhaust (F123)		543	1250	23.43			
			subtotal	126.66	**lbs/yr**		
Fab 2							
HPM Scrubber		124.87	26000	112.06			
General Exhaust		39.5	88500	120.66			
			subtotal	232.73	**lbs/yr**		
					HF*	**HF****	
		F	**sample rate**	**exhaust rate**	**avg**	**max**	
Fab 1 Epi		**ug**	**l/min**	**l/min**	**lbs/yr**	**lbs/yr**	
AMT Reactors (based on Reactor 7)		3	1.204	250	0.006	0.012	
ASM Reactors (based on Reactor 27)		20	1.131	220	0.056	0.072	
G3 Reactors (based on Reactor 46)		21	1.097	330	0.044	0.060	
Fab 2 Epi							
ASM Reactor Scrubbers (based on Reactor 6)		2.3	1.118	80	0.0004	0.001	
Centura Reactor Scrubbers (based on Reactor 9A)		2.2	1.121	80	0.002	0.002	
				subtotals	0.108	0.147	**lbs/yr**
					avg	**max**	
			Annual HF Emissions		359.49	359.53	**lbs/yr**
					avg	**max**	
* Based on average production rates.							
** Based on maximum production rates.							

Boiler Emissions Profile without older 10.5 Mmbtu boilers and 0 diesel fuel usage in boilers

				Emission Factors									
				Particulate		CO		NOx		SOx		VOC	
		NG	Oil	NG	Oil	NG	Oil	NG	Oil	NG	Oil	NG	Oil
Process Boilers	QTY	1000 CF/hr	gal/hr	lb/10^6 CF	lb/10^3 gal	lb/10^6 CF	lb/10^3 gal	lb/10^6 CF	lb/10^3 gal	lb/10^6 CF	lb/10^3 gal	lb/10^6 CF	lb/10^3 gal
Existing (process 1,2)	2	0	0	13.7	2	35	5	140	20	0.6	144	2.8	0.2
Existing (process 3,4)	2	12.6	0	13.7	2	35	5	140	20	0.6	144	2.8	0.2
New Low NOx Boilers (process 5,6,7)	3	21	0	13.7	2	61	0	81	0	0.6	0	2.8	0
Commercial Boilers (HVAC)	2	0.58	0	13.7	2	20	5	100	20	100	20	5.3	3.4
Proposed boiler (low NOx 21 MMBtu)	1	21	0	13.7	2	61	0	81	0	0.6	0	2.8	0
Existing (process 1,2)			lb/hr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Existing (process 3,4)			lb/hr	0.345	0.000	0.882	0.000	3.528	0.000	0.015	0.000	0.071	0.000
New Low NOx Boilers (process 5,6,7)			lb/hr	0.863	0.000	3.848	0.000	5.103	0.000	0.038	0.000	0.176	0.000
Commercial Boilers (HVAC)			lb/hr	0.016	0.000	0.023	0.000	0.116	0.000	0.116	0.000	0.006	0.000
Proposed boiler (low NOx 21 MMBtu)			lb/hr	0.288	0.000	1.281	0.000	1.701	0.000	0.013	0.000	0.059	0.000
Existing (process 3,4)			tons/year	1.508	0.00	3.851	0.00	15.406	0.000	0.066	0.000	0.308	0.000
New Low NOx Boilers (process 5,6,7)			tons/year	3.769	0.00	16.781	0.00	22.283	0.000	0.165	0.000	0.770	0.000
Commercial Boilers (HVAC)			tons/year	0.069	0.00	0.101	0.00	0.507	0.000	0.507	0.000	0.027	0.000
Proposed boiler (low NOx 21 MMBtu)			tons/year	1.256	0.00	5.594	0.00	7.428	0.000	0.055	0.000	0.257	0.000
			lbs/hour, per fuel	1.51	0.000	6.03	0.00	10.45	0.00	0.18	0.00	0.31	0.00
			Total lb/hr, all fuel	1.61		6.03		10.45		0.18		0.31	
			tons/year, per fuel	6.60	0.00	26.33	0.00	45.62	0.00	0.79	0.00	1.36	0.00
			Total t/yr	6.60		26.33		45.62		0.79		1.36	
			Current s.t. PSEL (lb/hr)	2.9		5.5		14		14		0.3	
			delta	-1.39		0.53		-3.55		-13.82		0.01	
			Current l.t. PSEL (t/yr)	7		24		49		61		1	
			Emergency Generator PTE (t/yr)	0.24		2.41		11.05		1.10		0.33	
			Total all Combustion Sources (t/yr)	6.84		28.74		56.67		1.90		1.69	
			delta of PTE-PSEL (t/yr)	-0.16		4.74		7.67		-59.10		0.69	

WACKER SILTRONIC FAB 2 HPM EXHAUST SYSTEM (ACID)

AIR FLOW TESTING & ADJUSTING DATA

PROJECT PROCESS EXHAUST SURVEY & REBALANCE - BRANCH G

TESTED BY AJS, AM DATE 12/97 NES JOB NO. 5399

DAMPER NO.	TOOL	COMPONENT	CONNECTION			REQUIRED			AS ADJUSTED										
			SIZE	RF	AREA	FPM	CFM	S.P.	FPM	CFM	S.P.	%	DATE	FPM	CFM	S.P.	%	DATE	NOTE
G-G.6/4.8	28.13.0-01.101	SEMITOOL EQUINOX	6"ø	1	0.196	1530	300	-0.75	1565	305	-1.40	102	12/97						
G-G.5/4.8	28.13.0-01.101	SEMITOOL EQUINOX	6"ø	1	0.196	1530	300	-0.75	1450	285	-1.37	95	12/97						
	28.11.0-01.101	W.J. FURNACE	1½"ø	1				-1.00			-1.43		12/97						
G-F.6/5.0	28.11.0-01.101	W.J. FURNACE	2"ø	1				-0.50			-0.50		12/97						
G-F.7/5.2		BRANCH REF.									-2.11		12/97						
G-F.6/5.3	28.11.0-02.101	HF FILL STATION	6"ø	1	0.196	640	125		665	130	-0.47	104	12/97						
	28.11.0-21.101	W.J. FURNACE	1½"ø	1				-1.00			-1.19		12/97						
G-D.9/5.0	28.11.0-21.101	W.J. FURNACE	2"ø	1				-0.50			-0.93		12/97						
G-E.1/5.2		BRANCH REF.									-1.89		12/97						
G-F.1/3.5	28.09.0-21.101	THERMCO	4"ø	1	0.087	1725	150	1.50	2425	210	-1.58	103	12/97						
		VERTICAL FURNACE																	
G-F.0/3.5	28.09.0-01.101	THERMCO	4"ø	1	0.087	1725	150	1.50	2345	205	-1.39	96	12/97						
		VERTICAL FURNACE																	
G-E.7/3.6	28.09.0-31.101	THERMCO	4"ø	1	0.087	1725	150	1.50	2360	205	-1.40	97	12/97						
		VERTICAL FURNACE																	

RF NO. / INSTRUMENT USED:

1. MULTIMETER/PITOT TUBE

NOTES:

SCOEPA00034023

CERTIFICATE OF ANALYSIS

CLIENT: NORTH CREEK ANALYTICAL
9405 SW NIMBUS AVENUE
BEAVERTON OR 97008

PHONE: (503) 643-9200
FAX: (503) 644-2202

DATE SUBMITTED: 04/02/98

PROJECT NAME: WASTE OIL ANALYSIS

CI SAMPLE #	CLIENTS ID#	DATE	TIME	DESCRIPTION
9804/4-001-01	P804019-01	04/01/98		WASTE OIL SAMPLE

REPORT DATE: 04/29/98 REPORT NUMBER: 980474 PAGE: 1 OF 1

SAMPLE	ANALYSIS	PARAMETER	RESULT	UNIT	DETECTION LIMIT	ANALYST
WASTE OIL SAMPLE P804019-01	98-48					
980474-001-01	ASH CONTENT ASTM D-482	ASH FROM PETROLEUM PRODUCTS	ND	WT %	0.01	Gordon L.
	SULFUR, X-RAY ASTM D-4294	SULFUR	0.029	WT %	0.01	Abigail K.
	TOTAL SOLIDS-SOLIDS SM2540 G	PERCENT TOTAL SOLIDS	99.69	WT%	0.01	Gordon L.
	VOLATILE SOLIDS-SLD SM2540 G	PERCENT VOLATILE SOLIDS	99.99	WT %	0.01	Gordon L.

RECEIVED MAY 1 1998

REVIEWED BY: _____
Martin Little - Laboratory Manager

SCOEPA00034024

RECEIVED MAR 1 3 1998

JSR

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL • (206) 481-9200 • FAX 485-2992
SPOKANE • (509) 924-9200 • FAX 924-9290
PORTLAND • (503) 643-9200 • FAX 644-2202

FAX

Date: 3/13/98

Total Pages 2

To: Tom Rothschild

From: MARY A. FRITZMANN SMITH

Company: Waclar

Company: NORTH CREEK ANALYTICAL - PORTLAND

Fax: 417-4144

Fax: 503/644-2202

☐ Urgent ☐ Please Confirm Receipt ☐ Please Reply ASAP

Remarks:

Results for % Ash/ Solids test.

I will forward hard copy as soon as I receive it.

Mary Fritzmann Smith

Mary

Confidentiality Notice:
This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this message in error, please notify us immediately by telephone and return the original message to us at one of the following addresses via postal service.

18939 120th Avenue NE
Bothell, WA 98011

East 11115 Montgomery, Suite S
Spokane, WA 99206

9405 SW Nimbus Avenue
Beaverton, OR 97008

CERTIFICATE OF ANALYSIS

CLIENT: NORTH CREEK ANALYTICAL
9405 SW NIMBUS AVENUE
BEAVERTON OR 97008

PHONE: (503) 643-9200
FAX: (503) 644-2202

DATE SUBMITTED: 02/27/98

PROJECT NAME: WACKER OIL SAMPLE ANALYSIS

CI SAMPLE #	CLIENTS ID#	DATE	TIME	DESCRIPTION
980263-001-01	P802331-01	02/17/98		OIL SAMPLE

REPORT DATE: 03/11/98 REPORT NUMBER: 980263 PAGE: 1 OF 1

SAMPLE	ANALYSIS	PARAMETER	RESULT	UNIT	DETECTION LIMIT	ANALYST
OIL SAMPLE P802331-01						
980263-001-01	ASH CONTENT ASTM D-482	ASH FROM PETROLEUM PRODUCTS (ash after 775°F)	<0.01	WT %	0.01	Gordon L.
OIL SAMPLE P802331-01						
980263-001-01	RESIDUE. VOLATILE EPA 160.4	FIXED SOLIDS (amt. of solids after 550°F)	<0.01	MG/L	1	Gordon L.

.01% = 100ppm

North Creek sent out (oven not hot enough)

After 550°F, left nothing (no metals)

REVIEWED BY: _____
Martin Little - Laboratory Manager

Dick ~~Richard~~ Reed

Wacker Siltronic Corporation

WACKER

TO: Tom McCue

FROM: Nick Frederick

SUBJECT: ASM, Reactor 17 Exhaust

DATE: August 21, 1992

Attached are gas flows, and scrubber description for the next ASM reactor. The flows are based on what we currently do with the existing machine. I have only listed steps in which reactive gases flow. There are other steps in which H_2 or N_2 flow as well.

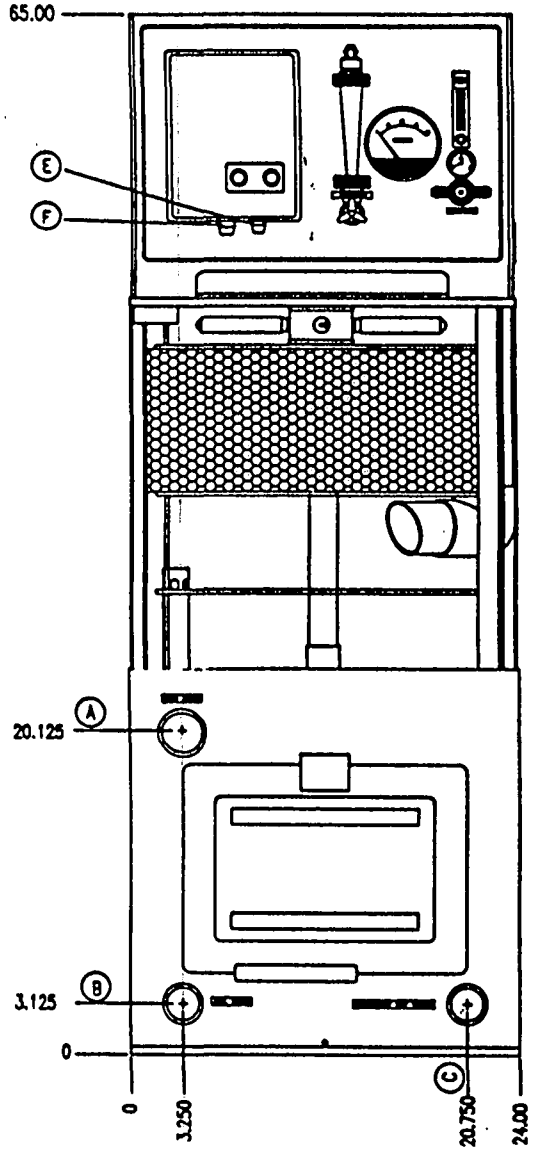
We plan on running process gases on this machine sometime in december. Let me know if any other information is needed.

cc
Tim Garmon

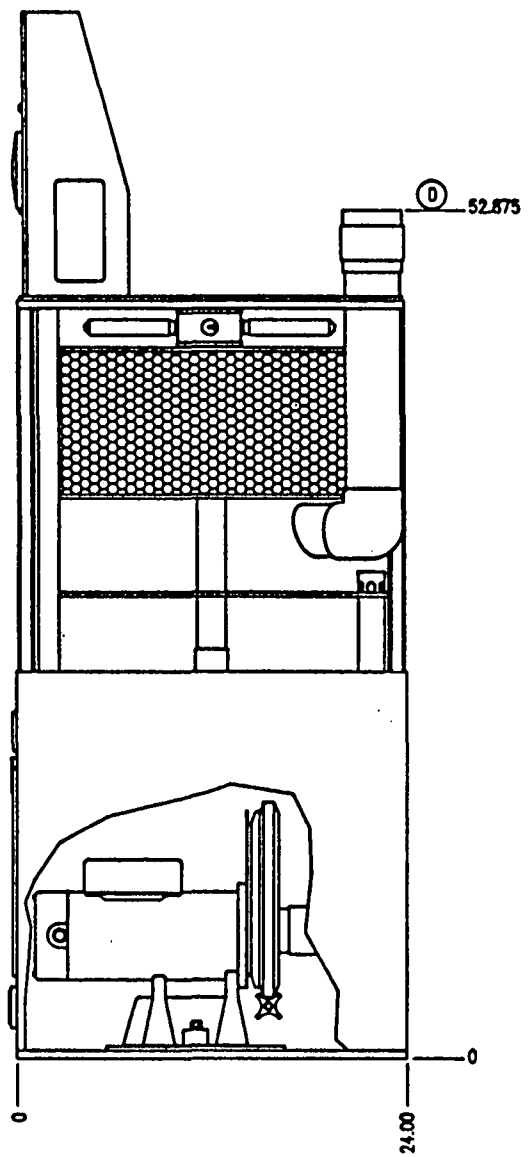
TYPICAL ASM FLOWS OF REACTIVE GAS PER WAFER.
6 wafers / hr maximum. These are individual steps of reactive gas flow per wafer.

Step	Duration (seconds)	N_2 slpm	H_2 slpm	100ppm PH_3 or B_2H_6 slpm	HCl Slpm	$SiHCl_3$ grams/min
Wafer Etch	30	17	85	—	2	—
Pre Dep 1.	30	17	85	.13	—	—
Dep	140	17	92	.13	—	20
Etch 1	50	17	15	—	20	—
Etch	60	17	105	—	20	—

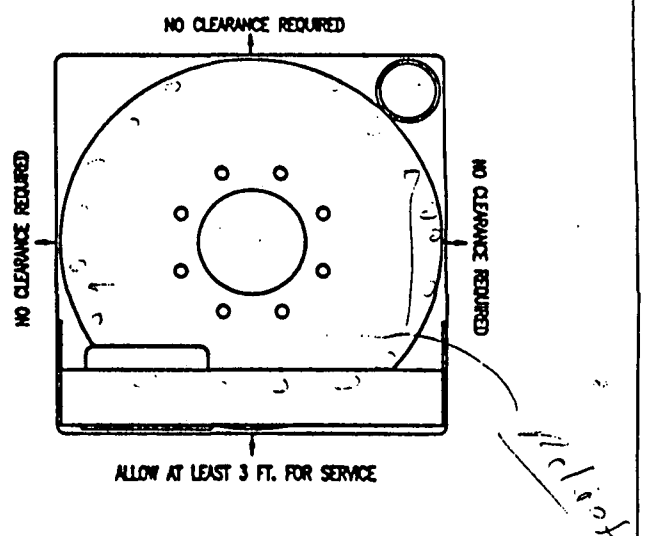
Other steps flowing H_2 and or N_2 are used but not shown.



FRONT VIEW



SIDE VIEW

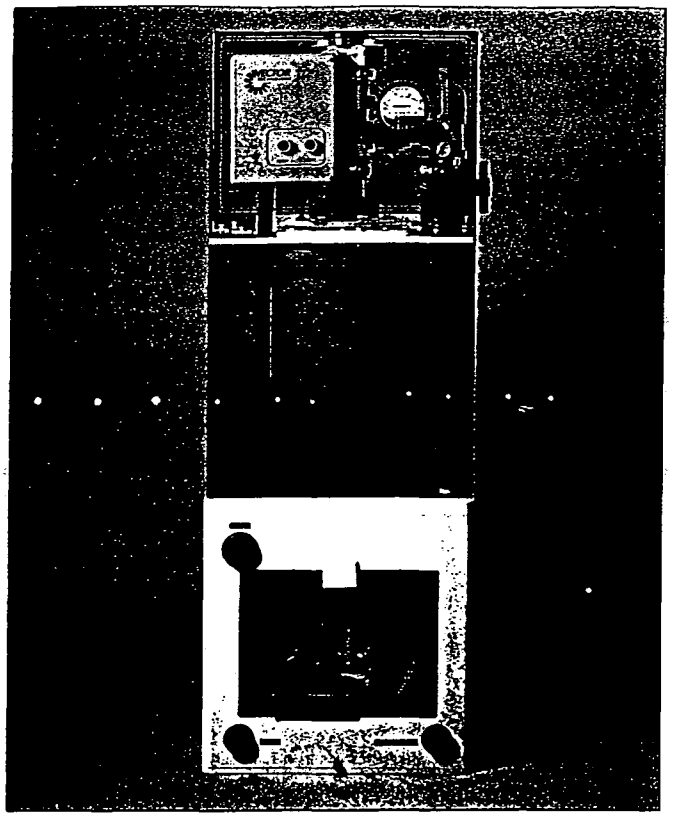


(A) – 2" NPT (MAIN DRAIN PORT)
(B) – 1 1/2" NPT (AUXILIARY DRAIN PORT)
(C) – 1 1/2" NPT (EMERGENCY CITY WATER PORT)
(D) – 3" NPT (EXHAUST PORT)
(E) – ALARM ACCESS HOLE
(SUGGEST .50 STD. STRAIGHT CONDUIT CONNECTOR)
(F) – MAIN POWER IN ACCESS HOLE
(SUGGEST .75 STD. STRAIGHT CONDUIT CONNECTOR)

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	VECTOR	ES400 FUME SCRUBBER FACILITY HOOK UP GUIDE
.X ± .02 .XX ± .010 .XXX ± .005		SIZE C · PN 5064-00
ANGLES 0°5'		
SURFACE FINISH ✓		BY G. BORAN · DATE 8.12.01 · APPROVED BY
MATERIAL		SCALE 1 : 8 · SHEET 1 OF 1 · REV 0

SCOEPA00034029

ES - 400 SERIES FUME SCRUBBERS



Vector's Open-loop ES-400 Series Scrubbers remove water soluble pollutants in the exhaust of epitaxial reactors, dry etchers, and similar process equipment. This patented hydrodynamic scrubbing system is the key to efficiency in the full line of Vector's units. The ES-400 is designed to handle flow rates up to 50 cubic feet per minute. Vector Scrubbers are designed to be user installable and can be additionally customized to specific needs through accessories and optional electronics.

VECTOR'S HYDRODYNAMIC SCRUBBING SYSTEMS:

Proven Independent certification to 99.9998% efficiency by EPA–approved laboratories.

Compact Vector's patented design offers effective scrubbing in an area as small as 4 square feet.

Safe By virtue of its fused construction, the Vector Scrubber is gas tight, double contained to Title 20 standards, chemically resistant and comes with a full complement of safety interlocks.

Reliable Vector Scrubbers require minimal maintenance and, therefore, cause little or no scrubber-imposed downtime on income producing process equipment.

Water-Wise The use of recirculated water to its saturation point takes water consumption to an absolute minimum.

Process-Specific Vector Scrubbers offer several gas entry options. These entries are designed to meet the various process equipment and Fab exhaust requirements. Some of the entry options are adjustable onsite, to give maximum process efficiency.

Versatile Vector Scrubbers are designed to handle the effluent from a wide variety of semiconductor manufacturing equipment, including Thermal Oxide, Epitaxy, CVD, Plasma Etch and others.

Options

Smart Controller — An enhanced interface to the scrubber, allowing the process equipment to control the scrubber, is used primarily to reduce the cost of operation while maximizing water conservation.

Chemical Injection System — An option designed to feed chemicals into the scrubber to enhance the scrubbing efficiency, defoam, or temper the waste water.

Entry — A scrubber's entry, or gas inlet, is chosen to match the process to be scrubbed. Entries can produce a negative draw, handle particulate-laden gases or provide a straight atmospheric connection.

Typical Gases Listed below are gases typically treated by the ES-Series Fume Scrubbers. Some compounds, depending on concentration, may require additional chemistries to complete the reaction.

HCl, SiH_2Cl_2, $SiHCl_3$, $SiCl_4$, NH_3, BCl_3, BBr_3, HF, TEOS, BF_3, Cl_2, WF_6, CHF_3, HBr

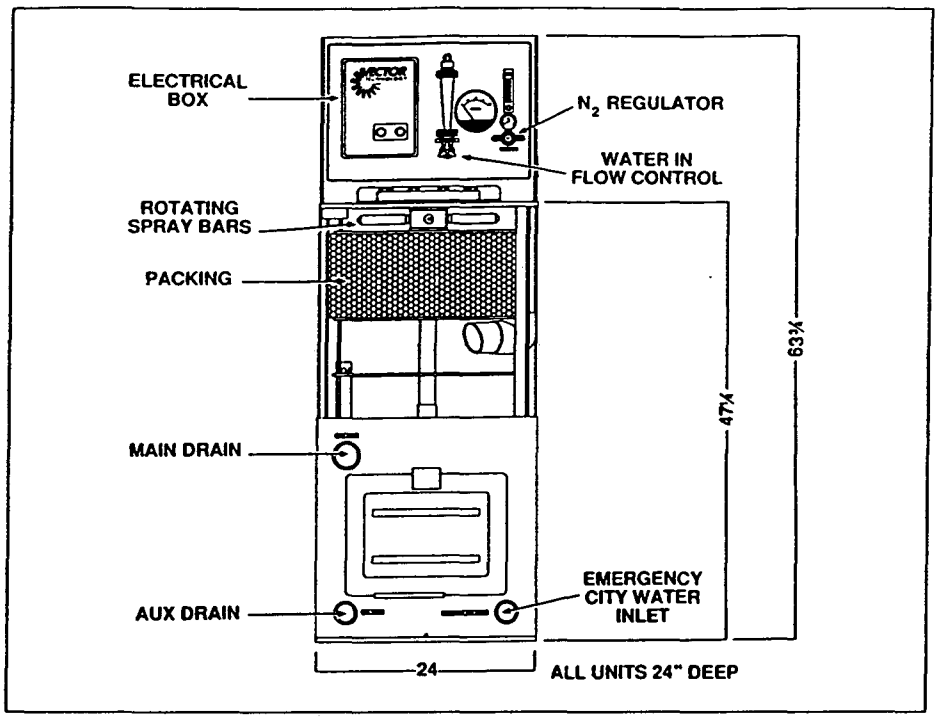
Silane Gas Treatment The 400 series is also available as the ES-400/SI which passively oxidizes Silane gas and reduces it to non-pyrophoric levels. Contact your Vector representative for more information.

VECTOR TECHNICAL GROUP, INC.

Vector Technical Group, Inc.
2701 Northwestern Parkway
Santa Clara, CA 95051
(408) 727-1966
Fax (408) 496-1121

SCOEPA00034030

ES - 400 SERIES FUME SCRUBBERS



PRODUCT SPECIFICATIONS:

The following specifications list is provided for reference purposes. The ES-400 series is available in 1, 2 & 3 barrel configurations.

	ES-400	ES-400/2	ES-400/3
Number of Primary Chambers	1	2	3
Total Flow/Chamber, CFM (M^3/Minute)	50 (1.4)	50 (1.4)	50 (1.4)
Water Usage, Minimum GPM (LPM)	.5 (2)	1 (4)	1.5 (6)
N_2 Usage, Total (Optional) SCFH	30	60	90
Emergency City Water (12GPM/Chamber)			
Pressure: PSI (BAR)	60 (4)	60 (4)	60 (4)
Inlet Diameter	1 @ 1-1/2"	2 @ 1-1/2"	3 @ 1-1/2"
Gas Inlet Diameter	1 @ 3"	2 @ 3"	3 @ 3"
Minimum Main Drain Capacity GPM (LPM)	12 (48)	24 (96)	36 (144)
Gas Exhaust Diameter	1 @ 3"	2 @ 3"	3 @ 3"
Footprint	24" x 24"	24" x 48"	24" x 72"
Weight, Dry, Pounds (Kilograms)	265 (120)	520 (236)	750 (341)
Weight, Wet, Pounds (Kilograms)	345 (157)	780 (354)	990 (449)
Standard Power Options	208-230/1/60	208-230/1/60	208-230/1/60
	200/1/60	200/1/60	200/1/60
	208/1/50	208/1/50	208/1/50
	200/1/50	200/1/50	200/1/50
Amperage, Approximate	12	24	36
Weight, Scrubber Dry	265 lbs.		
Weight, Scrubber Wet	360 lbs.		

REPRESENTED BY

NOTES:

- Vector Technical Group, Inc. reserves the right to change specifications without prior notice.
- The abbreviations used in the specification table are as follows: CFM = Cubic Feet per Minute, LPM = Liters per Minute, GPM = Gallons per Minute, SCFH = Standard Cubic Feet per Hour PSI = Pounds per Square Inch, BAR = Barometric Pressure.
- Vector Technology is a trademark of Vector Technical Group, Inc.

SCOEPA00034031

VECTOR TECHNOLOGY

Vector Technical Group, Inc.
2701 Northwestern Parkway
Santa Clara, CA 95051-0903
408.727.1966
FAX: 408.496.1121

Fax Message
page 1 of 2

August 20, 1992

To: Nick Fredrick
Wacker

Fax:503 241-7599

From: Frank Deak
Vector Technology

Re: Efficiency Calculations

Nick,

Enclosed are the efficiency calculations for the gases in the quantities we discussed. If they look ok you can distribute them as needed. If the inputs are wrong, please call Mike Tseng who prepared the spreadsheet and he can correct the figures and return a corrected sheet to you.

Thanks,

Frank

Frank Deak

SCRUBBER APPLICATION FOR EPI PROCESS–WACKER

CYCLE	GASES	FLOW slpm	CONC.	SCRUBBER INLET ppm	SCRUBBER EFFICIENCY	SCRUBBER OUTLET ppm	TGO-IDLH ppm	SCRUBBER TYPE/MODEL
ETCH (0-50 sec)	HCl H2 N2	20 0 17	1	540541	99.999	5	50	WATER ES-400
ETCH (51-110 sec)	HCl H2 N2	20 105 17	1	140845	99.999	1	50	WATER ES-400
DEPOSITION	SiHCl3 B2H6 PH3 H2 N2	15 0.2 0.2 92 17	1 0.0001 0.0001	120968 0 0	99.999 0.2 0.2	1 0 0	50 20 100	WATER ES-400

NOTES:
1. Assume 28 grams/minute SiHCl3 and zero efficiency of process
2. Assume all SiHCl3 flow based on hydrolysis into HCl.
3. Assume maximum flow of 0.2 slpm for hydrides.

To: Nick – WACKER
Fr: MIKE – VECTOR
Info you requested.
Regards: 1/22/93
Mike Tseng

VECTOR TECHNOLOGY

Specialty Analytical

19761 S.W. 95th Avenue
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

October 10, 2007

85% IPA
Wipes

Thomas Rothschild
Siltronic Corporation
7200 NW Front Ave
M/S 30
Portland, OR 97210

TEL: (503) 219-7313
FAX (503) 219-7599

RE: 07-131 / Ignitability

Dear Thomas Rothschild:

Order No.: 0710066

Specialty Analytical received 1 sample on 10/10/2007 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Ned Engleson
Project Manager

Technical Review

SCOEPA00034034

Specialty Analytical

Date: *10-Oct-07*

CLIENT:	Siltronic Corporation	**Client Sample ID:**	07-131
Lab Order:	0710066	**Collection Date:**	10/8/2007 4:15:00 PM
Project:	07-131 / Ignitability		
Lab ID:	0710066-01	**Matrix:**	SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
IGNITABILITY		**SW1010**				Analyst: **ged**
Ignitability	78.0			°F	1	10/10/2007

SCOEPA00034035

Specialty Analytical

Date: *10-Oct-07*

CLIENT: Siltronic Corporation
Work Order: 0710066
Project: 07-131 / Ignitability

ANALYTICAL QC SUMMARY REPORT

TestCode: IGN_S

Sample ID **0710066-01ADUP**	SampType: **DUP**	TestCode: **IGN_S**	Units: **°F**	Prep Date:			Run ID: **FLASH_071010A**		
Client ID: **07-131**	Batch ID: **R48688**	TestNo: **SW1010**		Analysis Date: **10/10/2007**			SeqNo: **496526**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ignitability	78	0	0	0	0	0	0	78	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blanl

SCOEPA00034036

KEY TO FLAGS

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
B	The blank exhibited a positive result greater than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
H	Sample was analyzed outside recommended hold time.
HT	At clients request, sample was analyzed outside recommended hold time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
N	Gasoline result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements
P	Detection levels of Methylene Chloride may be laboratory contamination, due to previous analysis or background levels.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits, post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

Rev Dec 15, 2004

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
19761 S.W. 95th. Avenue
Tualatin, OR 97062
(503) 612-9007 - Phone
(503) 612-8572 - Fax

Contact Person/Project Manager: Tom Rothschild
Company: Siltronic
Address: 7200 NW Front Ave
Portland, Or 97210
Phone: 503-219-7374 Fax: 503-219-4144
Project No.: _____ Project Name: _____
Invoice To: _____ P.O. No.: 4500521869

Collected By:
Signature: Myron W. Burr
Printed: MYRON BURR

Signature: _____
Printed: _____

Turn Around Time
☐ Normal
☒ Rush Final Report by 10/11/07
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No.: 0710066
Shipped Via: Specialty
Air Bill No.: _____
Temperature On Receipt: 4 (MJ) Amb °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: Ignitability	Comments	Lab I.D.
10.8.07	1615	07-131	Solid	1	X		

Relinquished By	Date	Time	Received By	Relinquished By	Date	Time
Company: Siltronic	10/10/07	1144	Company: Specialty	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Copies: White-Original Yellow-Project File Pink-Customer Copy

Received For Lab By: Nikki Sutton — Date: 10/10/07 — Time: 1343

SCOEPA00034038

Specialty Analytical

19761 S.W. 95th Avenue
Tualatin, OR 97062
(503) 612-9007
Fax (503) 612-8572
1 (877) 612-9007

September 18, 2007

100% IPA
wipes

Thomas Rothschild
Siltronic Corporation
7200 NW Front Ave
M/S 30
Portland, OR 97210

TEL: (503) 219-7313
FAX (503) 219-7599

RE: Waste Characterization

Dear Thomas Rothschild:

Order No.: 0709088

Specialty Analytical received 1 sample on 9/17/2007 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Ned Engleson
Project Manager

Technical Review

SCOEPA00034039

Specialty Analytical

Date: *18-Sep-07*

CLIENT:	Siltronic Corporation	**Client Sample ID:**	07-119
Lab Order:	0709088	**Collection Date:**	9/14/2007 2:30:00 PM
Project:	Waste Characterization		
Lab ID:	0709088-01	**Matrix:**	SOLID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
IGNITABILITY		**SW1010**				Analyst: **ged**
Ignitability	<70			°F	1	9/18/2007

SCOEPA00034040

Specialty Analytical

Date: *18-Sep-07*

CLIENT: Siltronic Corporation
Work Order: 0709088
Project: Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: IGN_S

Sample ID	**0709088-01ADUP**	SampType: **DUP**	TestCode: **IGN_S**	Units: **°F**	Prep Date:				Run ID:	**FLASH_070918A**	
Client ID:	**07-119**	Batch ID: **R48351**	TestNo: **SW1010**		Analysis Date: **9/18/2007**				SeqNo:	**491101**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ignitability	ND	0	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blanl

SCOEPA00034041

KEY TO FLAGS

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards.
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
B	The blank exhibited a positive result greater than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
H	Sample was analyzed outside recommended hold time.
HT	At clients request, sample was analyzed outside recommended hold time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
N	Gasoline result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
P	Detection levels of Methylene Chloride may be laboratory contamination, due to previous analysis or background levels.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits, post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

Rev Dec 15, 2004

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
19761 S.W. 95th. Avenue
Tualatin, OR 97062
(503) 612-9007 - Phone
(503) 612-8572 - Fax

Contact Person/Project Manager: Tom Rothschild
Company: Sultronic
Address: 7200 NW Front Ave, Portland, OR
Phone: 503-219-7374 Fax: 503-219-4144
Project No.: _____ Project Name: Waste Characterization
Invoice To: Accts Payable P.O. No.: 4500521869

Collected By:
Signature: _____
Printed: _____

Signature: _____
Printed: _____

Turn Around Time
☐ Normal
☒ Rush Need final format by the 19th
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: Flashpoint	Comments	Lab I.D.
9-14-07	1430	07-119	Solid	1	X		

For Laboratory Use
Lab Job No.: OM09088
Shipped Via: Client
Air Bill No.: _____
Temperature On Receipt: Amb °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
Company: Sultronic	9/17/07	1505	Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Copies: White-Original Yellow-Project File Pink-Customer Copy

Received For Lab By:	Date	Time
Nikki Dalton	9/17/07	1505

SCOEPA00034043

WACKER
Wacker Siltronic Corporation

June 30, 1997 ER28:ES

Mr Neil Mullane
Northwest Region
Department of Environmental Quality
2020 S.W. Fourth Avenue, Suite 400
Portland, OR 97201

Dear Mr Mullane,

Enclosed are the tabulated storm water monitoring data for the calendar year 1996 as required by Wacker Siltronic's NPDES Storm Water Discharge Permit number 1200-L issued on February 22 1993. The sampling was conducted on October 4 and December 21 of 1996.

If you have any questions please call Eric Spiering at 219-7132.

Very truly yours,

WACKER SILTRONIC CORPORATION

Thomas C. McCue
Environmental Manager

Enclosure:
Stormwater DMRs

cc: John Pittman
Tom Rothschild
SW Report 1996 file

Wacker Siltronic Corporation
P.O. Box 83180
Portland, OR 97283-0180
Phone (503) 243-2020
TDD (503) 241-7519

An ISO 9001 Certified Corporation

SCOEPA00034044

Facility Name/Location (if different)
NAME Wacker Siltronic Corporation
ADDRESS [redacted]ox 83180
Portland, OR 97283-0810

FACILITY 7200 NW Front Ave.
LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
120[redacted]	
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-00[redacted]
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	1	1	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Color and/or Foam	SAMPLE MEASUREMENT						turbid,	visual			Grab
	PERMIT REQUIREMENT						No foam	obs.			
Oil and grease sheen	SAMPLE MEASUREMENT						none	visual			Grab
	PERMIT REQUIREMENT						visible	obs.			
pH	SAMPLE MEASUREMENT				6.5		7.0	pH			Grab
	PERMIT REQUIREMENT				6.0		9.0	units			
Oil and Grease	SAMPLE MEASUREMENT				< 5.0		< 5.0	mg/l			Grab
	PERMIT REQUIREMENT										
TOC	SAMPLE MEASUREMENT				< 3.0		29	mg/l			Grab
	PERMIT REQUIREMENT										
COD	SAMPLE MEASUREMENT				23.8		79	mg/l			Grab
	PERMIT REQUIREMENT										
Arsenic	SAMPLE MEASUREMENT				< 0.001		< 0.01	mg/l			Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Tom McCue,
Environmental Manager
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 per violation, imprisonment of between 6 months and 5 years.)

Wacker Siltronic Corp. by:
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	243-2020	97	6	30
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034045

Facility Name/Location (if different)

NAME Wacker Siltronic Corporation

ADDRESS P.O. Box 83180
Portland, OR 97283-0810

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97210

(2-16) 1200 PERMIT NUMBER

(17-19) DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	01	01	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-000
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Cadmium	SAMPLE MEASUREMENT				< 0.001		< 0.005	mg/l			Grab
	PERMIT REQUIREMENT										
Chromium	SAMPLE MEASUREMENT				0.001		0.026	mg/l			Grab
	PERMIT REQUIREMENT										
Copper	SAMPLE MEASUREMENT				0.008		0.836	mg/l			Grab
	PERMIT REQUIREMENT										
Lead	SAMPLE MEASUREMENT				0.001		0.017	mg/l			Grab
	PERMIT REQUIREMENT										
Mercury	SAMPLE MEASUREMENT				< 0.0002		0.00043	mg/l			Grab
	PERMIT REQUIREMENT										
Nickel	SAMPLE MEASUREMENT				0.006		0.178	mg/l			Grab
	PERMIT REQUIREMENT										
Zinc	SAMPLE MEASUREMENT				0.178		0.65	mg/l			Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Tom McCue,
Environmental Manager

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years)

Wacker Siltronic Corp. by:

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
503	243-2020	97	6	30

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034046

Facility Name/Location (if different)

NAME Wacker Siltronic Corporation

ADDRESS P.O. Box 83180

Portland, OR 97283-0810

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16) 1200 PERMIT NUMBER

(17-19) DISCHARGE NUMBER

Form Approved.

OMB No. 2040-000

Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	1	1	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids*	SAMPLE MEASUREMENT				< 10.0		71	mg/l			Grab
	PERMIT REQUIREMENT										
Fluoride	SAMPLE MEASUREMENT				< 5.0		< 5.0	mg/l			Grab
	PERMIT REQUIREMENT										
Total Phosphate	SAMPLE MEASUREMENT				0.04		4.8	mg/l			Grab
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT				< 4.0		14	mg/l			Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Tom McCue, Environmental Manager

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and maximum imprisonment of between 6 months and 5 years)

Wacker Siltronic Corp. by:

Thomas C. McCue

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 97 MO 6 DAY 30

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

* Only one sampling data set available for TSS and fluoride.

SCOEPA00034047

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Wacker Siltronic Corporation
ADDRESS PO Box 83180
Portland, OR 97283-0180
FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	12	01	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow	SAMPLE MEASUREMENT	580,000	774,000	Gal/Day	-	-	-	-	-	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
BOD	SAMPLE MEASUREMENT	68.5	111.5	Lbs/Day	-	13.2	18.0	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	339	753		-	15	30				
TSS	SAMPLE MEASUREMENT	26.2	41.7	Lbs/Day	-	5.9	6.8	mg/L		1/7	24-hour comp
	PERMIT REQUIREMENT	520	1532		-	23	61				
Cr+6 (1)	SAMPLE MEASUREMENT	<0.06	<0.06	Lbs/Day	-	<0.01	<0.01	mg/L		Batch	
	PERMIT REQUIREMENT	0.11	0.27		-	0.02	0.05				
Cr Total	SAMPLE MEASUREMENT	0.01	0.02	Lbs/Day	-	0.003	0.004	mg/L		1/7	24-hour comp
	PERMIT REQUIREMENT	0.2	0.6		-	0.3	1.0				
Flouride	SAMPLE MEASUREMENT	13.2	21.8	Lbs/Day	-	2.5	3.6	mg/L		1/7	24-hour comp
	PERMIT REQUIREMENT	393	804		-	17.4	32				
Total Phosphate	SAMPLE MEASUREMENT	-	-	Lbs/Day	-	0.1	0.1	mg/L		1/7	24-hour comp
	PERMIT REQUIREMENT	-	-		-	23	61				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman, Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP. BY: John L. Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 97 | MO 01 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

(1) One batch dump only December 14, 1996.

SCOEPA00034048

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS PO Box 83180
Portland, OR 97283-0180
FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	12	01	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TTO	SAMPLE MEASUREMENT	-	-	Lbs/Day	-	-	<0.01	mg/L		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37				
MV-3 Flow	SAMPLE MEASUREMENT	436,000	682,000	Gal/Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV-3 Total Phosphate	SAMPLE MEASUREMENT	-	-	-	-	0.2	0.6	mg/L		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0				
Outfall Flow	SAMPLE MEASUREMENT	1,016,000	1,298,000	Gal/Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	-	-	72	°F		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	85				
Outfall pH	SAMPLE MEASUREMENT	-	-	-	4.0	7.2	10.5			Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman, Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP. BY:
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503, NUMBER 243-2020

DATE: YEAR 97, MO 01, DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

pH Outages: Dec 3, 1996 pH = 10.5 for 13 min. 39 sec.; Dec 4, 1996 pH = 10.5 for 7 min 31 sec, pH = 9.0 for 1 min. 54 sec., pH = 9.6 for 2 min. 20 sec.; Dec 12, 1996 pH = 4.0 for 12 min. 8 sec.; Dec 26, 1996 pH = 10.5 for 57 min. 30 sec. power outage.

EPA Form 3320-1 (Rev. 9-88) Previous editions may be used. (REFER ACES EPA FORM 7-60 WHICH MAY NOT BE USED.)

SCOEPA00034049

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180

FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMIT NUMBER (1-10)	DISCHARGE NUMBER (17-19)
10[illegible]8	

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	11	01	TO	96	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow	SAMPLE MEASUREMENT	478,000	710,000	Gal/Day	-	-	-	-	-	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-		-		
BOD	SAMPLE MEASUREMENT	44.0	53.4	lbs/Day	-	13.9	17.7	mg/L		1/7	24-hr Comp.
	PERMIT REQUIREMENT	339	753		-	15	30				
TSS	SAMPLE MEASUREMENT	10.1	23.8	lbs/Day	-	4.1	12.0	mg/L		1/7	24-hr Comp.
	PERMIT REQUIREMENT	520	1532		-	23	61				
Cr + 6 (1)	SAMPLE MEASUREMENT	<0.03	<0.03	lbs/Day	-	<0.01	<0.01	mg/L		Batch	
	PERMIT REQUIREMENT	0.11	0.27		-	0.02	0.05				
Cr Total	SAMPLE MEASUREMENT	0.02	0.04	lbs/Day	-	0.004	0.01	mg/L		1/7	24-hou Comp.
	PERMIT REQUIREMENT	0.2	0.6		-	0.3	1.0				
Flouride	SAMPLE MEASUREMENT	7.3	10.0	lbs/Day	-	2.3	3.5	mg/L		1/7	24-hour Comp.
	PERMIT REQUIREMENT	393	804		-	17.4	32				
Total Phosphate	SAMPLE MEASUREMENT	-	-	lbs/Day	-	0.08	0.15	mg/L		1/7	24-hour Comp.
	PERMIT REQUIREMENT	-	-			23.0	61				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	WACKER SILTRONIC CORP, BY: [signature] SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503	243-2020	96	12	13
TYPED OR PRINTED		AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

(1) One batch only on November 9, 1996

SCOEPA00034050

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME: Wacker Siltronic Corporation
ADDRESS: P.O. Box 83180
Portland, OR 97283-0180

FACILITY: 7200 NW Front Avenue
LOCATION: Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR) (17-19)

PERMIT NUMBER: 101[illegible]
DISCHARGE NUMBER:

Form Approved
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	11	01	TO	96	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TIO	SAMPLE MEASUREMENT	-	-	lbs/Day	-	-	<0.01	mg/L		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37				
MV-3 Flow	SAMPLE MEASUREMENT	422,000	589,000	Gal/Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV-3 Total Phosphate	SAMPLE MEASUREMENT	-	-	-	-	0.2	0.3	mg/L		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0				
Outfall Flow	SAMPLE MEASUREMENT	900,000	1,264,000	Gal/Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	-	-	72	°F		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	85				
Outfall pH	SAMPLE MEASUREMENT	-	-	-	>6.0	7.2	<9.0			Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)	WACKER SILTRONIC CORP, BY: [signature] SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	96 YEAR	12 MO	13 DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034051

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corp.
ADDRESS PO Box 83180
Portland, OR 97283-0180
FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

MONITORING PERIOD
FROM: YEAR 96 (20-21) MO 10 (22-23) DAY 01 (24-25)
TO: YEAR 96 (26-27) MO 10 (28-29) DAY 31 (30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow	SAMPLE MEASUREMENT	601,000	1,241,000	Gal/ Day	-	-	-	-	-	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-		-		
BOD	SAMPLE MEASUREMENT	41.1	56.9	lbs/ Day	-	7.9	11.4	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	339	753		-	15	30				
TSS	SAMPLE MEASUREMENT	6.4	10.0	lbs/ Day	-	1.2	2.0	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	520	1532		-	23	61				
Cr+6	SAMPLE MEASUREMENT	<0.01	<0.01	lbs/ Day	-	<0.01	<0.01	mg/L		Batch	
	PERMIT REQUIREMENT	0.11	0.27		-	0.02	0.05				
Cr Total	SAMPLE MEASUREMENT	0.03	0.1	lbs/ Day	-	0.01	0.02	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.6		-	0.3	1.0				
Flouride	SAMPLE MEASUREMENT	20.1	28.6	lbs/ Day	-	4.0	5.4	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	393	804		-	17.4	32				
Total Phosphate	SAMPLE MEASUREMENT	-	-	lbs/ Day	-	0.9	2.2	mg/L		1/7	24 HC
	PERMIT REQUIREMENT	-	-		-	23	61				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman, Director Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP, BY:
FOR
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 96 | MO 11 | DAY 11

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034052

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME: Wacker Siltronic Corp.
ADDRESS: PO Box 83180, Portland, OR 97283-0180
FACILITY: 7200 NW Front Avenue
LOCATION: Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

PERMIT NUMBER (2-16)	DISCHARGE NUMBER (17-19)
101128	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	10	01	TO	96	10	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TTO	SAMPLE MEASUREMENT	-	-	lbs/ Day	-	-	< 0.01	mg/L		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37				
MV-3 Flow	SAMPLE MEASUREMENT	464,000	1,141,000	Gal./ Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV-3 Total Phosphate	SAMPLE MEASUREMENT	-	-	-	-	0.2	0.4	mg/L		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0				
Outfall FLow	SAMPLE MEASUREMENT	1,065,000	2,382,000	Gal/ Day	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	-	-	73	°F		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	85				
Outfall pH	SAMPLE MEASUREMENT	-	-	-	> 6.0	7.0	9.4			Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		WACKER SILTRONIC CORP. BY:	TELEPHONE		DATE		
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	for Thomas C. McClure	503	243-2020	96	11	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH Outage: pH = 9.4 on Oct. 27, 1996 for 1 minute and 40 seconds.

EPA Form 3320-1 (Rev. 9-88) Previous editions may be used (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE ___ OF ___

SCOEPA00034053

WACKER
Wacker Siltronic Corporation

October 15, 1996 ER41:ES

Dr. Elliot Zais
Northwest Region
Department of Environmental Quality
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201

Dear Dr. Zais:

Enclosed is the September Discharge Monitoring Report for Wacker Siltronic Corporation NPDES Permit Number 101128.

We are experiencing difficulties with our in-house data for total chrome. In response to this, we sent samples to an outside laboratory for chrome analysis and are seeing a large difference between the laboratory values and our in-house values. The in-house values are consistently near 20 times higher than the levels reported from the outside lab. The outside lab is using ICP-MS Total Metals analysis per EPA 200.8, 6020. We are using Standard Method 3500-Cr D., colorimetric method. All samples for the month of September were taken, and based on comparison of the in-house and out-lab analysis results, we are reporting only the out-lab values for this month. This means we have only two valid data points from our weekly samples with which to calculate the numbers in the report. We will use out-lab analysis results for total chrome loading calculations for the monthly reports until further notice.

If you have any questions, please contact Eric Spiering at 243-2020 x7132.

Very truly yours,

WACKER SILTRONIC CORPORATION

Thomas C. McCue
Environmental Manager

cc: Tom Rothschild
NPDES-DMR File

Wacker Siltronic Corporation
P.O. Box 83180
Portland, OR 97283-0180
Phone (503) 243-2020
TDD (503) 241-7519

An ISO 9001 Certified Corporation

SCOEPA00034054

Facility Name/Location if different)

NAME Wacker Siltronic Corp.

ADDR PO Box 83180
Portland, OR 97283-0180

FACILITY 7200 NW Front Avenue

LOCATION Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16) [redacted]128 PERMIT NUMBER

(17-19) DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	09	01	TO	96	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this for

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SA T (6
Process Waste Water Flow	SAMPLE MEASUREMENT	587,000	780,000	Gal/Day	-	-	-	-	-	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-		-		
BOD	SAMPLE MEASUREMENT	56.4	107.6	lbs/Day	-	11.2	19.6	mg/L		1/7	24-Com
	PERMIT REQUIREMENT	339	753		-	15	30				
TSS	SAMPLE MEASUREMENT	4.6	7.1	lbs/Day	-	0.9	1.2	mg/L		1/7	24-Com
	PERMIT REQUIREMENT	520	1532		-	23	61				
Cr+6 (*)	SAMPLE MEASUREMENT	<0.05	<0.05	lbs/Day	-	<0.01	<0.01	mg/L		Batch	
	PERMIT REQUIREMENT	0.11	0.27		-	0.02	0.05				
Cr Total	SAMPLE MEASUREMENT	0.01	0.01	lbs/Day	-	0.00	0.00	mg/L		1/7	24-Com
	PERMIT REQUIREMENT	0.2	0.6		-	0.3	1.0				
Flouride	SAMPLE MEASUREMENT	10.9	15.9	lbs/Day	-	2.1	2.9	mg/L		1/7	24-Com
	PERMIT REQUIREMENT	393	804		-	17.4	32				
Total Phosphate	SAMPLE MEASUREMENT	-	-	lbs/Day	-	0.3	0.9	mg/L		1/7	24-Com
	PERMIT REQUIREMENT	-	-		-	23	61				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE	
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	WACKER SILTRONIC CORP. BY: John L Pittman	(503) 243-2020	96	10
TYPED OR PRINTED			SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

* One batch only, discharged on September 8, 1996.

SCOEPA00034055

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME [redacted] Wacker Siltronic Corp.

ADDR [redacted] PO Box 83180
Portland, OR 97283-0180

FACILITY 7200 NW Front Avenue

LOCATION Portland, OR 97283

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16) [redacted]01128 PERMIT NUMBER

(17-19) DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	09	01	TO	96	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this fo

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	S
MV-1 TTO	SAMPLE MEASUREMENT	-	-	G/D	-	-	<0.01	mg/L		1/30	Gra
	PERMIT REQUIREMENT	-	-		-	-	1.37			-	-
MV-3 Flow	SAMPLE MEASUREMENT	354,000	557,000	G/D	-	-	-	-		Continuous	
	PERMIT REQUIREMENT				-	-	-			-	-
MV-3 Total Phosphates	SAMPLE MEASUREMENT	-	-	-	-	0.2	0.4	mg/L		1/7	Gr
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			-	-
Outfall Flow	SAMPLE MEASUREMENT	941,000	1,226,000	G/D	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			-	-
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	73	75	75	F		1/7	Gr
	PERMIT REQUIREMENT	-	-		-	-	85			-	-
Outfall pH	SAMPLE MEASUREMENT	-	-	-	> 6.0	7.0	< 9.0	pH Units		Continuou	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			-	-
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman, Director
Plant Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP. BY:

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE	
AREA CODE	NUMBER	YEAR	MO
503	243-2020	96	10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

~~One (1) batch only, discharged on September 8, 1996.~~

SCOEPA00034056

WACKER
Wacker Siltronic Corporation

September 13, 1996 ER38:ES

Mr. Elliot Zais
Northwest Region
Department of Environmental Quality
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201

Dear Mr. Zais:

Enclosed is the August Discharge Monitoring Report for Wacker Siltronic Corporation NPDES Permit Number 101128. There are no reported values for TTO in this month's report.

Both composite and grab samples were taken each week during the month of August. In accordance with our QA/QC procedure, the 24 hour composite samples could not be used to analyze for TTO, and the grab samples that were taken were not at the point of compliance for the TTO analysis.

We have reviewed the TTO data from the past 18 months. All of the values were at or near 0.01, the detection limit of the analytical method. There were no unexpected nor any unusual events during the month of August that would effect our discharge. Therefore, we have concluded that the possibility of a TTO violation within the month of August is not likely.

On September 9, we took a TTO sample and are currently waiting for the analysis from the outside laboratory. We will send you an update with the TTO data as soon as it is available. The complete sampling agenda will be followed for the month of September.

The BOD data for the month of August is the average for three weekly 24 hour composite samples. The laboratory blank for the fourth week's sample did not meet specification per Standard Methods, 19th Edition, 1995, 5210 B, paragraph 4b, page 5-4.

If you have any questions, please contact Eric Spiering at 243-2020 x7132.

Very truly yours,

WACKER SILTRONIC CORPORATION

Thomas C. McCue

Thomas C. McCue
Environmental Manager

Wacker Siltronic Corporation
P.O. Box 83180
Portland, OR 97283-0180
Phone (503) 243-2020
TDD (503) 241-7519

An ISO 9001 Certified Corporation

SCOEPA00034057

Facility Name/Location if different

NAME Wacker Siltronic

ADDRESS P[redacted]ox 83180
Portland, OR 97283-0180

FACILITY 7200 NW Front Avenue

LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16) 10112[redacted] (17-19)

PERMIT NUMBER | DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	08	01	TO	96	08	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow	SAMPLE MEASUREMENT	660,000	1,065,000	Gal/Day	-	-	-	-	-	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-		-		
BOD	SAMPLE MEASUREMENT	52.8	64.2	Lbs/Day	-	11.2	13.0	mg/L	0	1/7	24HC
	PERMIT REQUIREMENT	339.0	753.0		-	15.0	30.0				
TSS	SAMPLE MEASUREMENT	4.7	9.2	Lbs/Day	-	0.9	1.8	mg/L	0	1/7	24HC
	PERMIT REQUIREMENT	520.0	1532.0		-	23.0	61.0	mg/L			
Cr+6	SAMPLE MEASUREMENT	0.02	0.02	Lbs/Day	-	0.01	0.01	mg/L	0	Batch	
	PERMIT REQUIREMENT	0.11	0.27		-	0.02	0.05	mg/L			
Cr Total	SAMPLE MEASUREMENT	0.2	0.2	Lbs/Day	-	0.03	0.05	mg/L	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.6		-	0.30	1.00				
Fluoride	SAMPLE MEASUREMENT	15.6	18.2	Lbs/Day	-	3.20	3.70	mg/L	0	1/7	24HC
	PERMIT REQUIREMENT	393.0	804.0		-	17.40	32.0				
Total Phosphate	SAMPLE MEASUREMENT	-	-	Lbs/Day	-	0.08	0.15	mg/L	0	1/7	24HC
	PERMIT REQUIREMENT	-	-		-	23.00	61.0				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)	Wacker Siltronic Corp. By: John L. Pittman	503	243-2020	96	09	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034058

Facility (Name/Location if different)

NAME Wacker Siltronic

ADDRESS [redacted] PO Box 83180
Portland, OR 97283-0180

FACILITY 7200 NW Front Avenue

LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
101[redacted]	

Form Approved [redacted]
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	08	01	TO	96	08	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	-	-	GPD	-	-		mg/L		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			-	-
MV-3 Flow	SAMPLE MEASUREMENT	340,000	582,000	G/D	-	-	-	-		Cont.	N/A
	PERMIT REQUIREMENT				-	-	-			-	-
MV-3 Total Phosphates	SAMPLE MEASUREMENT	-	-	-	0.14	0.25	0.40	mg/L		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.00	5.00			-	-
Outfall Flow	SAMPLE MEASUREMENT	1,000,000	1,647,000	G/D	-	-	-	-		Cont.	N/A
	PERMIT REQUIREMENT	-	-		-	-	-			-	-
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	-	77.00	77.00	F		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	85			-	-
Outfall pH	SAMPLE MEASUREMENT	-	-	-	>6.0	7.0	7.2	pH Units		Cont.	N/A
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			-	-
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John L. Pittman, Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN. AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	Wacker Siltronic Corp. By: John L Pittman	503	243-2020	96	09	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034059

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic
ADDRESS PO Box 83180
Portland, OR 97283-0180
FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMIT NUMBER (2-16)	DISCHARGE NUMBER (17-19)
101128	

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	07	01	TO	96	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process waste water Flow MV-1	SAMPLE MEASUREMENT	621,000	1,122,000	G/D	--	--	--			Cont. izing	Total-
	PERMIT REQUIREMENT	--	--		--	--	--	--		Recorder	
MV-1 BOD	SAMPLE MEASUREMENT	54.6	77.9	lbs/D	6.6	9.4	15.0	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		--	15	30			--	--
MV-1 TSS	SAMPLE MEASUREMENT	5.2	9.4	lbs/D	0.5	0.9	1,2	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		--	23	61			--	--
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	<0.03	<0.03	lbs/D	<0,01	<0.01	<0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		--	0.02	0.05			--	--
MV-1 Cr^{total}	SAMPLE MEASUREMENT	0.17	0.19	lbs/D	0.02	0.03	0,04	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		--	0.3	1.0			--	--
MV-1 Fluoride	SAMPLE MEASUREMENT	15.7	21.6	lbs/D	2.3	2.7	3.0	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		--	17.4	32			--	--
MV-1 Total Phosphate	SAMPLE MEASUREMENT	0.3	0.5	lbs/D	0.05	0.05	0.07	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	--	--		--	32	61			--	--

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

Wacker Siltronic Corp.
By: Thomas C McClure
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
503	243-2020	96	08	09

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034060

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic
ADDRESS PO Box 83180
Portland, OR 97283-0180
FACILITY 7200 NW Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	07	01	TO	96	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	--	--	GPD	--	--	<0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	--	--		--	--	1.37			--	--
MV-3 Flow	SAMPLE MEASUREMENT	341,000	886,000	G/D	--	--	--	---	0	Continuous	
	PERMIT REQUIREMENT				--	---	--			---	--
MV-3 Total Phosphates	SAMPLE MEASUREMENT	--	--	--	0.01	0.1	0.1	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	--	--		--	2.0	5.0			--	--
Outfall flow	SAMPLE MEASUREMENT	962,000	2,008,000	G/D	--	--	--		0	Continuous	
	PERMIT REQUIREMENT	--	--		--	--	--			--	--
Outfall Temperature	SAMPLE MEASUREMENT	--	--	--	--	--	77	F	0	1/7	Grab
	PERMIT REQUIREMENT	--	--		--	--	85			--	--
Outfall pH	SAMPLE MEASUREMENT	--	--	--	>6.0	--	9.0	pH	0	Continuous	
	PERMIT REQUIREMENT	--	--		6.0	--	9.0	units		--	--
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

Wacker Siltronic Corp.
By: Thomas C. McCue
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 96 MO 08 DAY 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034061

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME Wacker Siltronic

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)

DISCHARGE MONITORING REPORT (*DMR*)

Form Approved.
OMB No. 2040-0004
Approval expires 9-30-05

(2-16) PERMIT NUMBER: 101128

(17-19) DISCHARGE NUMBER:

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	06	01	TO	96	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TTC	SAMPLE MEASUREMENT	—	—	lbs/Day	—	—	~~0.01~~ <0.65	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	—	—		—	—	1.37				
MV-3 Flow	SAMPLE MEASUREMENT	347,000	645,000	Gal./Day	—	—	—	—		Continuous	
	PERMIT REQUIREMENT	—	—		—	—	—				
MV-3 Total Phospate	SAMPLE MEASUREMENT	—	—	—	—	0.33	0.40	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	2.0	5.0				
Outfall Flow	SAMPLE MEASUREMENT	962,000	1,435,000	Gal/Day	—	—	—	—		Continuous	
	PERMIT REQUIREMENT	—	—		—	—	—				
Outfall Temperature	SAMPLE MEASUREMENT	—	—	—	—	—	75	°F	0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	—	85				
Outfall pH	SAMPLE MEASUREMENT	—	—	—	4.2	—	9.0			Continuous	
	PERMIT REQUIREMENT	—	—		6.0	—	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319 (*Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years*)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE / NUMBER

DATE: YEAR / MO / DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

PH Outages: 1) 13 June 1996 pH of 4.2 for 10 minutes 48 seconds
2) 17 June 1996 pH of 9.0 for 78 seconds

SCOEPA00034062

Facility Name/Location (if different)

NAME W[redacted]r Siltronic

ADDRESS [redacted]

FACILITY

LOCATION

DISCHARGE [redacted] ITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 10 11[redacted]3

(17-19) DISCHARGE NUMBER:

MONITORING PERIOD

FROM YEAR (20-21)	MO (22-23)	DAY (24-25)	TO YEAR (26-27)	MO (28-29)	DAY (30-31)
96	06	01	96	06	30

Form Approved. 2040-0004
Approval Expires 9-30-05

[redacted]

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process waste water Flow	SAMPLE MEASUREMENT	615,000	671,000	Gal/Day	—	—	—	—	—	Continuous Totalizing	
	PERMIT REQUIREMENT	—	—		—	—	—		—	Recorder	
BOD	SAMPLE MEASUREMENT	35.9	55.1	lbs/Day	—	6.5	8.8	mg/L	0	1/7	24-hour Comp
	PERMIT REQUIREMENT	339	753		—	15	30				
TSS	SAMPLE MEASUREMENT	20.0	46.8	lbs/Day	—	3.8	7.5	mg/L	0	1/7	24-hour Comp.
	PERMIT REQUIREMENT	528	1532		—	23	61				
Cr^{+6}	SAMPLE MEASUREMENT	<0.01	~~0.25~~ <0.01	lbs/Day	—	<0.01	~~0.04~~ <0.01	mg/L		Batch	
	PERMIT REQUIREMENT	0.11	0.27		—	0.02	0.05				
Cr Total	SAMPLE MEASUREMENT	0.17	0.25	lbs/day	—	0.03	0.04	mg/L	0	1/7	24-hour Comp.
	PERMIT REQUIREMENT	0.2	0.6		—	0.3	1.0				
Fluoride	SAMPLE MEASUREMENT	13.3	18.1	~~lbs~~ lbs/Day	—	2.4	3.0	mg/L	0	1/7	24-hour Comp.
	PERMIT REQUIREMENT	393	804		—	17.4	32				
Total Phosphate	SAMPLE MEASUREMENT	—	—	lbs/Day	—	0.08	0.12	mg/L	0	1/7	24-hour Comp.
	PERMIT REQUIREMENT	—	—		—	23	61				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE | NUMBER

DATE: YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034063

WACKER
Wacker Siltronic Corporation

June 13, 1996 ER22:ES

Mr. Elliot Zais
Northwest Region
Department of Environmental Quality
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201

Dear Mr. Zais:

Enclosed is the May Discharge Monitoring Report for Wacker Siltronic Corporation NPDES Permit Number 101128.

Our reported value for Total Chrome average pounds per day is at the permitted level of 0.2.

At this time, we are at the detection limit of the analytical method we currently use. Increased flows from new operations and the sensitivity limits of the method are sufficient to reach the permit level. We suspect that the reported value may be artificially high because of this.

We are currently sending weekly water samples to an outside laboratory to get analysis performed that has a lower detection limit. This will help us to confirm what the actual levels of total chrome are. This data will be used to evaluate whether we should upgrade our analytical instrumentation.

If you have any questions, please contact Tom McCue at 241-7532.

Very truly yours,

WACKER SILTRONIC CORPORATION

Thomas C. McCue
Environmental Manager

cc: Tom Rothschild

Wacker Siltronic Corporation
P.O. Box 83180
Portland, OR 97283-0180
Phone (503) 243-2020
TDD (503) 241-7519

An ISO 9001 Certified Corporation

SCOEPA00034064

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
101128	

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	05	01	TO	96	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	753,000	908,000	G/D	---	---	---	---	Continuous Totalizing Recorder		
	PERMIT REQUIREMENT	---	---		---	---	---				
MV-1 BOD	SAMPLE MEASUREMENT	31.6	37.1	#/D	4.2	5.2	6.6	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	339	753		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	7.62	11.4	#/D	0.96	1.39	2.57	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	520	1532		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	0.01	0.01	#/D	< 0.01	< 0.01	< 0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr^{Total}	SAMPLE MEASUREMENT	0.2	0.4	#/D	0.02	0.04	0.05	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.6		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	15.02	18.58	#/D	1.97	2.71	4.27	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	393	804		---	17.4	32			---	---
MV-1 Total Phosphates	SAMPLE MEASUREMENT	2.23	7.86	#/D	0.04	0.30	1.00	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John L. Pittman/Director Plant Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)	WACKER SILTRONIC CORP. BY: Thomas C. McCue for John L Pittman	503	243-2020	96	06	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034065

MITTEE NAME/ADDRE (Include
lity Name/Location if nt)
ME Wacker Siltronic Corporation
DRESS P.O. Box 83180
Portland, OR 97283-0180
CILITY 7200 N.W. Front Avenue
CATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	05	01	TO	96	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
V-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	<0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
V-3 Flow	SAMPLE MEASUREMENT	346,000	557,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT				---	---	---			---	---
V-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.07	0.25	0.55	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
utfall Flow	SAMPLE MEASUREMENT	110,000	1,489,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
utfall Temperature	SAMPLE MEASUREMENT	---	---	---	68	68	68	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
utfall pH	SAMPLE MEASUREMENT	---	---	---	7.2	7.3	9.8	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0			---	---
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

AME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to $10000 and or maximum imprisonment of between 6 months and 5 years.)

WACKER SILTRONIC CORP. BY: Thomas C McCune for John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 96 MO 06 DAY 11

OMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
pH Outages: 8 May 96 pH=9.1 for 8 seconds; 15 May 96 pH9.8 for 18 minutes and 17 seconds.

88) Previous editions may be used (REPLACES EPA FORM T-- HICH MAY NOT BE USED.)

SCOEPA00034066

Facility Name/Location (if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N. W. Front Avenue
LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR) (2-16)

PERMIT NUMBER 101128 (17-19) DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0[illegible]
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96 (20-21)	04 (22-23)	01 (24-25)	TO	96 (26-27)	04 (28-29)	30 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	478,655	566,000	G/D	---	---	---	---	Continuous		
	PERMIT REQUIREMENT	---	---		---	---	---		Totalizing Recorder		
MV-1 BOD	SAMPLE MEASUREMENT	11.95	15.74	#/D	2.67	3.09	4.12	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	57.13	153.41	#/D	2.75	13.23	33.06	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	<0.05	<0.05	#/D	<0.01	<0.01	<0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr Total	SAMPLE MEASUREMENT	0.202	0.48	#/D	0.02	0.05	0.13	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	11.15	14.75	#/D	2.46	2.84	3.18	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		---	17.4	32			---	---
MV-1 Total Phosphates	SAMPLE MEASUREMENT	0.343	0.53	#/D	0.06	0.09	0.11	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 96 MO 05 DAY 13

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Combined Fab 1 and Fab 2 flow using mass balance.

SCOEPA00034067

Facility Name/Location (if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
101128	

Form Approved.
OMB No. 2040-00[illegible]
Approval expires 10-31-94

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	96	04	01	TO	96	04	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
MV-3 Flow	SAMPLE MEASUREMENT	285,000	406,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT				---	---	---			---	---
MV-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.07	0.18	0.29	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
Outfall Flow	SAMPLE MEASUREMENT	762,000	962,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
Outfall Temperature	SAMPLE MEASUREMENT	---	---	---	68.4	68.7	69.8	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
Outfall pH	SAMPLE MEASUREMENT	---	---	---	7.24	7.27	7.32	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0			---	---
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: John L. Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 96 | MO 05 | DAY 13

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034068

April 12, 1996 ER016-96:TM

Dr. Elliot Zais
Water Quality Source Control
Northwest Region
Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Dear Dr. Zais:

Enclosed is the monthly monitoring report for March, 1996 for Wacker Siltronic Corporation NPDES Permit Number 93450. No permit violations or excursions occurred which were outside established permit parameters.

Additional flows from new Fab 2 facilities are included in this report. This report reflects lower concentration limits for chromium and higher loading limits for all other parameters as provided in Modification 2 of NPDES Permit 93450, dated March 18, 1996. All reported values for outfall 001 in this Discharge Monitoring Report are calculated by performing a mass balance of the effluent flows and concentrations of the effluent from each operating facility, that is both Fab 1 and Fab 2.

The maximum loading calculation method is changed on this report from previous reports. In the past we have calculated the maximum loading based the highest flow during the month and the highest measured concentration. This was a conservative method which would assume that both the high flow and the highest concentration occurred on the same day. The calculation method used in this report uses the same maximum concentration data but will report maximum loading based on the actual flow that day. This method will improve the accuracy of the calculations and will report what the river actually received.

If you have any questions, please contact Tom McCue as 241-7532.

Sincerely,
WACKER SILTRONIC CORPORATION

Thomas C. McCue
Environmental Manager

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N. W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	03	01	TO	96	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	< 0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
MV-3 Flow	SAMPLE MEASUREMENT	265,000	392,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
MV-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.2	0.4	0.8	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
Outfall Flow	SAMPLE MEASUREMENT	735,000	944,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
Outfall Temperature	SAMPLE MEASUREMENT	---	---	---	68	68	68	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
Outfall pH	SAMPLE MEASUREMENT	---	---	---	> 6.0	7.2	10.7	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0			---	---
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN L. PITTMAN/DIRECTOR ENGINEERING
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)

WACKER SILTRONIC CORP.
BY: John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 96 | MO 04 | DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

pH Outage: pH greater than 9.0 for 40 minutes, 43 seconds on 29 March 1996. Spike to pH 10.7 for approx. 1 minute. Outage was within permit limits.

SCOEPA00034070

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	03	01	TO	96	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	470,000	552,000	G/D	---	---	---	---	Continuous Totalizing Recorder		
	PERMIT REQUIREMENT	---	---		---	---	---				
MV-1 BOD	SAMPLE MEASUREMENT	15.8	26.3	#/D	2.9	4.6	7.9	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	11.0	22.7	#/D	1.5	3.2	6.8	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	<0.03	<0.04	#/D	<0.01	<0.01	<0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr^{Total}	SAMPLE MEASUREMENT	0.1	0.2	#/D	0.02	0.04	0.04	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.6		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	11.2	18.2	#/D	2.0	3.3	5.4	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		---	17.4	32			---	---
MV-1 Total Phosphates	SAMPLE MEASUREMENT	1.8	2.1	#/D	0.4	0.5	0.6	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN L. PITTMAN/DIRECTOR ENGINEERING
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 96 MO 04 DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
Combined Fab1 and Fab2 using flow mass balancing.

SCOEPA00034071

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME Wacker Siltronic Corporation

ADDRESS P.O. Box 83180
Portland, OR 97283-0180

FACILITY 7200 N.W. Front Avenue

LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
101128	
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	02	01	TO	96	02	29
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	373,000	474,000	G/D	---	---	---	---	Continuous Totalizing Recorder		
	PERMIT REQUIREMENT	---	---		---	---	---				
MV-1 BOD	SAMPLE MEASUREMENT	13.2	21.1	#/D	2.8	4.2	5.3	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	10.4	19.8	#/D	1.2	3.4	5.0	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	0.03	0.04	#/D	0.01	0.01	0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr^{Total}	SAMPLE MEASUREMENT	0.12	0.43	#/D	0.02	0.04	0.11	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	17.3	33.6	#/D	2.8	5.6	8.5	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		---	17.4	32			---	---
MV-1 Total Phosphates	SAMPLE MEASUREMENT	1.7	8.7	#/D	---	0.6	2.2	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/ Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: [signature] FOR JOHN L. PITTMAN
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	240-2020	96	03	12
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 2220-1 (Rev. 9-88) Previous editions may be used. (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034072

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180

FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-9) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	02	01	TO	96	02	29
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
MV-3 Flow	SAMPLE MEASUREMENT	314,000	770,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT				---	---	---			---	---
MV-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.2	0.7	2.1	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
Outfall Flow	SAMPLE MEASUREMENT	687,000	1,056,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
Outfall Temperature	SAMPLE MEASUREMENT	---	---	---	61	66	68	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
Outfall pH	SAMPLE MEASUREMENT	---	---	---	6.0	7.3	9.0	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: Thomas A McLees
for JOHN L. PITTMAN
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020
DATE: YEAR 96 MO 03 DA 1

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034073

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	02	01	TO	96	02	29
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	373,000	474,000	G/D	---	---	---	---	Continuous		
	PERMIT REQUIREMENT	---	---		---	---	---		Totalizing Recorder		
MV-1 BOD	SAMPLE MEASUREMENT	13.2	21.1	#/D	2.8	4.2	5.3	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	10.4	19.8	#/D	1.2	3.4	5.0	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	0.03	0.04	#/D	0.01	0.01	0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr^{Total}	SAMPLE MEASUREMENT	0.12	0.43	#/D	0.02	0.04	0.11	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	17.3	33.6	#/D	2.8	5.6	8.5	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		---	17.4	32			---	---
MV-1 Total Phosphates	SAMPLE MEASUREMENT	1.7	8.7	#/D	---	0.6	2.2	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/ Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: [signature] for John L. Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 240-2020

DATE: YEAR 96 | MO 03 | DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034074

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-) 101128 PERMIT NUMBER
(17-19) DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	02	01	TO	96	02	29
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
MV-3 Flow	SAMPLE MEASUREMENT	314,000	770,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT				---	---	---			---	---
MV-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.2	0.7	2.1	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
Outfall Flow	SAMPLE MEASUREMENT	687,000	1,056,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
Outfall Temperature	SAMPLE MEASUREMENT	---	---	---	61	66	68	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
Outfall pH	SAMPLE MEASUREMENT	---	---	---	6.0	7.3	9.0	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director
Plant Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

WACKER SILTRONIC CORP.
BY: Thomas A. McLean
For JOHN L. PITTMAN
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020
DATE: YEAR 96 | MO 03 | DA 1

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034075

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wacker Siltronic Corporation
ADDRESS P.O. Box 83180
Portland, OR 97283-0180
FACILITY 7200 N.W. Front Avenue
LOCATION Portland, OR 97210

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128
(17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	01	01	TO	96	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
MV-1 TTO	SAMPLE MEASUREMENT	---	---	GPD	---	---	0.01	mg/L	0	1/30	Grab
	PERMIT REQUIREMENT	---	---		---	---	1.37			---	---
MV-3 Flow	SAMPLE MEASUREMENT	238,000	475,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
MV-3 Total Phosphates	SAMPLE MEASUREMENT	---	---	---	0.2	0.2	0.3	mg/L	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	2.0	5.0			---	---
Outfall Flow	SAMPLE MEASUREMENT	578,000	836,000	G/D	---	---	---	---		Continuous	
	PERMIT REQUIREMENT	---	---		---	---	---			---	---
Outfall Temperature	SAMPLE MEASUREMENT	---	---	---	50	64	68	F	0	1/7	Grab
	PERMIT REQUIREMENT	---	---		---	---	85°			---	---
Outfall pH	SAMPLE MEASUREMENT	---	---	---	6.0		9.0	pH Units	0	Continuous	
	PERMIT REQUIREMENT	---	---		6.0	---	9.0			---	---
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John L. Pittman/Director Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)

WACKER SILTRONIC CORP.
BY: John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 96 MO 02 DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034076

RMITTEE NAME/ADD (Include
ility Name/Location if different)
ME Wacker Siltronic Corporation
DRESS P.O. Box 83180
Portland, OR 97283-0180
CILITY 7200 N.W. Front Avenue
CATION Portland, OR 97210

NATIONAL POLLUTANT DISC E ELIMINATION SYSTEM (NPDES)
DISCHARGE MO RING REPORT (DMR)

(2-16) PERMIT NUMBER: 101128 | (17-19) DISCHARGE NUMBER:

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	01	01	TO	96	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow MV-1	SAMPLE MEASUREMENT	340,000	411,000	G/D	---	---	---	---	Continuous Totalizing Recorder		
	PERMIT REQUIREMENT	---	---		---	---	---				
MV-1 BOD	SAMPLE MEASUREMENT	14.1	27.1	#/D	2.5	5.0	7.9	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	15	30			---	---
MV-1 TSS	SAMPLE MEASUREMENT	7.8	24.0	#/D	0.8	2.8	7.0	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	81	162		---	23	61			---	---
MV-1 Cr^{+6}	SAMPLE MEASUREMENT	0.03	0.03	#/D	0.01	0.01	0.01	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	0.11	0.27		---	0.02	0.05			---	---
MV-1 Cr Total	SAMPLE MEASUREMENT	0.06	0.07	#/D	0.02	0.02	0.02	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		---	0.3	1.0			---	---
MV-1 Fluoride	SAMPLE MEASUREMENT	10.8	13.9	#/D	3.3	3.8	4.1	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	33	65		---	17.4	32			---	---
MV-1 Total Phosphate	SAMPLE MEASUREMENT	0.6	1.1	#/D	0.1	0.2	0.3	mg/L	0	1/7	24 HC
	PERMIT REQUIREMENT	---	---		---	23	61			---	---

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John L. Pittman/Director Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)

WACKER SILTRONIC CORP.
BY: John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	243-2020	96	02	12
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034077

nca™
www.ncalabs.com

Seattle 19030 120th Avenue NE, Suite 101, Bothell, WA 98011-9508
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Barium Coated Crucible

24 May, 2000

Thomas Rothschild
Wacker Siltronics Corporation
7200 N.W. Front
Portland, OR 97210

RE: N/A

Enclosed are the results of analyses for samples received by the laboratory on 05/09/00 12:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Howard Holmes
Project Manager

Work Orders included in this report:
P005167

North Creek Analytical, Inc.
Environmental Laboratory Network

nca™
www.ncalabs.com

Seattle 18939 120th Avenue NE, Suite 101, Bothell, WA 98011-9508
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Wacker Siltronics Corporation	Project: N/A	
7200 N.W. Front	Project Number: PO# 210162	**Reported:**
Portland, OR 97210	Project Manager: Thomas Rothschild	05/24/00 10:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
00-45 Contaminated Crucible	P005167-01	Other dry	05/09/00 00:00	05/09/00 12:20

North Creek Analytical - Portland

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

Howard Holmes, Project Manager

SCOEPA00034079

nca™
www.ncalabs.com

Seattle 18939 120th Avenue NE, Suite 101, Bothell, WA 98011-9508
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Wacker Siltronics Corporation	Project: N/A	
7200 N.W. Front	Project Number: PO# 210162	**Reported:**
Portland, OR 97210	Project Manager: Thomas Rothschild	05/24/00 10:27

TCLP Metals per EPA 1311/6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
00-45 (P005167-01) Other dry					Sampled: 05/09/00 Received: 05/09/00				
Arsenic	ND	0.500	mg/l	1	EPA 6010A	05/11/00	05/13/00	0050375	
Barium	ND	0.500	"	"	"	"	05/15/00	"	
Cadmium	ND	0.0200	"	"	"	"	05/13/00	"	
Chromium	ND	0.0100	"	"	"	"	"	"	
Lead	ND	0.200	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	05/11/00	05/15/00	0050365	
Selenium	ND	0.250	"	"	EPA 6010A	05/11/00	05/13/00	0050375	
Silver	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Portland

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

Howard Holmes, Project Manager

SCOEPA00034080

nca™
www.ncalabs.com

Seattle 18939 120th Avenue NE, Suite 101, Bothell, WA 98011-9508
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Wacker Siltronics Corporation	Project: N/A	
7200 N.W. Front	Project Number: PO# 210162	Reported:
Portland, OR 97210	Project Manager: Thomas Rothschild	05/24/00 10:27

TCLP Metals per EPA 1311/6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0050365 - EPA 1311/3005										
Blank (0050365-BLK1)				Prepared: 05/11/00 Analyzed: 05/15/00						
Mercury	ND	0.000200	mg/l							
LCS (0050365-BS1)				Prepared: 05/11/00 Analyzed: 05/15/00						
Mercury	0.00541	0.000200	mg/l	0.00500		108	75-125			
Matrix Spike (0050365-MS1)		Source: P005167-01		Prepared: 05/11/00 Analyzed: 05/15/00						
Mercury	0.00491	0.000200	mg/l	0.00500	ND	98.2	50-150			
Batch 0050375 - EPA 1311/3005										
Blank (0050375-BLK1)				Prepared: 05/11/00 Analyzed: 05/13/00						
Arsenic	ND	0.500	mg/l							
Barium	ND	0.500	"							
Cadmium	ND	0.0200	"							
Chromium	ND	0.0100	"							
Lead	ND	0.200	"							
Selenium	ND	0.250	"							
Silver	ND	0.0100	"							
LCS (0050375-BS1)				Prepared: 05/11/00 Analyzed: 05/13/00						
Arsenic	5.32	0.500	mg/l	5.00		106	75-125			
Barium	8.21	0.500	"	10.0		82.1	75-125			
Cadmium	1.01	0.0200	"	1.00		101	75-125			
Chromium	4.68	0.0100	"	5.00		93.6	75-125			
Lead	5.07	0.200	"	5.00		101	75-125			
Selenium	1.99	0.250	"	2.00		99.5	75-125			
Silver	0.873	0.0100	"	1.00		87.3	75-125			

North Creek Analytical - Portland

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

Howard Holmes, Project Manager

SCOEPA00034081

nca™
www.ncalabs.com

Seattle 19939 120th Avenue NE, Suite 101, Bothell, WA 98011-9508
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.382.9010 fax 541.382.7588

Wacker Siltronics Corporation	Project: N/A	
7200 N.W. Front	Project Number: PO# 210162	**Reported:**
Portland, OR 97210	Project Manager: Thomas Rothschild	05/24/00 10:27

TCLP Metals per EPA 1311/6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0050375 - EPA 1311/3005										
Matrix Spike (0050375-MS1)	**Source: P005167-01**			Prepared: 05/11/00		Analyzed: 05/13/00				
Arsenic	5.14	0.500	mg/l	5.00	ND	102	50-150			
Barium	7.90	0.500	"	10.0	ND	76.4	50-150			
Cadmium	0.989	0.0200	"	1.00	ND	98.9	50-150			
Chromium	4.58	0.0100	"	5.00	ND	91.6	50-150			
Lead	4.97	0.200	"	5.00	ND	99.4	50-150			
Selenium	2.03	0.250	"	2.00	ND	99.5	50-150			
Silver	0.858	0.0100	"	1.00	ND	85.8	50-150			

North Creek Analytical - Portland

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

Howard Holmes, Project Manager

SCOEPA00034082

www.ncalabs.com

Seattle 18939 120th Avenue NE, Suite 101, Bothell, WA 98011-8508
425.420.9200 fax 425.420.9210
Spokane Ford 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Wacker Siltronics Corporation	Project: N/A	
7200 N.W. Front	Project Number: PO# 210162	Reported:
Portland, OR 97210	Project Manager: Thomas Rothschild	05/24/00 10:27

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
wet	Sample results reported on a wet weight basis
RPD	Relative Percent Difference

North Creek Analytical - Portland

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

Howard Holmes, Project Manager

SCOEPA00034083

CH2M HILL
engineers
planners
economists
scientists

COPY

August 10, 1982

P16058.BO

Wacker-Chemie
Department U
Postfach 1140, 8263 Werk Burghausen
West Germany

Attention: Mr. Herbert Schmid

Gentlemen:

Subject: Preliminary Geotechnical Exploration
Proposed Wacker Poly Plant

We are pleased to submit this report summarizing our geotechnical exploration for the proposed Wacker Poly Plant in Portland, Oregon. The report contains the results of our field exploration and laboratory analyses, and presents preliminary foundation recommendations.

We appreciate the opportunity to work with you on this project. If you have any questions regarding this report, or if we may be of further assistance, please contact us.

Sincerely,

Deanne L. Kasai

Deanne L. Kasai
Staff Geotechnical Engineer

Richard S. Reid

Richard Reid
Project Manager

480.002.1

Portland Office
200 S.W. Market Street, 12th Floor, Portland, Oregon 97201 503/224-9190 Cable: CH2M HILL

SCOEPA00034084

Dames & Moore
1220 S.W. Morrison Street
Portland, Oregon 97205
(503) 228-7688

LETTER OF TRANSMITTAL

TO: Wacker-Siltronic
P.O. Box 03180
Portland, OR 97203

DATE: October 28, 1986

PROJECT NAME:

ATTENTION: Mr. James R. Ellis

JOB NO: 14232-001-05

SUBJECT: CH2M HILL Report

YOUR ORDER NO:

WE ARE SENDING YOU VIA Hand Delivered

THE FOLLOWING:

NO. OF COPIES	DESCRIPTION
1	Original report dated August 10, 1982 from CH2M HILL.

THESE ARE FOR

REMARKS:

COPIES TO: File

DAMES & MOORE

BY C. F. Kienle

C. F. Kienle

SCOEPA00034085

PRELIMINARY GEOTECHNICAL EXPLORATION

for the

PROPOSED WACKER POLY PLANT

PORTLAND, OREGON

Prepared for

WACKER-CHEMIE

BURGHAUSEN, WEST GERMANY

by

CH2M HILL

200 S.W. Market Street
Portland, Oregon 97201

August 1982

Project No. P16058.BO

480.003.1

SCOEPA00034086

CONTENTS

	Page
INTRODUCTION	1
Purpose and Scope	1
Limitations	1
Site Description	2
Project Description	5
EXPLORATION	5
Geology	5
Seismic Considerations	6
Liquefaction Potential	7
Field Exploration	7
Laboratory Testing	9
FINDINGS	9
Subsurface Conditions	9
Groundwater Conditions	11
DISCUSSION	11
Settlement	11
Allowable Bearing Pressure	13
Dynamic Consolidation	14
FOUNDATION RECOMMENDATIONS	14
Preload	14
Piles	16
General Considerations	17
Construction Considerations	18
Additional Work	18
REFERENCES	19

Appendix A--Boring Logs
Appendix B--Laboratory Test Results

SCOEPA00034087

CONTENTS (continued) Page

Figure

1 Vicinity Map 3

2 Proposed Building Layout and Boring Locations 4

Table

1 Structural Loads 5

2 Allowable Bearing Pressure 13

3 Allowable Pile Loads 16

SCOEPA00034088

PRELIMINARY GEOTECHNICAL EXPLORATION
PROPOSED WACKER POLY PLANT

INTRODUCTION

Purpose and Scope

This report presents the results of our preliminary geotechnical exploration for the proposed Wacker Poly Plant, which will be adjacent to the existing Wacker Siltronic Corporation Plant in Portland, Oregon. The purpose of our exploration was to evaluate subsurface conditions at the site and to make preliminary foundation recommendations for support of the proposed facilities.

The scope of our work included:

- Reviewing existing data and reports of previous preload performance.
- Conducting a drilling program, consisting of nine soil borings, to explore subsurface conditions at the site.
- Performing laboratory testing on selected soil samples collected from soil borings.
- Developing preliminary foundation recommendations based on geotechnical evaluation of subsurface information and laboratory test results.
- Preparing this report summarizing our findings.

Limitations

The analysis and recommendations contained in this report are based on data obtained from soil borings, existing reports, and current geotechnical engineering practice. This report has been prepared to assist in the evaluation of the proposed site and to assist in the design of this project. Soil borings indicate soil conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect soil or strata variations that may exist between boring locations. If variations in subsurface conditions different from those described are noted during the course of excavation and construction, reevaluation of the exploration and design analysis will be necessary. The conclusions and recommendations contained in this report should be reevaluated in the event that changes are made in the nature or design of the structures, or if the structures are relocated outside the explored area.

SCOEPA00034089

This report has been prepared for the exclusive use of Wacker-Chemie, Burghausen, West Germany, for specific application to the subject site, in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made.

Site Description

The project site is located in a vacant field about 400 feet south of Wacker Siltronic Corporation's existing facilities in northwest Portland, Oregon (Figures 1 and 2). The site is bounded on the north by the existing Wacker Plant, and is bordered on the south and east by the SP&S railway's right-of-way. Underground utilities, consisting of oil, water, gasoline, natural gas, and sewer lines, as well as electric and telephone cables, are present in a 100-foot-wide easement on the north side of the site (Figure 2).

The site is relatively level with elevations ranging from about 40 feet National Geodetic Vertical Datum 1929 (NGVD) in the southern part to about 32 feet in the northern part. The ground surface is locally deeply rutted with heavy machinery tracks and ditches. Wood debris, concrete, and other waste materials are present in small concentrations across the field.

We understand that two generations of hydraulic fill material have been placed on the site during the past 25 years. Fill was first placed 20 to 25 years ago, and again sometime during the past 10 years. The most recent fill is about 5 feet thick. Overall fill thickness is probably 15 to 20 feet.

The existing Wacker Siltronic Plant was successfully preloaded to reduce post-construction building settlements. The first stages of preloading began on August 22, 1978, and the eleventh and final stage was placed on October 10, 1978. Preload removal began on September 9, 1978, and subsequent removal of each stage was authorized after review of settlement monitoring data. Preload removal was authorized after predicted settlement was achieved or primary settlement was complete. The last stage was removed by January 5, 1979. The measured settlements of the settlement plates varied between zero and 13.8 inches. This difference was attributed to differential fill heights and the variable nature of the subsurface materials (CH2M HILL, 1979).

Based on U.S. Army Corps of Engineers' data, the 100-year flood level at the project site is 27.7 feet NGVD. The 50-year flood elevation is 25.8 feet.

SCOEPA00034090

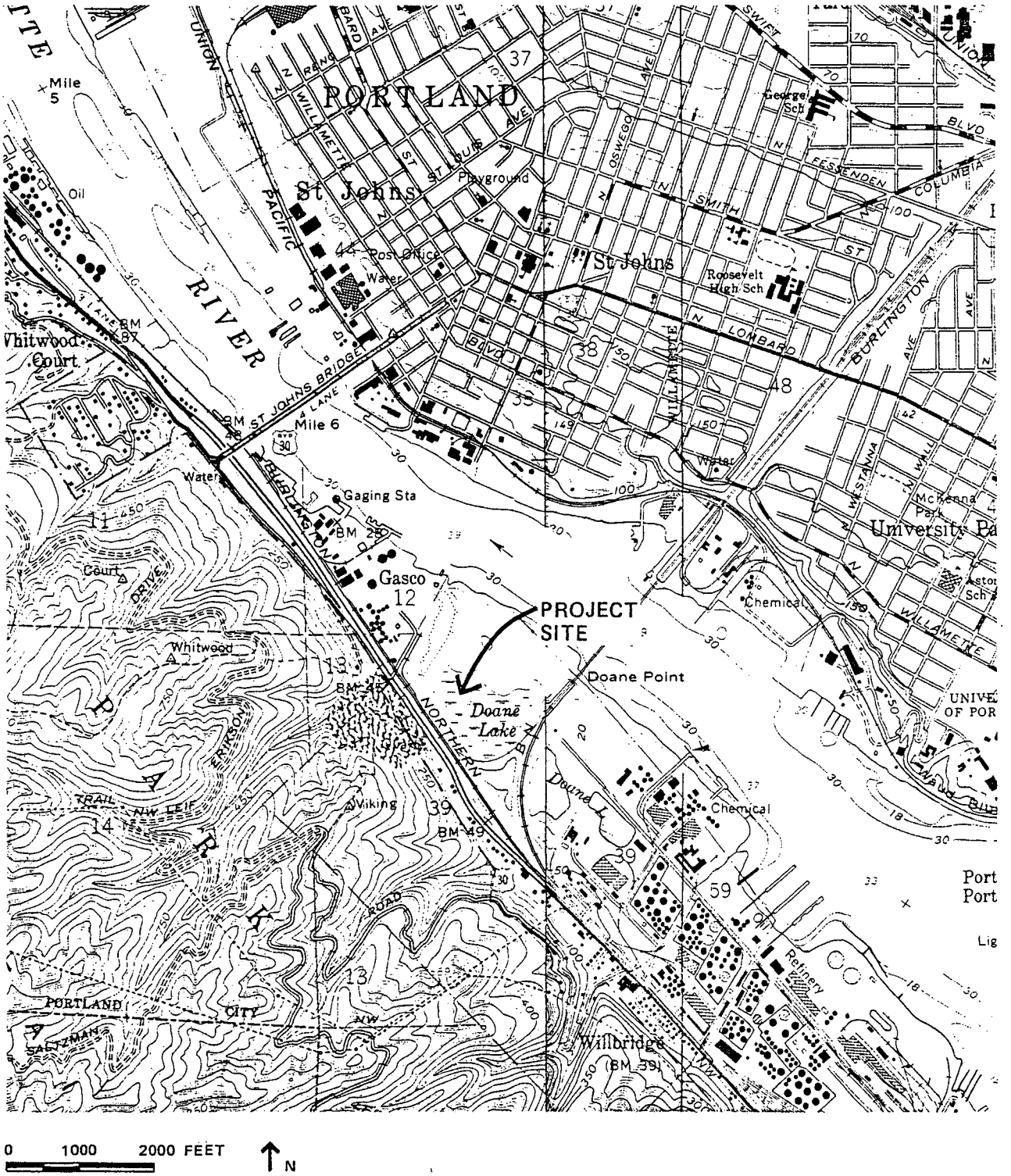


FIGURE 1
VICINITY MAP
Wacker Siltronics Corporation
August 1982

CH2M HILL

P16058.B0

SCOEPA00034091

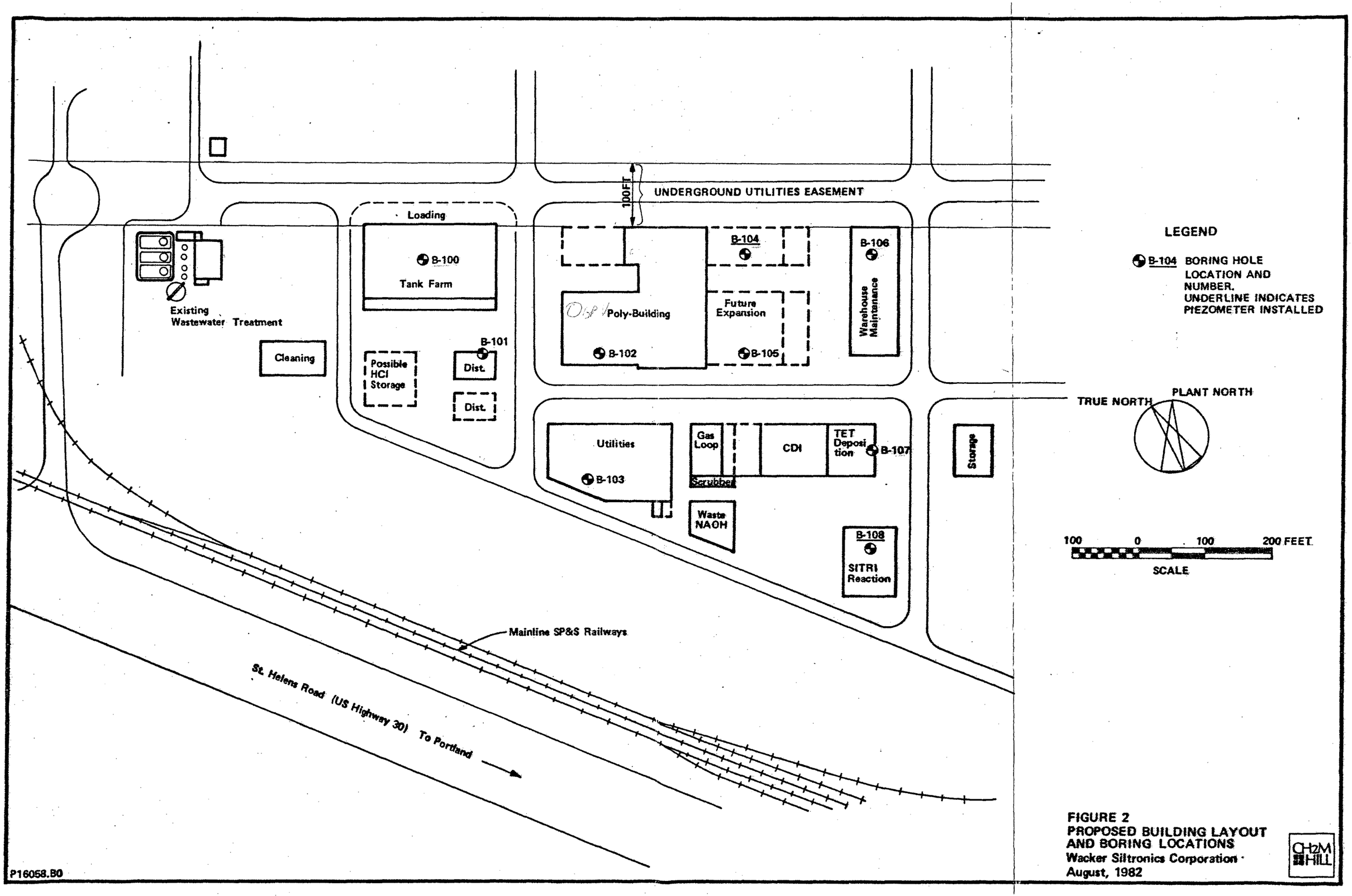


FIGURE 2
PROPOSED BUILDING LAYOUT
AND BORING LOCATIONS
Wacker Siltronics Corporation
August, 1982

CH2M HILL

Project Description

The proposed Poly Plant will consist of the following facilities: Distillation Tower, Tank Farm, Poly Deposition Building, Warehouse, Utility Area, Gas Loop, Scrubber, CDI, Tet-Deposition Building, Sitri Reaction, and miscellaneous storage areas (Figure 2). All structures will tentatively be constructed with slab-on-grade, concrete walls, and column footings. There are several structures that will exceed two stories in height, the Distillation Tower, the Poly Deposition Building, the Gas Loop structure, the Sitri Reaction structure, and the Tet-Deposition Building. No basements are planned. The structural loads used in the foundation analysis are shown in Table 1. These loads approximate the total live load plus dead load of the structure divided by the footprint area of the structure; isolated column loads will probably be heavier, while floor slab loads will probably be lighter. The design structural loads should be used for analysis during final design.

Table 1

STRUCTURAL LOADS

)sf

Delete

ion
acement
ximum.

EXPLORATION

Geology

The project site is located on the northwest edge of the northwest-trending structural depression known as the Willamette Valley. The physiography of this part of the

SCOEPA00034093

Willamette Valley is dominated by the northwest-trending Portland Hills (also known as the Tualatin Mountains) and the flood plain of the Willamette River. The project area is situated between the base of the Portland Hills (about 0.1 mile to the southwest) and the Willamette River (about 0.3 mile to the northeast).

Beneath artificial fill material, the uppermost geologic unit at the site is unconsolidated alluvium deposited by the Willamette River. In the project area, the alluvium is composed of silt, sand, and combinations of these materials. Columbia River Basalt occurs at depths less than 100 feet beneath the site. Massive flows of Columbia River Basalt are exposed in the walls of the abandoned quarry located immediately southwest of the site.

The northeastern front of the Portland Hills forms a linear escarpment that persists for at least 50 miles in the Portland area. Investigators have speculated about the origin of the linear mountain front for many years. It has been explained as part of a large fold by Trimble (1963), and as the result of normal faulting by Schlicker et al. (1964) and by Balsillie and Beeson (1971). Gravity surveys by Beeson et al. (1974) support the concept of a right lateral strike slip fault with several hundred feet of vertical displacement. However, direct geologic or seismic evidence for a fault along the northeast flank of the Portland Hills has not yet been identified.

Seismic Considerations

The site is located in a region of low to moderate historic seismicity. The largest earthquake to occur within the Portland area since 1841 was a 1962 event with an estimated Richter magnitude of 5 that locally developed a Modified Mercalli (M.M.) Intensity of VII (Berg and Baker, 1963). The epicenter was in the area of the Columbia River about 9 miles northeast of the site. In January and May of 1968, two earthquakes of Richter magnitude 3.7 and 3.8, respectively, occurred in the same general area as the 1962 event and produced M.M. intensities of IV in Portland (Hammond et al., 1974).

Distant earthquakes have also been felt in the Portland area. In 1949, the Richter magnitude 7.1 Olympia, Washington, earthquake produced an intensity VI in Portland. In 1965, a Richter magnitude 6.5 earthquake near Tacoma, Washington, developed an intensity V in Portland. The epicenters of these events were more than 100 miles north of the project area. Events originating about 150 miles offshore from Oregon have produced intensities of IV in Portland (Hammond et al., 1974).

SCOEPA00034094

Perkins et al. (1980) have developed seismic risk maps for the Pacific Northwest based on the estimated probability of maximum bedrock acceleration expected from earthquakes occurring within the region. These maps show that for the Portland area there is a 90 percent probability that bedrock accelerations will not exceed 0.15 g (where g is the acceleration of gravity) in 50 years. This corresponds to an earthquake with a recurrence interval of approximately 500 years. These maps also show that for the Portland area, there is a 90 percent probability that bedrock accelerations will not exceed 0.07 g in 10 years. This corresponds to an earthquake with a recurrence interval of approximately 100 years.

To establish a design earthquake and to determine probable site response, a detailed seismic evaluation would be required. Based on our experience, we believe that a detailed study is not warranted for this site. Therefore, we recommend using the applicable provisions of the Uniform Building Code (1979), Seismic Zone 2, for design.

Liquefaction Potential

We made a brief review of liquefaction potential at the site using the simplified procedure developed by Seed and Idris (1971), and the Standard Penetration Test results (see Appendix A). Following site improvement by use of preloads, we believe that soil liquefaction will be unlikely for bedrock accelerations less than about 0.07 g, which corresponds to an earthquake with a recurrence interval of about 100 years. However, bedrock accelerations of about 0.15 g (corresponding to the 500-year event) may cause local liquefaction at the site. To fully evaluate liquefaction potential, a detailed site response analysis would be required. We believe that this type of analysis is probably not warranted.

Field Exploration

Our field exploration program consisted of nine exploratory soil borings, numbered B-100 through B-108. The locations of borings are shown on Figure 2, and boring logs are presented in Appendix A. The borings were drilled by Donald A. Kenner Drilling of Oregon, Inc., of Sherwood, Oregon. The drilling program was observed in the field by a CH2M HILL geotechnical engineer and engineering geologist. Field work was performed from June 28 through July 2, 1982.

Boring locations and elevations were determined by surveying methods based on NGVD. The soil borings were drilled using two drill rigs on the site. Borings B-100, 101, 102, and 103 were drilled using a CME-55 rotary drill

SCOEPA00034095

rig, while borings B-104, 105, 106, 107, and 108 were drilled with a CME-75 rotary drill rig. In all borings except B-104 and B-108, bentonite drilling mud was used to remove cuttings and to prevent sidewalls from collapsing. An organic polymer drilling fluid (Revert) was used in borings B-104 and B-108 where piezometers were installed. The soil borings were advanced to depths ranging from 69.5 to 100.0 feet. Borings were ended when bedrock was encountered.

Representative samples of materials encountered in the borings were generally obtained at 5-foot intervals with a standard 2-inch outside diameter split-spoon sampler, following the requirements of the Standard Penetration Test (ASTM D 1586). This test is used to characterize the consistency or density of in-place soil by measuring penetration resistance expressed as "blow counts," or "N-value." The blow count is the number of blows required to advance a standard split-spoon sampler 6 inches with a 140-pound hammer falling 30 inches. The sampler is driven 18 inches, and the blow count is recorded for each 6-inch increment. The sum of the second and third increments is referred to as the N-value. Low N-values indicate soft or loose deposits, while high N-values are evidence of hard or dense materials. After the sampler has been driven and the blow counts recorded, the sampler is withdrawn from the boring to recover a disturbed soil sample.

Soil samples were examined in the field and visually classified in approximate accordance with the visual-manual procedure for description of soils (ASTM D 2488). Sampling intervals and classification of soil samples are presented in the boring logs in Appendix A. Field soil boring logs were revised as necessary based on laboratory testing and office examination.

Shelby tube samples were recovered from all borings except B-105. Shelby tube samples provide relatively undisturbed soil samples that are suitable for laboratory testing. The samples were obtained using 3-inch-diameter, thin-walled, seamless steel tubes that are 30 inches long (ASTM D 1587). The tubes were pushed 24 inches into the undisturbed soil in one continuous stroke without rotation using hydraulic pressure. Intervals where Shelby tube samples were recovered are shown on the boring logs in Appendix A.

Open standpipe piezometers were installed at borings B-104 and B-108 to permit monitoring of water levels. Piezometers consist of a slotted PVC tip, 1-1/2 inches in diameter and 18 inches long, connected to a 3/4-inch inside diameter riser pipe that extends 12 to 18 inches above the ground surface. The annular space around the piezometer tips

SCOEPA00034096

was gravel-packed with 3/8-inch-diameter pea gravel. The zone of gravel packing was then sealed with bentonite, and the borings were backfilled to the ground surface. The position of piezometer tips and the zone of gravel pack are described on the boring logs in Appendix A.

Water level measurements were made at borings B-104 and B-108 and are reported on the boring logs. Water levels were not recorded in other borings because drilling mud in the borings did not permit useful measurements to be made.

Laboratory Testing

Selected samples of the silt were tested in CH2M HILL's Portland laboratory for natural moisture content, liquid limits, and plastic limits. The results of these tests are shown in Appendix B. Classification of selected samples was also performed in the laboratory to confirm our visual field classification of the soils.

Consolidation tests were performed on relatively undisturbed samples of the silt layer to determine the compressibility of the soil. Samples for consolidation testing were obtained using a thin-wall tube sampler. The results of these tests are shown in Appendix B.

FINDINGS

Subsurface Conditions

The generalized subsurface soil conditions, described from the ground surface downward, are presented in the following discussion. This information was determined from the information on the soil boring logs in Appendix A. The soil descriptions are generalized for correlation purposes.

- Fill: This material is composed of sand, sandy silt, and silt, with minor gravelly sand in B-103. Sand is the predominant constituent in most of the fill, but silt is the dominant component in the northeastern part of the site at borings B-104 and B-106. The fill is usually dark gray or black in color, and it is moist to wet. Copper wire and rubber were present in fill in the western part of the project area, and chunks of wood were recovered in several other borings. A strong hydrocarbon odor was evident in most samples recovered from the lower half of the fill, and oil was observed in some samples. N-values of the fill ranged from 5 to 49 in the sandy and gravelly material, and from

SCOEPA00034097

1 to 16 in the silts and sandy silts. The fill material is about 15 to 20 feet thick.

- Silt: This unit is composed of silt with lesser amounts of sand and interbedded lenses of silty sand. The silt is generally nonplastic or of low plasticity, but the unit includes zones of silt with moderate to high plasticity. The deposit locally contains as much as 20 to 30 percent fine sand and minor gravel. Color is variable, ranging from brown to shades of gray and blue, with occasional orange-brown mottling. The material is moist to wet. The silt contains fragments of decomposed plant material that is locally abundant. Wood fragments and oil were recovered in the upper part of the unit.

  The silt is very soft to hard in consistency. N-values range from less than 1 to 54. Thickness of the silt ranges from 32 to 77 feet, and averages about 40. The thickest deposits occur in the eastern part of the site, at borings B-104 and B-106. The thinnest part of the unit is in the southern part, at borings B-103 and B-108.

- Sand and Silty Sand: Sandy deposits occur in discontinuous and uneven layers on top of bedrock material (described below). Sand is uniformly graded fine sand with 5 to 12 percent fines, brown or black, and compact to very dense. Silty sand is poorly graded fine sand with 12 to 30 percent fines, brown or black, wet, and compact to dense. Minor lenses of silt are interbedded with the sand and silty sand. The deposits sometimes grade into a gravelly sand at the very bottom of the unit. N-values range from 24 to 94. Thickness of the sandy deposits ranges from about 5 to 20 feet. The sandy material is absent at borings B-104 and B-106.

- Basalt: Samples of Columbia River Basalt were recovered from most of the borings. In the western part of the site, the basalt was weathered to a sandy gravel. In the eastern part, the basalt appeared unweathered. N-values for weathered basalt ranged from 105 blows for 10 inches of penetration to 60 blows for 6 inches. N-values for unweathered basalt were about 60 blows for 0.5 inch of penetration. The depth to the bedrock surface beneath the project area ranges from nearly 100 feet in the northern part of the site to about 70 feet in the southernmost part of the site at boring B-108.

SCOEPA00034098

Groundwater Conditions

Water levels were recorded at borings B-104 and B-108 where piezometers were installed. Measured water levels on July 23, 1982, are 16.1 and 18.8 feet below the ground surface for B-104 and B-108, respectively. These water levels correspond to elevation 15.5 feet in B-104 and 17.1 feet in B-108. If water-bearing zones communicate with the Willamette River, then fluctuations in the river level could influence water levels beneath the site. For design, assume water levels could rise to the 100-year flood elevation of 27.7 feet.

Reported water levels are representative for only the specific locations explored. Water levels between borings B-104 and B-108, and for other locations on the site, might differ. The water levels reported for borings B-104 and B-108 can be expected to change with time.

DISCUSSION

The soil beneath the proposed structures must provide adequate bearing capacity and limit differential settlement to a tolerable amount. Bearing capacity failure occurs when small increases in the imposed soil pressure cause large or sudden foundation movements. Settlement failure occurs when the imposed soil pressure produces more settlement than the structure can handle.

Settlement

Potential settlement was analyzed based on review of field measurements of preloads placed in 1978 and on the review of laboratory consolidation test data from the compressible strata. In general, the total settlement caused by applying a load to a soil mass consists of two components: primary and secondary settlement.

Primary settlement occurs in fine-grained soils, usually clay, as the result of water in the soil slowly being squeezed out by the applied load. Soil mechanics theories are used to estimate the magnitude and rate of this type of settlement.

Secondary settlement also occurs in fine-grained soils. Its cause is not well understood, but it is thought to be related to gradual readjustment of the soil particles under long-term loading. This type of settlement occurs at a constantly decreasing rate as long as the load is applied to the soil. There are no reliable methods available to accurately predict the magnitude or the rate of secondary settlement. However, empirical formulas are available to estimate the amount of secondary settlement.

SCOEPA00034099

From our experience with silt soils in this region, settlements are often overestimated unless special care is taken to distinguish between primary and secondary consolidation. The loading branch of the consolidation curves presented in Appendix B has been corrected to reduce this tendency to overestimate by showing void ratio at completion of primary consolidation. The rebound portion of the curve was not corrected in this manner.

The magnitude of consolidation settlement is controlled by the compressibility and thickness of the foundation soil, the applied foundation load, and the size of the loaded area. A superimposed load on a large area will influence the soil to a greater depth than a superimposed load on a smaller area. As a consequence, consolidation settlement will probably be greater for a superimposed load on a large area than for a superimposed load on a small area.

In the northeastern part of the site, the consolidating strata is composed of 10 feet of a soft, nonplastic organic silt; 50 feet of a soft to firm, nonplastic to moderately plastic silt; and 40 feet of a hard, nonplastic silt. Without site improvements, we predict primary settlement from a slab with a 300-psf load to be 10 inches and to occur in 30 days. We also predict secondary settlement over the life of the building could range from 1 to 2 inches. This would produce total settlements of 11 to 12 inches. We predict primary settlement under a 1,000-psf load for 3- and 8-foot-square footings to be 4 and 8 inches, respectively. This settlement will occur in 30 days. Secondary settlement for these footings will be between 1 and 2 inches resulting in total settlements of 5 to 6 inches and 9 to 10 inches, respectively.

In the western part of the site, the consolidating strata is composed of 40 feet of a soft to firm, nonplastic to highly plastic silt. This strata is located beneath a 20-foot-thick strata of sand and silty sand. Without site improvements, we predict primary settlement from a slab with a 2,000-psf load to be 15 inches and to occur in 30 days. Secondary settlement will be about 1 inch. We predict primary settlement under a 2,000-psf load for 3- and 8-foot-square footings to be approximately 1 inch. Secondary settlements will be approximately 1 inch. Primary settlement under a 1,000-psf load for a 50- by 50-foot slab will be approximately 4 inches, and secondary settlement will be about 1 to 2 inches.

Preloads can be used to cause predicted settlement to occur before structure loads are in place. Based on our analysis, a preload applying a pressure approximately equal to anticipated structure loads will cause primary

SCOEPA00034100

settlement in about 30 days. We have assumed a preload fill density of 110 pounds per cubic foot (pcf). The preload should be monitored using periodic surveys of settlement plates so that predicted behavior can be compared with actual behavior.

By increasing the height of preload (surcharge), a predicted amount of settlement can be forced to occur in a shorter amount of time. If a preload and surcharge are left in place longer than the amount of time required to cause the desired amount of primary settlement, then the additional settlement caused will serve to compensate, or offset, some of the effects of secondary settlement. Therefore, preload and surcharge design must consider:

- Settlement properties of the consolidating stratum (enables prediction of primary and secondary settlement)
- Time available to leave the preload and surcharge in place
- Desired magnitude of secondary settlement to be offset

Allowable Bearing Pressure

Allowable bearing pressure was analyzed for two types of bearing materials, silt and silty sand. Allowable bearing pressures increase as the depth of footing below final grade increases and as the footing width increases. With site improvements, the maximum allowable bearing pressure for the two types of bearing materials are shown in Table 2. This bearing pressure may be increased by 33 percent for short-term loads such as those from earthquake and wind.

Table 2

ALLOWABLE BEARING PRESSURE

Bearing Material	Average Corrected N-Value	Minimum Depth of Footing (ft)	Minimum Footing Width (ft)	Allowable Bearing Pressure (psf)
Silt	3	3.0	3	1,500
Silty sand	9	1.5	3	2,000

The allowable bearing pressure on the silt can be increased by overexcavating and replacing with compacted granular backfill.

SCOEPA00034101

Dynamic Consolidation

Dynamic consolidation is a method for improving the engineering properties of in-place soil. The method consists of dropping a weight of up to 30 tons from heights up to 150 feet. The repeated high-energy impacts at the ground surface propagates shock waves, which densifies the soil to depths up to 60 feet. In saturated and unsaturated silt and fine sand, the shock causes partial soil liquefaction followed by rapid consolidation. Dynamic consolidation increases soil strength and decreases soil compressibility because of the soil densification that is achieved.

The primary variables that affect the depth of soil improvements when using dynamic consolidation are the soil type and the location of the groundwater table. Dynamic consolidation is less effective below the groundwater table and on plastic soils. At this site, the estimated depth of recommended soil improvements is about 30 to 40 feet below the ground surface.

We do not recommend using dynamic consolidation for improvement of soils at this site for the following reasons:

- Vibration levels could disturb crystal growth at the existing facility.
- Dynamic consolidation is relatively expensive compared to preloading.
- Local contractors are not familiar with the techniques and methods used in dynamic consolidation.
- Preloads have proved an effective method of soil improvement at the existing plant.
- Dynamic consolidation may be unable to significantly improve site soils to the depths required.

FOUNDATION RECOMMENDATIONS

Preload

To control post-construction settlement, we recommend preloading the site with an earthfill embankment. This will cause primary settlement and part of secondary settlement to occur before construction of the buildings. At this time, we recommend using a 20-foot-thick preload for the Distillation Tower and Tank Farm areas, a 5-foot-thick preload for the Warehouse area, and a 10-foot-thick preload for the other structures. These preloads should be left in place for approximately 30 days. Since the time to the end of primary consolidation is fairly short, the preload could be moved around the site in a rotating

SCOEPA00034102

fashion. Earth for the preload will probably need to be obtained offsite. This material could be used later to construct landscaping berms around the site or for the tank farm berm.

To minimize the amount of imported granular material required for preloads, it will probably be most economic to consider use of individual preloads at each structure site. However, an individual preload will cause settlement to occur in areas outside of its footprint because of the distribution of stress increases in the consolidating strata caused by the presence of the preload. Therefore, care must be exercised in selecting the footprint dimensions of an individual preload. We recommend using the following guidelines to plan the sequence of preload construction and removal at this site:

- If no structures or future improvements are within 70 feet of the structure site being preloaded, the top of the preload should extend beyond the building footprint a distance equal to the height of the preload.

- The above criterion should also be used for adjacent sites that are preloaded before structures are built.

- If structures or future improvements are within 70 feet of the structure site being preloaded, the top of the preload should extend 30 feet beyond the building footprint. The toe of the subsequent preload should not be closer than 30 feet to the structure in place.

- The toe of the preload should be at least 30 feet from utilities in the existing easement.

These guidelines should be considered preliminary. Each individual preload should be evaluated during design based on design structural loads and final building locations.

Estimates of secondary (or post-construction) settlement following preload and surcharge are subject to considerable engineering judgment. First, the exact time the preload will be left in place is not yet known. Second, the exact shape of settlement versus time plots made from settlement plate data will assist in predicting secondary settlement. However, in advance of preload monitoring data, we anticipate that secondary settlements following preload at this site will be 1 to 2 inches over the life of the facility. This amount of secondary settlement is comparable to settlements estimated for the existing plant. This amount of secondary settlement is expected to be fairly uniform for structures that are uniformly loaded.

SCOEPA00034103

Some differential settlement may occur between structures, particularly if the structures differ substantially in configuration or in applied load.

Piles

Pile support for structures is an alternative to preloading. However, pile foundations will add considerable construction cost, particularly if structural floor slabs are required.

To control differential settlement, we recommend using driven piles for support of the Distillation Tower and other settlement sensitive structures. A summary of allowable pile loads is presented in Table 3. Piles should be spaced no closer than three pile diameters. The bearing strata for the piles is basalt. The observed depth of this strata varies from 70 to 100 feet across the site. Depending on final structural locations, additional borings may be required to more clearly locate the bearing strata for a more accurate determination of pile lengths.

Table 3

ALLOWABLE PILE LOADS

Pile Type	Size	Allowable Compressive Load (tons)	Allowable Lateral Load (tons)	Vertical and Horizontal Deflections
Prestressed concrete f_c' = 700 psi f_{pc} = 1,200 psi	12"x12" square	120	2.5	Acceptable
	14"x14" square	175	8.0	Acceptable
Steel pipe (open end) A36 f_s = 21,600 psi	12-3/4" diameter 3/8" wall	140	4.6	Acceptable
	16" diameter 3/8" wall	180	7.4	Acceptable

Notes: Depth to fixity is equal to 7.5 feet.

A downdrag of 20 tons is incorporated in the allowable compressive loads.

Piles are coated to reduce downdrag.

SCOEPA00034104

The pile types and allowable loads shown in Table 3 should be considered preliminary information. The final selection of pile type depends on material availability and determination of the most economic pile type for the actual structural loads. The design allowable compressive loads should consider the effects of downdrag caused by the actual layout and extent of preloads and any ongoing secondary settlement. The effects of vibrations generated during driving should also be examined. If vibration limitations are severe, displacement piles such as the prestressed concrete piles shown should not be used. Restriction of vibration levels may require the use of jetting or preboring for displacement piles.

The existing Wacker Plant soils were moderately corrosive. The corrosion potential of the soils at the proposed site should be examined during design.

General Considerations

Before beginning any work at the site, a thorough survey of existing utilities should be made to determine their exact locations. Any existing utilities under the proposed structures should be abandoned or rerouted before construction. If utilities are abandoned, the ends should be plugged. If they are removed, granular backfill should be placed and compacted as recommended later in this report.

Strip all organic materials from the ground surface before preload or foundation construction. These strippings should be removed from the site. Excavate the surface soil and proofroll the bearing surface with a loaded dump truck or a similar heavy vehicle to detect soft or loose zones. These zones, if encountered, should be excavated and backfilled with compacted granular material. The granular material should conform to the State of Oregon Standard Specifications for aggregate base with a maximum size of 1 inch. It should be compacted to at least 90 percent relative compaction.[1]

Before placement of formwork and concrete, a leveling course at least 6 inches thick should be placed and compacted immediately below the proposed foundation. The leveling course should conform to the State of Oregon Standard Specifications for aggregate base with a maximum size of 3/4 inch. It should be compacted to at least 90 percent relative compaction.

---

[1]Relative compaction is defined as the ratio, expressed as a percentage, of the in-place field dry density after compaction to the maximum dry density as determined in the laboratory by ASTM D1557.

SCOEPA00034105

Surface water should be controlled and diverted from excavations. If soil is softened by water standing in excavations, remove this soil and replace it with compacted granular material as recommended above.

To a large degree, foundation performance is dependent on construction quality control. Therefore, we recommend that CH2M HILL be retained to observe excavations and subgrade preparation for foundations. This will serve to best identify soil conditions exposed during construction, and to determine whether or not they differ from those conditions assumed in forming our recommendations.

Construction Considerations

The preload should be monitored with settlement plates to determine whether the preload is performing as expected. If the settlement rate is slower than anticipated, it may be necessary to increase the height of fill or the preload duration. We recommend the geotechnical engineer be consulted before preload removal.

Additional Work

The analyses and recommendations contained in this report should be considered preliminary. If the proposed construction proceeds as described in this report, and preloading is selected for site improvement, then additional subsurface exploration will probably not be required. However, if the structures are relocated outside the explored area or if the type of construction changes, then additional subsurface exploration will probably be required. Also, if settlement considerations should dictate widespread use of piles, additional borings and a test pile program may be necessary. In any event, geotechnical design memoranda should be prepared describing specific site improvement and foundation recommendations for each structure before final design.

SCOEPA00034106

REFERENCES

Balsillie, J.H., and Benson, G.T. 1971. Evidence for the Portland Hills Fault: The Ore Bin, vol. 33, No. 6, pp. 109-118.

Beeson, M.H., Johnson, A.G., and Moran, M.R. 1974. Portland environmental geology--fault identification: Portland State University Publication, 107 pp.

Berg, J.W., Jr., and Baker, C.D. 1963. Oregon earthquakes 1841 through 1958: Bulletin of the Seismological Society of America, vol. 53, No. 1, pp. 95-108.

CH2M HILL. 1979. Preload Monitoring Summary, Wacker Siltronic Site, Portland, Oregon: Design Memorandum P11054.C1.01.

Hammond, P.E., Benson, G.T., Cash, D.J., Palmer, L.A., Donovan, J., and Gannon, B. 1974. A preliminary geological investigation of the ground effects of earthquakes in the Portland metropolitan area, Oregon: Portland State University Technical Report, 40 pp.

Perkins, D.M., Thenaus, P.C., Hanson, S.L., Ziony, J.I., and Algermissen, S.T. 1980. Probabilistic estimates of maximum seismic horizontal ground motion on rock in the Pacific Northwest and adjacent outer continental shelf: U.S. Geological Survey Open-File Report 80-471, 39 pp.

Schlicker, H.G., Deacon, R.J., and Twelker, N.H. 1964. Earthquake geology of the Portland area: The Ore Bin, vol. 26, No. 12, pp. 209-236.

Seed, H.B., and Idriss, I.M. 1971. Simplified procedure for evaluating liquefaction potential: Journal of the Soil Mechanics and Foundation Division, ASCE, vol. 97, No. SM9, pp. 1249-1273.

Trimble, D.E. 1963. Geology of Portland, Oregon, and adjacent areas: U.S. Geological Survey Bulletin 1119, 119 pp., map scale 1:62,500.

Uniform Building Code. 1979. The International Conference of Building Officials.

SCOEPA00034107

APPENDIX A

BORING LOGS

SCOEPA00034108

BORING LOG LEGEND:

SAMPLE TYPE:

- S – SPLIT-BARREL (ASTM D1586 UNLESS OTHERWISE NOTED)
- ST – SHELBY TUBE
- W – WASH SAMPLE
- OT – OSTERBERG TUBE
- NX – DIAMOND CORE BARREL

STANDARD PENETRATION TEST:

BLOWS – THE NUMBER OF BLOWS FOR THREE 6-INCH INCREMENTS REQUIRED FROM A 140-LB HAMMER FALLING 30 INCHES TO DRIVE A STANDARD 2-INCH O.D. SPLIT-BARREL SAMPLER (ASTM D1586)

"N" – THE SUM OF BLOWS FOR THE SECOND AND THIRD 6-INCH INCREMENTS. IF THE SAMPLER IS DRIVEN LESS THAN 18 INCHES, THEN "N" IS THE NUMBER OF BLOWS FOR THE LAST TWO 6-INCH INCREMENTS.

UNIFIED SOIL CLASSIFICATION SYMBOL:

GROUP SYMBOL AS PER ASTM D 2487

NOTES:

1. ALL BORINGS WERE DRILLED USING EITHER A TRUCK-MOUNTED CME-55 OR A CME-75 MUD ROTARY DRILL RIG, OWNED AND OPERATED BY KENNER DRILLING, INC., OF SHERWOOD, OREGON.
2. BORINGS WERE DRILLED FROM JUNE 28-30, AND ON JULY 1 AND 2, 1982.
3. ENGINEERING PROPERTIES OF SUBSURFACE MATERIALS ARE OPINION OF THE ENGINEER AND ENGINEERING GEOLOGIST, EXCEPT WHERE LABORATORY TESTING WAS CONDUCTED.
4. THE LOGS SHOW SUBSURFACE CONDITIONS ONLY AT THE TIME AND PLACE THAT THE BORINGS WERE MADE.
5. TRANSITIONS BETWEEN SOIL TYPES MAY BE GRADUAL AND ONLY APPROXIMATELY AT THE ELEVATIONS SHOWN. VARIATIONS MAY EXIST BETWEEN ADJACENT BORINGS.
6. STANDARD PENETRATION TESTS WERE TAKEN IN APPROXIMATE ACCORDANCE WITH ASTM D1586.
7. SAMPLES WERE EXAMINED IN THE FIELD AND VISUALLY CLASSIFIED IN APPROXIMATE ACCORDANCE WITH ASTM 2488.
8. WATER LEVELS MAY VARY WITH TIME.

CH2M HILL

SCOEPA00034109

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 35.6 ft BORE HOLE: B-100

WATER LEVEL not measured DATE: -- START: 6/29/82 FINISH: 6/30/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE: INTERVAL AND TYPE	SAMPLE: NUMBER	SAMPLE: RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS: BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS: BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									Start drilling at 11:00 AM. Begin drilling with drag bit.
5	5.0								
	6.5	S-1	12	3-10-9	19	UPPER 3" SANDY SILT, SLIGHTLY PLASTIC, ABOUT 15% FINE SAND, GRAY, MOIST, LOOSE; FILL. LOWER 9" SILTY SAND, FINE SAND, 15-20% FINES, GRAY, WET, COMPACT, SOME PLANT FRAGMENTS; FILL.		ML SM	Driller notes strong petroleum odor at 5 to 10 ft
10	10.0								Driller notes some gravel at 9 ft
	11.5	S-2	7	12-11-18	29	SILTY SAND, 10-15% GRAVEL TO ABOUT 1¼" FINE SAND, 25-30% FINES, MOIST, BLACK, STRONG HYDROCARBON ODOR, SOME RUBBERY DEBRIS AND PLANT REMAINS; FILL.		SM	Rubbery debris and fine copper wire in cuttings from 10 to 15 ft.
15	15.0								
	16.5	S-3	2	12-24-11	35	SILTY SAND, SMALL RECOVERY BUT MATERIAL APPEARS SIMILAR TO S-2; FILL.		SM	Sampler rebounded during SPT for S-3 as if it were penetrating rubber (tires?)
20	20.0								
	21.5	S-4	14	1-1-1	2	UPPER 7"- SILT, SLIGHTLY TO MODERATELY PLASTIC, DARK GRAY, WET, VERY SOFT, WOOD DEBRIS, HYDROCARBON ODOR; FILL? LOWER 7"- SILT, SLIGHTLY PLASTIC, MEDIUM GRAY W/ORANGE BROWN MOTTLING, MOIST, VERY SOFT, SOME DECOMPOSED PLANT MATERIAL.		ML	
25	25.0								
	26.5	S-5	14	2-2-2	4	SILT, SIMILAR TO LOWER 7" OF S-4 EXCEPT CONSISTANCY IS SOFT.		ML	
	28.0								
		ST-6	24	---	—	SILT MODERATELY TO HIGHLY PLASTIC, GRAY, MOIST, VERY SOFT.		MH	
30	30.0								

FORM D 1586 5/78

SCOEPA00034110

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc; CME-55

ELEVATION 35.6 ft. BORE HOLE: B-100

WATER LEVEL not measured DATE: -- START: 6/29/82 FINISH: 6/30/82 INSPECTOR CW HL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								
	31.5	S-7	15	2-4-6	10	SILT, SLIGHTLY PLASTIC, LESS THAN 5% FINE SAND, GRAY, MOIST, FIRM TO STIFF.		ML	
	35.0								
35	36.5	S-8	18	1-1/12"	-1	SILT SIMILAR TO S-7 EXCEPT FOR WOOD DEBRIS IN LOWER 4" AND FRAGMENTS OF DECOMPOSED PLANT MATERIAL THROUGHOUT SAMPLE.		ML	
	38.0								
	40.0	ST-9	24	---		SILT, SAME AS S-7 EXCEPT LENSES OF SAND AND GRAVEL		ML	
40	41.5	S-10	14	3-1-1	2	SANDY SILT, NON PLASTIC, ABOUT 15% FINE TO COARSE SAND, MEDIUM GRAY, VERY LOOSE DECOMPOSED WOOD FRAGMENTS THROUGHOUT SAMPLE, ABOUT 25% FINE SAND AND GRAVEL IN UPPER 3", ORGANIC ODOR.		ML	
	45.0								
45	46.5	S-11	18	1-2-3	5	SILT, SLIGHTLY PLASTIC, BLUE-GREENISH GRAY, MOIST, FIRM.		ML	
	50.0								
50	51.5	S-12	18	3-3-3	6	SILT, SAME AS S-11.		ML	
	55.0								
55	56.5	S-13	16	2-5-10	15	SANDY SILT, NON PLASTIC, 15-20% FINE SAND, GRAY, MOIST, COMPACT.		ML	
60									

SCOEPA00034111

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon; CME-55

ELEVATION 35.6 ft BORE HOLE: B-100

WATER LEVEL Not measured DATE: -- START: 6/29/82 FINISH: 6/30/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-14	8	6-11-12	23	SILTY SAND, FINE SAND, 30-35% FINES, BROWN, WET, COMPACT.		SM	
	65.0								
65						UPPER 3" SILT, MODERATELY PLASTIC, ABOUT 5% FINE SAND, BROWN, MOIST, STIFF.		ML	
	66.5	S-15	10	7-12-18	30	LOWER 7" SILTY SAND, FINE SAND, 20-25% FINES, BROWN, WET, COMPACT.		SM	HOLE COLLAPSED FROM 65-85 FT ON NIGHT OF 6/29.
	70.0								
70	71.5	S-16	8	12-17-18	35	SAND, UNIFORMLY GRADED FINE SAND, 5-10% FINES, BROWN, WET, DENSE.		SP-SM	
	75.0								
75	76.5	S-17	8	9-16-17	33	SILTY SAND, FINE SAND, 12-15% FINES, BROWN, WET, DENSE.		SM	
	80.0								
80	81.5	S-18	8	10-17-17	34	SILTY SAND, SAME AS S-17, EXCEPT 20-25% FINES.		SM	
	85.0								END DRILLING @ 4:30 P.M. BEGIN DRILLING @ 7:30 AM CHANGE FROM DRAG BIT TO ROLLER BIT.
85	86.2	S-19	3	8-32-70/4"	102/14"	BASALT, HIGHLY WEATHERED TO SANDY GRAVEL, POORLY GRADED, GRAVEL TO AT LEAST 1 3/8", ABOUT 15% FINE TO COARSE SAND, 5-12% FINES, BROWN AND BLACK, MOIST, HARD.			
90									

FORM D 1586 5/78

SCOEPA00034112

CH2M HILL

PROJECT NUMBER P160580.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 35.6 ft BORE HOLE: B-100

WATER LEVEL not measured DATE: -- START: 6/29/82 FINISH: 6/30/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
90	90.0 90.1	S-20	1.5	60/ 15	60/ 1.5	BASALT, WEATHERED, SAME AS S-19.	++++ ++++ ++++		DRILLER NOTES VERY HARD MATERIAL AT 90' SAMPLER BOUNCES DURING 5' FOR S-20
						END BORING AT 90.1 FEET			FINISH DRILLING AT 8:45 A.M.
95									

FORM D 1586 5/78

SCOEPA00034113

CH2M HILL

PROJECT NUMBER

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 34.5 ft. BORE HOLE: B-101

WATER LEVEL not measured DATE: -- START: 6/28/82 FINISH: 6/29/82 INSPECTOR CW HL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0						SILTY SAND at SURFACE, BRICKS, WOOD DEBRIS, ETC, FILL.		SM	START DRILLING AT 1035. BEGIN DRILLING WITH A DRAG BIT.
5	5.0								
	6.5	S-1	0	2-1-1	3	NO RECOVERY.			DRILLER NOTES CHANGE FROM SILTY SAND TO SILT AT 6'.
10	10.0								
	11.5	S-2	3	5-4-5	9	SILTY SAND FINE TO MEDIUM SAND, 20-30% FINES, BLACK, WET, LOOSE; FILL.		SM	
15	15.0								
	16.5	S-3	9	1-1-2	3	SANDY SILT, SLIGHTLY PLASTIC, FINE TO MEDIUM SAND, BLACK, WET, LOOSE, SOME ROUNDED GRAVELS TO ½" STRANDS OF COPPER WIRE IN SAMPLE, FILL, HYDROCARBON ODOR.		ML	RUBBER DEBRIS (TIRES?) IN HOLE 15 TO 20'. DRILLER NOTES CLUMPS OF FINE COPPER WIRE IN CUTTINGS 15-20'.
20	20.0								
	21.5	S-4	13	3-3-3	6	LAYERED SILTY SAND AND SANDY SILT; SILTY SAND, FINE SAND, 25-35% FINES, DARK GRAY, WET, LOOSE, LAYERS 1-3" THICK		SM, ML	DRILLER SUSPECTS LOG(S) AT ABOUT 20'.
25	25.0					SANDY SILT, SLIGHTLY PLASTIC, DARK GRAY, MOIST, LOOSE, LOCAL CONCENTRATION OF DECOMPOSED PLANT MATERIAL.			
	26.5	S-5	18	1-4-5	9	SANDY SILT, SLIGHTLY PLASTIC, 10-15% FINE SAND, MOTTLED BROWN AND GRAY, MOIST, COMPACT, TRACES OF DECOMPOSED PLANT MATERIAL, HYDROCARBON ODOR.		ML	
30									

FORM D 1586 5/78

SCOEPA00034114

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kemler of Oregon, Inc.; CME-55

ELEVATION 34.5 ft BORE HOLE: B-101

WATER LEVEL Not measured DATE: -- START: 6/28/82 FINISH: 6/29/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								
	31.5	S-6	16	1-1-1	2	SILT, SLIGHTLY PLASTIC, MEDIUM GRAY W/REDDISH BROWN MOTTLED, WET.		ML	
	33.0								
	35.0	ST-7	24	---	--	SILT, SIMILAR TO S-6 EXCEPT SLIGHTLY TO MODERATELY PLASTIC, BROWN COLOR.		ML	
35	36.5	S-8	18	4-5-9	14	SILT, SLIGHTLY TO MODERATELY PLASTIC, BROWN, MOIST, FIRM.		ML	
	40.0								
40	41.5	S-9	18	3-3-4	7	SILT, SIMILAR TO S-8, EXCEPT ABOUT 5% FINE SAND, SOFT TO FIRM.		ML	MIX MUD AT 41.5'
	45.0								
45	46.5	S-10	12	3-6-10	16	UPPER 6" SILT, SIMILAR TO S-8 EXCEPT 5-10% FINE TO MEDIUM SAND, BROWN AND GRAY, SOFT. LOWER 6" SILTY SAND, FINE SAND, 25-30% FINES, BROWN, WET LOOSE TO COMPACT.		ML SM	DRILLER NOTES SANDY MATERIAL AND SOFT DRILLING TO 50'.
50	50.0								
	51.5	S-11	18	3-8-13	21	SANDY SILT, NON PLASTIC, 12-15% FINE SAND, BROWN, WET, COMPACT.		ML	
55	55.0								DRILLER NOTES HARDER DRILLING AT 45'.
	56.5	S-12	6	11-23-28	51	SILTY SAND, FINE SAND, 10-15% FINES IN LOWER PART 30-40% FINES IN UPPER PART, BROWN, MOIST, DENSE, SEVERAL LENSES ≤ ½" OF SILT INTERBEDDED WITH THE SILTY SAND.		SM	
60									

FORM D 1586 5/78

SCOEPA00034115

CH2M HILL

PROJECT NUMBER P160058.80

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kramer of Oregon, Inc.; CME-55

ELEVATION 34.5 ft. BORE HOLE: B-101

WATER LEVEL Not Measured DATE: -- START: 6/28/82 FINISH: 6/29/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (Ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-13	10	10-13-17	30	SANDY SILT, NON PLASTIC, ABOUT 40% FINE SAND, BROWN, MOIST, COMPACT.		ML	
	65.0								
65	66.5	S-14	8	13-21-25	46	SILTY SAND, FINE SAND, ABOUT 30% FINE, BROWN, WET, COMPACT.		SM	
	70.0								
70	71.5	S-15	9	30-41-39	70	SAND, UNIFORMLY GRADED FINE SAND, 5-12% FINES, BROWN, WET, VERY DENSE.		SP-SM	
	75.0								
75	76.5	S-16	8	35-55-39	94	SAND, SAME AS S-15.		SP-SM	
	80.0								
80	81.5	S-17	8	13-24-30	54	SAND, UNIFORMLY GRADED FINE SAND, ABOUT 5% FINES, BROWN, WET, DENSE.		SP	DRILLER NOTES VERY HARD MATERIAL AT 84 FT, UNABLE TO PENETRATE W/DRAG BIT, STOP TO TAKE SAMPLE S-18 END DRILLING @ 4:30 P.M. BEGIN DRILLING @ 8:00 AM CHANGE FROM DRAG BIT TO ROLLER BIT; MIX MUD. VERY HARD DRILLING AT 86' DRILLS AT RATE OF 30 MIN/FT. ANGULAR BLACK BASALT CHIPS IN CUTTINGS. END DRILLING @ 9:40 AM
	84.0								
	84.5	S-18	4	70/6"	70/6"	BASALT, WEATHERED TO SANDY GRAVEL, POORLY GRADED GRAVEL TO 1 1/4", 30-40% FINE TO COARSE SAND, MOSTLY COARSE, LESS THAN 5% FINES, BROWN AND BLACK, DENSE.			
85	87.0								
	87.5	S-19	5	78/6"	78/6"	BASALT, WEATHERED, SAME AS S-18.			
90						END BORING @ 87.5 FT			

FORM D 1586 5/78

SCOEPA00034116

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D Kenner of Oregon, Inc.; CME-55

ELEVATION 32.2 ft. BORE HOLE: B-102

WATER LEVEL not measured DATE: -- START: 7/1/82 FINISH: 7/1/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									START DRILLING AT 955. BEGIN DRILLING WITH DRAG BIT.
5	5.0								
	6.5	S-1	7	1-2-2	4	SILT, SLIGHTLY TO MODERATELY PLASTIC, ABOUT 5% FINE SAND, GRAY WITH REDDISH BROWN MOTTLING, MOIST SOFT, DISTINCT LAYERING 1/16-1/2" THICK.		ML	
10	10.0								
	11.5	S-2	9	4-8-9	17	SAND, UNIFORMLY GRADED FINE SAND, LESS THAN 5% FINES, DARK GRAY, WET, HYDROCARBON ODOR.		SP	
15	15.0								
	16.5	S-3	0	2-1-3	4	NO RECOVERY.			
20	20.0								AT 19 FT CUTTINGS ARE SATURATED WITH OILY MATERIAL AND HAVE A STRONG HYDROCARBON ODOR.
	21.5	S-4	1	2-3-3	6	SILT, NONPLASTIC, BLACK, WET, SOFT, STRONG HYDROCARBON ODOR.		ML	
25	25.0								
	26.5	S-5	10	1-1-1	2	SILT, NONPLASTIC, LESS THAN 5%, FINE SAND, MEDIUM GRAY, WET, LOOSE.		ML	
30									

FORM D 1586 5/78

SCOEPA00034117

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc; CME-55

ELEVATION 32.2 ft. BORE HOLE: B-102

WATER LEVEL not measured DATE: -- START: 7/1/82 FINISH: 7/1/82 INSPECTOR CW HL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								MIX MUD AT 30'.
	31.5	S-6	10	1-2-2	4	SILT, NON PLASTIC, ABOUT 5% FINE SAND, MEDIUM GRAY, WET, SOFT, FRAGMENTS OF DECOMPOSED PLANT MATERIAL		ML	
	33.0								
	35.0	ST-7	24	---	—	SILT SIMILAR TO S-6 EXCEPT MODERATELY TO HIGHLY PLASTIC AND ORGANIC.		MH-OH	
35	36.5	S-8	18	1-2-2	4	SILT SIMILAR TO S-6 EXCEPT NO SAND AND MODERATELY TO HIGHLY PLASTIC AND ORGANIC.		MH-OH	
	40.0								
40	41.5	S-9	18	4-7-8	15	SILT SIMILAR TO S-6, EXCEPT FOR LACK OF SAND, BLUE-GREEN COLOR AND STIFF.		ML	
	45.0								
45	46.5	S-10	18	2-2-2	4	SILT SIMILAR TO S-6, EXCEPT SLIGHTLY PLASTIC AND ABSENCE OF SAND AND FRAGMENTS OF PLANTS		ML	
	48.0								
	50.0	ST-11	24	---	—	UPPER 18"-SILT, SAME AS S-10 LOWER 6"-SILTY SAND, SAME AS S-12.		ML, SM	LAST 6" OF ST-11 PUSHED VERY HARD
50	51.5	S-12	10	4-6-10	16	SILTY SAND, FINE SAND, 20-25% FINES, BROWN, WET, COMPACT.		SM	
	55.0								
55	56.5	S-13	18	2-5-6	11	SILT, NON PLASTIC, BROWN, WET, STIFF.		ML	
	60.0								

FORM D 1586 5/78

SCOEPA00034118

CH2M HILL

PROJECT NUMBER P160S8.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 32.2 ft BORE HOLE: B-102

WATER LEVEL Not measured DATE: — — START: 7/1/82 FINISH: 7/1/82 INSPECTOR CW HL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0–61.5	S-14	18	3-11-20	31	SILTY SAND, FINE SAND, 20-25% FINES, BROWN, WET, COMPACT TO DENSE.		SM	
65	65.0–66.5	S-15	15	6-14-22	36	SILT, SLIGHT PLASTICITY, 5-10% FINE SAND, LOCAL CONCENTRATION OF FINE SAND WITHIN THE SILT, BROWN, MOIST, STIFF.		ML	
70	70.0–71.5	S-16	18	12-25-25	50	SILT SIMILAR TO S-15, EXCEPT VERY STIFF.		ML	
75	75.0–76.5	S-17	9	11-28-29	57	SILTY SAND, FINE SAND, 15-20% FINES, BROWN, WET, VERY DENSE.		SM	DRILLER NOTES VERY HARD MATERIAL AT 79.5'
80	79.5–80.0	S-18	4	60/6"	60/6"	BASALT, WEATHERED TO SANDY GRAVEL, POORLY GRADED ANGULAR GRAVEL TO ABOUT 1", 30-40% FINE TO COARSE SAND, 5-12% FINES, BROWN AND BLACK, WET, DENSE.			SAMPLER BOUNCES DURING SPT FOR
85						END BORING AT 80.0 Feet.			FINISH DRILLING AT 2:10 P.M.

FORM D 1586 5/78

SCOEPA00034119

CH2M HILL

PROJECT NUMBER P1605B.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner & Oregon Inc.; CME-55

ELEVATION 35.8 ft BORE HOLE: B-103

WATER LEVEL not measured DATE: — — START: 6/30/82 FINISH: 7/1/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (Ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									START DRILLING AT 10:20 BEGIN DRILLING WITH A DRAG BIT.
	5.0								
5	6.5	S-1	7	1-3-3	6	SILT, SLIGHTLY PLASTIC, ABOUT 5% FINE SAND, DARK GRAY, MOIST, FIRM; FILL?		ML	
	10.0								
10	11.5	S-2	7	14-19-30	49	SAND, POORLY GRADED FINE TO MEDIUM SAND, 5-12% FINES, BROWN, WET, DENSE; FILL.		SP-SM	ROUGH DRILLING AT ABOUT 11.5'; CHANGE FROM DRAG BIT TO ROLLER BIT, DRILLER NOTES GRAVELLY MATERIAL TO 15'.
	15.0								
15	16.5	S-3	4	6-7-6	13	GRAVELLY SAND, POORLY GRADED, 10-15% GRAVEL TO 1". FINE TO COARSE SAND, 5-12% FINES, BROWN, WET, COMPACT, FILL?		SP-SM	
	20.0								ROUGH DRILLING TO 19'; THEN SOFTER MATERIAL.
20	21.5	S-4	1	3-4-3	7	SILT, SLIGHTLY PLASTIC, DARK GRAY, WET, SOFT TO FIRM.		ML	REMOVE ROLLER BIT, ATTACH DRAG BIT.
	23.0								
	25.0	ST-5	0	— — —	—	NO RECOVERY; TUBE SMEARED WITH BROWN SILT			ST-6 WAS PUSHED VERY SLOWLY; STIFF MATERIAL
25	26.5	S-6	18	3-7-8	15	SILT, SLIGHTLY TO MODERATELY PLASTIC, BROWN, MOIST, STIFF TO VERY STIFF.		ML	
	28.0								
30	30.0	ST-7	18	— — —	—	SILT, SAME AS S-6		ML	

FORM D 1586 5/78

SCOEPA00034120

CH2M HILL

PROJECT NUMBER P160S8.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 35.8 ft. BORE HOLE: B-103

WATER LEVEL DRY measured DATE: -- START: 6/30/82 FINISH: 7/1/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								
	31.5	S-8	18	2-2-3	5	SILT, SLIGHTLY PLASTIC, BROWN, MOIST, SOFT TO FIRM.		ML	
	35.0								
35	36.5	S-9	10	3-7-9	16	SILTY SAND, FINE SAND, 25-30% FINES, BROWN, WET, COMPACT.		SM	
	40.0								
40	41.5	S-10	18	2-2-3	5	SILT, NON PLASTIC, LESS THAN 5% FINE SAND, BROWN, MOIST, SOFT TO FIRM.		ML	
	43.0								
	45.0	ST-11	24	---	—	SILT, SAME as S-10		ML	LAST 6" OF S-11 WERE VERY STIFF.
45	46.5	S-12	18	3-5-8	13	SILT, SAME AS S-10		ML	
	50.0								
50	51.5	S-13	24	4-9-9	18	SILT, SIMILAR TO S-10 EXCEPT 5-10% FINE SAND.		ML	
	53.0								
	54.5	ST-14	18	---	—	SILT, SAME AS S-10		ML	ST-14 WAS PUSHED FOR ONLY AN 18" DRIVE, MATERIAL WAS TOO HARD FOR 24" PUSH.
55	56.0	S-15	10	4-6-20	26	SAND, FINE SAND, 5-12% FINES BROWN, WET COMPACT		SP-SM	
60									

FORM D 1586 5/78

SCOEPA00034121

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT Wacker Siltronics LOCATION Portland, Oregon

DRILLING METHOD Mud Rotary DRILLERS & EQUIPMENT D. Kenner of Oregon, Inc.; CME-55

ELEVATION 35.8 ft BORE HOLE: B-103

WATER LEVEL Not Measured DATE: -- START: 6/30/82 FINISH: 7/1/82 INSPECTOR CWHL

DEPTH BELOW SURFACE (ft)	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-16	13	8-15-23	38	SILT, NON PLASTIC, LESS THAN 5% FINE SAND, BROWN, WET, DENSE		ML	
	65.0								
65	66.5	S-17	8	11-21-22	43	SAND, UNIFORMLY GRADED, FINE SAND, LESS THAN 5% FINES, BROWN, WET, DENSE.		SP	
	70.0								
70	71.5	S-18	8	16-28-26	54	SAND, SAME AS S-17		SP	
	75.0								
75	76.5	S-19	8	20-42-45	87	SAND SIMILAR TO S-17, EXCEPT 5-12% FINES		SP-SM	DRILLER NOTES VERY HARD MATERIAL AT 76.5'. END DRILLING @ 3:40 P.M. BEGIN DRILLING @ 7:30 A.M. SLOW, ROUGH DRILLING TO 77.0 FT. END DRILLING @ 8:45 A.M.
	77.0								
	77.0	S-20	0	60/0.5"	60/0.5"	NO RECOVERY; PROBABLY WEATHERED BASALT			
						END BORING AT 77.0 FEET			
80									

FORM D 1586 5/78

SCOEPA00034122

CH2M HILL

PROJECT NUMBER P160588.80.00

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR CME-75

ELEVATION 31.7 FEET BORE HOLE: B-104

WATER LEVEL 16.1 ft DATE: 7/23/82 START: 6/30/82 FINISH: 6/30/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									START DRILLING @ 7:55 A.M. BEGAN DRILLING WITH A DRAG BIT.
5	5.0								
	6.5	S-1	11	1-2-2	4	SILT, SLIGHTLY TO MODERATELY PLASTIC, LESS THAN 5% VERY FINE SAND AND ORGANICS, MOTTLED GRAY AND BROWN, DAMP, FILL?, SOFT; OCCASSIONAL ROOTS.		ML	
10	10.0								
	11.5	S-2	11	1-1/12"	1	SANDY SILT, NONPLASTIC, 20-30% VERY FINE SAND, 5-10% ORGANICS, BLUE, WET, VERY LOOSE; FILL?		ML	
15	15.0								
	16.5	S-3	11	0-2-1	3	SANDY SILT, NONPLASTIC, 20-30% VERY FINE SAND, BLUE, MOIST, VERY LOOSE; OIL, OCCASSIONAL WOOD FRAGMENTS, HYDROCARBON ODOR, FILL?		ML	DRILLER NOTES FIRMER MATERIAL @ 17.5 FEET.
20	20.0								
	21.5	S-4	17	2-2-2	4	SANDY SILT, NONPLASTIC, 15-20% VERY FINE SAND, 5-10% ORGANICS, BLUE, MOIST, VERY LOOSE.		ML	
25	25.0								
	26.5	S-5	18	1-2-2	4	SILT, NONPLASTIC, LESS THAN 5% VERY FINE SAND, LESS THAN 5% ORGANICS, BLUE, WET, SOFT. OCCASSIONAL WOOD FRAGMENTS.		ML	DRILLER NOTES FIRMER AND SOFTER DRILLING (POSSIBLE LENSES).
30									

FORM D 1586 5/78

SCOEPA00034123

CH2M HILL

PROJECT NUMBER P160058.B0.00

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR, CME-75

ELEVATION 31.7 FEET BORE HOLE: B-104

WATER LEVEL 16.1 ft DATE: 7/23/82 START: 6/30/82 FINISH: 6/30/82 INSPECTOR DLK1

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								
	31.5	S-6	16	1-1-2	3	SANDY SILT, NONPLASTIC, 15-20% VERY FINE SAND, 5-10% ORGANICS, BROWN, MOIST, VERY LOOSE; OCCASSIONAL WOOD FRAGMENTS.		ML	
	35.0								
35		ST-7	0	---	—	NO RECOVERY.			
	37.0								
	38.5	S-8	18	2-3-3	6	SANDY SILT, NONPLASTIC, 15-20% VERY FINE SAND, 5-10% ORGANICS, BLUE, WET, LOOSE; OCCASSIONAL WOOD FRAGMENTS.		ML	
40	40.0								
	41.5	S-9	18	1-1-2	3	SILT, SLIGHTLY TO MODERATELY PLASTIC, 5-10% ORGANICS, LESS THAN 5% VERY FINE SAND, GRAY MOIST, SOFT ; OCCASSIONAL WOOD FRAGMENTS		ML	
	45.0								
45		ST-10	0	---	—	NO RECOVERY.			MATERIAL SLIPPED OUT OF TUBE.
	47.0								
	48.5	S-11	14	2-3-4	7	SANDY SILT, NONPLASTIC, 20-30% VERY FINE SAND, 5-10% ORGANICS, BLUE, MOIST, LOOSE; OCCASSIONAL WOOD FRAGMENTS.		ML	
50	50.0								
	52.0	ST-12	24	---	—	SANDY SILT, SAME AS ABOVE		ML	
	53.5	S-13	18	4-7-8	15	SILT, NONPLASTIC, BLUE, MOIST, STIFF.		ML	
55	55.0								
	57.0	ST-14	24	---	—	SILT, SAME AS S-15.		ML	
	58.5	S-15	18	3-4-6	14	SILT, NONPLASTIC, 5-12% VERY FINE SAND, BROWN, WET, STIFF.		ML	
60									

FORM D 1586 5/78

SCOEPA00034124

CH2M HILL

PROJECT NUMBER P160588.BO

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF DR; CME-75

ELEVATION 31.7 FEET BORE HOLE: B-104

WATER LEVEL 16.1 ft DATE: 7/23/82 START: 6/30/82 FINISH: 6/30/82 INSPECTOR DL KI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-16	18	4-6-8	14	SANDY SILT, NONPLASTIC, 15-20% VERY FINE SAND, BROWN, WET, COMPACT.		ML	
65	65.0								
	66.5	S-17	14	5-8-17	25	SANDY SILT, NONPLASTIC, 20-30% VERY FINE SAND, BROWN, WET, COMPACT.		ML	
70	70.0								
	71.5	S-18	18	3-9-15	24	SILT, NONPLASTIC, LESS THAN 5% VERY FINE SAND, BROWN, WET, VERY STIFF.		ML	
75	75.0								
	76.5	S-19	18	6-14-26	40	SILT, SAME AS S-18, EXCEPT CONISTENCY IS HARD.		ML	
80	80.0								
	81.5	S-20	17	5-11-16	27	SILT, SAME AS S-18.		ML	
85	85.0								
	86.5	S-21	17	6-11-13	24	SILT, SAME AS S-18.		ML	
90									

FORM D 1586 5/78

SCOEPA00034125

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 31.7 FEET BORE HOLE: B-104

WATER LEVEL 16.1 ft DATE: 7/23/82 START: 6/30/82 FINISH: 6/30/82 INSPECTOR DLK1

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
90	92.0								DRILLED TO 90 FEET, INSERTED SPLIT SPOON, SPLIT SPOON DROPPED TO 92 FEET. DROVE SAMPLE @ 92 FEET
	93.5	S-22	8	2-2-3	5	SANDY SILT, NON PLASTIC, 20-30 % VERY FINE SAND, GRAY AND ORANGE, WET, LOOSE		ML	END DRILLING @ 1:20 P.M.
95	95.0								
	96.1	S-23 A, B	12	6-22-60/1"	82/1"	BASALT, UNWEATHERED, FRACTURED, BLACK, HARD	+ + + + + + + + + + + +		
						END BORING @ 96.1 ft			

NOTE: PIEZOMETER INSTALLED WITH 1.9-FT, 1½-INCH DIAMETER SLOTTED TIP 89.1 TO 91.0 FT; GRAVEL PACK, CONSISTING OF 3/8-INCH PEA GRAVEL FROM 96 TO 85 FT, FOLLOWED BY A 2-FOOT BENTONITE SEAL FROM 85 TO 83 FT; 3/4-INCH RISER PIPE INSTALLED FROM SLOTTED TIP TO ABOVE THE SURFACE; BORING WAS BACKFILLED FROM 83 FEET TO SURFACE WITH CUTTINGS AND PEA GRAVEL.

SCOEPA00034126

CH2M HILL

PROJECT NUMBER P160581.80

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER DF DR; CME-75

ELEVATION 32.8 FEET BORE HOLE: B-105

WATER LEVEL NOT MEASURED DATE: - - - START: 7/1/82 FINISH: 7/2/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									BEGAN DRILLING @ 3:05 P.M.
5	5.0								
	6.5	S-1	13	1-1-1	2	SANDY SILT, NONPLASTIC, 12-20% VERY FINE SAND, 5-10% ORGANICS, ORANGE AND GRAY MOTTLING, WET, VERY LOOSE; OCCASSIONAL ROOTS; AT BOTTOM; FILL?		ML	
10	10.0								
	11.5	S-2	8	3-6-6	12	SAND, MEDIUM TO FINE, LESS THAN 5% FINES, BLACK, WET, LOOSE; HYDROCARBON ODOR, FILL?		SP	
15	15.0								
	16.5	S-3	11	3-2-3	5	SAND, SAME AS S-2, EXCEPT WITH OIL AT BOTTOM; FILL?		SP	
20	20.0								
	21.5	S-4	16	2-1-2	3	SILT, NON PLASTIC, 5-12% VERY FINE SAND, LESS THAN 5% ORGANICS, GRAY AND ORANGE MOTTLING, WET, SOFT; OCCASSIONAL WOOD FRAGMENTS.		ML	DRILLER NOTES WOOD AT BOTTOM OF SAMPLER.
25	25.0								
	26.5	S-5	18	1-1-2	3	SILT, NONPLASTIC, 5-10% FINE SAND, GRAY, MOIST, SOFT; FRAGMENTS OF DECOMPOSED PLANT MATERIAL IN LOWER 9 INCHES OF SAMPLER		ML	
30									END DRILLING @ 3:40 P.M.

FORM D 1586 5/78

SCOEPA00034127

CH2M HILL

PROJECT NUMBER P160058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAGBIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 32.8 FEET BORE HOLE: B-105

WATER LEVEL NOT MEASURED DATE: --- START: 7/1/82 FINISH: 7/2/82 INSPECTOR CWHL

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0 31.5	S-6	18	1-1-2	3	SILT, NONPLASTIC, LESS THAN 5% FINE SAND, GRAY, WET, SOFT; LENSE OF DECOMPOSED PLANT MATERIAL 3 INCHES FROM TOP, HYDROCARBON ODOR		ML	BEGAN DRILLING @ 7:45 A.M.
35	35.0 36.5	S-7	18	1-2-2	4	SILT, SLIGHTLY PLASTIC, GRAY, WET, SOFT.		ML	
40	40.0 41.5	S-8	18	3-6-8	14	SILT, SLIGHTLY TO MODERATELY PLASTIC, GREENISH GRAY, STIFF.		ML	
45	45.0 46.5	S-9	18	4-4-6	10	SILT, SLIGHTLY TO MODERATELY PLASTIC, 5-10% FINE SAND IN LOWER 9 INCHES, GREENISH GRAY IN UPPER PART, GRAY IN LOWER PART, MOIST, STIFF.		ML	
50	50.0 51.5	S-10	18	2-4-9	13	SILT, NONPLASTIC, LESS THAN 5% FINE SAND, BROWN, WET, COMPACT		ML	
55	55.0 56.5	S-11	18	2-4-8	12	SILT, SAME AS S-10		ML	
60									

FORM D 1586 5/78

SCOEPA00034128

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 32.8 FEET BORE HOLE: B-105

WATER LEVEL NOT MEASURED DATE: --- START: 7/1/82 FINISH: 7/2/82 INSPECTOR CWHL

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0							ML	MIX MUD
	61.5	S-12	18	4-11-18	29	UPPER 12 INCHES SILT, SLIGHTLY PLASTIC, 5-10% FINE SAND, BROWN, MOIST, STIFF. LOWER 6 INCHES SILTY SAND, FINE SAND, 15-20% FINES, BROWN, WET, COMPACT.		SM	
65	65.0								
	66.5	S-13	18	6-10-14	24	SILTY SAND, FINE SAND, 20-25% FINES, BROWN, WET COMPACT.		SM	
70	70.0								
	71.5	S-14	15	9-23-22	45	UPPER 9 INCHES: SILTY SAND, SIMILAR TO S-13, EXCEPT 15-20% FINE SAND. LOWER 6 INCHES: SILT, SLIGHTLY PLASTIC, 10-15% FINE SAND, BROWN, MOIST, STIFF.		SM ML	
75	75.0								
	76.8	S-15	12	13-21-60/3"	81/9"	SILTY SAND WITH 1-2 INCH LAYERS OF SAND: SILTY SAND, FINE SAND, 20-25% FINES, BROWN, WET, COMPACT. SAND, UNIFORMLY GRADED, FINE SAND, 5-12% FINES, BROWN, WET, COMPACT.		SM SP-SM	DRILLER NOTES VERY HARD DRILLING @ 76.5 FEET; CHANGE TO TRICONE BIT; SAMPLER BOUNCED DURING SPT FOR S-16
	76.5 76.7	S-16	2	60/2"	60/2"	SAND, UNIFORMLY GRADED, FINE SAND, 5-12% FINES, WET, DENSE; PROBABLY CAVINGS ABOVE BASALT			FINISH DRILLING @ 9:55 A.M.
						END BORING @ 76.7 ft			

FORM D 1586 5/78

SCOEPA00034129

CH2M HILL

PROJECT NUMBER P160581.80

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER DF OR; CME-75

ELEVATION 32.2 FEET BORE HOLE: B-106

WATER LEVEL NOT MEASURED DATE: --- START: 6/29/82 FINISH: 6/29/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									BEGIN DRILLING @ 10:00 A.M.
5	5.0								
	6.4	S-1	18	1-1-1	2	SILT, SLIGHTLY TO MODERATELY PLASTIC, BROWN AND ORANGE MOTTLED, MOIST, FILL?, SOFT; OCCASSIONAL ROOTS AND WOOD; FILL?		ML	
	8.0								
	10.0	ST-2	22	---	-	SILT, SAME AS S-1.		ML	
10	11.5	S-3	0	1-1-2	3	NO RECOVERY.			SILT SMEARED ON SPLIT SPOON
	15.0								DRILLER NOTES WOOD IN CUTTINGS FROM 13-15 FEET; COULD BE REASON FOR NO RECOVERY OF S-3.
15	16.5	S-4	14	0/12"-2	2	SILT, NONPLASTIC, 10-15% VERY FINE SAND, GRAY, MOIST, SOFT; OCCASSIONAL WOOD FRAGMENTS, HYDROCARBON ODOR; FILL?		ML	
	20.0								DRILLER NOTES OIL FROM 18-20 FEET.
20	21.5	S-5	16	3-4-6	10	SILT, NONPLASTIC, LESS THAN 5% VERY FINE SAND AND ORGANICS, GRAY, MOIST, STIFF; OCCASSIONAL ROOTS.		ML	
	25.0								
25	26.5	S-6	13	5-6-3	9	SAND, MEDIUM TO FINE, BLACK, WET, LOOSE.		SP	DRILLER NOTES FIRM DRILLING @ 26.5 FEET.
30									

FORM D 1586 5/78

SCOEPA00034130

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 32.2 FEET BORE HOLE: B-106

WATER LEVEL NOT MEASURED DATE: --- START: 6/29/82 FINISH: 6/29/82 INSPECTOR PLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0	ST-7	18	---	-	SILT, SAME AS S-8.		ML	DRILLER NOTES LAYERS OF FIRM AND SOFT DRILLING.
	32.0								
	33.5	S-8	18	2-2-5	7	SILT, NONPLASTIC, 5-12% VERY FINE SAND, 10-15% ORGANICS, BROWN, MOIST, FIRM; OCCASSIONAL WOOD FRAGMENTS.		ML	
35	35.0								
	36.5	S-9	18	1-1-2	3	SILT, SLIGHTLY TO MODERATELY PLASTIC, GRAY, MOIST, SOFT.		ML	
	38.0								
	40.0	ST-10	0	---	-	NO RECOVERY.			
40									
	42.0	ST-11	18	---	-	SILT, SAME AS S-12.		ML	
	43.5	S-12	18	3-3-5	8	SILT, NONPLASTIC, 5-12% VERY FINE SAND, 20-25% ORGANICS, GRAY, DAMP, FIRM; OCCASSIONAL WOOD.		ML	
45	45.0								
	47.0	ST-13	24	---	-	SILT, SAME AS S-14.		ML	WOODCHIP @ BOTTOM OF SHELBY TUBE.
	48.5	S-14	18	2-2-3	5	SILT, MODERATELY PLASTIC, GRAY, MOIST, FIRM; OCCASSIONAL WOOD FRAGMENTS.		ML	
50	50.0								
	51.5	S-15	18	2-2-6	8	SANDY SILT, 30-40% VERY FINE SAND, BLACK, WET, LOOSE.		ML	
	55.0								
55									
	56.0	S-16	11	7-9-8	17	SAND, LESS THAN 5% FINES, BLACK, MOIST, FIRM, GRADES TO SILT, MODERATELY PLASTIC, BROWN, MOIST, COMPACT; OCCASSIONAL ORGANICS.		SP ML	
60									

FORM D 1586 5/78

SCOEPA00034131

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 32.2 FEET BORE HOLE: B-106

WATER LEVEL NOT MEASURED DATE: --- START: 6/29/82 FINISH: 6/29/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-17	18	3-9-11	20	SILT, SLIGHTLY TO MODERATELY PLASTIC, BLUE, DAMP, VERY STIFF, GRADES TO SILT, NON-PLASTIC, 5-12% VERY FINE SAND, BLUE, DAMP, VERY STIFF.		ML	
65	65.0								
	66.5	S-18	18	6-14-22	36	SANDY SILT, NON PLASTIC, 15-20% VERY FINE SAND, BLUE, WET, DENSE.		ML	
70	70.0								
	71.5	S-19	18	4-6-15	21	SILT, NON PLASTIC, BROWN, WET, VERY STIFF. GRADES TO BLUE.		ML	
75	75.0								
	76.5	S-20	18	5-10-21	31	SILT, NON PLASTIC, 5-12% VERY FINE SAND, LIGHT BROWN, WET, HARD.		ML	
80	80.0								
	81.5	S-21	13	9-18-29	47	SILTY SAND, VERY FINE SAND, 20-30% FINES, LIGHT BROWN, WET, DENSE.		SM	
85	85.0								
	86.5	S-22	18	14-22-32	54	SILT, NON PLASTIC, 5-12% VERY FINE SAND, LIGHT BROWN, WET, HARD.		ML	
90									

FORM D 1586 5/78

SCOEPA00034132

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 32.2 FEET BORE HOLE: B-106

WATER LEVEL NOT MEASURED DATE: --- START: 6/29/82 FINISH: 6/29/82 INSPECTOR DLK1

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
90	90.0 91.5	S-23	18	5-9-12	21	SILT, NON PLASTIC, 5-12% VERY FINE SAND, LIGHT BROWN, WET, VERY STIFF.		ML	
95	95.0 96.5	S-24	2	7-10-11	21	SILT, SAME AS S-23.		ML	
	98.0 98.4	S-25	4.5	60/4.5"	60/45"	BASALT, UNWEATHERED, FRACTURED, BLACK, VERY HARD			DRILLER NOTES: HARD DRILLING @ 98 FEET. CHANGED TO TRICONE BIT (4 7/8 INCHES). END DRILLING @ 3:50 P.M.
100	100.0 100.0	S-26	0	60/0.5"	60/05"	NO RECOVERY			
						END BORING @ 100.0 ft			

FORM D 1586 5/78

SCOEPA00034133

CH2M HILL

PROJECT NUMBER P160588.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 34.6 FEET BORE HOLE: B-107

WATER LEVEL NOT MEASURED DATE: --- START: 7/1/82 FINISH: 7/1/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									BEGIN DRILLING @ 11:10 A.M.
5	5.0								
	6.5	S-1	7	3-3-3	6	SAND, MEDIUM TO FINE, LESS THAN 5% FINES, ORANGE, MOIST, LOOSE; FILL?		SP	
10	10.0								
	11.5	S-2	14	6-7-9	16	SAND, MEDIUM TO FINE, LESS THAN 5% FINES, BLACK, MOIST, COMPACT; HYDROCARBON ODOR; FILL?		SP	DRILLER NOTES OIL @ 12 OR 13 FEET
15	15.0								
	16.5	S-3	8	3-3-7	10	SAND, SAME AS S-2; WOOD CHUNK AT BOTTOM OF SPLIT SPOON; FILL?		SP	DRILLER NOTES WOOD IN CUTTINGS.
20	20.0								
	21.5	S-4	14	1-2-3	5	SILT, MODERATELY PLASTIC, BLUE, MOIST, FIRM; OCCASSIONAL WOOD FRAGMENTS, HYDROCARBON ODOR.		ML	
25	25.0								DRILLER NOTES OUT OF OIL @ 22 OR 23 FEET, BUT STILL IN WOOD.
	26.5	S-5	18	1-1-1	2	SILT, NONPLASTIC, BLUE, WET, SOFT.		ML	
30									

FORM D 1586 5/78

SCOEPA00034134

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 34.6 FEET BORE HOLE: B-107

WATER LEVEL NOT MEASURED DATE: --- START: 7/1/82 FINISH: 7/1/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								
	32.0	ST-6	24	---	-	SILT, SAME AS S-7.		ML	
	33.5	S-7	18	1-2-4	6	SILT, NON PLASTIC, LESS THAN 5% VERY FINE SAND AND ORGANICS, BROWN, MOIST, FIRM; OCCASIONAL WOOD FRAGMENTS		ML	
35	35.0								
	37.0	ST-8	22	---	-	SILT, SAME AS S-9.		ML	
	38.5	S-9	18	3-4-5	9	SILT, SLIGHTLY TO MODERATELY PLASTIC, 5-12% VERY FINE SAND, BLUE AND ORANGE MOTTLED, WET, STIFF.		ML	
40	40.0								
	41.5	S-10	18	2-3-4	7	SILT, SLIGHTLY TO MODERATELY PLASTIC, 5-12% VERY FINE SAND, BROWN, WET, FIRM.		ML	
45	45.0								
	46.5	S-11	18	2-4-7	11	SILT, SLIGHTLY PLASTIC, BROWN, MOIST, STIFF.		ML	
50	50.0								
	51.5	S-12	18	5-9-10	19	SANDY SILT, NON PLASTIC, 20-30% VERY FINE SAND, BROWN, WET, COMPACT.		ML	
55	55.0								
	56.5	S-13	18	6-10-13	23	SANDY SILT, SAME AS S-12.		ML	
60									

FORM D 1586 5/78

SCOEPA00034135

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD MUD ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF DR; CME-75

ELEVATION 346 FEET (NOT MEASURED) BORE HOLE: B-107

WATER LEVEL DATE: --- START: 7/1/82 FINISH: 7/1/82 INSPECTOR DLK1

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0								
	61.5	S-14	18	8-15-20	35	SILT, NONPLASTIC, 12-15% VERY FINE SAND, BROWN, WET, HARD.		ML	
65									
70	70.0								
	71.5	S-15	13	19-19-21	40	SAND, VERY FINE, LESS THAN 5% FINES, BROWN, WET, DENSE.		SP	
	71.5	S-16	0	30-43-60/3"	103/6"	NO RECOVERY; probably basalt			END DRILLING @ 2:30 P.M.
						END BORING @ 71.5 ft			

FORM D 1586 5/78

SCOEPA00034136

CH2M HILL

PROJECT NUMBER P16058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 35.9 FEET BORE HOLE: B-108

WATER LEVEL 18.8 ft DATE: 7/23/82 START: 6/30/82 FINISH: 7/1/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
0									BEGIN DRILLING @ 3:20 P.M.
5	5.0								
	6.5	S-1 A B	12	1-4-12	16	TOP: SILT, NONPLASTIC, LESS THAN 5% VERY FINE SAND, GRAY AND ORANGE MOTTLED, DRY, VERY STIFF. BOTTOM: SAND, MEDIUM TO FINE, LESS THAN 5% FINES, ORANGE, DRY, COMPACT; FILL?		ML SP	
10	10.0								
	11.5	S-2	12	3-8-9	17	SAND, MEDIUM TO FINE, LESS THAN 5% FINES, OCCASSIONAL GRAVEL TO 1 INCH MAX, BLACK, MOIST, COMPACT; FILL?		SP	
15	15.0								
	16.5	S-3	7	3-4-4	8	SAND, SAME AS S-2, EXCEPT WET, AND RELATIVE DENSITY IS LOOSE; FILL?		SP	
20	20.0								DRILLER NOTES CHANGE @ 18 FEET, WOOD CHUNKS.
	21.5	S-4	16	3-4-5	9	SILT, NONPLASTIC, ORANGE AND GRAY MOTTLING, MOIST, STIFF, OCCASSIONAL ROOTS.		ML	
25	25.0								
	27.0	ST-5	24	- - -	-	SILT, SAME AS S-6.		ML	
	28.5	S-6	18	2-2-3	5	SILT, SLIGHTLY PLASTIC, BROWN AND GRAY MOTTLING, MOIST, FIRM.		ML	END DRILLING @ 4:20 P.M.
30									

FORM D 1586 5/78

SCOEPA00034137

CH2M HILL

PROJECT NUMBER P160058.B0

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 35.9 FEET BORE HOLE: B-108

WATER LEVEL 18.8 ft DATE: 7/23/82 START: 6/30/82 FINISH: 7/1/82 INSPECTOR DLK1

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
30	30.0								BEGAN DRILLING @ 7:45 A.M.
	32.0	ST-7	24	- - -	-	SILT, SAME AS S-8.		ML	
	33.5	S-8	18	1-2-2	4	SILT, NONPLASTIC, 5-12% VERY FINE SAND, BROWN, MOIST, SOFT.		ML	
35	35.0								
	36.5	S-9	18	3-3-2	5	SILT, NONPLASTIC, LESS THAN 5% VERY FINE SAND, BROWN, WET, FIRM.		ML	
40	40.0								
	41.5	S-10	18	2-5-8	14	SILT, SAME AS S-9.		ML	
45	45.0								
	46.5	S-11	18	6-7-10	17	SANDY SILT, NONPLASTIC, 15-20% VERY FINE SAND, BROWN, WET, COMPACT.		ML	
50	50.0								
	51.5	S-12	14	7-15-14	29	SAND, MEDIUM TO FINE, LESS THAN 5% FINES, BROWN, WET, COMPACT.		SP	
55	55.0								
	56.5	S-13	14	6-8-16	24	SILTY SAND, FINE SAND, 10-15% FINES, BROWN, WET, COMPACT.		SM	
60									

FORM D 1586 5/78

SCOEPA00034138

CH2M HILL

PROJECT NUMBER P160581.80

SOIL BORING LOG

PROJECT WACKER SILTRONIC LOCATION PORTLAND, OR

DRILLING METHOD REVERT ROTARY; DRAG BIT DRILLERS & EQUIPMENT D. KENNER OF OR; CME-75

ELEVATION 35.9 FEET BORE HOLE: B-108

WATER LEVEL 18.8 ft DATE: 7/23/82 START: 6/30/82 FINISH: 7/1/82 INSPECTOR DLKI

DEPTH BELOW SURFACE	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE RECOVERY (INCHES)	STANDARD PENETRATION TEST RESULTS BLOWS 6"-6"-6"	STANDARD PENETRATION TEST RESULTS BPF "N"	SOIL DESCRIPTION (COLOR, RELATIVE DENSITY OR CONSISTENCY, MOISTURE, GRAIN SHAPE AND TYPE, STRUCTURE, CEMENTATION, ORGANICS, MATERIAL)	GRAPHIC LOG	UNIFIED SOIL CLASSIFICATION SYMBOL	COMMENTS (DRILLING PROGRESS, LOST CIRCULATION, TYPE OF DEPOSIT, PROBLEMS, ETC.)
60	60.0	S-14	14	12-24-25	49	SAND, MEDIUM TO FINE, LESS THAN 5 % FINES, BLACK, WET, DENSE,		SP	
	61.5								
65									
	68.0								
	69.5	S-15	12	16-14-24	38	BASALT, SLIGHTLY WEATHERED, FRACTURED, HARD, BASALTIC			END DRILLING @ 9:30 A.M.
70	69.5	S-16	0	60/1"	60/1"	NO RECOVERY			

END BORING @ 69.5 ft

NOTE: PIEZOMETER INSTALLED WITH A 1.9-FOOT, 1½-inch DIAMETER SLOTTED TIP FROM 65.6 TO 67.5 FT; GRAVEL PACK, CONSISTING OF 3/8-INCH PEA GRAVEL FROM 70 FEET TO 64 FEET; FOLLOWED BY A 2-FOOT BENTONITE SEAL FROM 64 TO 62 FEET; ¾-INCH RISER PIPE INSTALLED FROM SLOTTED TIP TO ABOUT 1.5 FEET ABOVE THE GROUND SURFACE; BORING WAS THEN BACKFILLED FROM 62 FEET TO SURFACE WITH CUTTINGS AND PEA GRAVEL.

FORM D 1586 5/78

SCOEPA00034139

APPENDIX B

LABORATORY TEST RESULTS

SCOEPA00034140

CH2M HILL

PROJECT NUMBER P160580.B0

SOILS CLASSIFICATION AND TEST SUMMARY

ASTM D2487

PROJECT DESCRIPTION: WACKER SILTRONIC

MATERIALS LABORATORY: CH2M HILL - PDX TYPE OF SAMPLE:

SAMPLE LOCATION: AS NOTED SAMPLE NO:

SAMPLE LOCATION	SAMPLE NUMBER	DEPTH INTERVAL (FEET)	DESCRIPTION OF MATERIAL	ASTM CLASSIFICATION	MOISTURE P.L. (%)	MOISTURE ω (%)	MOISTURE L.L. (%)	GRADATION, % PASSING 3"	1½"	#4	#200	LABORATORY TESTS
B-100	ST-6	28-30	GRAY PLASTIC SILT	MH	33	49	62					CONSOLIDATION
B-100	S-11	45-46.5	GRAY PLASTIC SILT	ML	25	28	35					
B-101	ST-7	33-35	GRAY PLASTIC SILT	ML	28	35	40					
B-102	ST-7	33-35	DARK GRAY ORGANIC SILT	MH-OH	58	98	125					
B-104	ST-12	50-52	BROWN SILT	ML	NP	34	NP					CONSOLIDATION
B-105	S-8	40-41.5	GRAY PLASTIC SILT	ML	29	36	41					
B-107	S-6	30-32	BROWN SILT	ML	NP	68	NP					CONSOLIDATION

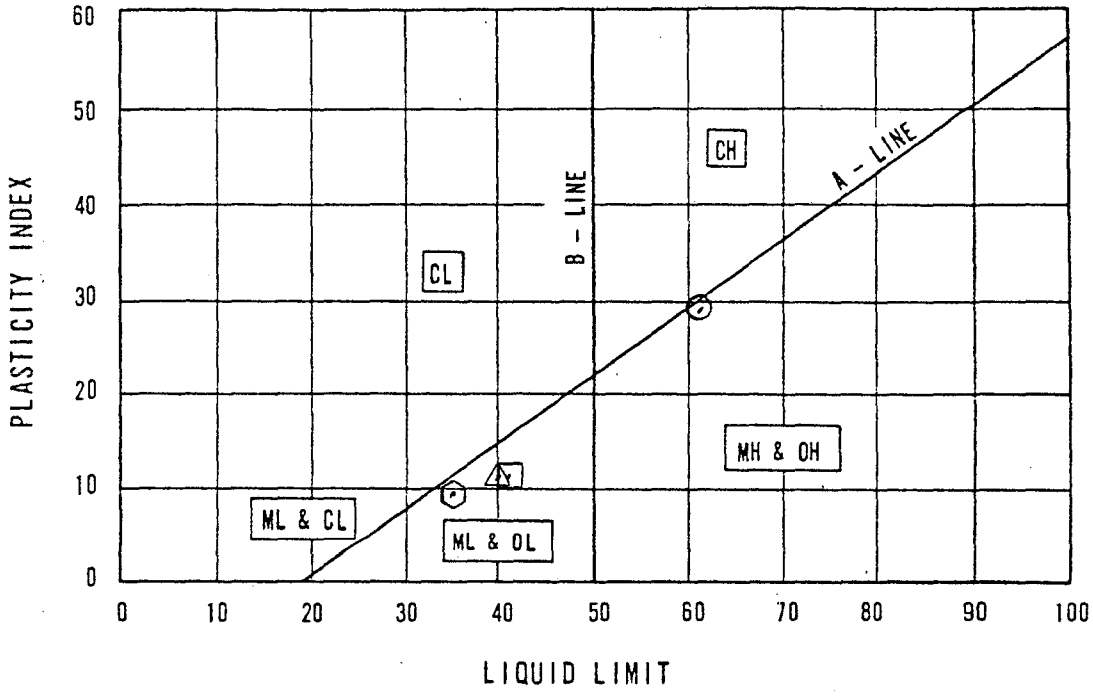
REMARKS: NP = NONPLASTIC

TESTED BY:	DATE:	COMPUTED BY:	DATE:	CHECKED BY:	DATE:

LAB FORM D2487P 2/7R

SCOEPA00034141

PLASTICITY CHART



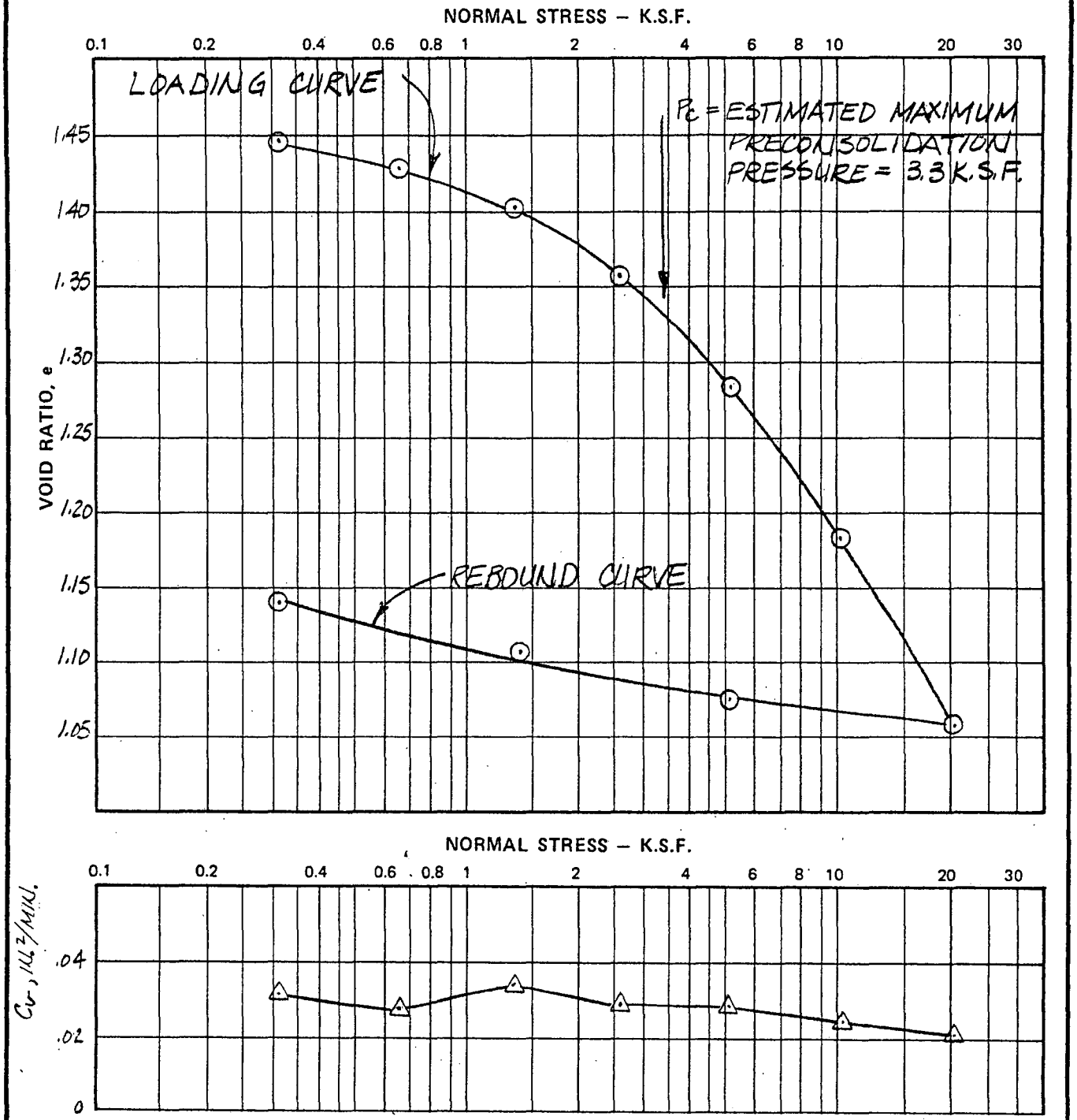
SYMBOL	SAMPLE	LIQUID LIMIT	PLASTICITY INDEX	NATURAL MOISTURE
⊙	B-100 ST-6	62	29	49
⬡	B-100 S-11	35	10	28
△	B-101 ST-7	40	12	35
⊡	B-105 S-8	41	12	36

PLASTICITY CHART
WACKER SILTRONICS
CORPORATION

P16058.B0

CH2M HILL

SCOEPA00034142



PLOT OF PRIMARY CONSOLIDATION

SAMPLE DATA:
GRAY SILT (MH)
DEPTH 28.0-30.0 FT.
INITIAL DIAMETER = 2.50 IN.
INITIAL HEIGHT = 1.00 IN.
INITIAL VOID RATIO = 1.46
NATURAL MOISTURE CONTENT = 55%
DRY DENSITY = 67.4 P.C.F.

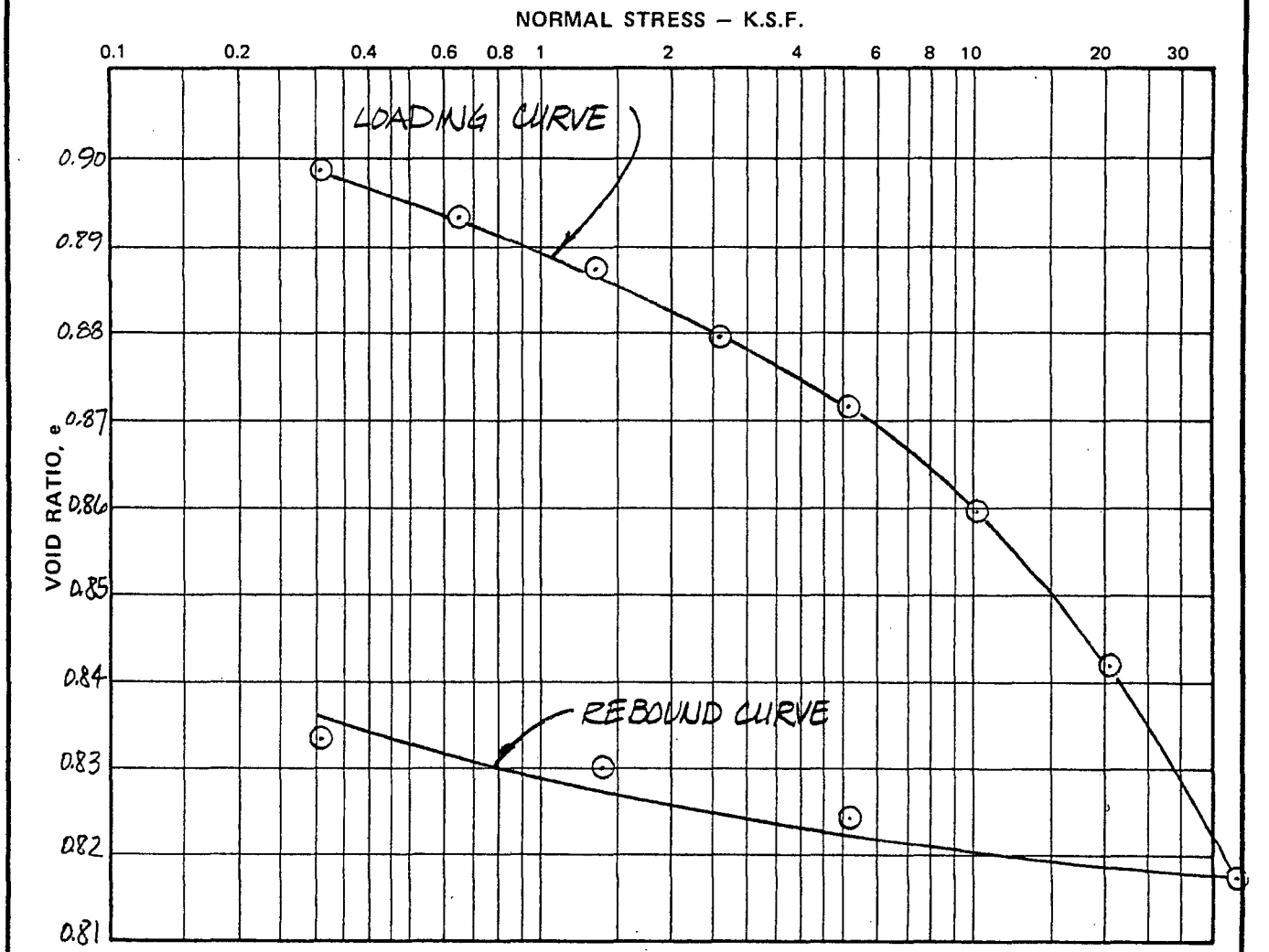
B-100 ST-6
CONSOLIDATION TEST
WACKER SILTRONICS CORPORATION

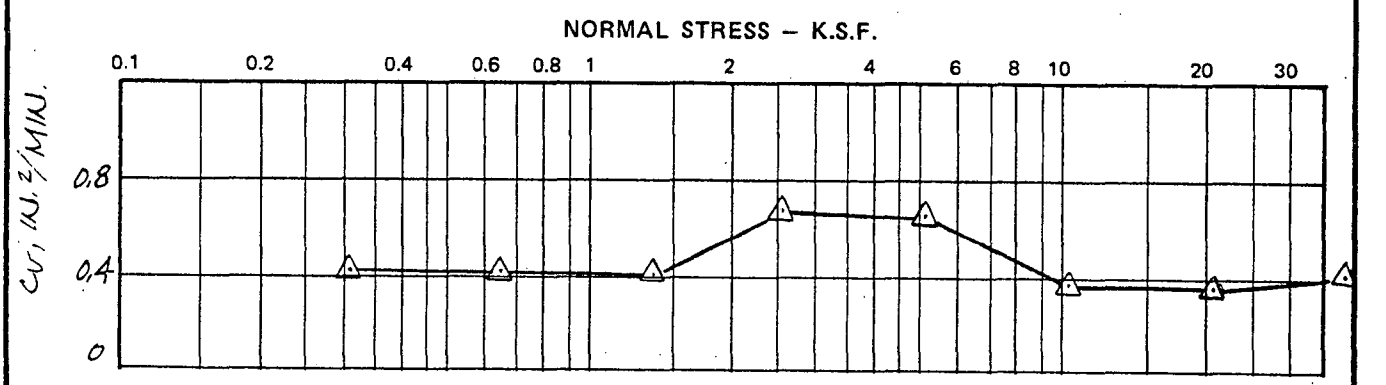
P16058.B0

CH2M HILL

FORM 70

SCOEPA00034143





PLOT OF PRIMARY CONSOLIDATION

SAMPLE DATA:
MEDIUM BROWN SILT (ML)
DEPTH 50.0 -52.0 FT.
INITIAL DIAMETER = 2.50 IN.
INITIAL HEIGHT = 1.00 IN.
INITIAL VOID RATIO = 0.90
NATURAL MOISTURE CONTENT = 35%
DRY DENSITY = 87.1 P.C.F.

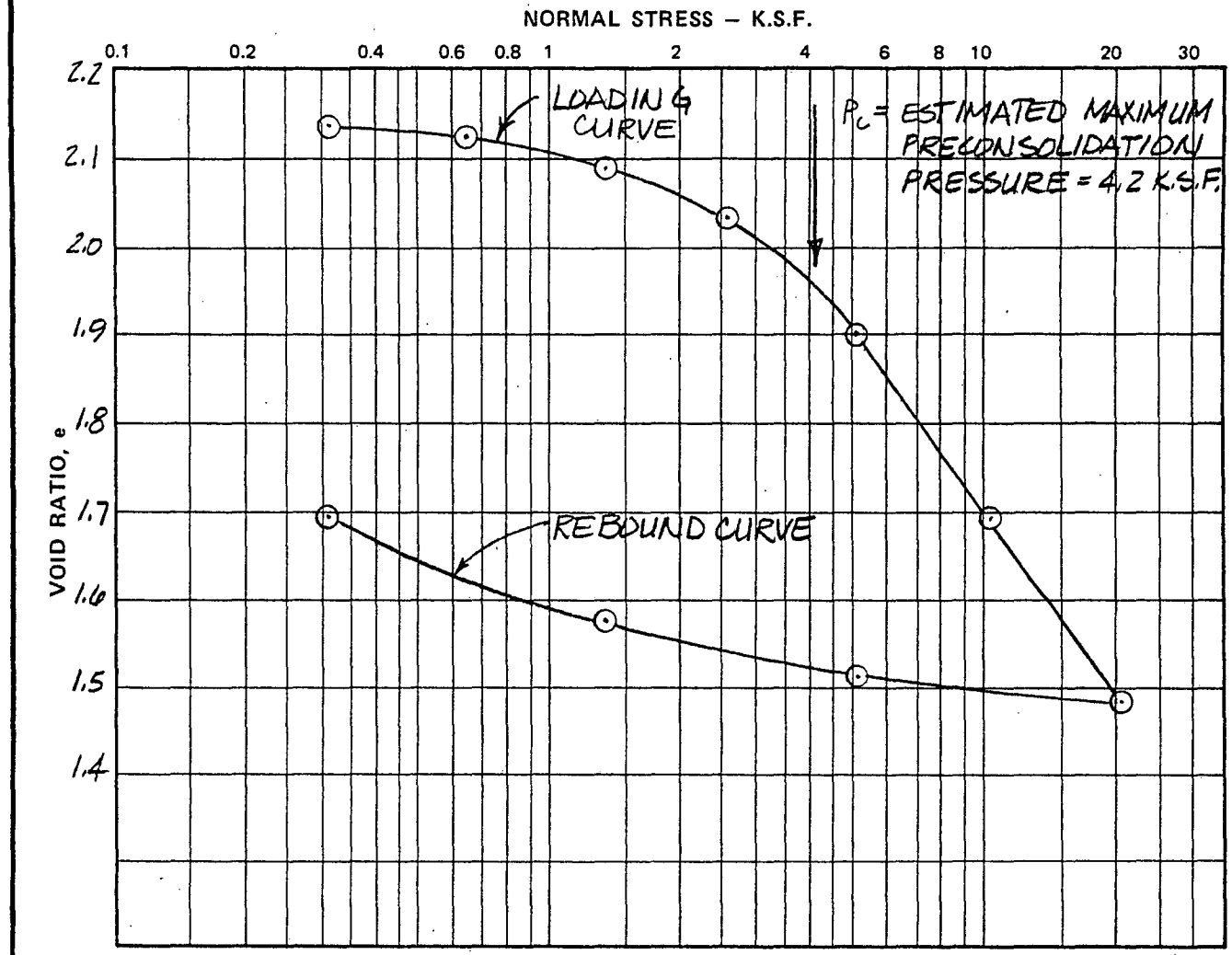
P16058.80

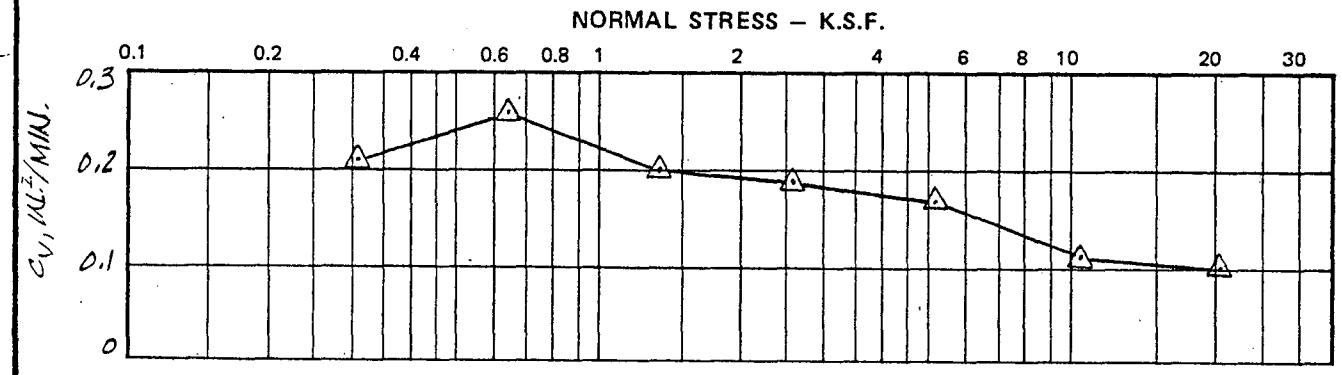
B-104 ST-12
CONSOLIDATION TEST
WACKER SILTRONICS CORPORATION

CH2M HILL

FORM 70

SCOEPA00034144





PLOT OF PRIMARY CONSOLIDATION

SAMPLE DATA:
MEDIUM BROWN SILT (ML)
DEPTH 30.0 - 32.0 FT.
INITIAL DIAMETER = 2.50 IN.
INITIAL HEIGHT = 1.0 IN.
INITIAL VOID RATIO = 2.16
NATURAL MOISTURE CONTENT = 75%
DRY DENSITY = 47.0 P.C.F.

B-107 ST-6
CONSOLIDATION TEST
WALKER SILTRONICS CORPORATION

CH2M HILL

P/60058.80

FORM 70

SCOEPA00034145

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P. O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

October 14, 1985

Ms. Molly Heany
Bureau of Environmental Services
City of Portland
1120 S.W. Fifth Ave.
Portland, OR 97204-1972

Dear Ms. Heany:

Subject: September, 1985 Monthly Monitoring Report

Attached is our September, 1985 Monthly Monitoring Report as required in our Municipal Discharge Permit No. 469-01.

As shown on the attached Monitoring Report, we were out of compliance for pH for 4 hours and 45 minutes or 0.7% of the time for the month. These excursions were due primarily to regeneration activities and inadequate flows on weekends when most of the production facilities is shutdown.

All other parameters are within limits, except for TCE. Two samples were reported over the compliance limit of 1.37 mg/l on September 8 and 27.

As discussed with Harry Edmonds of your agency on this date, we are doing all we can to insure that this situation doesn't occur in the future. Although we were aware of the TCE violation last Friday, the magnitude was not substantiated until early this week. Upon receiving this information, the following action was taken:

1.) Collected 4 TCE samples on 10/7/85

Sample Location	TCE (mg/l)
a.) inlet to OWW forwarding sump	0.11
b.) outlet of OWW forwarding sump	3.05
c.) outlet of OWW storage tank	3.09
d.) outlet of OWW neutralization tank	3.05

2.) I sent a memorandum to all managers and supervisors on 10/8/85 notifying them of the permit violations, and requesting their assistance in this area.

3.) I discussed this matter with all management personnel at the Monthly Operations meeting on 10/11/85.

SCOEPA00034146

From the above data on item No. 1, it appears that there is some TCE at the bottom of the OWW forwarding sump. We will pump out the bottom of this sump on Saturday and transfer the contents to barrels. After testing, we will treat this material through our stripper into the OWW system in a manner which insures permit compliance.

If you have any questions, please call me at 243-2020, ext. 301.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operation and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

SCOEPA00034147

Wacker Siltronic Corporation
P. O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

October 11, 1985

Mr. Renato Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: September, 1985 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for September, 1985.

For the month of September our discharge was well within compliance for all measured parameters.

Our pH only measured 65 minutes out of compliance for the month of September, or about 0.14% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORP.

Murray M. Tilson
FAcilities Operations and Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

FILE DEQ

Wacker Siltronic Corporation

WACKER

June 26, 1985

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

RECEIVED
MAL RUSS

JUN 26 1985

WACKER SILTRONIC CORP.

Renato Dulay
Department of Environmental Quality
Northwest Region
P. O. Box 1760
Portland, OR 97209

Subject: NPDES Permit Compliance Status
Permit No. 3847-J

Dear Mr. Dulay:

The following is a technical progress report complete with data regarding Wacker Siltronic's interim and final NPDES effluent requirements. Please also regard this letter as a follow-up to our letters of June 10 and June 11 relating to this subject.

pH Control

We feel confident that we are now able to consistently achieve our pH compliance requirement of being out of compliance for less than 1% of the time. Since our change in meter reading location from the outfall to the waste treatment plant on April 25th, we have been able to achieve compliance. For the first 26 days this month we are 8.3 minutes out of compliance. Our near perfect record this month is attributed to our operator's efforts and an alarm system that signals the operator when the pH goes above 8.5 or below 6.5.

BOD

Our diversion of trenches in the Slicing and Plate Prep area into the organic waste water (OWW) system which discharges to the City's sewerage system has greatly reduced our BOD loading to the Willamette River. This resulted in diverting a 6-10 gpm flow stream containing approximately 100-140 lbs/day BOD loading to the city sewerage system. We have also initiated a control-at-the-source program by recently completing a drain survey. The drain survey is being used by Production personnel as a training aide to educate all employees as to the proper disposition of liquid wastes. This will help to minimize the discharge of unwanted organic wastes through the waste treatment plant.

A review of the attached BOD graphs shows that we are now able to achieve our interim and final limits of 15 mg/l BOD on a monthly average. Effectively operating our control-at-the-source program should allow us to achieve our final limits on a consistent basis.

SCOEPA00034149

TSS

Recent operational changes to our treatment system include increasing the alum feed concentration, changing the alum feed location and increasing the pH in the clarifer. These changes have increased the performance of our clarifier and resulted in our system being able to achieve our interim compliance level.

We are now reviewing possible methods of advanced treatment to consistently achieve our final limits of 15 mg/l. Progress on this will be forthcoming in our August 1, 1985 compliance status report.

I have also attached graphs showing our outfall BOD and TSS concentration on a monthly and weekly basis. Although we feel confident that we can achieve the final effluent concentration limits for BOD and TSS though programs discussed above, we have concerns regarding the proposed loading requirements based on a flow of 0.2 MGD as used in our permit for the final limits. We would be available to discuss this in detail at your convenience. In summary, I feel our company is showing excellent progress in achieving our October, 1986, effluent requirements.

Please call me at 240-2020, ext. 301, if you have any questions regarding this.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

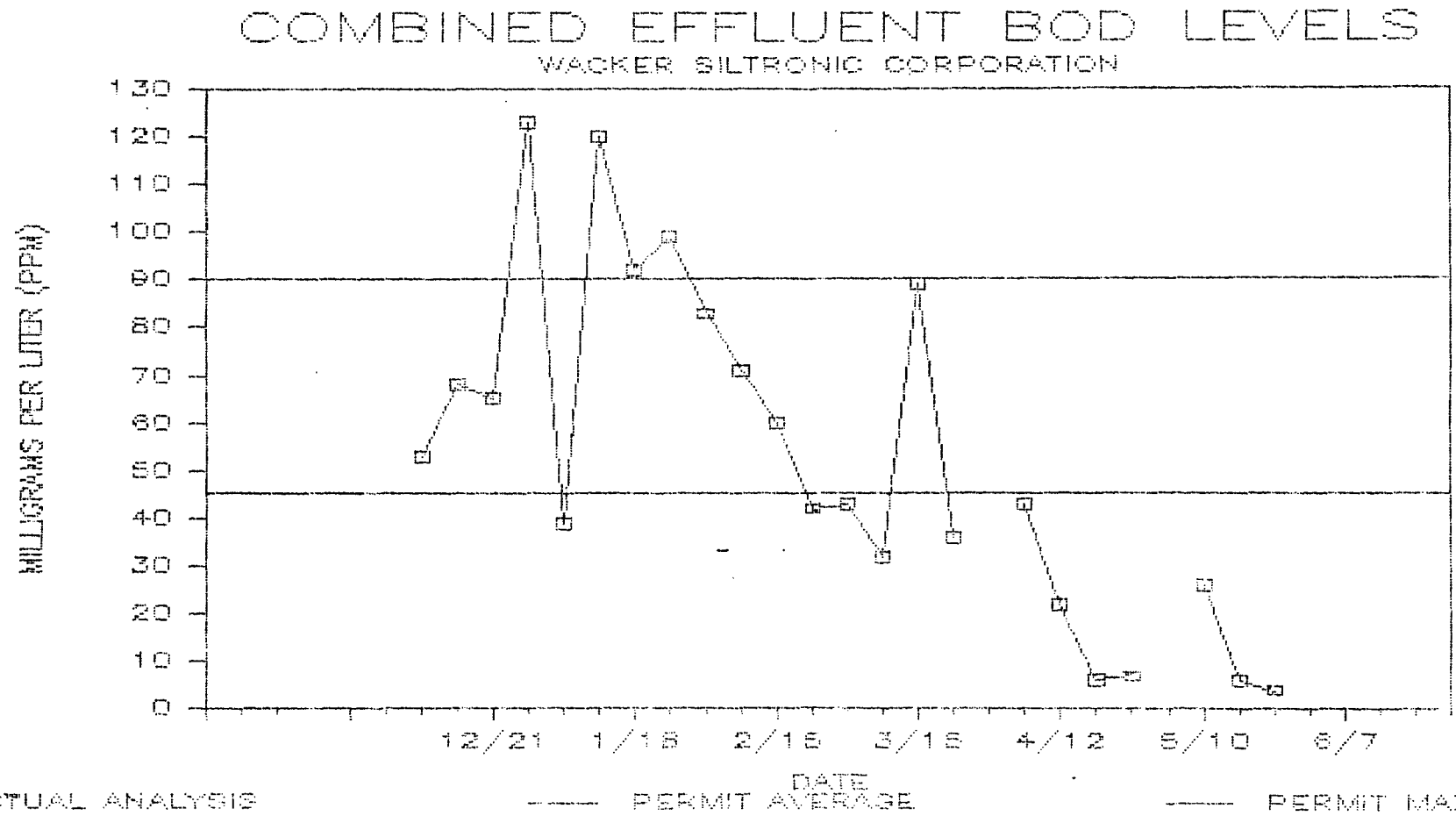
MMT:bw

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Mal Russ

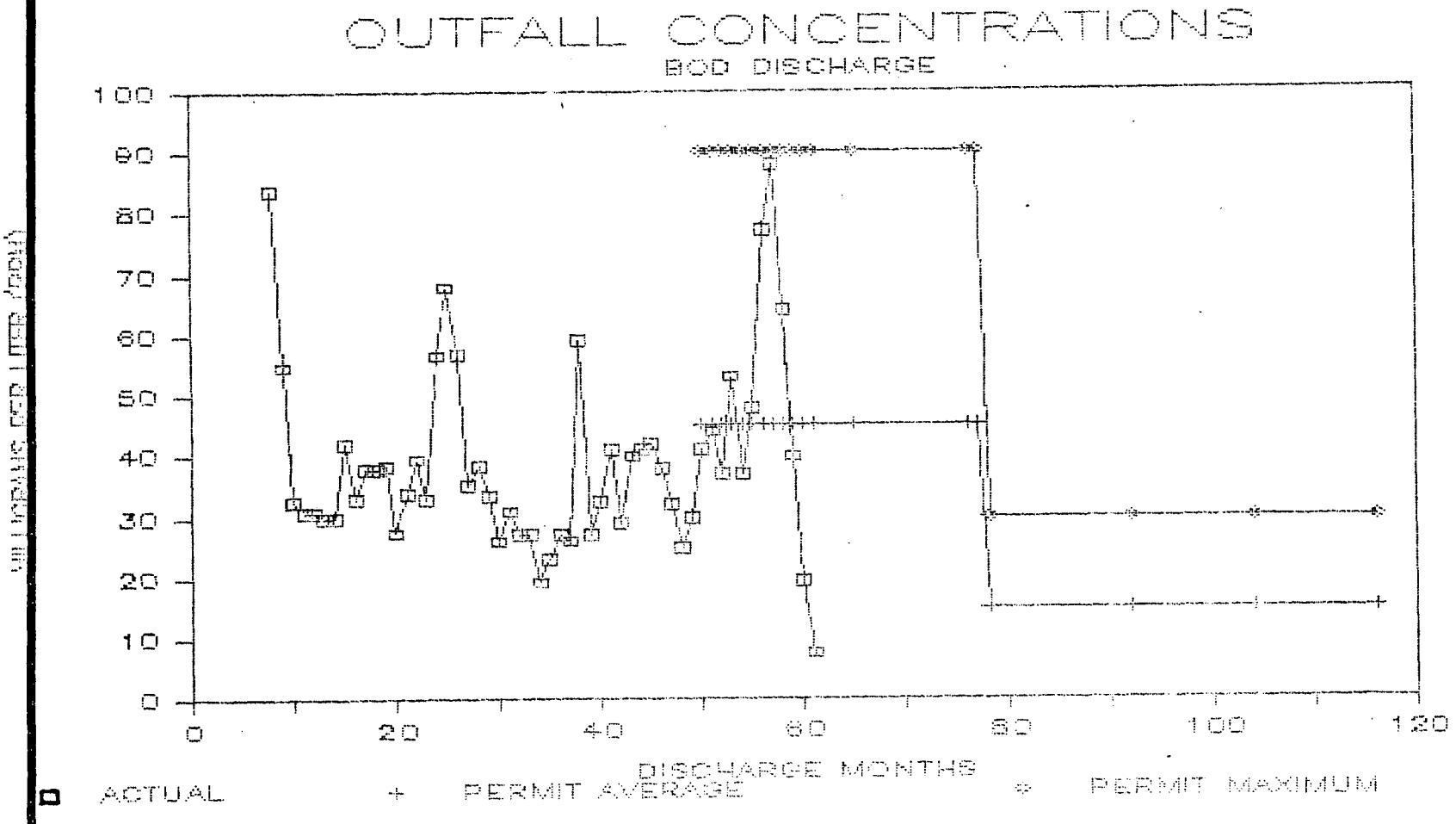
SCOEPA00034150

WACKER SILTRONIC



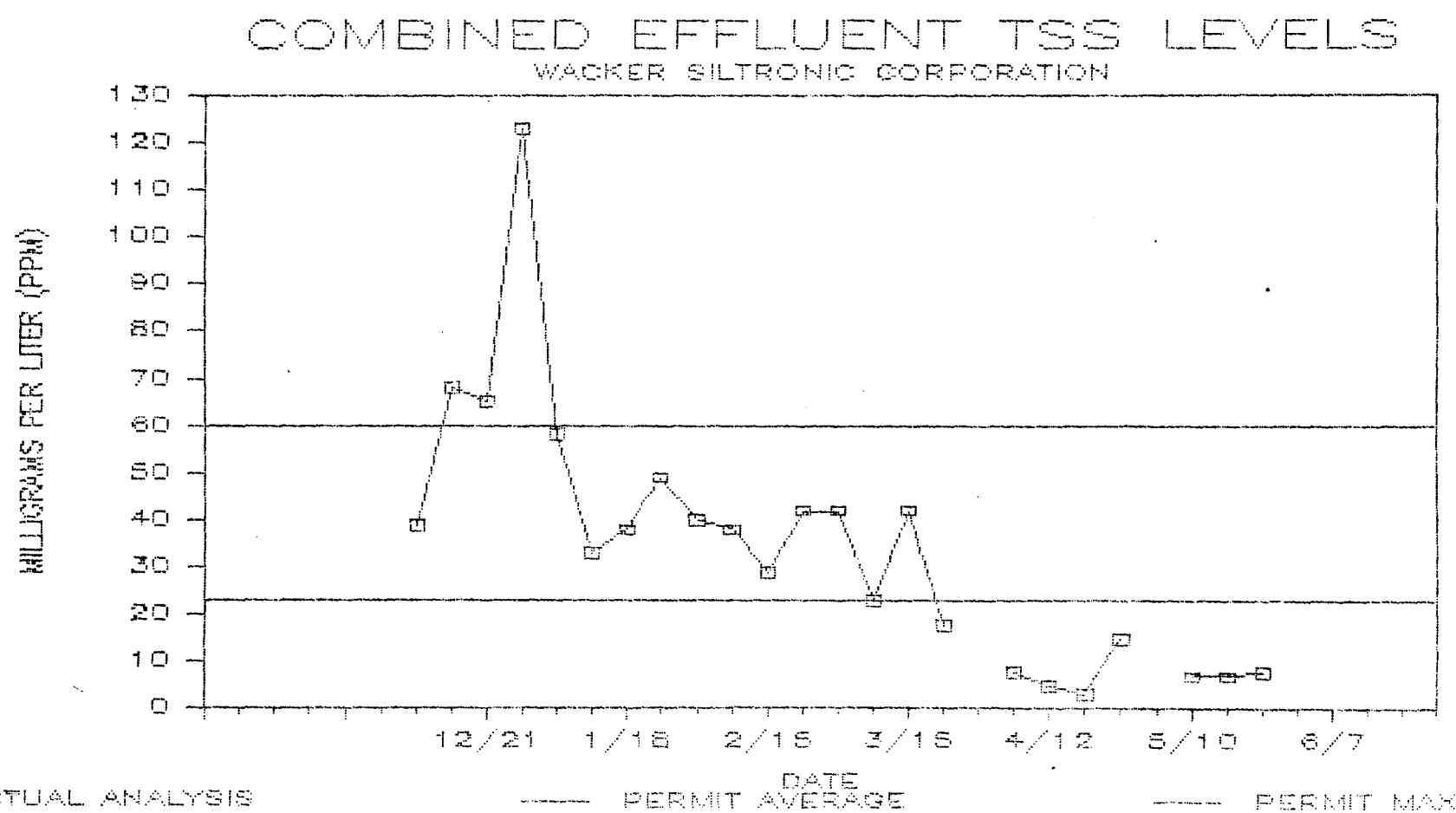
F-2

WACKER SILTRONIC



F-3

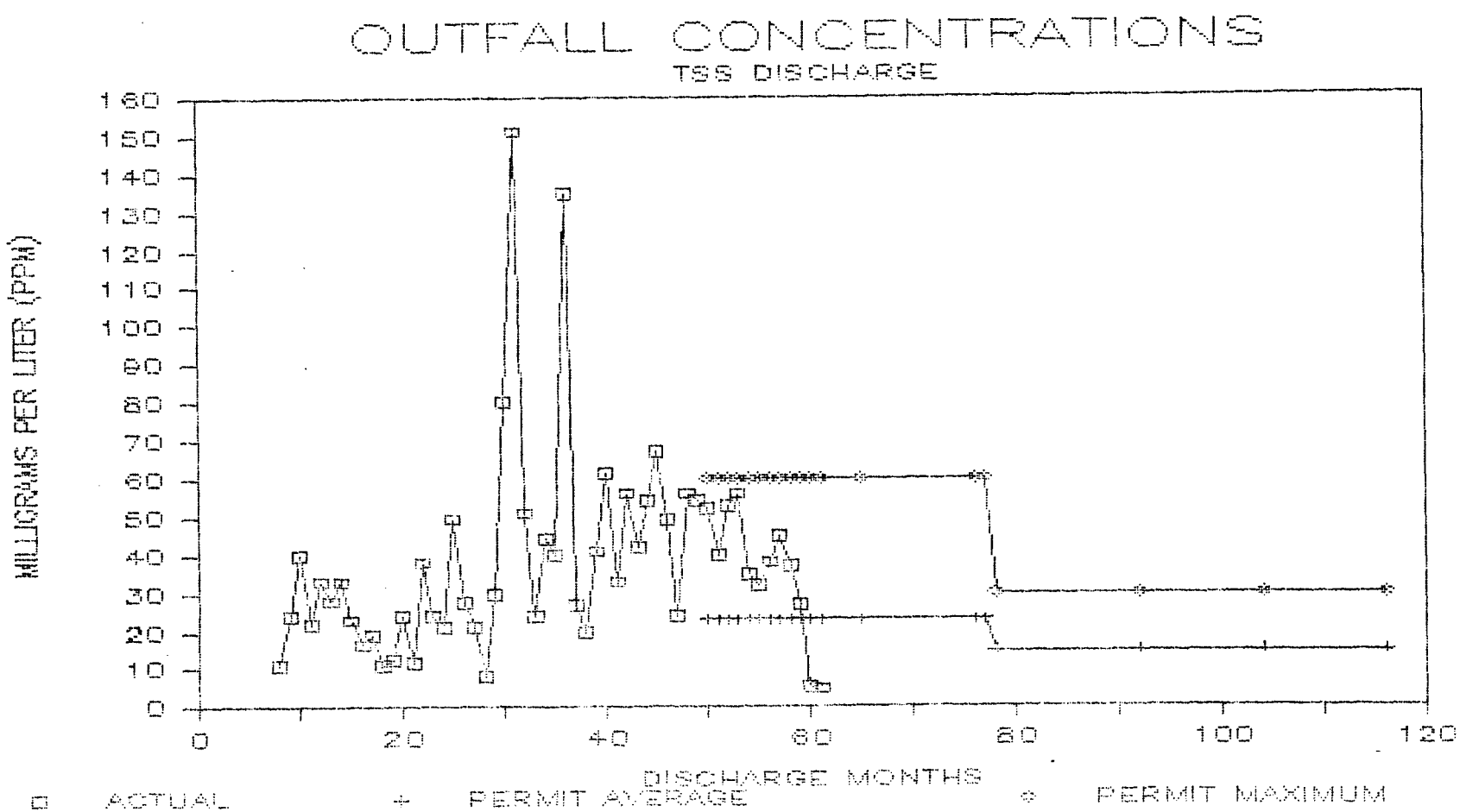
WACKER SILTRONIC



F-4

SCOEPA00034153

WACKER SILTRONIC



F-5

POLY/SITRI PROJECT - SITE SURVEY

During early February, Wacker Siltronic asked CH2M-Hill to develop a routine site evaluation program preparatory to the construction of a polycrystalline silicon plant on the south portion of the existing Wacker plant site. The program was developed by hydrologists and environmental scientists from both the Portland and Seattle CH2M-Hill offices.

The survey was designed to be a general data-gathering exercise to determine the physical characteristics of the soil such as soil types, porosity and degree of compaction. The program scope also included a general survey for chemical constituents present in the soil.

This project involved the following steps:

a. Review of site history,

b. Plan for location and depth of soil samples,

c. Plan for type of analyses on selected soil samples,

d. Plan for evaluation of analysis results.

More specifically, these steps evolved into the following action plans. Seven (7) boring locations were selected arbitrarily to provide soil and groundwater samples which would be representative for the entire polysilicon plant site. The borings were 6 1/4 inches in diameter so that both soil and water samples could be extracted from the same boring, if necessary. Geo-Tech Explorations, Inc. of Beaverton was selected to perform the drilling and CH2M-Hill geologists and chemists supervised the operation. All procedures were carried out in accordance with EPA-approved guidelines. Drilling activity took place in the period April 2 - 10, 1985.

Soil samples, approximately 18 inches in length, were removed from each 5-foot increment of penetration during the process of drilling the 7 holes. All holes were bored to a depth of approximately 35-40 feet, and developed as potential ground water monitoring wells.

Soil analyses were performed on only one, or in some cases, two samples per hole, but these samples were selected at various depths, again, to provide representative data. A total of 9 samples were analyzed. Analytical procedures were selected to indicate the presence of the following substances on each of the samples which were tested:

a. Poly aromatic hydrocarbons (PAH's or residues from coal/crude oil gasification),

b. Heavy metals such as lead, chromium, etc.,

c. Selected pesticides, and,

d. Petroleum products.

Review of the soil analyses indicated that each hole contained a mixture of substances, but the following summary presents the **principal substance(s)** for which traces were found in each of the seven borings:

Boring Identification	Chemical Constituent(s)
MW-1	PAH's; petroleum products
MW-2	PAH's; petroleum products
MW-3	petroleum products
MW-4	petroleum products
MW-5	PAH's; petroleum products; such as 2, 4-D
MW-6	petroleum products; such as 2, 4-D
MW-7	petroleum products

(See attached diagram for location of the borings.)

Because this current survey was general in nature, only the presence of trace levels of chemicals were determined and, accordingly, detailed profiles of hydrology and chemical content are not known at this time. This, and other information, must be provided by future, more detailed studies.

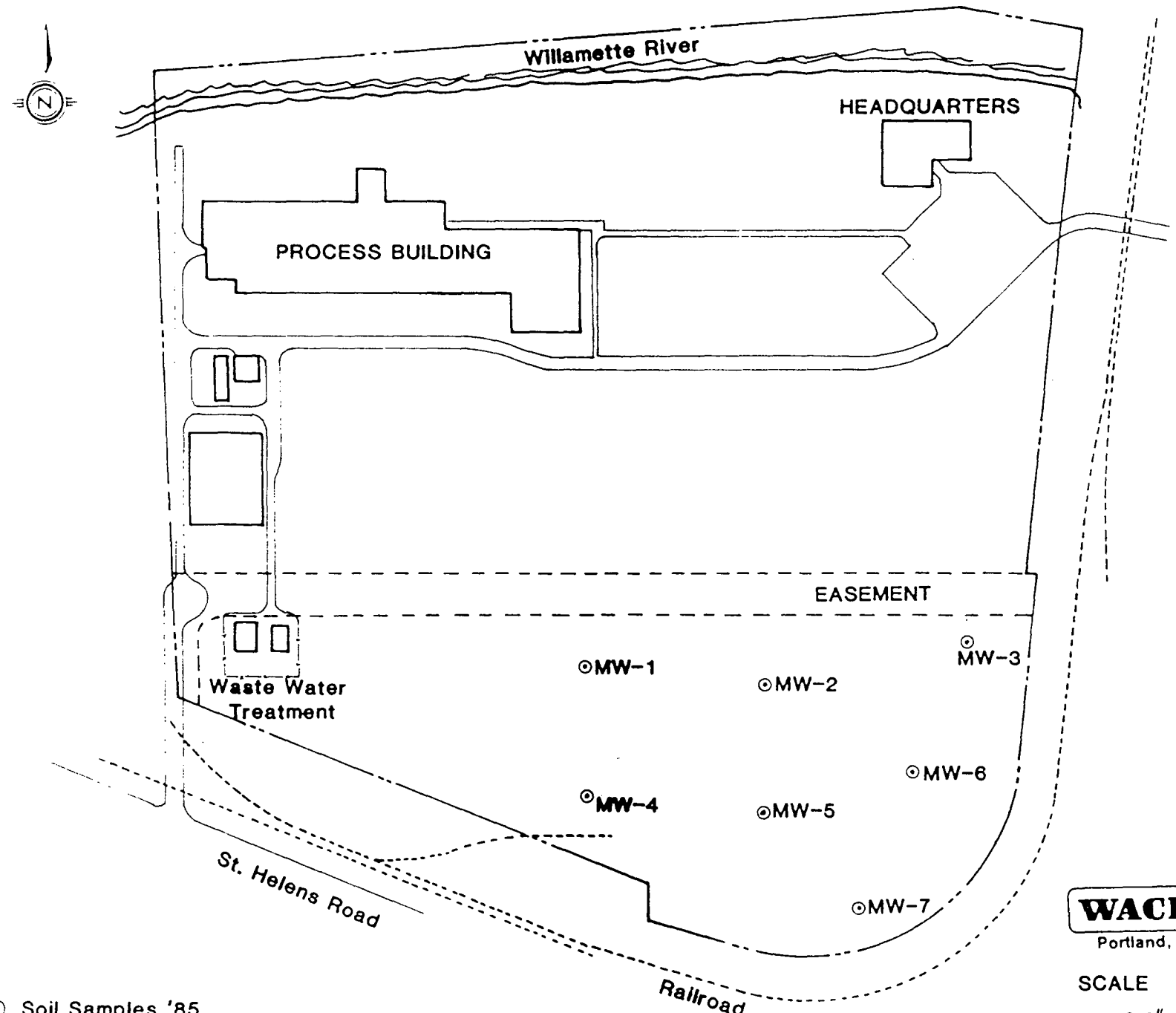
The results of this survey were presented to Siltronic management during the morning of May 14, 1985 and, in a follow-up session in the afternoon of May 15, 1985. At the May 15 meeting, Siltronic Executive Vice-President, Mal Russ, gave instructions to the Siltronic Engineering Staff to provide air quality studies, immediately, to determine if the chemical constituents, listed above, had any health impacts on the existing operation.

By: Jim Ellis
Date: June 11, 1985

JE:jm

Attachment

SCOEPA00034156



⊙ Soil Samples '85

WACKER
Portland, Oregon

SCALE
0.3" = 100'
1" = 333'

SCOEPA00034157

cc: John Pittman
Jerry Schaeffer
Greg Carr
Sam Pengelly

STATE OF OREGON
Environmental Quality
Laboratories & Applied Research

INTEROFFICE MEMO

TO: See Distribution List

DATE: November 13, 1985

FROM: Gerald M. Bell, Aquatic Toxicologist

SUBJECT: Results of a Toxicity Bioassay Performed on The Wacker Siltronic of Portland Wastewater Discharge

Wacker Siltronic Corporation operates a silicon wafer manufacturing facility at 7200 N.W. Front Avenue, Portland. The company grows silicon columns and slices them into thin wafers for polishing. The company discharges an average of 0.32 million gallons per day of process wastewater and 0.19 million gallons per day of cooling water to the Willamette River at River Mile 6.3.

An acute toxicity bioassay was requested by Water Quality Program to determine if the discharge could have a lethal effect on a representative fish species.

Results of this type of short-term test indicate acute responses to the effluent but do not reflect the possibility that there may or may not be a long-term chronic (Mutagenesis, carcinogenesis, teratogenicity, and other reproductive and/or birth defects) affect of the effluent on this and other organisms found within the receiving area.

If more specific details are desired about any aspects of this test, contact Gerry Bell - DEQ Laboratory at 229-5983.

GMB:mal

Distribution List

Alan Hose
Harold Sawyer
Andy Schaedel
Fred Bolton
Kent Ashbaker
Larry Patterson
Northwest Region
Al Goodman
Joe Cummins
Bruce Cleland
Murray Tilson - Wacker Siltronics

RECEIVED
ENGINEERING
NOV 20 1985
John L. Pittman
Wacker Siltronic

81-125-1387

SCOEPA00034158

WACKER SILTRONICS TOXICITY BIOASSAY RESULTS

COLLECTION

Sample Type: Silicon Manufacturing Waste

Source/Date: Wacker Siltronics Corp., /8 hour composite, September 17, 1985

Dilution Water: Upstream river water

Source/Date: Willamette River/September 17, 1985

TEST SPECIES

Type: *Salmo gairdneri* (Steelhead trout)

Source: Marion Forks Hatchery

Date: September 5, 1985

METHODS

All Methods and procedures utilized in the testing, plus equipment and handling materials recommended are found in the reference source: Methods for Measuring the Acute Toxicity of Effluents to Aquatic Organisms, EPA-600/4-78-012 revised July, 1978. A copy of the methods is available upon request.

RESULTS

Date Test Started: September 18, 1985 **Laboratory #** 85-0690

96 Hour LC_{50} = N/A

95% Upper Confidence Limit N/A : **95% Lower Confidence Limit** N/A

Leucocrit Test: N/A

REMARKS

Dilutions tested: 100% effluent, 50% effluent and control (upstream Willamette water). After 24 hours of 100% effluent exposure, the response of the test fish were from 1) Color change 2) erratic swimming 3) loss of equilibrium 4) moribund condition, to 5) death (1). There was no noticeable change in the 50% concentration fish.

SCOEPA00034159

REMARKS (continued)

At the 48 hour mark, all 100% concentration surviving fish (9) were in a moribund condition. There was a noticeable darkening of color in the 50% concentration fish. At this time the surviving 100% concentration fish were transferred to the upstream control water to see if the toxic conditions were reversible. The 50% concentration test was continued.

At the 72 hour mark, all of the surviving 100% concentration fish (8), minus one who had died right after being transferred to the control water, had recovered to a bright color condition. The 50% fish still had a dark color but exhibited no swimming complications.

At the test end; i.e. after 96 hours of exposure, the 50% fish still exhibited the same conditions as they had at the 72 hour mark; a loss of bright color only. At this time all 50% fish were transferred to control water.

24 hours after the transfer of the 50% fish, all of the exposed (100% + 50%) fish accepted food, a sign of total recovery as feeding is one of the first behaviors lost when fish are stressed.

An overall analysis of the test results was that a toxic element or compound is present in the wastewater being discharged that is slowly toxic in a 100% concentration exposure. Fish stress response behavior progressed from loss of bright color (darkening) through erratic swimming, loss of equilibrium, moribund to death. The toxic component was sufficiently diluted at a 50% concentration such that only the loss of color response occurred.

When the stressed fish are removed from the presence of the toxin, their return to a stable condition indicates that the toxin is not persistant or accumulating; and that it can be purged or expelled from the affected organs through the organism's internal detoxifying systems.

SCOEPA00034160

Results of a Laboratory Analysis of the
Wacker Siltronics Effluent Collected on September 17, 1985

PARAMETER	CONCENTRATION
pH	8.17 S.U.
Alkalinity	16 mg/l as $CaCO_3$
Total Hardness	49 mg/l as $CaCO_3$
Color	< 5 PT-CO units
Turbidity	7 F.T.U.
Suspended Solids	5 mg/l
Total Solids	469 mg/l
Conductivity	664 µmhos/cm @ 25°C
Sodium, Diss	3.3 mg/l
Calcium, Diss	18 mg/l
Magnesium, Diss	1.1 mg/l
Fluoride, Total	3.4 mg/l
Cyanide, Total	< 0.002 mg/l
Sulfide	27 mg/l
Ammonia	7.4 mg/l as N
Nitrite/Nitrate	51 mg/l as N
Total Kjel Nitrogen	6.8 mg/l
Orthophosphate, Diss	0.002 mg/l as P
Phosphate, Total	0.019 mg/l as P
C.O.D.	19 mg/l
T.O.C.	4 mg/l as C

Arsenic, Diss	0.005 mg/l
Cadmium, Diss	0.001 mg/l
Chromium, Diss	0.004 mg/l
Copper, Diss	0.007 mg/l
Lead, Diss	< 0.010 mg/l
Mercury, Diss	< 0.0005 mg/l
Nickel, Diss	< 0.05 mg/l
Selenium	< 0.005 mg/l
Silver, Total	< 0.001 mg/l
Zinc, Total	0.05 mg/l

SCOEPA00034161

PURGEABLE PRIORITY POLLUTANTS
EPA METHOD 624

DATE: 19 SEP 85

LAB #: 85-866
SAMPLE: COMPOSIT
ITEM #: 1-8

AMOUNT MG/L	PARAMETER	CAS REGISTRY NUMBER	STORET NO.
<.001	CHLOROMETHANE	74-87-3	34419
<.001	BROMOMETHANE	74-83-9	34413
<.001	VINYL CHLORIDE	75-01-4	39175
<.001	CHLOROETHANE	75-00-3	34311
<.001	METHYLENE CHLORIDE	75-09-2	34423
<.001	TRICHLOROFLUOROMETHANE	75-69-4	34488
<.001	1,1-DICHLOROETHYLENE	75-35-4	34501
<.001	1,1-DICHLOROETHANE	75-34-3	34531
.002	TRANS-1,2-DICHLOROETHYLENE	156-60-5	34546
<.001	CHLOROFORM	67-66-3	32106
<.001	1,2-DICHLOROETHANE	107-06-2	34531
<.001	1,1,1-TRICHLOROETHANE	71-55-6	34506
<.001	CARBON TETRACHLORIDE	56-23-5	32102
<.001	BROMODICHLOROMETHANE	75-27-4	32101
<.001	1,2-DICHLOROPROPANE	78-87-5	34541
<.001	CIS-1,3-DICHLOROPROPENE	10061-01-5	34704
.034	TRICHLOROETHYLENE	79-01-6	39180
<.001	BENZENE	71-43-2	34030
<.001	DIBROMOCHLOROMETHANE	124-48-1	32105
<.001	1,1,2-TRICHLOROETHANE	79-00-5	34511
<.001	TRANS-1,3-DICHLOROPROPENE	10061-02-6	34699
<.001	2-CHLOROETHYL VINYL ETHER	110-75-8	34576
<.001	BROMOFORM	75-25-2	32104
<.001	1,1,2,2-TETRACHLOROETHANE	79-34-5	34516
<.001	1,1,2,2-TETRACHLOROETHYLENE	127-18-4	34475
<.001	TOLUENE	108-88-3	34010
<.001	CHLOROBENZENE	108-90-7	34301
<.001	ETHYLBENZENE	100-41-4	34371
<.001	1,3-DICHLOROBENZENE	541-73-1	34566
<.001	1,2 / 1,4-DICHLOROBENZENE	95-50-1 / 106-46-7	
<.001	1,2-DIBROMOETHANE (EDB)	106-93-4	

SCOEPA00034162

RECEIVED
SEP 27 1985
WACKER SILTRONIC
ENGINEERING

TO: Jerry Schaeffer

FROM: Greg Carr

SUB: DEQ Bioassay Test September 17-23, 1985

DATE: September 27, 1985

The DEQ ran a special bioassay text on our effluent to the Williamette River the week of September 16, 1985. On Tuesday September 17, 1985 they visited the Wacker plantsite. They collected 250 gallons of Willamette River water from a spot upstream of the outfall, right along the bank. They also collected 8 3-gallon effluent samples from the outfall pH pump discharge. One sample was taken each hour, to give a composite sampling of our effluent.

The bioassay test was run in the DEQ lab at P.S.U.. They set up 6 tanks of water, maintained at 12 degree C in a temperature-controlled room. Two tanks contained 100% Willamette River water, two contained 50% river water/50% Wacker effluent, and the last two contained 100% Wacker effluent. The water was refreshed at 24 hours intervals with fresh mixes of water. There were 10 steelhead fingerlings in each tank.

I visited the lab on Friday morning, 48 hours after the start of the test. The fingerlings in the river water were fine. The fingerlings in the 50/50 mixture were suffering some stress, because they had darkened in color. The fingerlings in the 100% effluent were very sick, although none had died. They were very dark, and were all laying at the bottom of the tank. The symptoms appeared to be cyanide or sulfide poisioning. Jerry Bell and I discussed what could be hurting the fish. At that time, the best we could think of was sulfide from the Nox Scrubber, some effect of the detergent in the waste, or Hydrogen Peroxide.

Friday evening, eleven of the twenty fingerlings in the 100% effluent had died. Since it was evident that the other nine would die before the test was finished (total 96 hours of test) Jerry removed the nine living fish and put them back into 100% river water. None of the fish in the 50/50 mixture died by the end of the test. They were also put back into river water at the end of the test to see if they would recover. All the fish put back into the 100% river water recovered, even to the extend of going back onto their feed- a very good sign of complete recovery. It's apparent that even severely stressing a fish by prolonged expose to our effluent is reversable if the fish is removed from the effluent. Jerry also said that since our effluent is warmer than the river, these type of fishes (Salmon type) would quickly leave the effluent plume, just because they don't like warm water.

Based on the fishes symptoms, Jerry had the DEQ lab run some extra tests for cyanide and sulfide. The sulfide test was positive - we had 26 to 31 ppm sulfide in the effluent composite sample. This does explain why the fish were stressed by our effluent. At the present, Sam and I think the sulfide comes from the clarifier. We feed aluminum sulfate (alum) into the clarifier to coagulate the suspended solids. The clarifier is probably anaerobic in the bottom; that is, there is not any oxygen. In anaerobic conditions there are sulfur-reducing bacteria that will change sulfates into sulfides (it is their food). Sam says he he can do some analytical work and verify this.

In any event, I don't think we should get too worried. Jerry Bell feels there is not any affect on the fish population on the river, since the fish won't stay in the concentrated waste plume. The waste plume, once diluted, does not effect the fish. A little investigative work on our part is in order however, so that we can have an answer for the DEQ as to why there is sulfide in our effluent.

Greg Carr

GC/md

cc: Jim Ellis
Sam Pengally
Murray Tilson
File

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

April 9, 1985
Log #A850403-H

Wacker Siltronics
P. O. Box 03180
Portland, Oregon 97203
Attention: Jim Ellis

Analysis Requested: Trichloroethylene in Soil

Samples Received: April 3, 1985

Methodology: Carbon Disulfide Extraction

SAMPLE ID	TRICHLOROETHYLENE
Area 1, Sample 1 (depth 18")	< 1.0 mg/kg
Area 2, Sample 1 (depth 6")	< 1.0 mg/kg
Area 1, Sample 2 (depth 18")	< 1.0 mg/kg
Area 2, Sample 2 (depth 6")	< 1.0 mg/kg

< denotes "less than"

Sincerely,

Susan M. Coffey

Susan M. Coffey,
President

SMC/db

SCOEPA00034165

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

March 18, 1985

Log #A-850311-G

CH2M Hill
2020 S.W. Fourth Avenue
Second Floor
Portland, Oregon 97201
Attention: Jack Payne

Analysis Requested: Trichloroethylene

	SAMPLE ID	RESULTS mg/kg	
#1	WKR SS 1	2.4	
#2	WKR SS 2	3.2	
#3	WKR SS 3	< 1.0	
#4	WKR SS 4	< 1.0	
#5	WKR SS 5	1.6, 2.5	
#6	WKR SS 6	< 1.0	
#7	WKR MWI 0 - 9"	< 1.0	
#8	WKR MWI 9" - 1'6"	3.9	
#9	WKR MWI 1'6" - 2'3"	< 1.0	2'3"–3'0" missing #10
11 #10	WKR MWI 3' - 3'9"	< 1.0	
12 #11	WKR MWI 3'9" - 4'6"	< 1.0	

Recovery Sample #1	True Value	18.4
	Found Value	17.5
	% Recovery	95%

< denotes "less than"

Sincerely,

Susan M. Coffey

Susan M. Coffey,
President

SMC/db

Report delivered to: Wacker Siltronics
c/o Jim Ellis
7200 NW Front Ave.
Portland, OR 97229

SCOEPA00034166

"Engineering a better world"

NVIRONMENTAL EMERGENCY SERVICES CO.
DIVISION OF RIEDEL INTERNATIONAL, INC.

Portland Division
Ft. of N. Portsmouth Avenue
P.O. Box 3320
Portland, Oregon
97208-3320
(503) 285-9111

January 21, 1985

Mr. John Pittman
Director of Engineering
Wacker Siltronic Corp.
7200 N. W. Front Avenue
P. O. Box 03180
Portland, OR 97203

Dear Mr. Pittman:

Enclosed is a drawing of the spill site and the locations and results of the testing completed there. The area on the drawing marked with ● is the area where the hole filled with a white milky liquid. When the crew dug down one foot deeper (4-1/2 feet), the liquid could be seen running into the hole from the interface of the sand/clay layers, the clay layer being deeper. As the liquid accumulated, dark oily droplets started to form on the top of the liquid.

I then directed the crew to dig a similar hole in the area marked by ▲. No white liquid was observed going into the hole; however, there was a dark, oily material seeping into the hole from the sand/clay interface. A sample of this material has not yet been taken to determine the TCE concentration.

At this time the area along the building and in between the two cement pads has been dug down 3-1/2 feet. The area on the left side and in front of the two pads has been excavated to 2 feet.

In a discussion with Roger Smith, a hydrologist in our groundwater division, Roger stated that TCE tends to accumulate and increase in concentration underground in the absence of oxygen. This material would then flow through porous layers on top of non-porous layers such as clay.

The samples in area Z and G below the 3-1/2 foot level were taken in a clay layer. The results show that this layer is contaminated, which would only occur over a long period of time; therefore, it is safe to assume that other clay layers in this area may also be contaminated. Due to this, it is recommended that one or more core samples be taken to determine:

1) What other sand/clay layers are present in the soil;

Portland Division
Ft. of N. Portsmouth
P.O. Box 3320
Portland, Oregon
97208

Richmond Division
230 Cutting Blvd.
P.O. Box 1872
Richmond, California
94802

St. Louis Division
529 Spirit of St. Louis Blvd.
Chesterfield, Missouri
63017

SCOEPA00034167

2) If these layers are contaminated with TCE;

3) Where the groundwater layer is;

4) If the groundwater is contaminated.

It is very likely that the ground under the plant is also contaminated due to the direction of the groundwater flow. There are several methods available from our company to recover the product that is under the building without the need for excavation.

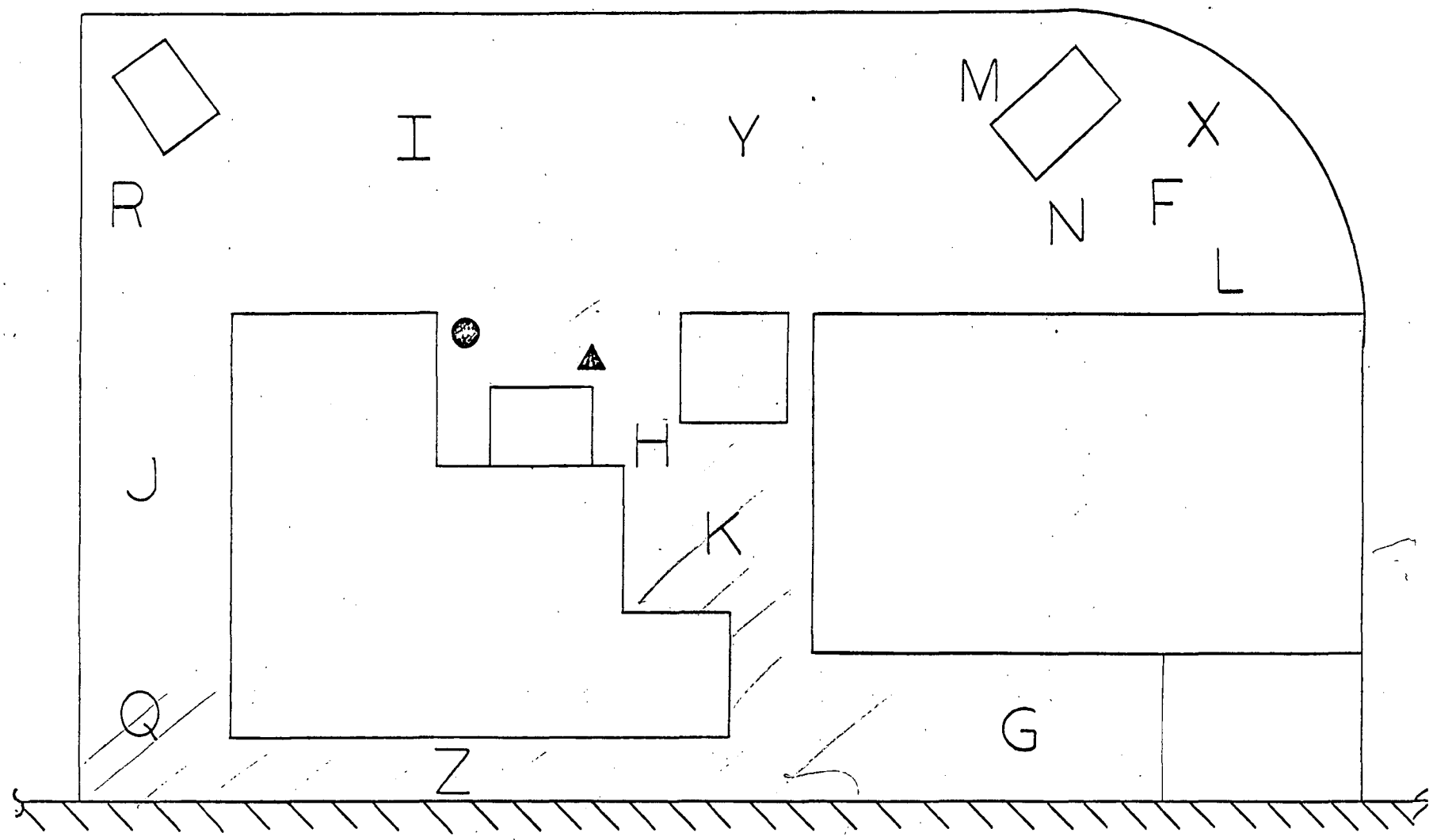
If you have any further questions, please do not hesitate to contact me. Also, please advise me as to the plan of action to be taken after today so that arrangements can be made for the rental equipment.

Sincerely,

ENVIRONMENTAL EMERGENCY SERVICES CO.
Division of Riedel International, Inc.

Richard G. Gariepy
Chemical Engineer

RGG:kps
Enclosure



BUILDING

E/C TO 3½'

SAMPLE RESULTS (PPM TCE)														
DEPTH	R	J	Q	I	Y	H	K	G	M	N	F	X	L	Z
SURFACE		120		400		2600		15			19,000			
0.5 FT		190		2200		62		43			620			
1.0		124				560		2.3						
1.5		116				16	<1	40						
2.0	137.8		18.1	<1	<1		13	7.2	25.8	3674		147.7	45.6	7.2
2.5		S				S	116	12.7	S					152.5
3.0	39.5	S	7.5	<1	<1	S/A	1.8	19.5	S/A		S/A	S/A	S/A	68.7
3.5		S/A						4.1						4.8
4.0	S/A							7.7		67				5.3
4.5								6.2		S/A				19.5
														S/A

WACKER SILTRONIC CORP. – SOIL SAMPLE TEST RESULTS (N.T.S.)

ENVIRONMENTAL EMERGENCY SERVICES | DATE - 1-21-85 RB

TO John Pittman

FROM Greg Carr

ENGINEERING

JAN 22 1985

John L. Pittman
Wacker Siltronic 1/22/85

Samples from Coffe labs, from Rick Gariepy

SUBJECT Sample taken 5' down at "Triangle"

DATE

MESSAGE

Clay in sample - 78ppm TCE
normal sand - 1192 ppm TCE
Sand + brown "gunk" - 7500 ppm TCE

Sample taken at 4' in front of Carbon Adsorption unit, Letter N - 67ppm

SIGNED G Carr

REPLY

SIGNED

DATE / /

REDIFORM® 4S 471

SEND PARTS 1 AND 3 WITH CARBON INTACT - PART 3 WILL BE RETURNED WITH REPLY.

POLY PAK (50 SETS) 4P 471

SCOEPA00034170

WACKER

DATE 2/27/84

ANALYST(S) G Bratten

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION:

SOOW Waste Sample: The results for the organic and aqueous phases are given below w/ the test method used for analysis

RESULTS:

	Organic Phase	Aqueous Phase	Method
Specific Gravity	1.42 g/ml	0.99 g/ml	Weigh 100ml in volumetric flask
pH	4.7	7.7	Direct pH measurement
Caustic	both phases acidic to phenolphthalein		before titration
Water	0.7%	96.2%	Distill sample to 98°C, weigh and subtract wax content.
Wax Content	3.7%	0.2%	Distill sample until all of the liquid has left sample flask, dry in drying oven for 1 hr., cool in dessicator and weigh

Flash Pt. - Organic Phase Only

- no flash point - see report from Coffey Laboratory.

Greg,
Report from Coffey Labs will follow after its arrival. Thanks,

COPIES SENT TO Greg Carr

SCOEPA00034171

TO: Otto Sweep

FROM: Cliff Hood

DATE: February 8, 1985

SUBJECT: SOD-C WASTE LINE PLUGGING

The SOD-C waste line was cut open today to examine what was plugging the line. A white needle like crystalline substance was removed and taken to Howard Hogle to examine. The material will not melt below 350 degrees F., but the material will dissolve in hot water.

The pipe was unplugged from the hallway to the outside tank by using the high pressure washer to force hot water through the line. The high pressure washer is able to deliver boiling water at 1100 psi. The section of pipe between the 7.13 machine and the tee to the pipe from Acid Etch was also unplugged with the pressure washer. The section of the pipe between tee from Acid Etch and the place in the hallway that was cut open is still plugged. Tomorrow the cut section will be reconnected. The plugged section can then be pressurized and cleared.

A provision will be made in the hallway to connect the pressure washer to the line for future unplugging operations. A second connection point will be at the 7.13 machine.

The chemist suggests that when the caustic mixes with the solvent that salts in the caustic form crystals. The pressure washer can be used to unplug the line in the future, but is not an acceptable long term solution.

The existing pumps at the 7.13 and 7.18 machines are being replaced with new air driven pumps. The plans call for installing an "automatic flush" to add water to the 7.13 pump to dilute the caustic as it is being pumped.

The pump assemblies are being made in Jay's shop. I recommend that we bring in a Contractor to install the pumps and make the required changes. Some piping changes need to be made internally to the 7.13 machine. Lyle Hanson will provide the information regarding these changes. Because Lyle is leaving for Germany on February 15 and because of the urgency to complete the conversion, I recommend we hire Interstate Mechanical on a time and materials basis to do the work next week.

WACKER SILTRONIC CORPORATION

RECEIV
APR 15
WACKER SILTRONIC ENGINEERING

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLE FOR TCE.
After liquid/liquid extraction of blanks, standards, and samples, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 3/28/85
17.00 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 4/2 and 4/9/85

RESULTS:

SAMPLE		TCE PPM	SAMPLE PLUS 0.52 PPM TCE ADDED TCE PPM	% RECOVERY
3/28/85	Organic Wastewater	5.9 PPM	1.03	85%

COPIES SENT TO: Greg, Murray Tilson, Jim Ellis
FORM# 107-016

SCOEPA00034173

RECEIVED
APR 12 1985
WACKER SILTRONIC ENGINEERING

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLE FOR TCE.
After liquid/liquid extraction of blanks, standards, and samples, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 3/28/85
17.00 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 4/2 and 4/9/85

RESULTS:

SAMPLE		TCE PPM
3/28/85	Organic Wastewater	5.9 PPM

COPIES SENT TO: Greg Carr, Jim Ellis, Murray Filson
FORM# 107-016

SCOEPA00034174

RECEIVED
APR 15 1985
WACKER SILTRONIC ENGINEERING

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 4/5/85
OWW 15:30 hrs,4/9/85 PWW 8:45 hrs OWW 8:55 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 4/9/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.52 PPM TCE ADDED TCE PPM	% RECOVERY
PWW 4/9/85	0.07	0.53	88%
OWW 4/5/85	1.20	1.33	25%
OWW 4/9/85	0.60	1.25	125%

COPIES SENT TO: Greg, Murray Tilson, Jim Ellis
FORM# 107-016

SCOEPA00034175

"Imagineering a better world"

NVIRONMENTAL EMERGENCY SERVICES CO.
DIVISION OF RIEDEL INTERNATIONAL, INC.

Portland Division
Ft. of N. Portsmouth Avenue
P.O. Box 3320
Portland, Oregon
97208-3320
(503) 285-9111

January 7, 1985

RECEIVED
ENGINEERING
JUN 14 1985
John L. Pittman
Wacker Siltronic

Mr. Gregory E. Carr, Chemical Engineer
Wacker Siltronics Corporation
P. O. Box 03180
Portland, OR 97203

Dear Mr. Carr:

Enclosed is a copy of the test results from the soil samples which were taken from your facility on January 2, 1985. Also enclosed is a sketch of the test area showing the test points and the related results.

The results show high elevations of trichloroethylene (TCE) in the area directly adjacent to the building. The soil in the area of Samples G, H and K should be removed at least down to the 18 inch level. The soil from sample areas F, I and J should be removed down to the 2 foot level.

The results of the area closer to the road show quite lower levels of TCE. However, 6 inches to one foot of this area should be excavated to prevent further leaching of the contaminant. In both cases, the soil should be tested again, once the excavation is complete.

If you have any questions, please contact me at 285-9111, extension 491.

Sincerely,

ENVIRONMENTAL EMERGENCY SERVICES CO.
Division of Riedel International, Inc.

Richard G. Gariepy
Chemical Engineer

RGG:kps
Enclosures

SCOEPA00034176

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

January 7, 1985

Log #A850103-A

Environmental Emergency Services
P. O. Box 3320
Portland, Oregon 97023
Attention: Rick Gariepy

Analysis Requested: Trichloroethylene

SAMPLE ID	TRICHLOROETHYLENE mg/kg
A-~~5~~ Surface	3,820
A-6	11
A-1	< 1
A-18	55
B-~~5~~	460 & 420
B-6	35
B-1	< 1
B-18	30
C-~~5~~	130
C-6	10
C-1	< 1
C-18	27
C-2	< 1
C-2.5	< 1
D-~~5~~	47 & 57
D-6	10
D-1	9.3
D-18	11
E-~~5~~	59
E-6	~~31~~ <1
E-1	2.6
E-18	31

SAMPLE ID	TRICHLOROETHYLENE mg/kg
F-~~5~~	19,000
F-6	620
G-~~5~~	15
G-6	41 & 44
G-1	2
G-18	40
H-~~5~~	2,600
H-6	62
H-1	560
H-18	16
I-~~5~~	400
I-6	2,200
J-~~5~~	120
J-6	190
J-1	124
J-18	116
K-18	< 1
K-24	10 & 16
K-30	125 & 107

< denotes "less than"

40 ppb

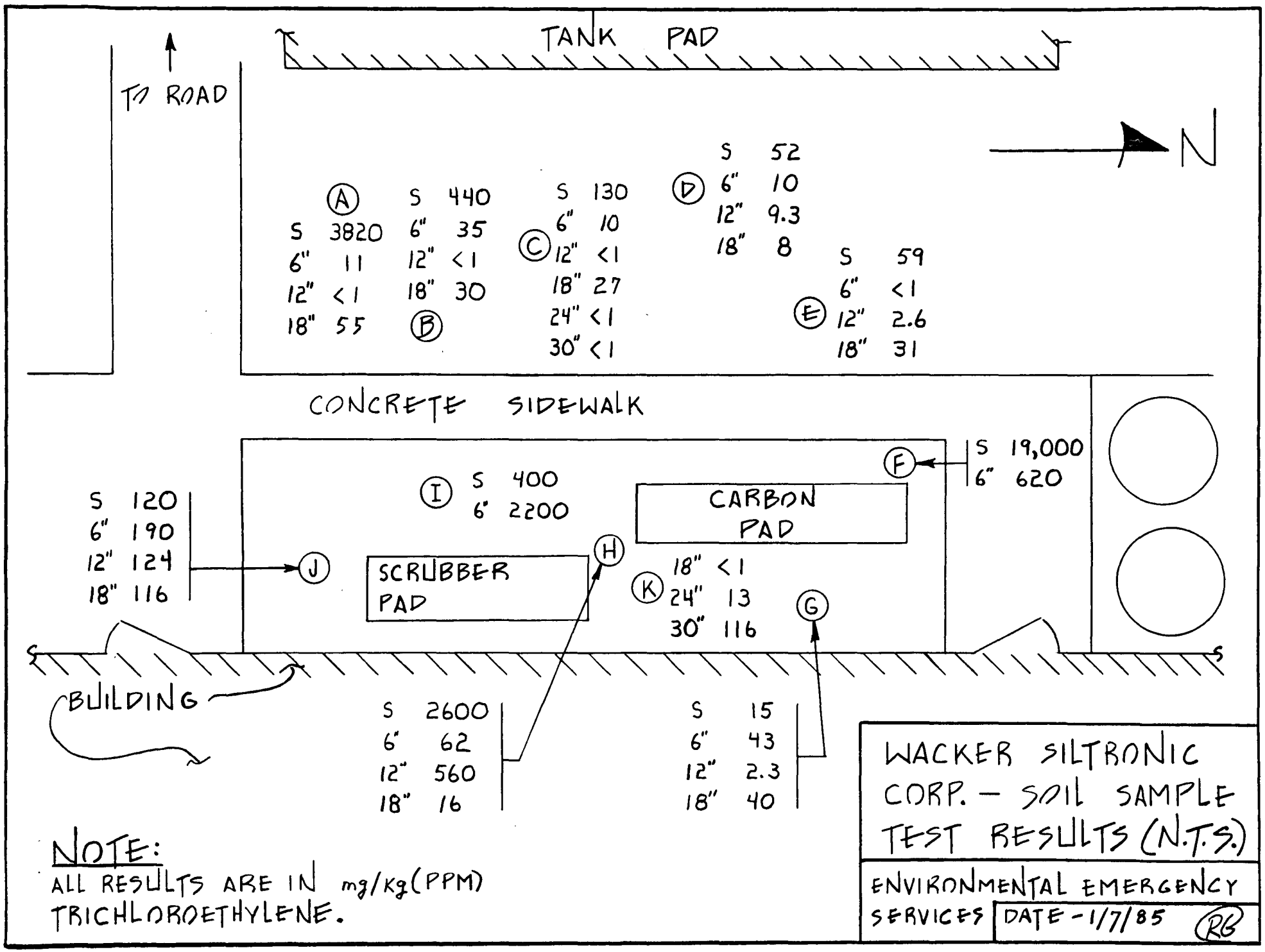
Sincerely,

Susan M. Coffey

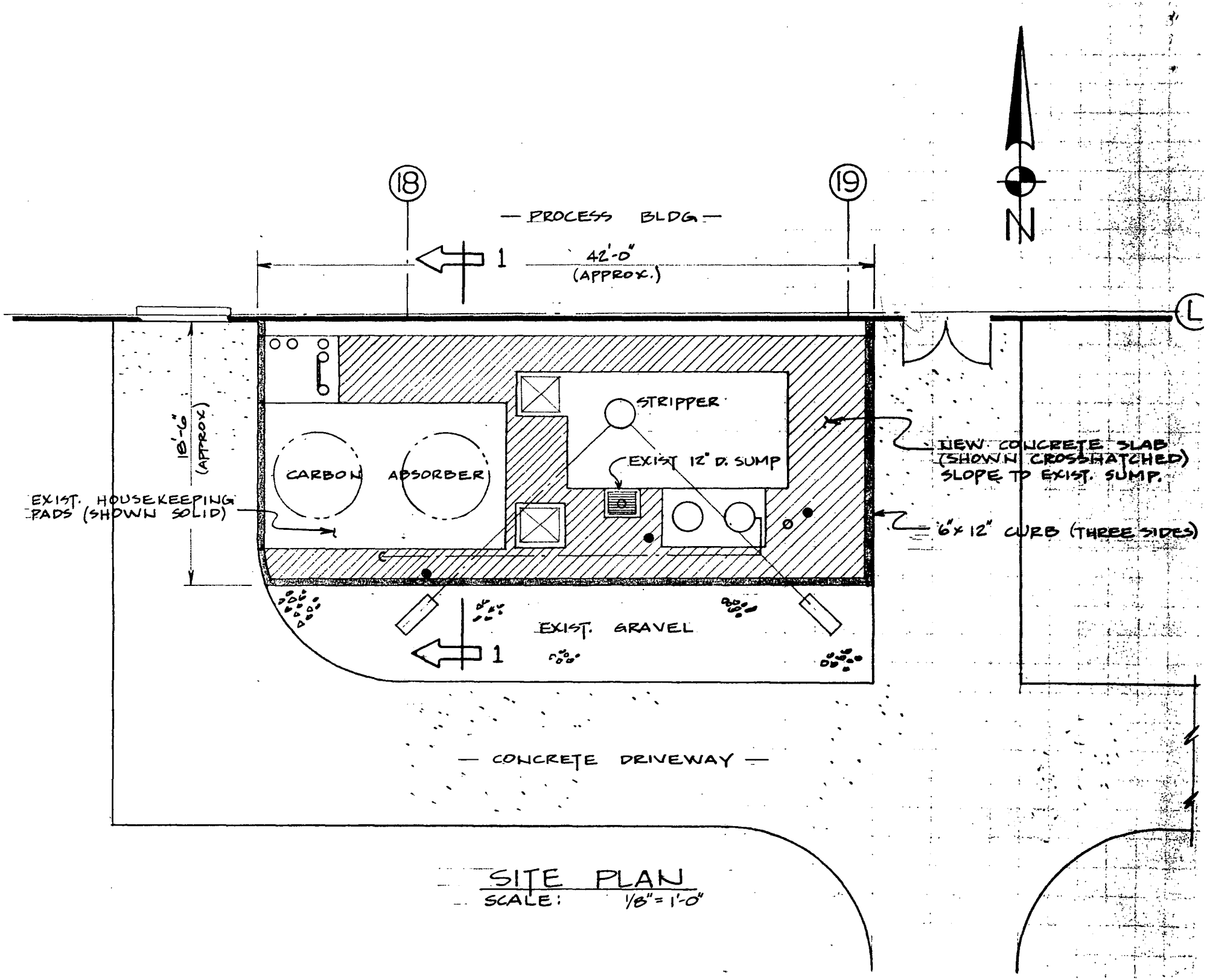
Susan M. Coffey,
President

SMC/db

SCOEPA00034177



NOTE:
ALL RESULTS ARE IN mg/kg(PPM)
TRICHLOROETHYLENE.



SITE PLAN
SCALE: 1/8" = 1'-0"

SCOEPA00034179

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 11, 1985

Mr. Renato C. Dulay
Department of Environmental Quality
Northwest Region
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: Sampling/Analysis Plan for TCE-Contaminated Spills in December, 1984

Pursuant to our March 8 meeting regarding the subject I am confirming, in writing, the intent to complete the following program as soon as possible:

A. Six (6) samples will be gathered from the surface of the soil at current excavated levels as shown in Figures 1 and 2.

B. One (1) core hole will be drilled at a location which is as near as possible to the point of the spill (see Figure 1). Samples and analyses will be taken at 6"-9" intervals until the level of 1 ppm is reached. This drilling will not go to ground water if a satisfactory level of TCE is found prior to this depth — in this instance our original proposal of March 4, 1985 to monitor the ground water would not be necessary.

C. The data from this drilling program will be evaluated by Wacker and our consultants and a clean-up plan will be presented to the DEQ. Data will be laid out on a grid drawing indicating the location of the sample.

It is our intent to maintain full communication with your office on this matter until resolution is reached.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis

James R. Ellis
Acting Facilities Manager

JRE:pko

Attachments: (2)

cc: Jim Harper
John Pittman
Mal Russ
File

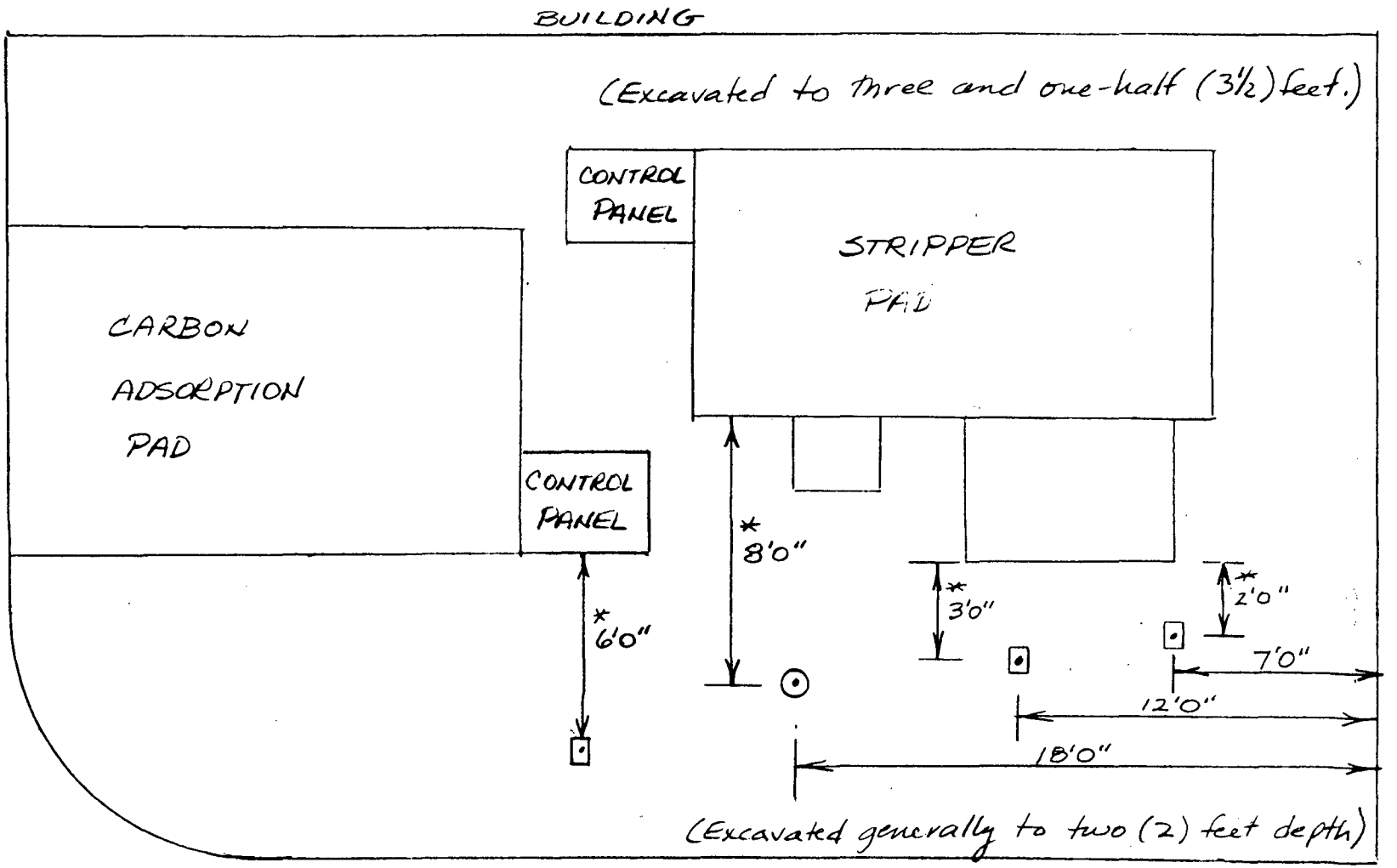
FIGURE NO. 1

NORTH SIDE

TCE - CONTAMINATED WATER SPILLS

DRILLING / SAMPLING PLAN

⊙ 2" CORE SAMPLE DRILLING ⊡ SURFACE SAMPLE



* ALL MEASUREMENTS FROM EDGE OF PAD AT SURFACE

SCALE: 1" = 5'0"

JRE

3-11-85

SCOEPA00034181

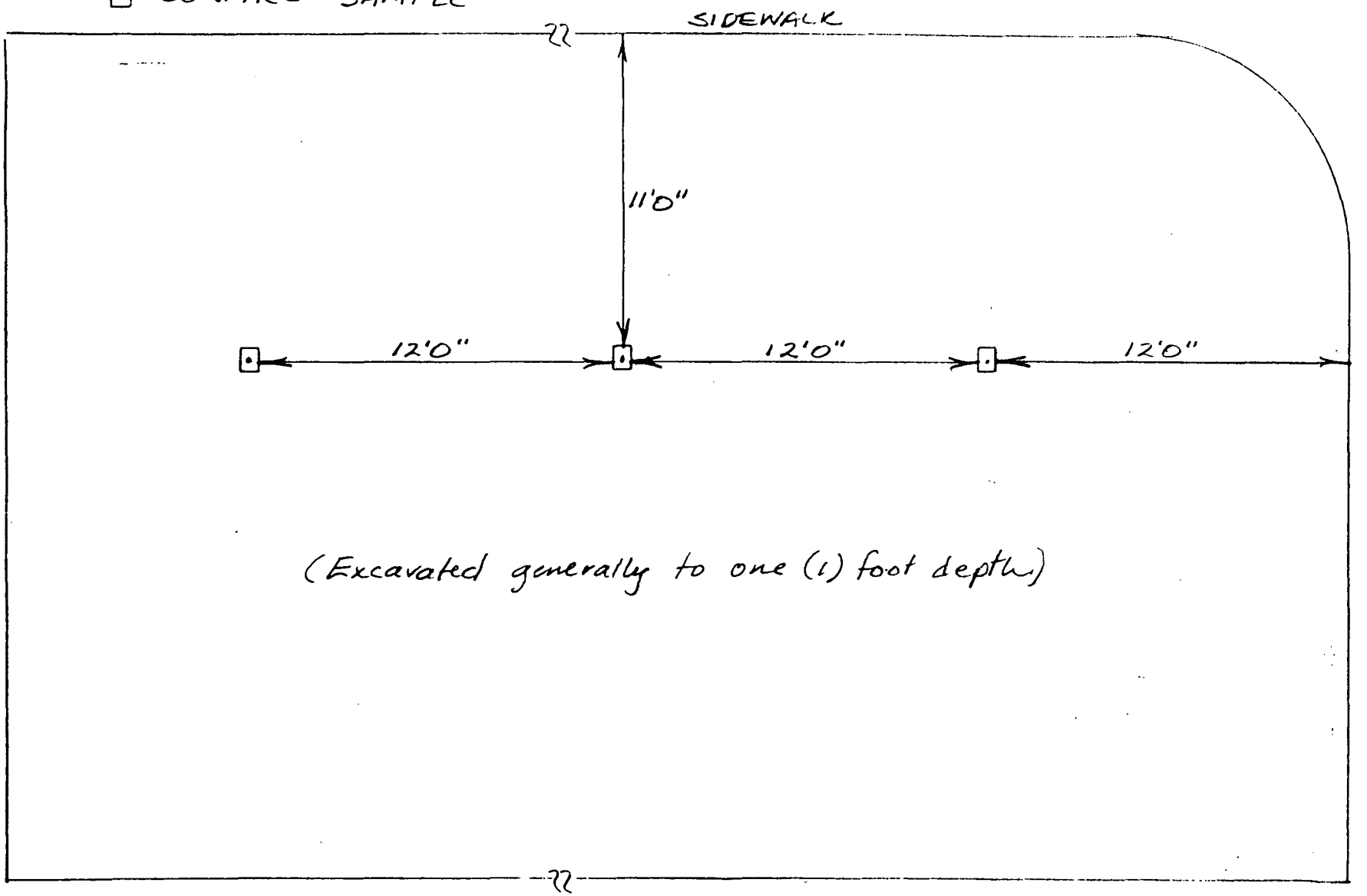
FIGURE NO. 2

TCE-CONTAMINATED WATER SPILLS

SOUTH SIDE

DRILLING/SAMPLING PLAN

⊡ SURFACE SAMPLE



SCALE: 1" = 5'0"

JRE

3-11-85

SCOEPA00034182

RECEIVED
MAR 25 1986
WACKER SILTRONIC

TO: Murray Tilson

FROM: Greg Carr

SUBJECT: Silica in Water During Well Water Usage

DATE: March 24, 1986

On March 14, 1986 I examined the RO system to determine the silica rejection during the time we were receiving well water, since silica levels were quite a bit higher in the well water blend. I used the Hach bench colometer analyzer test method. The samples were diluted with RODI water to bring them within the test range of 1.2-0 mg/l silica. The results were as follows:

Incoming Silica	26.3 mg/l
RO Product Silica	7.0 mg/l
RO Silica Rejection	74%

The silica rejection on normal Bull Run water has been measured at 76% at lower feed concentrations of 3 ppm. This is a good agreement, and indicates the RO silica rejection is fairly constant over a range of inlet concentrations. At the same time the samples were taken, the data on the #1 RO were as follows:

Inlet TDS	58	baseline 13
Product TDS	5.7	
TDS Rejection	90.2%	

The silica is not read by the TDS meter since it has no conductivity. This was not the period of highest silica or TDS loading - the sampled water blend was roughly 60% well/40% Bull Run water. The highest TDS readings were 75, so the peak silica inlet loading would have been about 34 ppm.

A more complete report of the effects of the Portland City water quality change and it's effects will be developed separately.

Greg Carr

GEC/md Greg Carr

cc: Jim Ellis
Sam Pengelly
Jerry Schaeffer
File

TO: Murray Tilson

FROM: Greg Carr

SUBJECT: Effluent Toxicity to Fish

DATE: June 3, 1986

RECEIVED
JUN 4 1986
WACKER SILTRONIC ENGINEERING

Confidential

As you know, the DEQ ran a bioassay on our effluent last year. In this test, steelhead fingerlings were exposed to 100% and 50% effluent. The fingerlings in the 100% effluent were severely stressed, while the fingerlings in the 50% effluent were slightly stressed. At the time, Wacker and DEQ believed this was due to the presence of sulfide in the wastewater since the DEQ's tests showed the presence of sulfide. Subsequently, Sam and I have been unable to find any sulfide in the effluents at any time.

Now I believe the fingerlings were stressed by the detergent in the effluent. We have about 5 to 20 ppm detergent in our effluent, mostly 9N9 from the Final Cleaning Hegas. I spoke on on June 2 with Gordy Johnson from Union Carbide, who had done quite a bit of work with the toxicity of 9N9.

He says that all detergents have this exact toxicity pattern for fish. When exposed to 2 to 10 ppm detergent in water, half of many species of fish die (LD 50 is 2-10 ppm). This is because the detergent interferes with the oxygen transfer in the fish's gills, and the fish suffocate. When removed to fresh water, the fish in these studies recovered, exactly as in the test done on our effluent. Switching to a different type of detergent would not help this situation, since all detergents show this same toxicity. This is not a poisoning effect, since it is reversible.

I feel it is necessary for us to remove as much as possible of this detergent from our wastewater effluent to the river. This detergent is a source of BOD, although not the entire source. The DEQ is concerned about the toxicity of our effluent, since they have requested that as part of our new NPDES permit that we do a bioassay on our effluent twice each year. Removing the detergent from our effluent will reduce it's toxicity and reduce our BOD as well.

The main source of the detergent is known - it is the HF bath and subsequent rinse baths in the Final Cleaning Hega Machines. Since the use of detergent in this process will undoubtedly continue, we must consider how to divert these wastewaters to the City sewer. The material cannot be simply drained into the OWW since there is too much hydrofluoric acid in it. I will be experimenting with some removal and separation processes to determine how best to treat this waste.

As of now, I have no specific timeline for this investigation and process development. I will be giving it a high priority since it will help us achieve our BOD compliance in October 1986.

GEC/md

cc: Jim Ellis
Sam Pengelly
John Pittman
Jerry Schaeffer
File

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 19, 1985

Ms. Janet A. Gillaspie
Regional Manager
Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
522 S.W. Fifth Avenue
Portland, Oregon 97204

Dear Ms. Gillaspie:

Receipt of your letter of March 11, 1985 is acknowledged. Enclosed is a summary of TCE Stripper Operations setting forth the data upon which our response is based.

On the basis of your oral advice regarding the contents of your letter, Wacker Siltronic Corporation embarked on a testing program which included drilling on the site over the weekend of March 9 and 10, 1985. As you may know, we coordinated our sampling program with Renato Dulay. Attachment (O) to the enclosed summary includes a diagram of the sampling program which was approved by Mr. Dulay. We have now completed the sampling as outlined in our letter of March 11, 1985, to Mr. Dulay. Attachment (Q) shows the results of our sampling program. You will note that very little TCE remains on the surface and that the levels are less than one part per million at a relatively shallow depth.

We have determined the maximum amount of TCE which could have been spilled on our property from April, 1984, the effective date of the current regulations. Attachment (G) sets forth our computations and is based upon a worst-case analysis. Promptly after the December 31, 1984 spill occurred we took steps to deal with the situation. There is a chronology of events related to the December spills included in the enclosed summary. Attachment (I) is the report and recommendation of Environmental Emergency Services Company, a copy of which has previously been provided to you.

We have removed substantially more material than was recommended by Environmental Emergency Services Company. Attachment (J) shows the extent of our removal program. Based upon concentrations of TCE in Environmental Emergency Services soil samples, and more recent soil samples, Attachment (Q), we have determined that removal of the soil in January would have accomplished the removal of all waste material spilled since April 1984, Attachment (R). Therefore, we believe that we have completed removal of the waste as required by OAR 340-108-010 (2).

Your letter refers to removal of spill residue to background levels. We assume that when you wrote your letter you did not have in mind that the present facility, which was constructed in late 1982, replaced equipment which had been subject to corrosion and had experienced leaks on occasion. Therefore, there was undoubtedly some TCE in the ground at the effective date of the current DEQ regulations.

We are confident that the remaining amounts of TCE disclosed by our sampling are a result of prior incidents. This view is supported not only by the amount of TCE which has been removed from the site, but also by the fact that the ground was frozen when the December 31 spill occurred and there was a minimal amount of rainfall between the date of that spill and our removal of the affected material.

As noted above, we have removed the spill residue as required by DEQ regulations. We interpret the regulations to justify additional requirements only when there is a demonstrated hazard to the environment. In view of the small amounts of TCE remaining from these prior spills, it is apparent that there is no hazard to the environment.

Attachment (D) shows our containment plan to prevent any damage from future spills. As noted on the chronology of events, we already have received bids for these improvements and are ready to proceed with construction. We request your consent to filling the excavated areas and construction of the containment improvements as soon as possible so that we can put our facility back into operation.

Yours very truly,

WACKER SILTRONIC CORPORATION

James R. Ellis
Acting Facilities Manager

JE:jsm

Enclosures

TO: John Pittman

FROM: Murray Tilson

SUBJECT: Waste Water Treatment Compliance Update

DATE: May 17, 1985

The following is a summary of our waste discharge requirements both for the DEQ and the City of Portland.

I. Willamete River Discharge

NPDES Permit No. 93450

A. Current limits (to September 30, 1986)

	Concentrations		Loadings	
	Mo. Avg. mg/l	Daily Max. mg/l	Mo. Avg. lb/day	Daily Max. lb/day
(Process Waste Water)				
Suspended Solids	23.0	60.0	61.0	160.0
BOD	45.0	90.0	120.0	240.2
Fluoride	8.0	16.0	21.4	42.7
Hexavalent Chromium	0.02	0.05	0.03	0.1
Total Chromium	0.3	1.0	0.5	1.0
Total Toxic Organics**		1.37		3.6
(Cooling Water and Boiler Blowdown)				
Total Phosphates	2.0	5.0	-	-
(Combined Outfall)		Limitations		
pH (1%)		Shall not be outside the range 6.0 - 9.0 except for 7 hours and 26 minutes per month per outfall. An individual excursion shall not exceed 60 minutes.		
Temperature		Shall not exceed 85 degrees F.		
Free Available Chlorine *	0.2	0.5	-	-

* Discharge of chlorine shall not occur more than two (2) hours on any day. Further, during chlorination there shall be no discharge of cooling tower blowdown.

** Total Toxic Organics is defined in 40 CFR 469.21 (a). (TCE is considered our only TTO compound.)

B. Future Limits (after September 30, 1986)

	Concentrations		Loadings	
	Mo. Avg. mg/l	Daily Max. mg/l	Mo. Avg. lb/day	Daily Max. lb/day
(Process Waste Water)				
Suspended Solids	15.0	30.0	25.0	50.0
BOD	15.0	30.0	25.0	50.0
Fluoride	6.0	12.0	10.0	20.0
Hexavalent Chromium	0.02	0.05	0.03	0.1
Total Chromium	0.3	1.0	0.5	1.0
Total Toxic Organics**		1.37		3.6
(Cooling Water and Boiler Blowdown)				
Total Phosphates	2.0	5.0	-	-
(Combined Outfall)		Limitations		
pH		Shall not be outside the range 6.0 - 9.0 except for 7 hours and 26 minutes per month per outfall. An indiviual excursion shall not exceed 60 minutes.		
Temperature		Shall not exceed 85 degrees F.		
Free Available Chlorine *	0.2	0.5	-	-

C. Monitoring Frequency

pH and Flow - monitored continuously

All other items - 24 hour composite taken weekly

D. pH Control

1. Until our outfall pH instrumentation was relocated from the Waste Treatment Plant on April 25, 1985, we were continuously out of compliance on our monthly DEQ Monitoring Report.

2. Since April 25, 1985 we have consistently been within compliance, i.e., less than 1% of time where pH was less than 6.0 or greater than 9.0.

3. We are now operating well within our 1.0% compliance requirement as shown below:

Reporting Period	Effluent with pH ≤6 or ≥9 Minutes	Percent of Time
4/1 - 4/17	579.4	2.87
5/1 - 5/17	56.1	0.23

BOD

1. The recent project of diverting waste flows generated in the slicing/plate preparation area on April 11, 1985 from the Silicon Solids Waste Water (SWW) stream to the Organic Waste Water (OWW) has made a marked difference in the BOD concentration discharging to the Willamette River. (See memo dated May 8, 1985.)

2. BOD effluent data is shown below:

Date	24 Hour BOD Test Concentration (mg/l)	Loading (lb/day)
4/5	43	122.0
4/12	22	67.0
4/19	6	16.6
4/26	7	15.8
5/3	1	1.2
5/14	26	70.9

3. The high BOD sample for May 10 cannot be completely explained at this time. Further testing will help to clarify this higher than expected concentration level.

4. In summary, we hope we can consistently achieve the interim and final BOD requirements through the above diversion.

TSS

1. We have made some operational changes at the Waste Water Treatment Plant (WWTP) during the past two months which have helped to reduce our TSS concentration and loading to the Willamete River. This includes standardizing our alum concentration (used for coagulation and settling) and changing our feed locations.

2. Data taken to date seems to show that we our able to achieve our interim compliance levels, but not our future limits.

3. Last month an ultrafilteration unit was tested on our clarifier effluent. This unit was easily able to achieve a TSS level of 1-5 mg/l, well within our future limits of 15 mg/l. This unit is estimated to cost approximately $60,000 - $70,000 installed.

Drain Survey

1. All data collection is complete. A total of 119 drains have been identified within the Process building.

2. This information has been computerized using the D-Base III, software package on IBM PC (sample sheet attached).

3. All drains will be retagged with new identification codes.

4. A floor plan is being prepared to show all floor drains, sinks, trench and equipment drain locations. This will be completed by May 24.

5. I will be meeting with all production managers during the first week of June to initiate the "Training Program".

City Sewer Discharge

Permit No. 469-01

A. Current Limits

Pollutant	Concentrations (mg/l) Daily Max.	Mo. Avg.	Loading (lb/day) Daily Max.	Mo. Avg.
Arsenic	1.0	0.5	1.20	0.60
Cadmium	1.0	0.5	1.20	0.60
Chromium (Total)	5.0	2.5	6.0	3.0
Fluoride	32.0	17.4	38.4	20.9
TTO*	1.37	-	-	-

Trichloroethylene	1.37	-	-	-
Zinc	4.0	2.0	4.8	2.4
pH	$6.0 \leq pH \leq 9.0$			

* TTO (Total Toxic Organics) for this category is defined in 40 CFR 469.22 (a). See "definitions", Appendix 1.

B. Monitoring Requirements

Flow and pH - monitor continuously

Fluoride - weekly 24 hour composite

TCE - weekly grab sample

TSS - semi-annual grab sample

All others - monthly 24 hour composite

C. Comments

1. We are operating within limits for all parameters on a consistent basis.

2. Once we have our TCE steam stripper back on line (June 3, 1985) the TCE level will increase, but should remain less than our permit level of 1.37 mg/l.

3. The City should be taking a 24 hour composite of our discharge from the OWW and sanitary drain to reassess the extra strength charge for our BOD and TSS. Based on current data, we should not have to pay any additional charge.

MT:jm

Attachments

cc: Greg Carr

TO: Jim Ellis, John Pittman

FROM: Don Barckley

SUBJECT: Investigation into the Provox control system at the Waste Treatment Plant

DATE: 28 February 1985

HISTORY OF THE PROVOX SYSTEM FOR WASTE TREATMENT

The Provox control system for waste treatment was installed and started up in May through June of 1983. By the end of June 1983 all three systems (CAD, WAD, and OWW) at the waste plant had been switched over to Provox for pH control. When the Provox was installed, an existing Taylor analog controller was left as a backup controller for each system.

Initially, the Provox provided superior control (as opposed to the old Taylor control system) for both the WAD and OWW systems. Little or no improvement was seen in the control of the CAD system. One of the most beneficial features the Provox system had over the Taylors was the ability to control the combined effluent pH by adjusting the WAD pH setpoint (commonly referred to as the WAD remote setpoint or WAD RSP).

In the months following startup, the control strategy for the CAD system was modified several times with little success. Because of the inability of the operators to adjust the tuning parameters within the Provox (due to lack of training and understanding of the Provox system), the operators felt they were better able to control the CAD using the backup Taylor controller. The Taylor controller for CAD has been in use for the past year.

The use of Provox for WAD was longer than that for CAD, but it was switched to the Taylor controller when problems were encountered with the remote setpoint and system response when process upsets occurred. The OWW had been run using Provox until recently when the OWW feed tank was shutdown for repair.

Currently all three systems are being controlled by Taylors. The operators feel that the Taylors control as well as the Provox and that they are better able to adjust the tuning of the Taylors to compensate for process load changes.

PROBLEMS WITH PROVOX SYSTEM

- Difficult for operators to adjust tuning parameters.
- Configuration of control loops much more complicated and harder to understand than standard analog controller.

SCOEPA00034193

- Reconfiguration of control strategies must be done at local distributor's office in Lake Oswego. This makes it difficult to try new configurations to evaluate the performance of the system and make timely improvements.

GENERAL WWTP PROBLEMS

- Intermittent problems with acid pumps. There appears to be electrical interaction between the pumps which causes intermittent reagent delivery problems.

- New pH sensor monitoring river effluent pH cannot be monitored at the waste plant which causes problems in attempting to keep the river effluent within spec.

- Spurious alarms at waste plant annunciator.

RECOMMENDATIONS

The following recommendations are in the order in which I think they should be addressed.

1) Correct problems with acid pumps. Work is already in progress on this with Greg Carr, Murray Tilson, Ralph Wade, and Don Barckley.

2) Begin training program for <u>all</u> operators on how the Provox functions and how to interface to it.

3) Redo the Provox control strategies to initially emulate the Taylors. This will aid in operator training and acceptance. Complexity can be added after the operators feel more comfortable with the Provox. As an example, since the lime system has been revamped the Taylor controller for CAD is doing an excellent job controlling the pH. There is no reason why the Provox shouldn't be able to out-perform the Taylor in the control of the CAD pH.

4) Place the responsiblity for the configuration, maintenance, documentation, and performance of Provox system in the hands of those who are responsible for the performance of the waste plant. This will better facilitate the day-to-day communication with the operators which is required for the Provox system to succeed. In addition, the knowledge and reponsibility for the control system should not reside with just one person. A backup person should be trained.

5) Transmit the river effluent pH signal to the waste plant for monitoring and future integration into the Provox control strategy. The river effluent pH should be used now instead of the combined effluent pH to adjust the WAD pH setpoint. Greg Carr is currently working on this.

SCOEPA00034194

6) Purchase the required hardware and software from Fisher (manufacture of Provox) to allow configuration of control strategies at our site using an IBM P.C. or XT. The software for the IBM also allows an interface for tuning the Provox controllers and for testing control strategies. The cost of the hardware and software (excluding an IBM P.C.) is $3,000. The hardware and software from Fisher will not be available until September 1985.

7) Clean up the main waste treatment control panel by eliminating all the hardware that was obsoleted by the installation of the Provox system. This is not a necessity but it may help eliminate some of the spurious alarms that occur.

AREAS WHERE DON BARCKLEY CAN OFFER ASSISTANCE

The areas that I feel I can best offer assistance are in the correction of acid pump problems, training, and the reconfiguration of control strategies.

SUMMARY

In my opinion, the Provox can be made to function superior to the Taylor controller for all three systems. The key to the success of the Provox lies in the hands of the operators and the person primarily responsible for the configuration and tuning of the Provox. Without the acceptance of the system by the operators the system is destined for failure. The biggest mistake that was made on the initial project was in not adequately training the operators on the Provox system. I feel that by implementing recommendation 4) we can simplify the system enough to facilitate training, understanding, and acceptance of the system by the operators. As the operators feel more comfortable with the system we can gradually add complexity to the control strategy.

To optimally control the waste plant using the Provox, it is going to take considerable effort on the part of the individual responsible for the Provox system. This person is the key individual in the training of operators, documentation of system changes, and in communication to the operators on what changes have been made to the control strategy. Based on my personal experience, the individual must be willing to spend many hours at the waste plant "tweaking" the Provox controllers and studying the long-term control response. This is the only way the system can be optimized to handle the load changes which occur at the waste plant.

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

Delivered morning of March 6, 1985.

March 5, 1985

Mr. Renato C. Dulay
Department of Environmental Quality
Northwest Region
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: TSS, BOD, and pH Status for N.P.D.E.S. Permit

This letter is provided as an update on the status of projects and operations regarding the subject permit.

First, as discussed in our meeting on Friday, March 1, an organization has been assembled by Siltronic to handle each of the current environmental concerns. Murray Tilson, who you met Friday, will coordinate all activities aimed at compliance with the existing N.P.D.E.S. Permit, especially in relation to TSS, BOD and pH. As part of this thrust, assignments have been made for controlling waste from the process source, primarily with the use of additional formal training and other informational programs. In addition, CH2M-Hill has been contracted to provide outside help in regard to possible technical solutions to the existing problems and Greg Carr is working with our Facilities Organization to develop data which, hopefully, will result in some process and flow changes. Information has been transmitted to Wacker Chemitronic in West Germany asking for help with process chemical changes, especially in regard to BOD reduction.

Specifically, the status of our program is as follows:

A. pH

Our records indicate that we have continually improved with pH compliance, but there are several remaining projects which will further enhance our performance. A capital project for $15,000 has been approved to divert floor drains in our Boiler Room and in our RO/DI Water Plant to a neutralization system which will eliminate intermittent disposal of weak alkaline/acidic materials. In addition, necessary instrumentation and wiring will be installed so that Wastewater Treatment Plant operators can remotely monitor and correct any slight variations in pH which can occur between the point of neutralization and the river outfall. Both of these projects will be completed by April 29.

B. BOD

Our approach to solving this problem involves the coordination of efforts from both the technical and administrative aspects. As mentioned earlier, an ongoing program is being developed to formally retrain our 835 existing employees about the proper use of drains and drain systems as well as providing them with background information regarding our Wastewater Treatment Plant and Solvent Recovery System. The program will be set up to give new employees the same training during their orientation period. This program is scheduled to be in place by May 17, 1985.

CH2M-Hill is currently evaluating the feasibility of possible technical solutions to the problem, such as, aerated lagoons, trickling filters, etc. These studies will be completed by June 1, 1985.

Greg Carr has actively been working on the feasibility of diverting selected streams to the city sewer. These diversions would reduce the BOD level, but to an unknown extent, and there are some problems which involve the handling of suspended solids in these streams. Because of these unknowns, Greg intends to propose to the City that we divert these streams on a temporary experimental basis to allow for a thorough evaluation. It is proposed to have the diversion completed by April 1, with a one (1) month evaluation period to follow. The feasibility of this project would then be known by May 17.

C. TSS

The stream diversion project discussed above would also have a positive effect on efforts to reduce TSS. Again, the magnitude of this reduction will remain unknown until the evaluation is complete.

CH2M-Hill is also evaluating the feasibility of using post-clarifier filtration for removal of 5-15 micron particles, but obviously the final plan for effective TSS removal is closely related to methods used for BOD reduction and will be established immediately after May 17.

Investigative work involving the waste from the planned Poly-Sitri Plant is also currently ongoing, but this work is being conducted on an independent basis.

Please call us with any questions or comments regarding the above.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis

James R. Ellis
Acting Facilities Manager

JE:jm

cc: Mal Russ
John Pittman
Murray Tilson
Greg Carr
File

Jim Ellis

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

October 5, 1984

Greg Carr
Wacker Siltronic Corp.
P. O. Box 03180
Portland, OR 97203

Laboratory Report No. 840910 Page 1 of 2

Subject: Laboratory analyses of wastewater
Samples collected: August 28 through Sept. 7, 1984.

Sample	BOD-5, mg/L	Oil & grease, mg/L
8-28-84,		
Silicone solids waste	40	2.7
after o & g extration	29	
8-29-84,		
Silicone solids waste	20	1.8
After o & g extration	15	
9-5-84,		
Silicone solids waste	72	5.1
after o & g extraction	18	

9-7 samples are too high in solids.Endpoint cannot be detected.

Sample spiked with Tellus 32 oil

Direct spiking of oil into sample did not achieve the expected results. Either oil will not mix well with sample, or there are insufficient bacteria to degrade the oil. After several trial, the following procedures accomplished a good result.

(1) Mix settled domestic sewage, silicone solids waste, and BOD dilution water to make a mixture with BOD of approximately 20 mg/L. This is to provide sufficient bacterial density and silicone solids to make a good emulsified solution when oil is added.
(2) Blend the mixture in a blender (first without oil). Run BOD on this mixture. This is BOD without oil.
(3) Add 1 mL of Tellus 32 oil into mixture and blend it at high speed for about 20 seconds (prolonged blending will cause oil to separate again due to air floatation).

SCOEPA00034199

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

October 5, 1984

Greg Carr
Wacker Siltronic Corp.

(4) Run BOD on this spiked mixture.

Results

	BOD-5, mg/L
Mixed waste	15
Oil spiked mixed waste	342

The calculated oil concentration in BOD bottle is 10.5 uL, or 35 uL/L of oil in sample. (BOD bottle incubated)
For spiked mixed waste, the oil concentration is 2100 ul/L.

The results show that oil has very high BOD. Generally, in the wastewater plant, oil is not mixed well enough to be sampled effectively by the sampling pump (oil on surface, and sampling tube is submerged).

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

SCOEPA00034200

G Carr
2/20/85

BOD & TSS Data Summaries

BOD Data

Date	Stream	BOD - ppm	Comments
4/26/84	Combined Effluent (CE)	22	Apparently straight clarifier effluent depresses an existing BOD demand
	Clarifier effluent (Clar)	6	
	Silicon Waste Water (SWW)	42	
	WEAK ACID DRAIN (WAD)	18	
4/27/84	CE	19	24 HC
	Clar	4	24 HC
	SWW	81	24 HC
	WAD	10	24 HC
5/4/84	CE	19	
	Clar	11	
	SWW	68	
	WAD	10	
6/15/84	CE	38	
	SWW	164	
	Clar	12	
6/29/84	CE	45	
	SWW	79	
	Clar	25	
7/6/84	CE	45	
	SWW	too strong to measure	
	Clar	>52	
7/13/84	CE	37	
	SWW	45	
	Clar	22	
7/27/84	CE	29	
	SWW	143	
	Clar	32	

SCOEPA00034201

BOD DATA

G Carr 2/20/85

8/13/84	CE	48	
	Clar	16	
	SSWW	79	
1/17/85	CE	85	
	WAD	39	
	Clar	51	
1/18/85	CE	92	
	Clar	53	
	WAD	56	Grab Sample
2/1/85	SWW	336	24 Hr Composite
2/15	WAD	16	24 Hr Composite

BOD's of Slicing Fluids

Lutensol	410,000 mg/l
Iconol	420,000
Ruslic	Toxic ~ 30,000 at great dilutions
Triton X	180,000 – 300,000
Wafer Wash	Toxic - may have H_2O_2
Amway LOC	114,000 to 150,000
ELL6	120,000
Cim Free	43,000 – 168,000
Hand Soap	150,000
WW Bio 8	630,000 – 480,000
Siloxan	33,000 – 42,000

TSS Data - ppm TSS

G Carr
2/20/85

2/9/83	Straight from slicing machine - no coagulation - 2650 ppm
2/1/85	24 HC - Silicon Waste Water Sump 5230 ppm @ 44 GPM
2/15/85	24 HC - WAD system - 3 ppm

6/29/84	Clarifier (clar) - 15 ppm Combined Effluent (CE) - 43 ppm	Note: Composite TSS samples coagulate in bucket & are removed on TSS filter - Grab samples on Clarifier run through filter & show lower TSS
7/6	Clar 28 CE 40	
7/13	clar 25 CE 45	
7/20	clar 21 CE 30.5	
7/27	clar 19 CE 11	
8/3	clar 43 CE 12.5	

SCOEPA00034203

Clarifier effluent 2/4/85 Size Distribution

Clarifier was running ~35 NTU (~30 ppm TSS)
very clean operation.

Examining 5 fields at 400 power gave the following size distribution:

#		size	weight %
4	~	20 μ	49.9
3	~	15 μ	15.8
4	~	12.5 μ	12.2
7	~	10 μ	16.9
7	~	7.5 μ	4.6
25	~	5 μ	4.9
55	~	2.5 μ	1.3

Now 30 ppm x 80 GPM = 26 #/day TSS

Goal is 15 #/Day or 58% of this rate

∴ all material >15 μ diameter must be removed

∴ a nominal rating of ~10 μ is necessary to filter the waste.

SCOEPA00034204

Known Sources of BOD

Lutensol - slicing additive

$10\ gal/min \times \frac{1}{10{,}000\ parts} \times 410{,}000\ mg/l = 4.9\ \#/Day\ BOD$

Carryover on precleaners into (CAD system)
HF baths & rinses. NPG
a carryover of 10% of the last delight = 10-20 #/day BOD

Ethylene Glycol from plate Prep

25 to 65 #/Day (Theoretical Calculations) - must verify

Cleaning Solution - final cleaning 2-3 #/day NPG

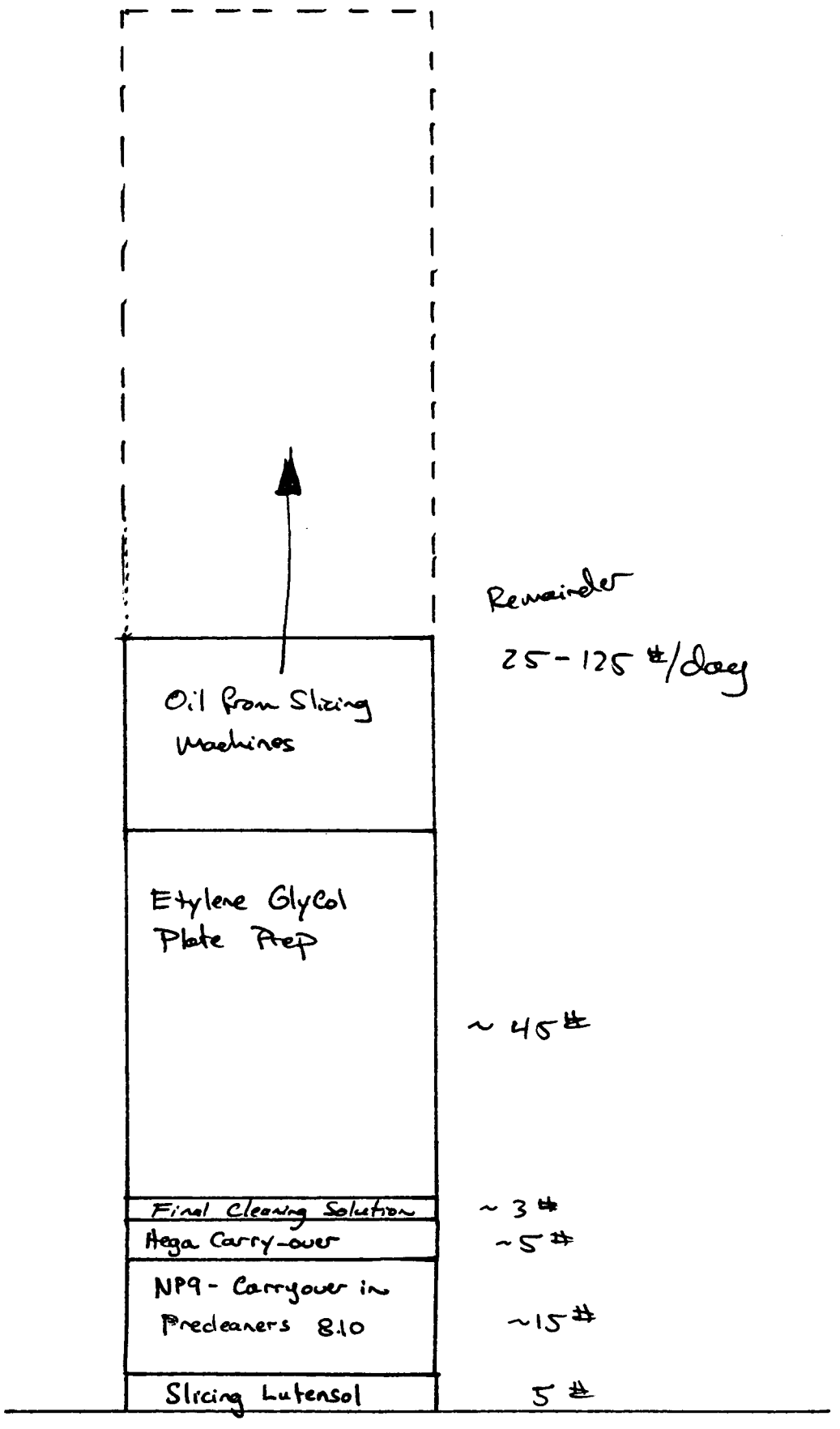
Remainder, probably oil from slicing machines leaks.

Contributions from above sources: 42 → 93 #/day

Total amounts 60 to 190 #/day

Unknown Oil Contribution 20 - 100 #/day BOD

BOD Sources - Best Guess 2/21/85 GEC



SCOEPA00034206

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

NOV 1992

WACKER SILT

October 29, 1992

MR TOM MCCUE ENVIRONMENTAL MANAGER
WACKER SILTRONIC CORPORATION
PO BOX 83180
PORTLAND OREGON 97283-0180

Re: WQ-Multnomah Co.
Wacker Siltronic
Permit No. 3847
WQ-NWR-92-458
NOTICE OF NONCOMPLIANCE

Dear Mr. McCue:

A review of the Discharge Monitoring Report (DMR) for August, 1992 indicates that the following permit violations occurred:

Parameter	Reported	Limit
TSS Daily Maximum lb/d	251.7	162
TSS Monthly Average mg/l	18.6	15
TSS Daily Maximum mg/l	52.5	30

Your letter attached to the DMR indicates that these violations were all related to a single occurrence on August 26 resulting from use of well water provided by the City of Portland, and that immediate steps were taken to correct the problem.

The above violation is a Class II violation. Oregon Administrative Rule 340-12-041(2)(c) provides that a permittee shall not receive more than three NONs for Class II violations of the same permit within a thirty-six month period without being issued a Notice of Permit Violation. The Department requests your cooperation in ensuring that this violation does not recur.

If you have any questions regarding this Notice, please contact me at 229-6385, extension 242.

Sincerely,

George Davis

George F. Davis
Regional Engineer
Northwest Region

cc: Enforcement Section, DEQ
Water Quality Division, IWS, DEQ

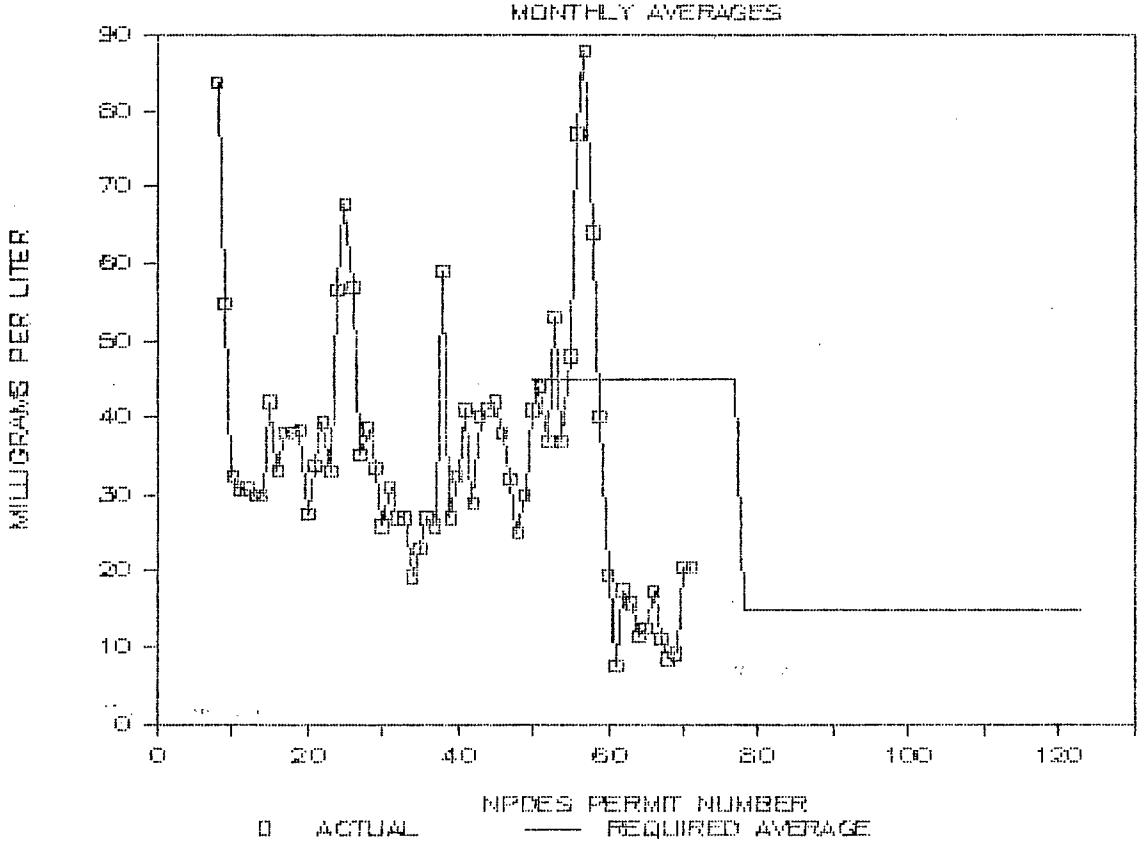
1500 SW First Avenue
Suite 750
Portland, OR 97201-5884
(503) 229-5263
DEQ-1

SCOEPA00034207

March 1986 Jake.

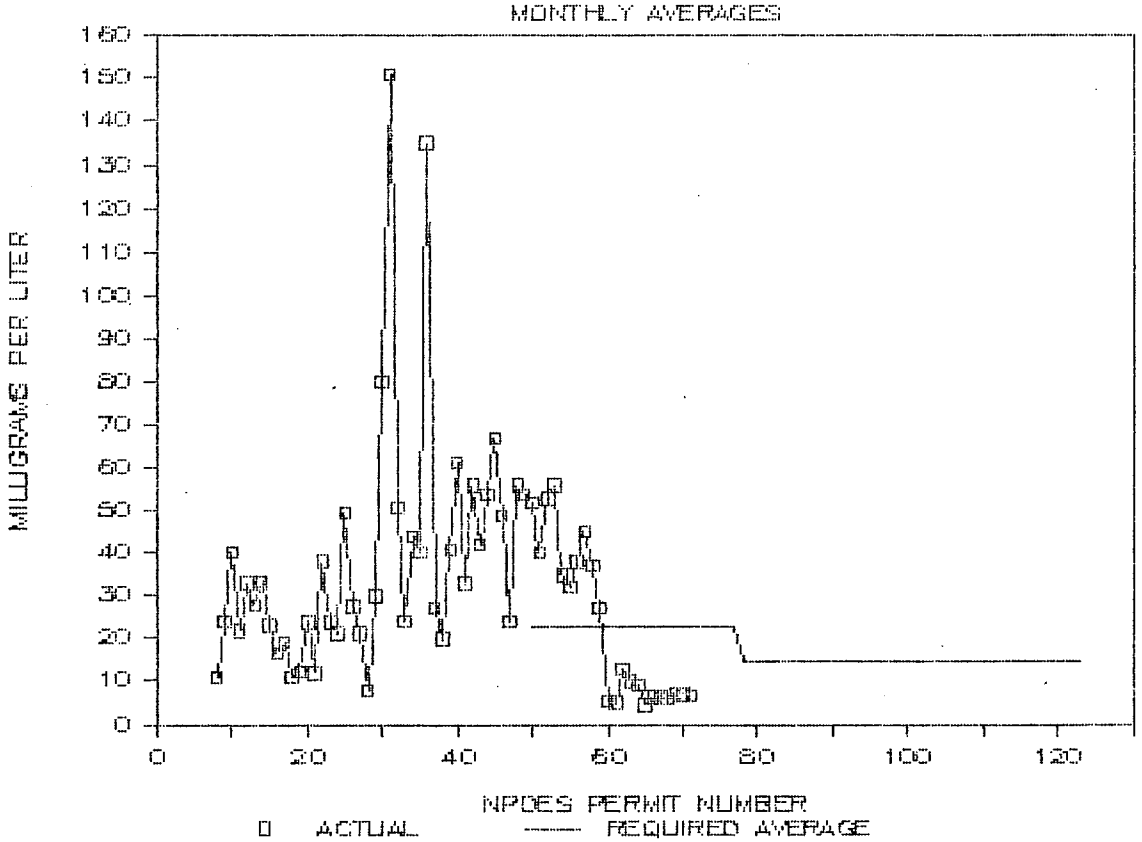
PROCESS EFFLUENT BOD LEVELS

MONTHLY AVERAGES



PROCESS EFFLUENT TSS LEVELS

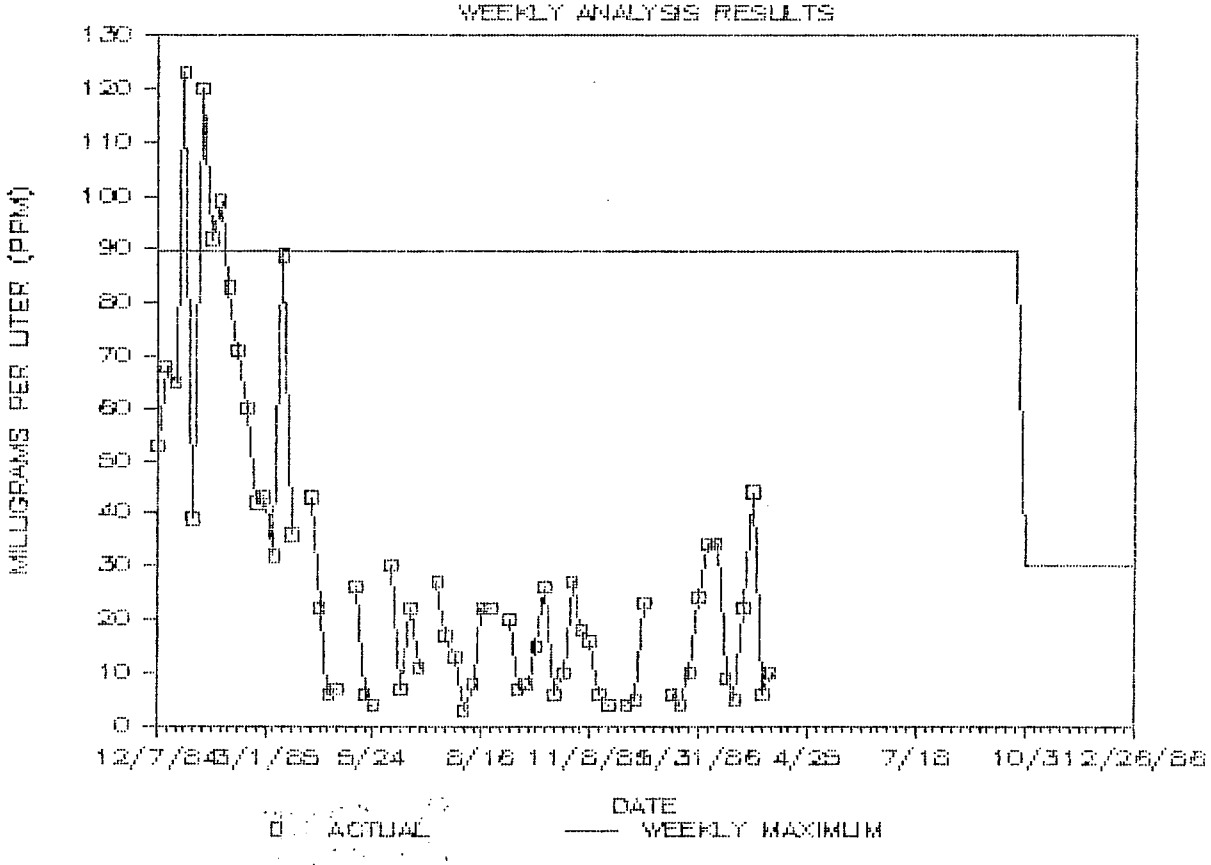
MONTHLY AVERAGES



SCOEPA00034208

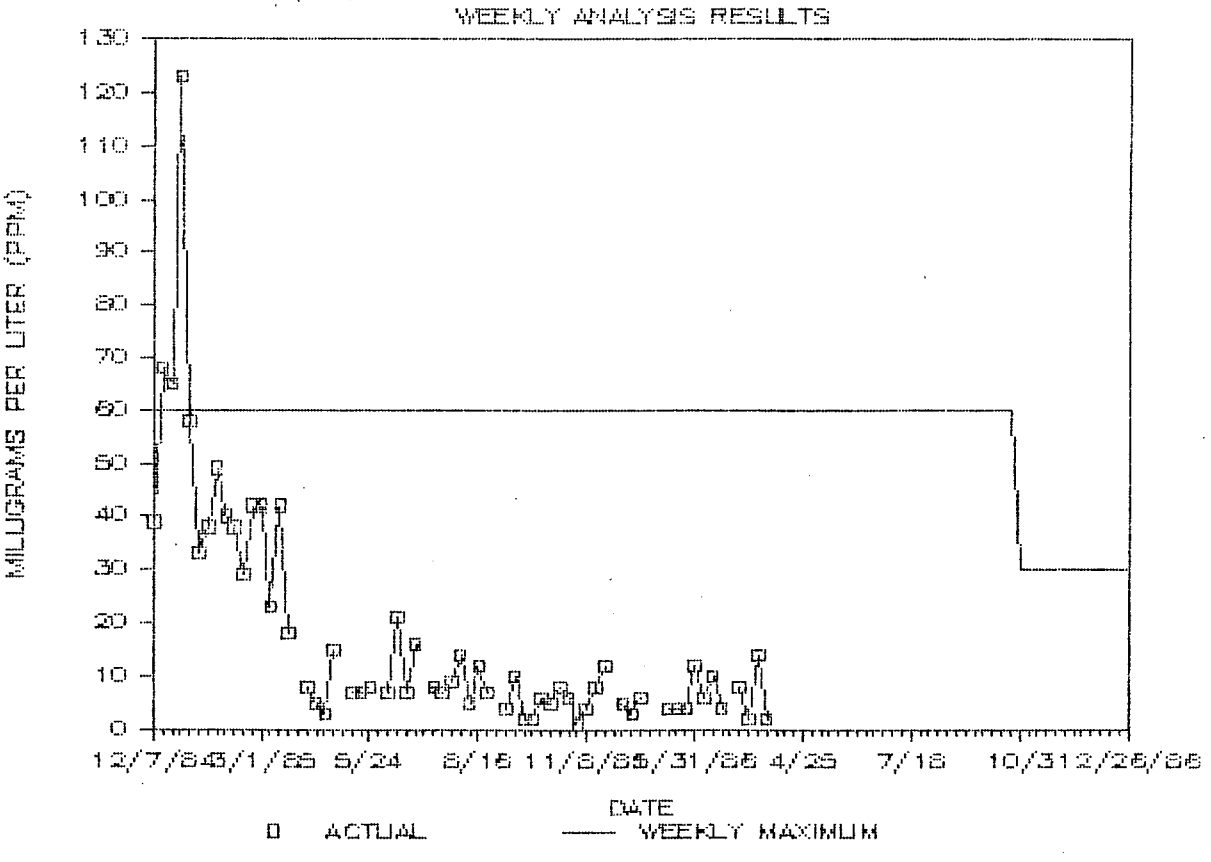
PROCESS EFFLUENT BOD LEVELS

WEEKLY ANALYSIS RESULTS



PROCESS EFFLUENT TSS LEVELS

WEEKLY ANALYSIS RESULTS



SCOEPA00034209

To John From Greg

RECEIVED
ENGINEERING
APR 3 1980

John L. Pittman
Wacker Siltronic

SCOEPA00034210

RECEIVED
ENGINEERING
MAR 25 1986

John L. Pittman
Wacker Siltronic

TO: Jerry Schaeffer

FROM: Greg Carr

SUBJECT: WWTP Flow Projections - Wafer Plant and Poly Plant

DATE: March 24, 1986

I have done considerable work interpreting past historical data to project wastewater flows for the wafer plant. The best data I can come up with includes the recent 10 months, plus some older flow readings corrected for the fact that the RO blowdown was diverted to the WAD system 10 months ago. A plot of the average process waste flows and the maximum process waste flows plotted vs production volumes is attached (Figure 1). A least square's fit regression line and it's upper 2 sigma limit are shown on Figure 2. These regression formulas give us an idea of the future water use in the plant.

At best this is a rough estimate. There is still considerable variations in the water flow not directly related to the production volume. For example, Figure 3 shows the RODI water consumption vs production - there is no correlation to speak of. To err on the safe side I suggest we base our water flows on the upper limit of the average daily flow. This will give us some leeway over actual expected flows, yet can be backed up by historial figures.

These flow and loading figures are higher than the proposed 1986 limits. The loadings are based on a 15 mg/liter BOD & TSS limits, which we have committed to DEQ to make. If we include the Poly Plant wastes, in 1991 the total process flows from the site are projected to reach 750,000 GPD.

The projected loadings and flows are shown on Figure 4 and 5. The tubulated data these are taken from are also included (Appendix 1 & 2).

It appears we should ask for the loading calculations to be based on process flows of 750,000 GPD. This brings the loadings to 94/lbs day average, 188 lbs/day maximum, at this flowrate. This is not as high as I forecast for our last meeting with the DEQ, which was about 180 lbs/day average by 1991. There is more data to support the lower numbers now, however. The flow data, in particular, is more accurate since I have more historical data to go from.

We need to talk about this soon, perhaps right after shutdown.

Greg Carr

GEC/md

cc: Jim Ellis
John Pittman
Murray Tilson
File

Appendix 1

Projected Flows and Loadings - Wafer Plant

Average Daily Flows

Flows are calculated from a least squares fit to historical data. There is an added safety factor that includes all data to 2 standard deviations from the fit line. This should include 95% of all actual flows.

Flow (gallons/day) = 284,000 + 3.39 x (Production MCM/mo.) x 1000

DATE	SALES FORCAST MCM2	CE AVERAGE FLOW GPD	CE LOADINGS #/day
6/86	33	396,000	50#
6/87	42	426,000	53#
6/88	52	460,000	58#
6/89	65	504,000	63#
6/90	81	558,000	70#
6/91	100	623,000	78#

Loadings at 30 mg/l will be twice this, or:

6/86	100#/d
6/87	106
6/88	116
6/89	126
6/90	140
6/91	156

For the wafer plant I propose we ask for 75/150 lbs/day.

FLOWS AND LOADINGS, POLY AND WAFER PLANT

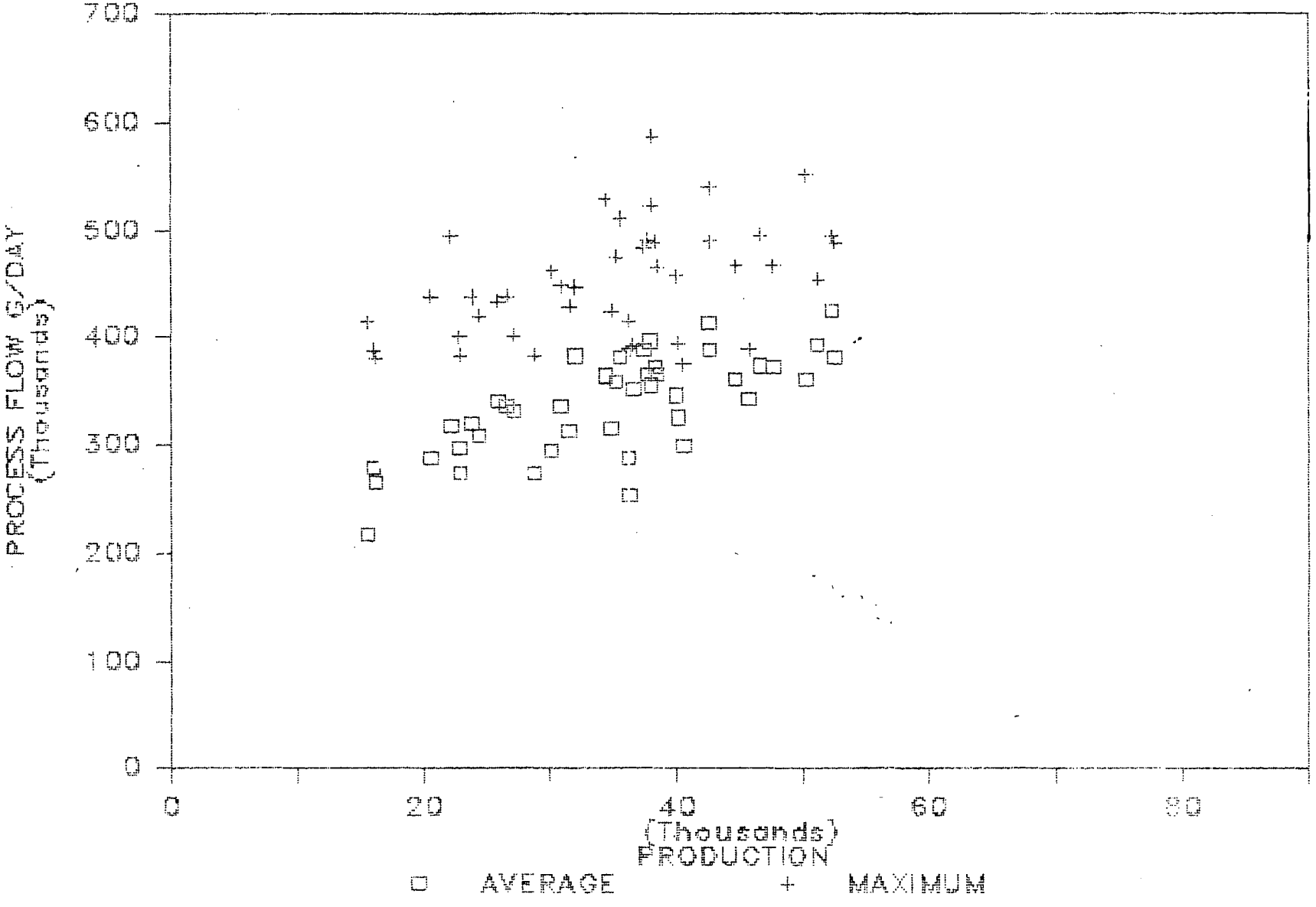
DATE	WAFER PLANT FLOWS	POLY PLANT FLOWS *	TOTAL FLOWS	LOADINGS 15 mg/L	30 mg/l
6/86	396,000	-	396,000	50 #/D	100#
6/87	426,000	-	426,000	53#	106#
6/88	460,000	-	460,000	58#	116#
6/89	504,000	-	504,000	63#	126#
6/90	558,000	115,000	673,000	84#	163#
6/91	623,000	130,000	753,000	94#	188#

* Poly Plant flows are delayed 1 year from the forecasts made in November, 1985.

Fig. 1

CE FLOWS VS PRODUCTION

CORRECTED HISTORICAL DATA

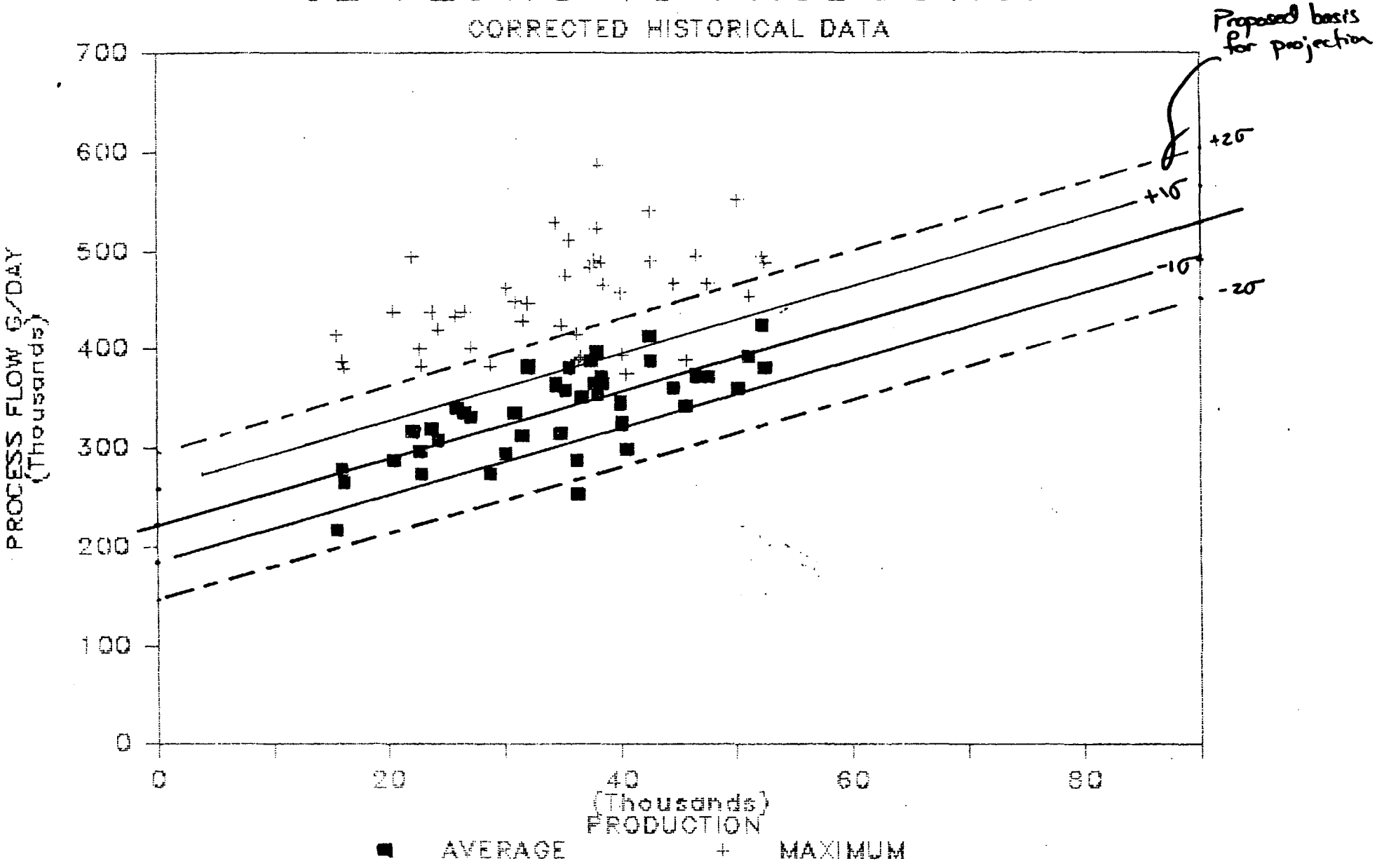


SCOEPA00034215

Fig. 2

CE FLOWS VS PRODUCTION

CORRECTED HISTORICAL DATA



SCOEPA00034216

Figure 3

RODI CONSUMPTION VS PRODUCTION

MONTHLY TOTALS

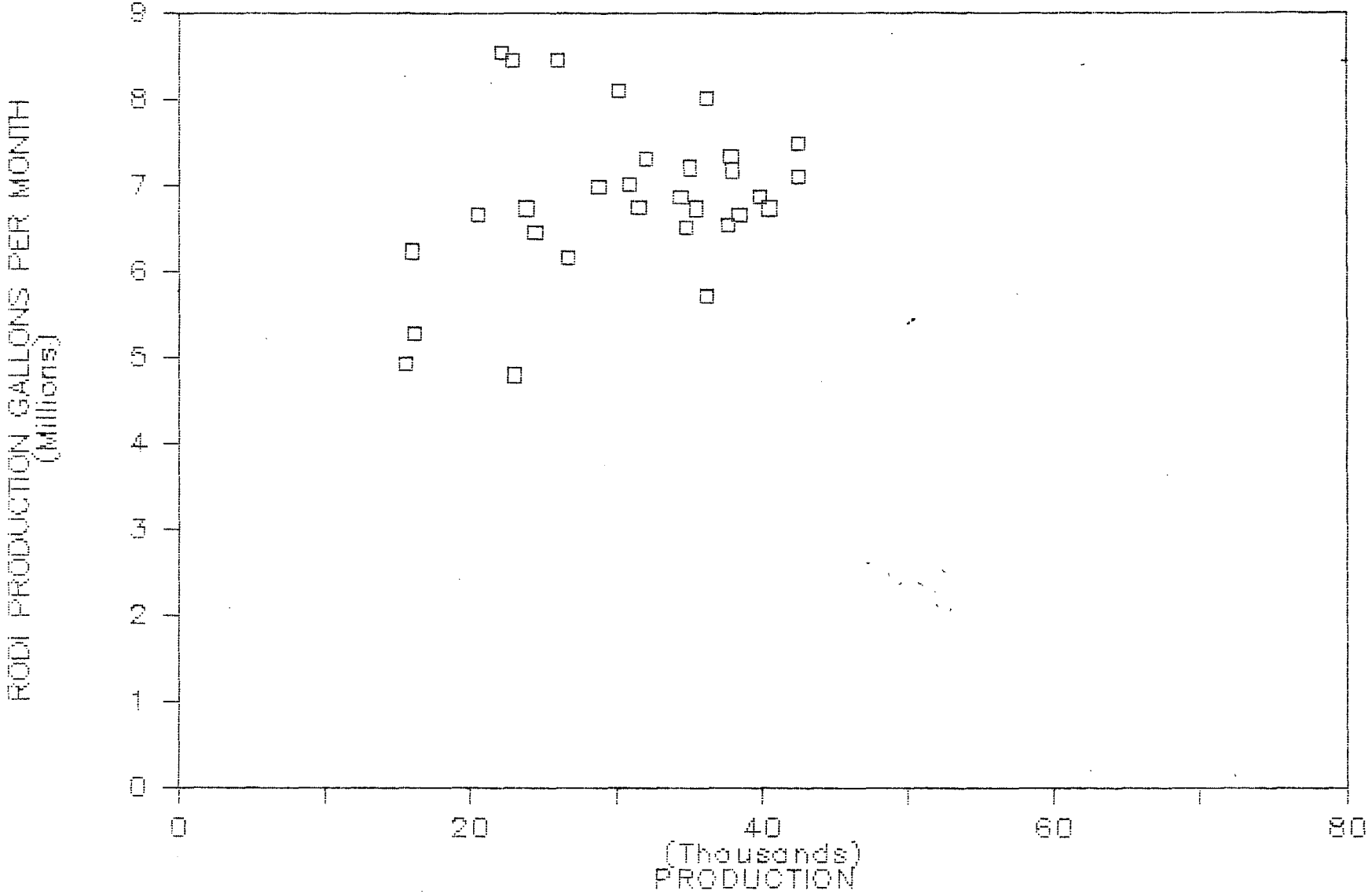
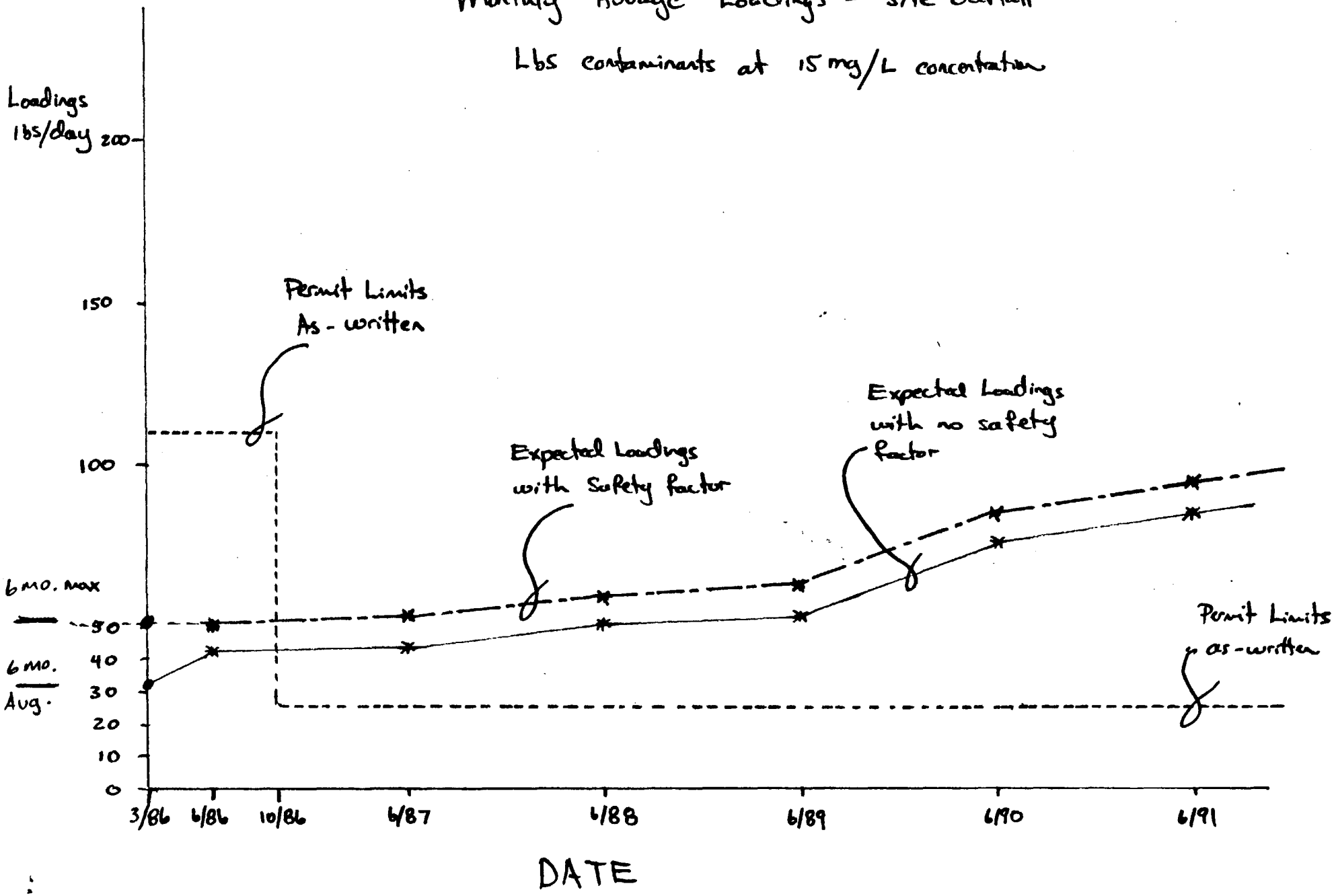


Figure 4

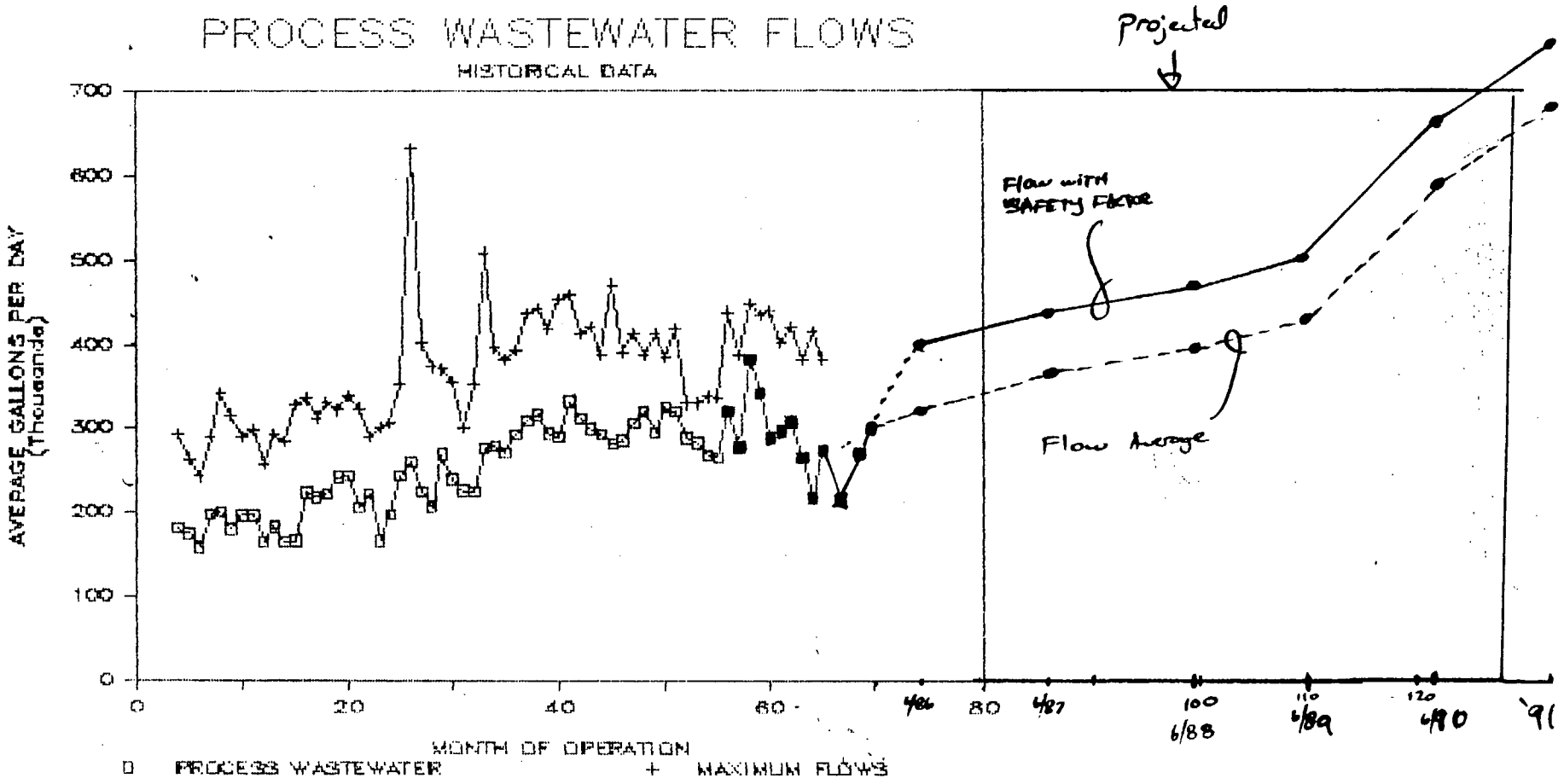
Monthly Average Loadings - Site Outfall

Lbs contaminants at 15 mg/L concentration



SCOEPA00034218

FIGURE 5



SCOEPA00034219

JOHN PITTMAN 11-15

Record of conversation w/ DEQ regarding loading. Copy for your files.

Jim

SCOEPA00034220

Note to File

Meeting of 11/8/85 with DEQ to discuss loading limitations for permit renewal on 10/1/86.

Attendees: Larry Patterson, Renee Dulay, Harold Sawyer, Jerry Schaeffer, Murray Tilson, Greg Carr, Jim Ellis.

Waste treatment status for Wacker Siltronic was summarized by by Jim Ellis as follows:

1.) Concentration limits of 15 ppm and 30 ppm for TSS and BOD are currently being met by Wacker Siltronic after diverting high BOD/moderate TSS stream to the city sewer and after making some waste neutralization process changes. Siltronic is committed to meeting the 15 ppm/30 ppm concentration limits in the future for TSS/BOD.

2.) Current interim loading limitations are being met for all parameters but the old limitations of 25 lbs/day & 50 lbs/day are not being met for TSS and BOD even with the plant on a very low production rate. Siltronic will definitely not meet these loading limitations for TSS and BOD after 10-1-86 when production rates will probably be higher than they are currently.

3.) The Poly Plant project has been placed 'on hold' so the design and final waste loads have not been established at this time. Siltronic, however, wishes to include the poly wastes in the N.P.D.E.S. permit renewal if at all possible. Siltronic does have preliminary flow figures at this time.

Jim Ellis stated that much higher loading limitations will be necessary for the permit renewal and Greg Carr presented some computer graphic print-outs (attached) for the agency's review. It was also pointed out that Siltronic's projection was made assuming that the permit renewal would be for a 5-year period. Safety factors were included in the Siltronic projections because of the industry's pattern of constant process change. These changes usually call for more waste flow, not less, even though we are always endeavoring to minimize waste loads.

Larry Patterson said that the DEQ would like to provide a 5 year permit. Larry also indicated that the DEQ has never

increased TSS/BOD loading limitations for effluents discharging to the Willamette River. In fact, for pulp and paper plants along the river, the loading limitations have actually been reduced as these plants have improved discharge quality over the years.

Siltronic indicated that the trend in the Silicon Wafer industry is towards the use of more water rather than less because of tighter specifications for cleanliness as electronic line widths decrease.

Hal Sawyer indicated that the DEQ is just beginning to get similar requests from the food industry who need more and more water to remove pesticides to new, lower levels. Actually Hal mentioned that the Willamette River standards have not been changed since 1967. Some companies such as Boise Cascade, Salem who were contributing large loadings in 1967, have now gone out of business. This should provide some river capacity for a growth company such as Wacker Siltronic who has a need to increase loadings.

Larry Patterson added that considerable river testing had been conducted from samples close to the Siltronic outfall. These tests have indicated that Siltronic waste has not adversely affected the river.

Hal went on to say that the EQC would probably have to review Siltronic's request for additional loading so all of these arguments would have to be made to them. The EQC strives to treat all discharges fairly and must be able to justify changes.

Larry suggested that the Application for Permit Renewal, which Siltronic should receive in three months, must include the following arguments for an increase in loading limitations:

1.) The original estimated combined effluent flow rate of 200,000 gpd was too low for the processes installed for wafer manufacture. Indicate reasons as to why it was too low.

2.) The plant has used more water in the past due to an increase of installed capacity. Provide graph showing actual increase in production units and actual increase in wastewater production.

SCOEPA00034222

3.) The plant will require more water usage in the future due to:
    a.) an increase in production capacity,
    b.) modified processes,
    c.) addition of a poly plant.
Provide graph indicating future increase in production units and wastewater flow.

4.) A statement must be made indicating projected additional employment with expansion of the Wafer Plant, and with addition of the Poly Plant. Also describe the need for primary and secondary suppliers with the Poly Plant.

Siltronic should meet again with Larry Patterson and Renee Dulay to review these written arguments. This could be scheduled for January or February, actually before the application is received.

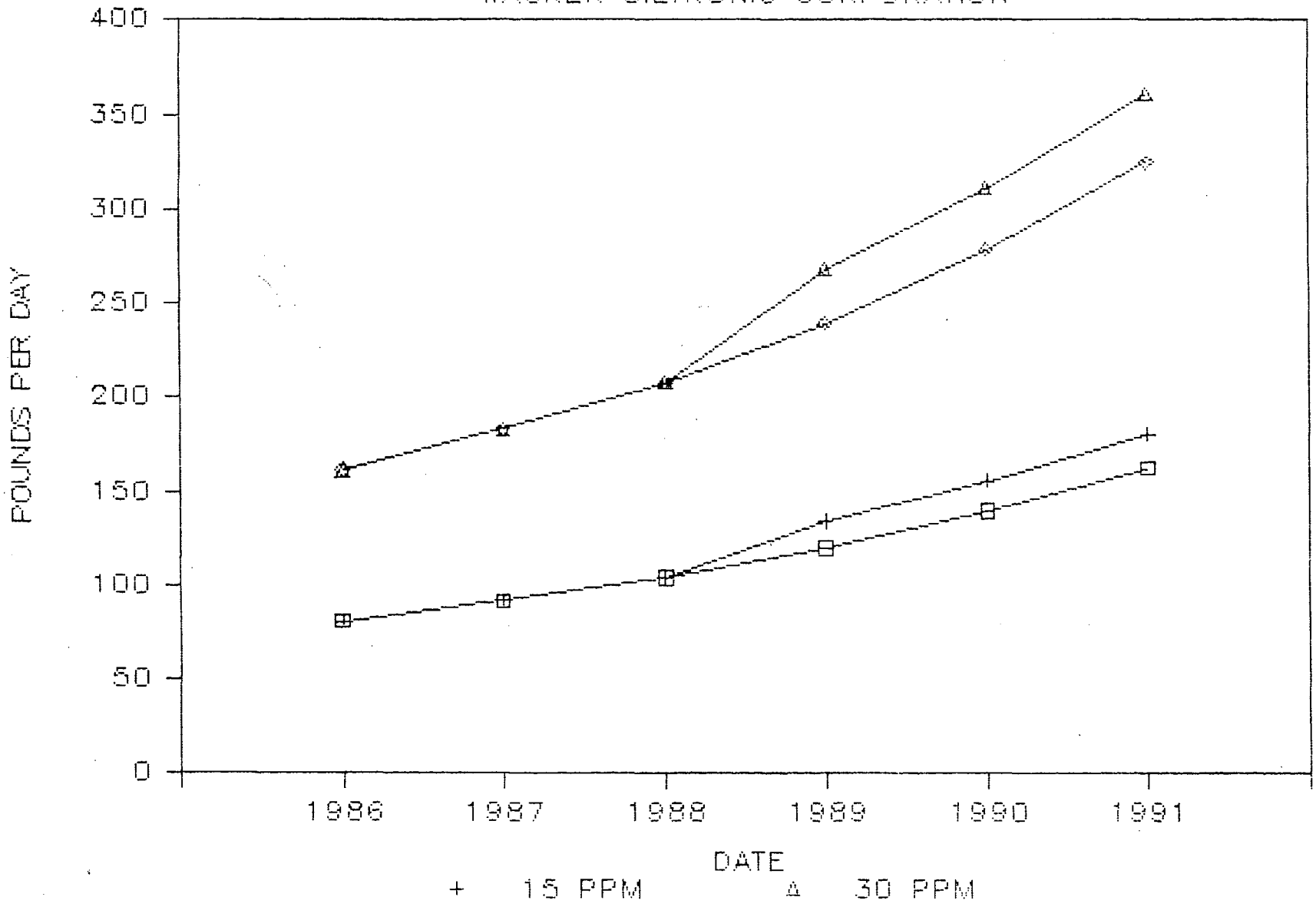
James R. Ellis
11/11/85 JRE

Attachment

SCOEPA00034223

PROCESS WASTEWATER LOADINGS

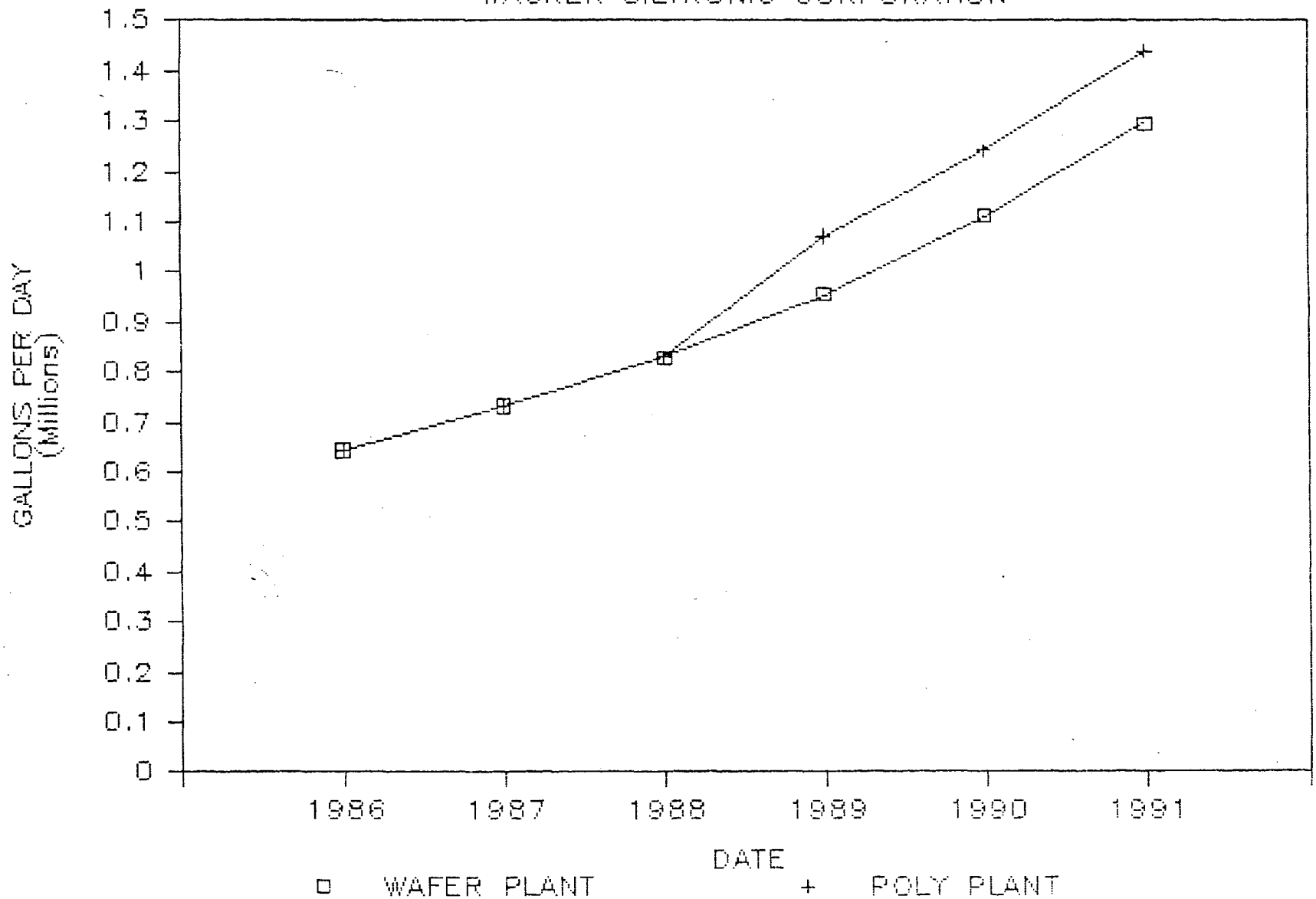
WACKER SILTRONIC CORPORATION



SCOEPA00034224

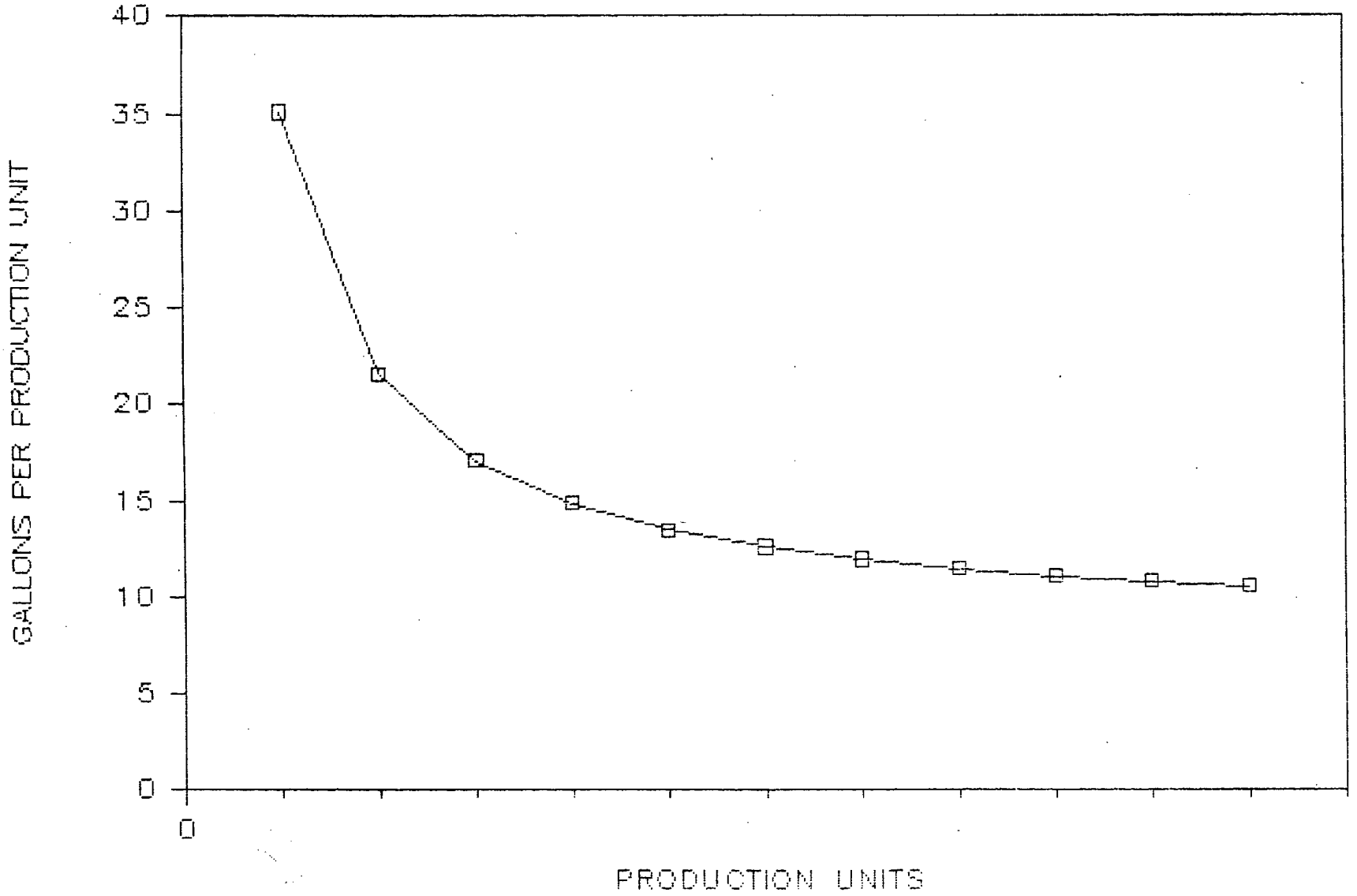
PROCESS WASTEWATER FLOWS

WACKER SILTRONIC CORPORATION



WASTEWATER VS PRODUCTION RATE

WACKER SILTRONIC CORPORATION



Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

RECEIVED
ENGINEERING
JUL 5 1985

July 2, 1985

John L. Pittman
Wacker Siltronic

Renato Dulay
Department of Environmental Quality
Northwest Region
P.O. Box 1760
Portland, Oregon 97209

Subject: Loading Parameters - NPDES Permit for Period beginning October 1, 1986.

Dear Mr. Dulay:

I am writing this letter pursuant to our discussion of June 27 regarding the above subject.

As noted in our letters of June 11 and June 26, we believe that our current programs will provide NPDES Permit compliance for TSS and BOD concentration limits outlined in the current permit for October 1, 1986. However, the October 1, 1986, loading limits for TSS and BOD of 25 lbs/day average and 50 lbs/day maximum will not allow for future growth in plant production capacity. We will be restricted by both the TSS and BOD limits, but it appears that BOD loading will be the most critical, even with concentrations in the 10-15 ppm range.

From our discussion of June 27, we understand that the DEQ is willing to review Wacker Siltronic's projected wastewater flow rates with the intention of modifying the future loading limitations for BOD and TSS to correlate with increased production capacity flows. In accordance with this discussion, the following wastewater flow rate figures are provided for your review:

	AVG.GPD	MAX.GPD	COMMENTS
Current*	283,000	330,000	Wafer Plant only (actual capac.)
By 12/85	320,000	480,000	Wafer Plant only (design capac.)
By 12/86	455,000	682,500	Wafer Plant only (design capac.)
By 12/87	510.000	765,000	Wafer Plant only (design capac.)
By 12/88	790,000	1,185,000	Poly Plant Start-up (design capac.)
By 12/89	860,000	1,290,000	Wafer & Poly Plant (design capac.)
By 12/90	910,000	1,365,000	Wafer & Poly Plant (design capac.)
By 12/91	970,000	1,455,000	Wafer & Poly Plant (design capac.)

*Averages for period 1/85 through 5/85

We would like to set up a meeting during the week of August 19 if this is convenient for you. Please call me so that we can decide on a specific date and time.

Best Regards,

WACKER SILTRONIC CORPORATION

James R. Ellis
Acting Facilities Manager

cc: Greg Carr
Jim Harper
John Pittman
Mal Russ
Murray Tilson
File

SCOEPA00034228

TO: John Pittman

FROM: Murray Tilson

SUBJECT: DEQ Compliance Update

DATE: May 8, 1985

RECEIVED
ENGINEERING
MAY 8 1985
John L. Pittman
Wacker Siltronic

The following is a summary of our current compliance schedule regarding our DEQ NPDES Permit.

pH Control

1. Since the outfall pH instrumentation was relocated from the outfall to the Waste Treatment Plant on April 25, 1985, we have generally been in compliance in this area.

2. We have been out of compliance for about 25 minutes during the past 12 days or about two minutes/day. We are allowed to be out of the pH range from 6.0 to 9.0 for 1% of the time or 14.4 minutes/day. We are therefore operating at less than 15% of our allowed permit level.

3. The alarm at the Waste Treatment Plant and Security Council was operational effective May 7, 1985 which may even further improve our compliance capability.

4. Greg Carr is working on one last modification to the Provox pH control system to even further improve our control and response capability.

5. In summary, I feel very confident in being able to achieve monthly compliance with this current modification.

BOD

1. The slicing/plate prep stream diversion to the OWW collection system was made on April 11, 1985.

2. This resulted in a marked reduction in BOD loading to the Waste Treatment Plant system. BOD sample data is shown below:

Date	24 Hour BOD Test Concentration (mg/l)	Loading (lb/day)
4/5	43	122
4/12	22	67
4/19	6	16,6
4/26	7	15.8

Permit Requirement	Monthly Average Concentration (mg/l)	Loading (lb/day)
Present	45	120
After 9/30/85	15	25

3. Based on our results to date, we should be able to achieve BOD compliance for our interim as well as final limit.

4. This project is discussed in Greg Carr's memo of April 26, 1985.

TSS

1. To date, there appears to be no significant reduction to TSS as a result of the slicing/plate prep diversion.

2. CH2M-Hill has recommended some operational changes to our W.W.T.P. that appear to improve our TSS levels. This is presently being evaluated and will be detailed in their current study which is due June 1, 1985.

3. CH2M-Hill had a consultant from Romicon, Inc, a subsidiary of ROHM and HAAS, fly out from Massachusetts to demonstrate an ultrafilteration unit. This system appears capable of being able to consistently treat our TSS stream from our clarifier down to 1-5 mg/l. Estimated cost would be $60,000-70,000 installed.

4. This ultrafilter will be detailed in the CH2M-Hill study as well.

Drain Survey

1. The initial data collection is 50% complete.

2. Sam Pengelly has used the D-Base III software package to program the drain survey on an IBM PC. A sample page is attached.

3. We can use this D-Base program to selectively review discharges for any drain system, drain number, equipment number, drain type, etc. We can also add all new drains from the Poly Plant once operational.

4. All drains will be numbered and new tags made. This information will be put on 1/16" = 1' - 0" plans showing drain location, identification, and collection piping. This will be completed by June 14, 1985.

5. Timing:

   a. Complete drain survey inventory by May 17, 1985
   b. Meet with Production Management to review program and present data by June 7, 1985.
   b. Start employee training by June 10, 1985

MTT:jm

Attachments

cc: Greg Carr
Sam Pengelly

TO: Distribution

FROM: Greg Carr Greg Carr

SUBJECT: Slicing Waste Diversion

DATE: April 26, 1985

On April 12th the floor trenches in slicing, lapping and plate preparation were diverted to the City Sewer. Previously these trenches went through the clarifier and discharged to the Willamette River.

This switch was made to reduce the amount of BOD (Organic Material) that was discharged to the river. From the first analysis it appears to be sucessful. This switch also gives us quite a bit of flexibility as to cutting fluids. The previous restriction on the BOD of cutting fluids no longer applies - we can now use whatever cutting fluids we desire (within limits) at whatever dosage levels we desire. Please notify me if any changes beyond the change to L03- Siloxan is contemplated. I will notify the city if necessary.

The attached map shows the areas of the plant affected by this switch. The areas switched to the City Sewer (via the OWW Sump - Organic Waste Water) are where the organic-containing wastes (floor moppings, spills, etc) may be disposed. The used lapping waste in plate prep may now be allowed to enter the floor trench - it is not necessary to hand-carry the waste to any specific sink for disposal.

If there are any questions, please contact me (Ext.132) or Murray Tilson (Ext.301).

SWITCHED	TRENCHES NOT SWITCHED
C111 - Slicing	A117 - Reference Cutting
C112 - Lapping	A134 - Holding Area
C121 - Plate Preparation	A133 - Grinding
C102 - Blade Preparation	These still go to the Williamette River

Greg Carr

GC/md

cc: John Catanoso
Marc Epstein
Steve Henley
John Pittman
Marcus Pollard
Jim Scott
Bob Shaw
Otto Sweep
Murry Tilson
File

Areas switched to OWW
4/12/85

NOTE: THIS SHEET FOR ROOM NUMBER REFERENCE ONLY. FOR FINAL ROOM AND EQUIPMENT LAYOUTS SEE SHEET

N

KEY PLAN

CH2M HILL

TITLE BLOCK CHANGE

REVISIONS

WACKER SILTRONIC PLANT
PORTLAND, OREGON

PROCESS BUILDING
ARCHITECTURAL
REFERENCE FLOOR PLAN WEST

DATE DEC 1978

FIGURE No.

SCOEPA00034233

WACKER SILTRONIC DRAIN INVENTORY

DRAIN NMBR	ROOM NMBR	AREA DESCRIPTION	DRAIN SYSTEM	BATCH CONT.	DRAIN TYPE	FLOW GPM	TAG NMBR	STN #
801	E109	EAST DIRTY CORE	OWW	C	TRNCH	1		81200000
	CHEMICALS: 9N9							
	COMMENTS: EAST DIRTY CORE TRENCH							
802	E101	WEST DIRTY CORE	OWW	B	TRNCH	0		80500000
	CHEMICALS: 9N9							
	OIL							
	COMMENTS: WEST DIRTY CORE TRENCH							
803	E110	FINAL CLEANING	OWW	C	EQUIP	4		81000102
	CHEMICALS: 9N9							
	COMMENTS: MANUAL PRECLEANER							
804	E110	FINAL CLEANING	CAD	C	EQUIP	9		81000102
	CHEMICALS: HF							
	9N9							
	COMMENTS: MANUAL PRECLEANER							
805	E110	FINAL CLEANING	WAD	C	EQUIP	4		81000102
	CHEMICALS: H2O2							
	NH3OH							
	9N9							
	COMMENTS: MANUAL PRECLEANER							
806	E110	FINAL CLEANING	OWW	C	EQUIP	5		81000001
	CHEMICALS: 9N9							
	COMMENTS: AUTOMATIC PRECLEANER							
807	E110	FINAL CLEANING	CAD	C	EQUIP	6		81000001
	CHEMICALS: HF							
	9N9							
	COMMENTS: AUTOMATIC PRECLEANER							
808	E110	FINAL CLEANING	WAD	C	EQUIP	11		81000001
	CHEMICALS: H2O2							
	NH3OH							
	9N9							
	COMMENTS: AUTOMATIC PRECLEANER							
809	E110	FINAL CLEANING	WAD	C	EQUIP	8		81200000
	CHEMICALS: NAOH							
	9N9							
	COMMENTS: AUTOMATS							
810	E110	FINAL CLEANING	WAD	C	EQUIP	7		81000000
	CHEMICALS: 9N9							
	COMMENTS: HOT TUBS							

SCOEPA00034234

Copy to John Pitman

FAX NO.: 1871/85

Burghausen, March 21, 1985

To: Dr. Mal Russ, Wacker-Siltronic, Portland/Oregon
cc: Jim Ellis

From: Herbert Schmid, Wacker-Chemie, Burghausen, Abt. U

Subject: BOD-related Wastewater Discharge Chemitronic
Your FAX of March 15, 1985

Dear Mal,

As you probably know, the organic wastewater from Chemitronic is treated together with Wacker-Chemie's waste effluent in a central biological treatment plant. Chemitronic's portion of BOD-load towards this facility is relatively small and runs up to 5,4 % of the total BOD at the inlet of the treatment.

The average BOD-load in 1984 had been 15 metric tons per day in total for all Burghausen facilities. This results in an average load from Chemitronic of approx. 1800 lbs BOD/day. This figure covers the organic wastewater discharge of all Sitri, Poly, Wafer and Epitaxy facilities including sanitary sewage.

The average BOD-limit to the Salzach river after the two-stage biological treatment amounts to 33 mg/l (your limit in comparison 15 mg/l). Industrial limits in our region are normally higher than the municipal limits with 15 - 20 mg/l.

The circumstances of Siltronic's organic waste are not comparable to Chemitronic because most of the organics are discharged to the City sewer via the OWW system. The remaining portion of organics into the outfall to the Willamette river is coming basically out of the SWW system.

The latest BOD-summary we got is showing hydraulic oil from the saws and glycol from plate preparation as the main pollutants. These high figures are not comparable to the Chemitronic processes so that special Siltronic actions must be taken there (see FAX of March 8).

We hope that you are satisfied with our coordinating help in this subject up to now. If there are further questions, please let us know.

Best regards
Projectteam CTA

Hans Schmid

cc: CT - Herr Dir. Dr. Freiesleben
CT - Herr Dir. Dr. Silbernagel
TL - Herr Dir. Kretzinger
Q - Herr Dr. Schödel
Q - Herr Rauschenbach
K - Herr Dr. Bauer
U - Herr Dr. Kutzen

SCOEPA00034235

Wacker Siltronic Corporation

RECEIVED
ENGINEERING
MAR 2 1 1985

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 19, 1985

John L. Pittman
Wacker Siltronic

Mr. Harry Edmonds
Bureau of Environmental Services
1120 S.W. Fifth Avenue
Portland, Oregon 97204 - 1972

Dear Mr. Edmonds:

Thank you for meeting with Murray Tilson and me on March 14, 1985 in your office. As we discussed in our meeting, we plan on diverting the waste stream from our slicing operations into the Organic Waste Water (OWW) system.

This slicing waste stream currently has a flow rate of approximately 6 GPM (8640 GPD), but we will shortly have installed capacity to generate 12 GPM (17,300 GPD) of this waste. This stream contains 140 pounds of TSS and about 100 pounds of BOD per day at current production rates. The majority of the solids are 5 microns (.0002 inches) or less in diameter, and should not cause any settling or wear problems in any of the City's Sewer facilities. At the same time as this diversion, we are planning to do other diversions and water conservation projects that will result in no net increase in wastewater flow to the City Sewer.

We are doing this to reduce the BOD in our effluent to the Willamette River. As shown in the illustrations, we are unable to meet our current NPDES Permit due to excessive BOD. This BOD is concentrated in this particular waste stream. Other forms of treatment have been considered, but it appears diversion is the most feasible way to solve this problem.

We understand that we have your provisional approval to do this diversion. Because of the tight deadline of this project, we are proceeding with construction at present. We hope to have it completed by April 8, or April 15, at the latest. We will inform you when the diversion is complete, so that you may re-sample our waste stream if you desire.

SCOEPA00034236

Thank you very much for your time and trouble. If you have any further questions regarding this, please call Murray Tilson or me at 243-2020.

Sincerely, Gregory E. Carr

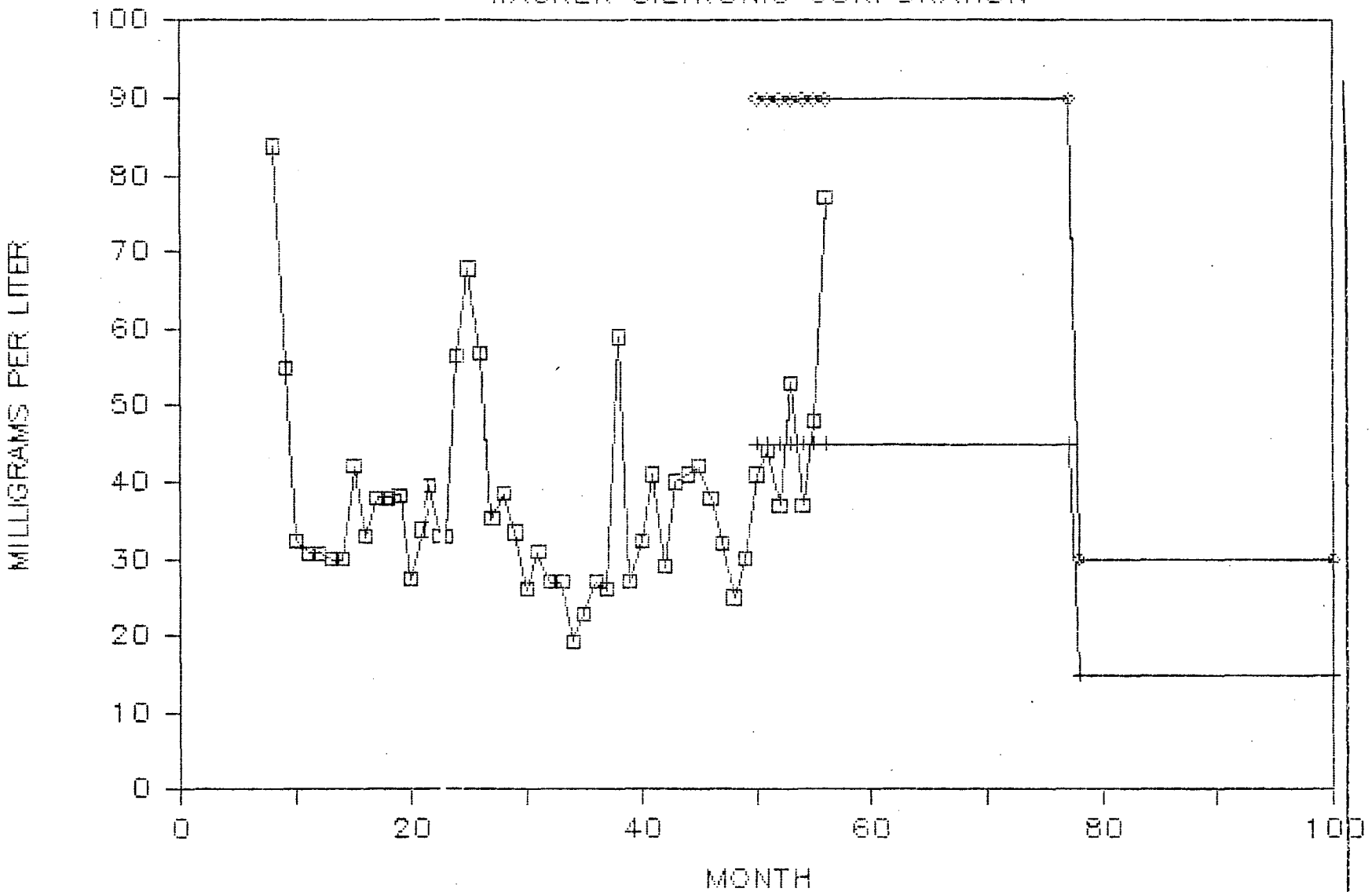
WACKER SILTRONIC CORPORATION

Gregory Carr
Facilities Engineer

cc: Molly Heany, Bureau of Environmental Services
Jim Ellis
John Pittman
Murray Tilson

WASTEWATER BOD

WACKER SILTRONIC CORPORATION



SCOEPA00034238

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

May 27, 1986

Ms. Janet A. Gillaspie
Regional Manager
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97202

Dear Ms. Gillaspie:

Subject: Waste Minimization-On-Site Treatment of Hazardous Waste Streams

Our engineering staff has been evaluating alternatives for on-site processing of hazardous waste streams. This activity has prompted us to write this letter requesting clarification regarding the extent of on-site hazardous waste processing allowed without application for a Part B permit.

Specifically, Wacker Siltronic is evaluating the feasibility of separating the waste streams which feed our chromic acid/hydrofluoric acid waste system. Currently this total hazardous waste volume is collected and shipped to CSSI in Arlington, Oregon for disposal in their acid evaporation pond, with no prior on-site treatment by Wacker. The first phase of the system under consideration would remove the chromium from the rinse wastewater stream by adsorption, allowing for further processing and discharge through the Wastewater Treatment Plant with other wastes. (See Figure No. 1 attached). Calculations indicate that the N.P.D.E.S discharge requirements would not be violated if this plan was implemented. A future proposal would also include further processing of the concentrated chromic acid waste.

Our question is: Would the installation of such a system on our site require us to file for a Part B permit and become a TSD facility? On-site processing appears to be encouraged by Congress with the intent to minimize hazardous waste toxicity and volume before disposal. If economically feasible, these projects would not only help us to conform with these waste minimization laws but would also reduce our risk in transporting the raw waste.

SCOEPA00034239

We feel that we must clarify this issue before proceding beyond the conceptual stage of these projects. In this regard, please provide us with your clarification so that we can define the point at which a Part B is required. If necessary, we could come down to the DEQ office and meet with you on this topic. Please call me at Ext. 132 if there are any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Greg Carr

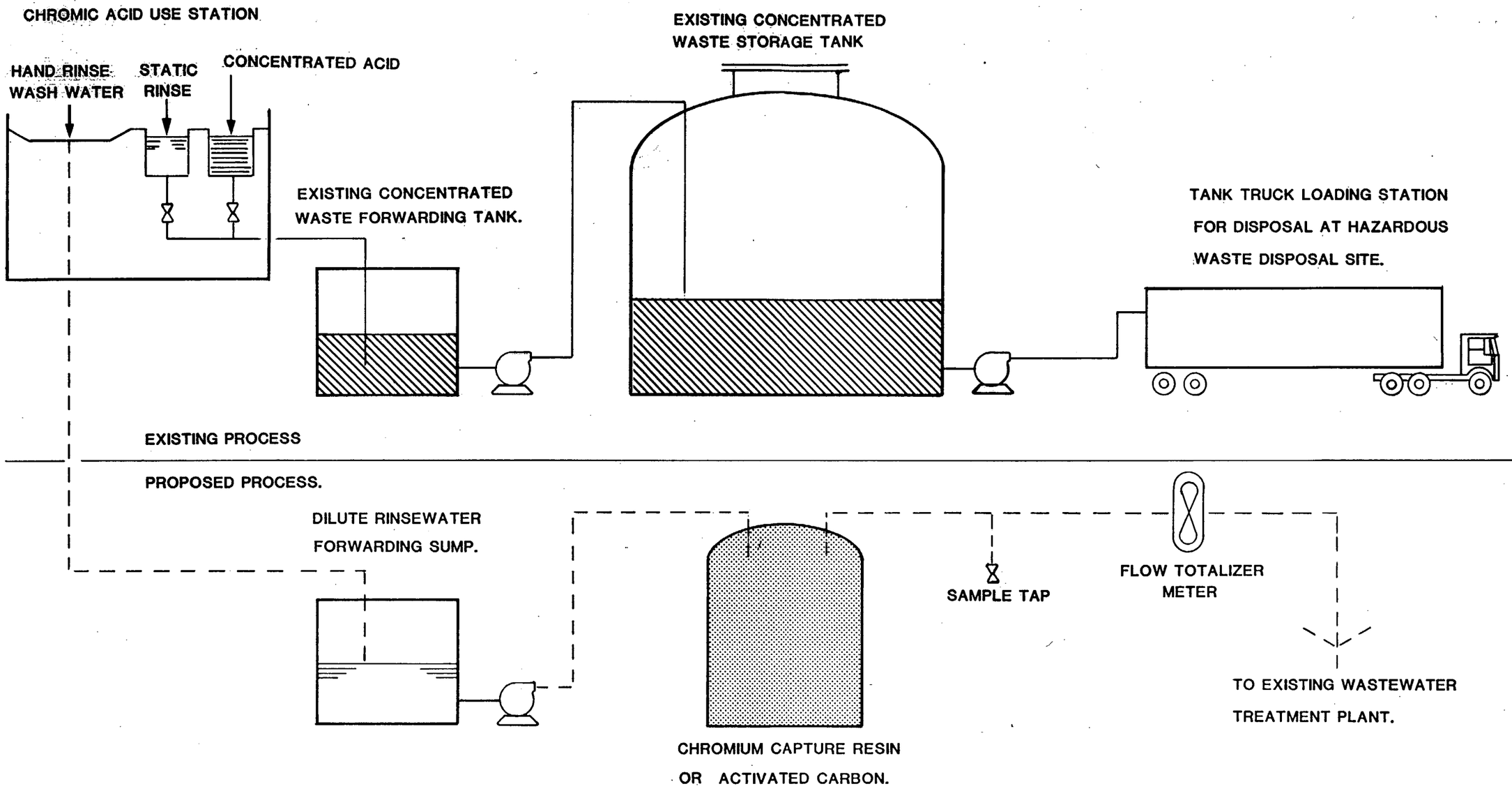
Greg Carr
Environmental Engineer

GC:ll

Attachment

cc: John Pittman
Jerry Schaeffer
Murray Tilson
File

FIGURE No.1



WHEN SATURATED, RESIN OR CARBON WILL BE DISPOSED OF AS A SOLID HAZARDOUS WASTE.

WASTE CHROMIC ACID DISPOSAL SYSTEM

FIRST PHASE REVISIONS

SCOEPA00034241

Note to File

Meeting of 11/8/85 with DEQ to discuss loading limitations for permit renewal on 10/1/86.

Attendees: Larry Patterson, Renee Dulay, Harold Sawyer, Jerry Schaeffer, Murray Tilson, Greg Carr, Jim Ellis.

Waste treatment status for Wacker Siltronic was summarized by by Jim Ellis as follows:

1.) Concentration limits of 15 ppm and 30 ppm for TSS and BOD are currently being met by Wacker Siltronic after diverting high BOD/moderate TSS stream to the city sewer and after making some waste neutralization process changes. Siltronic is committed to meeting the 15 ppm/30 ppm concentration limits in the future for TSS/BOD.

2.) Current interim loading limitations are being met for all parameters but the old limitations of 25 lbs/day & 50 lbs/day are not being met for TSS and BOD even with the plant on a very low production rate. Siltronic will definitely not meet these loading limitations for TSS and BOD after 10-1-86 when production rates will probably be higher than they are currently.

3.) The Poly Plant project has been placed 'on hold' so the design and final waste loads have not been established at this time. Siltronic, however, wishes to include the poly wastes in the N.P.D.E.S. permit renewal if at all possible. Siltronic does have preliminary flow figures at this time.

Jim Ellis stated that much higher loading limitations will be necessary for the permit renewal and Greg Carr presented some computer graphic print-outs (attached) for the agency's review. It was also pointed out that Siltronic's projection was made assuming that the permit renewal would be for a 5-year period. Safety factors were included in the Siltronic projections because of the industry's pattern of constant process change. These changes usually call for more waste flow, not less, even though we are always endeavoring to minimize waste loads.

Larry Patterson said that the DEQ would like to provide a 5 year permit. Larry also indicated that the DEQ has never

increased TSS/BOD loading limitations for effluents discharging to the Willamette River. In fact, for pulp and paper plants along the river, the loading limitations have actually been reduced as these plants have improved discharge quality over the years.

Siltronic indicated that the trend in the Silicon Wafer industry is towards the use of more water rather than less because of tighter specifications for cleanliness as electronic line widths decrease.

Hal Sawyer indicated that the DEQ is just beginning to get similar requests from the food industry who need more and more water to remove pesticides to new, lower levels. Actually Hal mentioned that the Willamette River standards have not been changed since 1967. Some companies such as Boise Cascade, Salem who were contributing large loadings in 1967, have now gone out of business. This should provide some river capacity for a growth company such as Wacker Siltronic who has a need to increase loadings.

Larry Patterson added that considerable river testing had been conducted from samples close to the Siltronic outfall. These tests have indicated that Siltronic waste has not adversely affected the river.

Hal went on to say that the EQC would probably have to review Siltronic's request for additional loading so all of these arguments would have to be made to them. The EQC strives to treat all discharges fairly and must be able to justify changes.

Larry suggested that the Application for Permit Renewal, which Siltronic should receive in three months, must include the following arguments for an increase in loading limitations:

1.) The original estimated combined effluent flow rate of 200,000 gpd was too low for the processes installed for wafer manufacture. Indicate reasons as to why it was too low.

2.) The plant has used more water in the past due to an increase of installed capacity. Provide graph showing actual increase in production units and actual increase in wastewater production.

3.) The plant will require more water usage in the future due to:
    a.) an increase in production capacity,
    b.) modified processes,
    c.) addition of a poly plant.
    Provide graph indicating future increase in production units and wastewater flow.

4.) A statement must be made indicating projected additional employment with expansion of the Wafer Plant, and with addition of the Poly Plant. Also describe the need for primary and secondary suppliers with the Poly Plant.

Siltronic should meet again with Larry Patterson and Renee Dulay to review these written arguments. This could be scheduled for January or February, actually before the application is received.

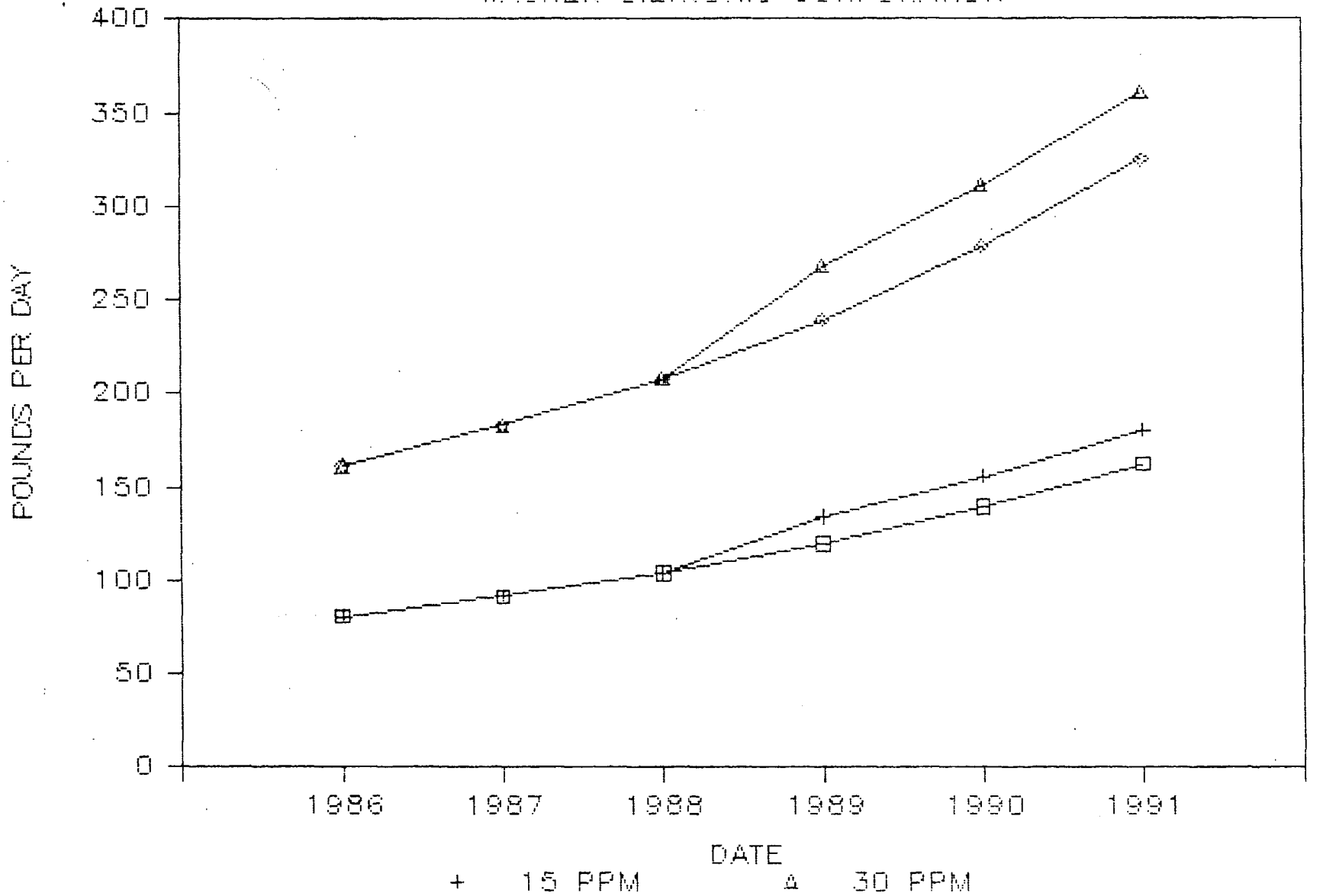
James R. Ellis
11/11/85 JRE

Attachment

SCOEPA00034244

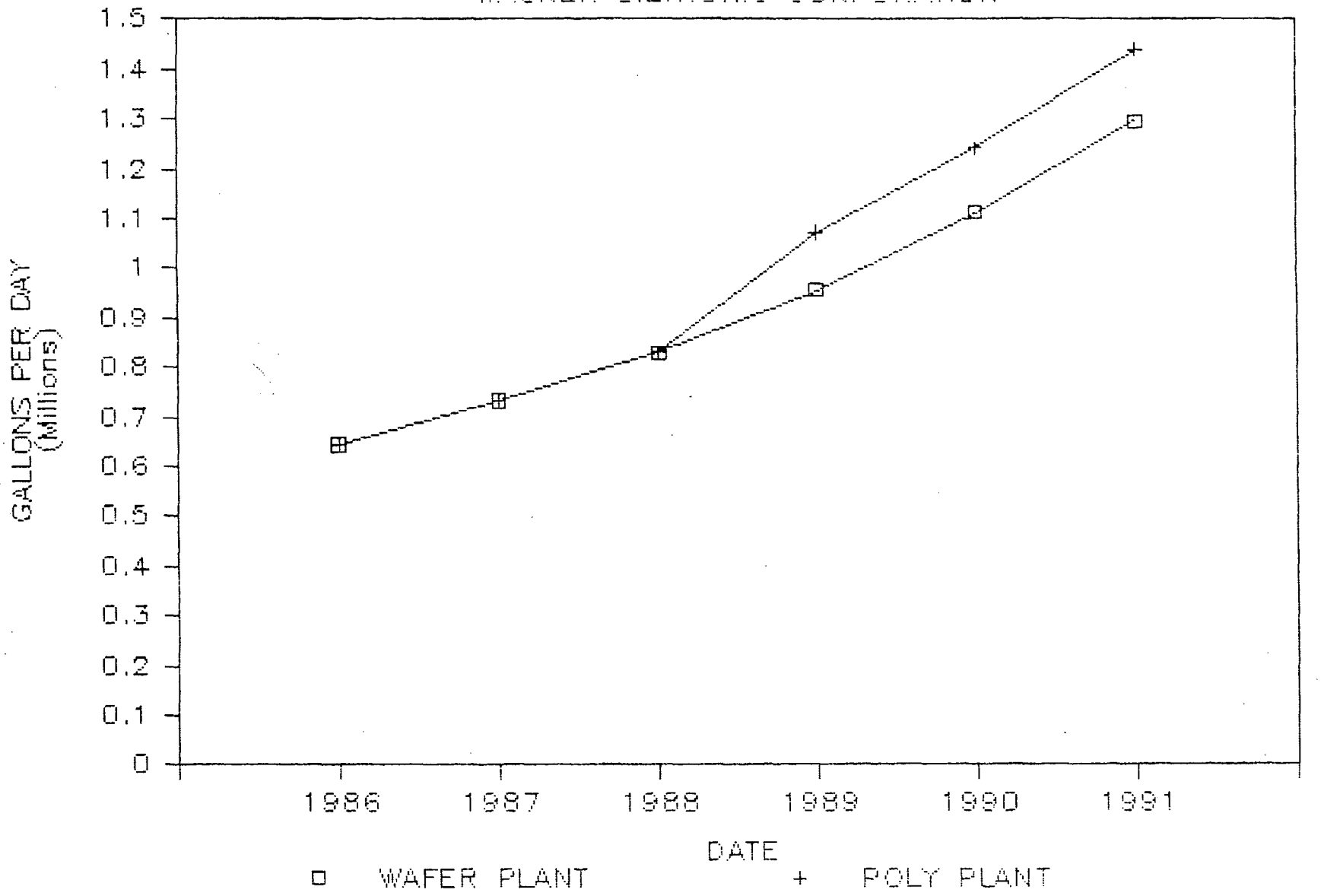
PROCESS WASTEWATER LOADINGS

WACKER SILTRONIC CORPORATION



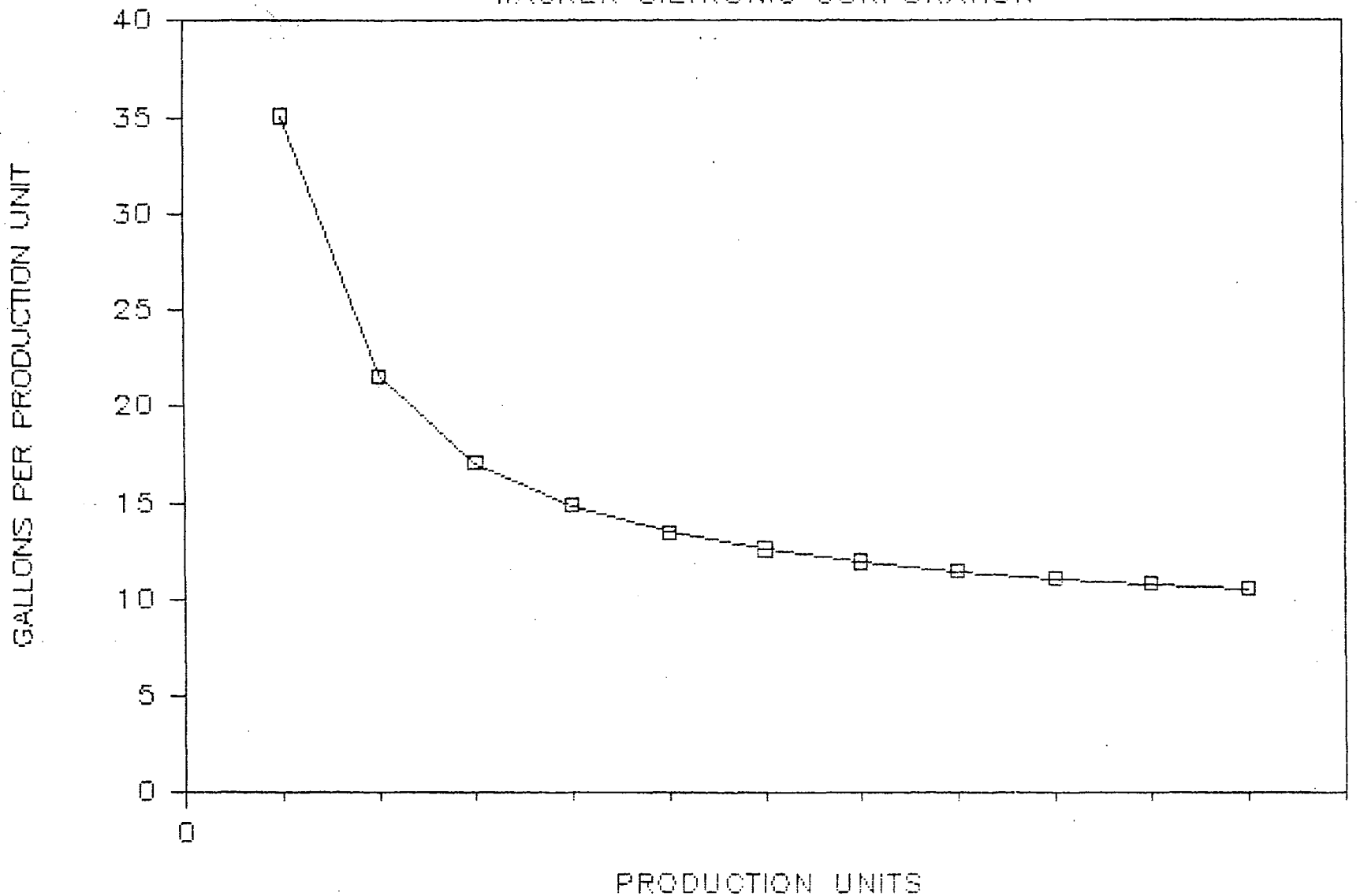
PROCESS WASTEWATER FLOWS

WACKER SILTRONIC CORPORATION



WASTEWATER VS PRODUCTION RATE

WACKER SILTRONIC CORPORATION



Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TLX 4970339
FAX 503-226-0052

January 22, 1988

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
811 S.W. 6th Ave.
Portland, OR 97204

Dear Mr. Davis:

Annual TTO Analysis for NPDES Permit No. 3647-J

As per Schedule B of the above referenced Waste Discharge Permit for our Portland facility, I am submitting the enclosed waste water analysis.

In accordance with 40 CFR 469.21 (a), we are required to monitor all toxic organic compounds annually.

Northwest Testing Laboratories, Inc., of Portland, Oregon, performed an analysis of 26 TTO compounds. Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:dj

Enclosure (1) TTO Analysis from Northwest Testing Laboratories, Inc. dated January 20, 1988

cc: Greg Carr (w/encl)
John Pittman (w/encl)
Mike Pilkington (w/encl)
Tom Rothschild (wo/encl)

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

January 20, 1988

Wacker Siltronic Corporation
P.O. Box 03180
Portland, Oregon 97203

Attn: Mr. Tom Rothschild

Subject: Analysis on one (1) sample submitted on 1-11-88 per your P.O. Number 69225-0.

Item: Wastewater 1-11-88 at 0820

Analysis:

Trichloroethylene	0.05 ppm
2,4,6 Trichlorophenol	<0.05 ppm
1,2,4 Trichlorobenzene	<0.05 ppm
Chloroform	<0.05 ppm
1,2 Dichlorobenzene	<0.05 ppm
1,3 Dichlorobenzene	<0.05 ppm
1,4 Dichlorobenzene	<0.05 ppm
1,1,1 Trichloroethane	<0.05 ppm
Methylenechloride	<0.05 ppm
Tetrachloroethylene	<0.05 ppm
2 Chlorophenol	<0.05 ppm
1,4 Dichlorophenol	<0.05 ppm
Pentachlorophenol	0.20 ppm

Report Number 311264

AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS AND ARE INTENDED FOR THE USE OF OUR CLIENTS ONLY. NO OTHER PERSON OR ENTITY MAY UTILIZE THE REPORT OR ANY PORTION THEREOF WITHOUT OUR WRITTEN AUTHORIZATION.

Analysis: (continued)

1,1 Dichloroethylene	<0.05	ppm
4 Nitrophenol	<0.1	ppm
2 Nitrophenol	<0.1	ppm
Phenol	<0.1	ppm
Napthalene	<0.1	ppm
Anthracene	<0.1	ppm
Isophorone	<0.1	ppm
Toluene	<0.1	ppm
Ethylbenzene	<0.1	ppm
1,2 Diphenolhydrazine	<0.1	ppm
Bis (2-ethylhexyl) Phthalate	<0.1	ppm
Di-n-butyl Phthalate	<0.1	ppm
Butylbenzyl Phthalate	<0.1	ppm

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard B. Holmes
Assistant Supervisor, Chemistry

Report Number 311264

NORTHWESTERN AQUATIC SCIENCES, Inc.
P.O. Box 1437 • Newport, Oregon 97365 • (503) 265-7225

№ 4319 T

AQUATIC TOXICITY TEST REPORT

TEST NO. 357-2
REPORT DATE 12/26/88
APPROVAL

TEST NAME OR DESCRIPTION
Rainbow trout 96-hr non-renewal bioassay.

C
L • Wacker Siltronics Corporation
I P.O. Box 03180
E • Portland, OR 97203
N
T •

1. SAMPLE/TOXICANT DATA

Type of Sample
Pure Compound □; Effluent X;
Mixture or Formulation □;
Other □

Sample Name / Description / Source
Final Effluent

Sample Characteristics
Conductivity: 440 umhos/cm
pH: 5.7

Remarks
Sample collected and delivered by client. Collection conditions not specified.

2. LABORATORY PROCESSING DATA

Date and Time of Sample Receipt
12/13/88 12:00 noon ~~AM~~ ~~PM~~

Sample No.
7773C

Sample Treatment/Storage
Aerated, thermal equilibrated and dilutions prepared within 4 hours.

Test Begun
12/13/88 4:00 ~~AM~~ PM

Test Ended
12/17/88 4:00 ~~AM~~ PM

Test Location/Laboratory
Northwestern Aquatic Sciences
Newport, OR 97365

Investigator
R.S. Caldwell / L.K. Garrison

3. DILUTION WATER

Source
NAS Spring Water

Date and Time of Collection
12/13/88 10:00 am

Pretreatment
aerated

Characteristics (mg/l as appropriate)

Cond. (umhos/cm)	250	pH	6.5
Hard. ($CaCO_3$)	70	Alk. ($CaCO_3$)	40
Ca		Mg	
Na		K	
Cl		SO_4	
Salinity (‰)			

4. TEST ORGANISMS

Species
Salmo gairdneri

Length (mm)

Weight (g)
1.75 g

Age

Developmental Stage

Source
N.W. Trout, Corvallis, OR 97330

History

Diseases/Treatments
none

Acclimation Conditions
Accl. in dil'n water 10 days:Loading 4.12 g/L; Temp:12.5±0.6°;DO:9.1±0.5 mg/L;pH:5.8±0.3; Cond:248±8 umhos/cm;Hard:80±10 mg/L;Alk: 32 +3 mg/L

5. TEST PROCEDURES AND CONDITIONS

Test Chambers/Depth/Volume
Glass Aquaria-depth 32 cm, vol 27.0 L

Diluters/Concentrations
Test Concentrations: 100,60,36,22,13, and 0% (control)

Organisms per Treat.
20

Replicates per Treat.
2

Loading (g/l)
0.65

Water Vol. Changes per 24 Hr.
non-renewal test

Effects Criteria
Death (lack of respiratory movement and lack of response to touch).

Other Test Conditions (mg/l as appropriate)

DO	9.5 ± 0.5
pH	6.4 ± 0.1
Temp (°C)	12.6 ± 0.2
Salinity (‰)	
Hardness ($CaCO_3$)	
Alkalinity ($CaCO_3$)	
Photoperiod	16L - 8D

6. TEST RESULTS

LC50 X; EC50 □; and 95% Confidence Limits

24 Hour	>100
48 Hour	>100
72 Hour	>100
96 Hour	>100

Remarks
At 96-hr one fish exposed to 100% effluent was quiescent; all others appeared to be unaffected.

No mortalities were observed in any test tank.

NAS 302, Revised 7/81

Copies To: Murray Tilson Jerry Linden
Rick Gariepy

White – Client Copy
Canary – 2nd Copy
Pink – Client File
Goldenrod – Lab. Master File

SCOEPA00034251

cc: John Pittman

NORTHWESTERN AQUATIC SCIENCES, Inc.
P.O. Box 1437 • Newport, Oregon 97365 • (503) 265-7225

№ 4316 T

AQUATIC TOXICITY TEST REPORT

TEST NO. 357-1
REPORT DATE 8-1-88
APPROVAL

TEST NAME OR DESCRIPTION
Rainbow trout 96-hr non-renewal bioassay.

CLIENT
Wacker Siltronics Corporation
P.O. Box 03180
Portland, OR 97203

1. SAMPLE/TOXICANT DATA

Type of Sample
Pure Compound □; Effluent ☒
Mixture or Formulation □; Other □

RECEIVED AUG 2 WACKER SILTRONIC ENGINEERING

Sample Name / Description / Source
Final Effluent

Sample Characteristics
Conductivity: 680 umhos/cm
pH: 6.5

Remarks
Sample collected and delivered by client, collection conditions not specified.

2. LABORATORY PROCESSING DATA

Date and Time of Sample Receipt: 7-26-88 1:20 ~~AM~~ PM
Sample No.: 7017C

Sample Treatment/Storage
Aerated, thermal equilabrated and dilutions prepared within 3 hours.

Test Begun: 7-26-88 4:00 ~~AM~~ PM
Test Ended: 7-30-88 4:00 ~~AM~~ PM

Test Location/Laboratory
Northwestern Aquatic Sciences
Newport, OR 97365

Investigator
R.S. Caldwell / G.A. Buhler

3. DILUTION WATER

Source
NAS Spring Water

Date and Time of Collection
7-26-88 10:00 am

Pretreatment
aerated

Characteristics (mg/l as appropriate)

Cond. (µmhos/cm)	236	pH	6.6
Hard. ($CaCO_3$)	88	Alk. ($CaCO_3$)	60
Ca		Mg	
Na		K	
Cl		SO_4	
Salinity (‰)			

4. TEST ORGANISMS

Species
Salmo gairdneri

Length (mm)
Weight (g): 0.30

Age
Developmental Stage

Source
N.W. Trout, Corvallis, OR

History

Diseases/Treatments
none

Acclimation Conditions
Accl. in dil'n water 8 days:Loading 2.42 g/l; Temp: 14.0 ± 1.1°C; DO: 7.5 ± 0.4 mg/l; pH: 6.4 ± 0.1; Cond.: 284 ± 61 umhos/cm; Hard: 88 mg/l; Alk: 60 mg/l;

5. TEST PROCEDURES AND CONDITIONS

Test Chambers/Depth/Volume
Glass Aquaria-depth 32 cm, vol 27.0 L

Diluters/Concentrations
Test concentrations: 100, 60, 36, 22, 13, and 0% (control).

Organisms per Treat.	Replicates per Treat.
20	2
Loading (g/l)	**Water Vol. Changes per 24 Hr.**
0.11	non-renewal test

Effects Criteria
Death (lack of respiratory movement and lack of response to touch).

Other Test Conditions (mg/l as appropriate)

DO	9.9 ± 0.2
pH	6.7 ± 0.2
Temp (°C)	12.4 ± 0.5
Salinity (‰)	
Hardness ($CaCO_3$)	
Alkalinity ($CaCO_3$)	
Photoperiod	16L - 8D

6. TEST RESULTS

LC50 ☒; EC50 □; and 95% Confidence Limits

24 Hour	>100%
48 Hour	>100%
72 Hour	>100%
96 Hour	>100%

Remarks
Fish in 100% effluent were mostly quiescent within 24-hr. All were quiescent, exhibited slow respiration and most were lying on side at bottom of aquaria from 48-96 hr. Fish in 60% effluent had similar, but less intense responses & showed less intense response by 96-hr. No sublethal effects were observed in fish exposed to 36% effluent or lower concentrations.

NAS 302, Revised 7/81

White – Client Copy
Canary – 2nd Copy
Pink – Client File
Goldenrod – Lab. Master File

SCOEPA00034252

Table 1. Tabular summary of fish survival data. Data given as numbers of fish surviving in each replicate tank at 0-, 24-, 48-, 72-, and 96-hours.

Effluent concentration	0-hr		24-hr		48-hr		72-hr		96-hr	
	A	B	A	B	A	B	A	B	A	B
100%	10	10	10	10	6	10	3	10	3	10
60%	10	10	10	10	10	10	10	10	10	10
36%	10	10	10	10	10	10	10	10	10	10
22%	10	10	10	10	10	10	10	10	10	10
13%	10	10	10	10	10	10	10	10	10	10
control	10	10	10	10	10	10	10	10	10	10

SCOEPA00034253

M. Tilson
9/2/88

Bioassay Test - 7/26/88.

Percent Concentration

	0 %	13 %	22 %	36 %	60 %	100 %
A	10/10	10/10	10/10	10/10	10/10	3/10
B	10/10	10/10	10/10	10/10	10/10	10/10

Legend

3/10 — No Fish Alive @ 96 hrs
3/10 — No Fish Alive @ Start of Test

LC 50 - Lethal Concentration at which 50 % of fish die.

Test shows our LC50 > 100 % concentration.

SCOEPA00034254

M. Tuson
9/2/88

Bioassay Test - 7/26/88.

Percent Concentration

	0 %	13 %	22 %	36 %	60 %	100 %
A	10/10	10/10	10/10	10/10	10/10	3/10
B	10/10	10/10	10/10	10/10	10/10	10/10

Legend

—— No. Fish Alive @ 96 hrs

3/10 —— No. Fish Alive @ Start of Test

LC 50 - Lethal Concentration at which 50 % of Fish Die.

Test shows our LC50 > 100 % concentration.

SCOEPA00034255

NORTHWESTERN AQUATIC SCIENCES, Inc.
P.O. Box 1437 • Newport, Oregon 97365 • (503) 265-7225

№ 4316 T

AQUATIC TOXICITY TEST REPORT

TEST NO. 357-1
REPORT DATE 8-1-88
APPROVAL

TEST NAME OR DESCRIPTION
Rainbow trout 96-hr non-renewal bioassay.

CLIENT
Wacker Siltronics Corporation
P.O. Box 03180
Portland, OR 97203

1. SAMPLE/TOXICANT DATA

Type of Sample
Pure Compound ☐; Effluent ☒; Mixture or Formulation ☐; Other ☐

Sample Name / Description / Source
Final Effluent

Sample Characteristics
Conductivity: 680 umhos/cm
pH: 6.5

Remarks
Sample collected and delivered by client, collection conditions not specified.

2. LABORATORY PROCESSING DATA

Date and Time of Sample Receipt: 7-26-88 1:20 AM. P.M.
Sample No.: 7017C

Sample Treatment/Storage
Aerated, thermal equilabrated and dilutions prepared within 3 hours.

Test Begun: 7-26-88 4:00 AM PM
Test Ended: 7-30-88 4:00 AM PM

Test Location/Laboratory
Northwestern Aquatic Sciences
Newport, OR 97365

Investigator
R.S. Caldwell / G.A. Buhler

3. DILUTION WATER

Source
NAS Spring Water

Date and Time of Collection
7-26-88 10:00 am

Pretreatment
aerated

Characteristics (mg/l as appropriate)

Cond. (µmhos/cm)	236	pH	6.6
Hard. ($CaCO_3$)	88	Alk. ($CaCO_3$)	60
Ca		Mg	
Na		K	
Cl		SO_4	
Salinity (‰)			

4. TEST ORGANISMS

Species
Salmo gairdneri

Length (mm)
Weight (g): 0.30

Age
Developmental Stage

Source
N.W. Trout, Corvallis, OR

History

Diseases/Treatments
none

Acclimation Conditions
Accl. in dil'n water 8 days:Loading 2.42 g/l; Temp: 14.0 ± 1.1°C; DO: 7.5 ± 0.4 mg/l; pH: 6.4 ± 0.1; Cond.: 284 ± 61 umhos/cm; Hard: 88 mg/l; Alk: 60 mg/l;

5. TEST PROCEDURES AND CONDITIONS

Test Chambers/Depth/Volume
Glass Aquaria-depth 32 cm, vol 27.0 L

Diluters/Concentrations
Test concentrations: 100, 60, 36, 22, 13, and 0% (control).

Organisms per Treat.: 20
Replicates per Treat.: 2
Loading (g/l): 0.11
Water Vol. Changes per 24 Hr.: non-renewal test

Effects Criteria
Death (lack of respiratory movement and lack of response to touch).

Other Test Conditions (mg/l as appropriate)

DO	9.9 ± 0.2
pH	6.7 ± 0.2
Temp (°C)	12.4 ± 0.5
Salinity (‰)	
Hardness ($CaCO_3$)	
Alkalinity ($CaCO_3$)	
Photoperiod	16L - 8D

6. TEST RESULTS

LC50 ☒; EC50 ☐; and 95% Confidence Limits

24 Hour	>100%
48 Hour	>100%
72 Hour	>100%
96 Hour	>100%

Remarks
Fish in 100% effluent were mostly quiescent within 24-hr. All were quiescent, exhibited slow respiration and most were lying on side at bottom of aquaria from 48-96 hr. Fish in 60% effluent had similar, but less intense responses & showed less intense response by 96-hr. No sublethal effects were observed in fish exsposed to 36% effluent or lower concentrations.

NAS 302, Revised 7/81

White – Client Copy
Canary – 2nd Copy
Pink – Client File
Goldenrod – Lab. Master File

SCOEPA00034256

Table 1. Tabular summary of fish survival data. Data given as numbers of fish surviving in each replicate tank at 0-, 24-, 48-, 72-, and 96-hours.

Effluent concentration	0-hr		24-hr		48-hr		72-hr		96-hr	
	A	B	A	B	A	B	A	B	A	B
100%	10	10	10	10	6	10	3	10	3	10
60%	10	10	10	10	10	10	10	10	10	10
36%	10	10	10	10	10	10	10	10	10	10
22%	10	10	10	10	10	10	10	10	10	10
13%	10	10	10	10	10	10	10	10	10	10
control	10	10	10	10	10	10	10	10	10	10

SCOEPA00034257

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

May 18, 1988
Log#M880426-H
PO# None
Amended Report 5/27/88

Wacker Siltronic
7200 NW Front Ave.
P.O. Box 03180
Portland, OR 97203

Attention: Murray Tilson

Sample Received: 04/26/88
Sample Delivered by: Client
Sample Date: 04/26/88 1100 hrs

Sample Id: Waste effluent

ANALYSIS	METHOD	RESULTS	UNITS
Total Suspended Solids	EPA 160.2	20.	mg/L
Biochemical Chemical Demand	EPA 404.1	3.4	mg/L
Fluoride	EPA 340.2	4.10	mg/L
Dissolved Chromium	*	< 0.010	mg/L

REPORT CONTINUES

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

May 18, 1988
Log#M880426-H
PO# None

Wacker Siltronic
7200 NW Front Ave.
P.O. Box 03180
Portland, OR 97203

Analysis Requested: 96 hour Aquatic Acute Toxicity Test

Date Test Started: 04/26/88 Date Test Completed: 04/30/88

Sample ID: Waste effluent
Description of Sample: A clear waste, water effluent

TEST RESULTS:

Sample Concentration	Live organisms at test start	Deaths after 96 hours	Hazardous Waste Classification
50% Dilution	45	11	None
Full strength	45	45	None
Control	45	0	None

GENERAL OBSERVATIONS:

OTHER INFORMATION:

Dilution Water:
Aerated deionized water with a dissolved oxygen concentration of 90-100% saturation was used.

Test Organism:

Salmo gairdner (rainbow trout) is the test organism used. The fish are held at a minimum of two weeks in the holding tank before being used. Generally, no treatment is gien to the fish. The number of deaths are recorded on a daily basis during the holding period. If more than one or two deaths a5e seen on an increasing basis, the holding tank is drained, cleaned, sterilized and a new lot of fish is obtained. The fish are fed trout feed every day until two days before the start of the test.

Average Weight: 0.54 g

Average Length: 1.5 cm

Ratio of longest/shortest: 3:2

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

GENERAL INFORMATION FOR 96 HOUR AQUATIC ACUTE TOXICITY TEST RESULTS

For a material to be disignated a dangerous waste (DW) greater than 11 cumulative deaths out of 30 test organisms must occur within 96 hours at a concnetration of 1000 mg/L. This waste has and LC 50 of less than 1000 mg/L at the 95% confidence level.

For a material to be designated an extremely hazaradous waste (EHW), greater than 10 cumulative deathes out of 30 test organisms must occur within 96 hours at a concentration of 100 mg/L. This waste has an LC 50 of less than 100 mg/L at 95% confidence level.

GENERAL TEST INFORMATION:

The test chambers used were purchased commercially and are 10 gallon glass rectangle tanks. The toxicity test is set up in the following manner:

1. 24 liters of dilution water is placed in each test chamber and aerated for 48 hours.

2. The toxicant is weighed into a liter flask and diluted to the 1 liter mark with dilution water, placed in the test chamber and rinsed with the water from the tank to transfer all of the sample quantitatively to the tank. The final volume of water in the tank is 25 liters

3. Three of the tanks are set up so the concentration of toxicant is 100 mg/L, three tanks have a toxicant concentration of 1000 mg/L, and three tanks are the control tanks and have no toxicant placed in them. The toxicant is mixed into the tank circulation system.

4. Tanks are randomly positioned to minimize variations of conditions, such as exposure to light and temperature change, between sample vessels and control vessels.

5. 15 fish are added to each tank 30 minutes after the toxicant has been added.

6. A 16-hour light and an 8-hour dark photo period is provided.

REPORT CONTINUES

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

WATER QUALITY AND OTHER PARAMETERS ANALYZED:

The following analyses are done, the results are listed on the following page:

TEST	METHOD
Dissolved oxygen	Meter
pH	Meter
Temperature	Thermometer
Total Hardness	Calculation
Alkalinity	Titration
Conductivity	Meter

Approved,

Richard D. Reid,
Laboratory Director

Sincerely,

Susan M. Coffey,
President

SMC/lws

This report is for the sole and exclusive use of the above client. Samples are retained a maximum of 15 days from the date of this letter.

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

RECEIVED
ACCOUNTS PAYABLE
MAY 23 1988

WACKER SILTRONIC CORP.

May 18, 1988
Log#M880426-H
PO# None

Wacker Siltronic
7200 NW Front Ave.
P.O. Box 03180
Portland, OR 97203

Attention: Murray Tilson

Sample Received: 04/26/88
Sample Delivered by: Client
Sample Date: 04/26/88 1100 hrs

Sample Id: Waste effluent

ANALYSIS	METHOD	RESULTS	UNITS
Total Suspended Solids	EPA 160.2	20.	mg/L
Biochemical Chemical Demand	EPA 404.1	3.4	mg/L
Fluoride	EPA 340.2	4.10	mg/L
Dissolved Chromium	*	< 0.010	mg/L
Trichloroethylene	EPA 601	0.0075	mg/L

REPORT CONTINUES

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

GENERAL INFORMATION FOR 96 HOUR AQUATIC ACUTE TOXICITY TEST RESULTS

For a material to be disignated a dangerous waste (DW) greater than 11 cumulative deaths out of 30 test organisms must occur within 96 hours at a concnetration of 1000 mg/L. This waste has and LC 50 of less than 1000 mg/L at the 95% confidence level.

For a material to be designated an extremely hazaradous waste (EHW), greater than 10 cumulative deathes out of 30 test organisms must occur within 96 hours at a concentration of 100 mg/L. This waste has an LC 50 of less than 100 mg/L at 95% confidence level.

GENERAL TEST INFORMATION:

The test chambers used were purchased commercially and are 10 gallon glass rectangle tanks. The toxicity test is set up in the following manner:

1. 24 liters of dilution water is placed in each test chamber and aerated for 48 hours.

2. The toxicant is weighed into a liter flask and diluted to the 1 liter mark with dilution water, placed in the test chamber and rinsed with the water from the tank to transfer all of the sample quantitatively to the tank. The final volume of water in the tank is 25 liters

3. Three of the tanks are set up so the concentration of toxicant is 100 mg/L, three tanks have a toxicant concentration of 1000 mg/L, and three tanks are the control tanks and have no toxicant placed in them. The toxicant is mixed into the tank circulation system.

4. Tanks are randomly positioned to minimize variations of conditions, such as exposure to light and temperature change, between sample vessels and control vessels.

5. 15 fish are added to each tank 30 minutes after the toxicant has been added.

6. A 16-hour light and an 8-hour dark photo period is provided.

REPORT CONTINUES

COFFEY LABORATORIES, INC.
4914 N.E. 122nd Ave.
Portland, OR 97230
Phone: (503) 254-1794

May 18, 1988
Log#M880426-H
PO# None

Wacker Siltronic
7200 NW Front Ave.
P.O. Box 03180
Portland, OR 97203

Analysis Requested: 96 hour Aquatic Acute Toxicity Test

Date Test Started: 04/26/88 Date Test Completed: 04/30/88

Sample ID: Waste effluent
Description of Sample: A clear waste, water effluent

TEST RESULTS:

Sample Concentration	Live organisms at test start	Deaths after 96 hours	Hazardous Waste Classification
50% Dilution	45	11	EHW
Full strength	45	45	EHW
Control	45	0	None

GENERAL OBSERVATIONS:

OTHER INFORMATION:

Dilution Water:
Aerated deionized water with a dissolved oxygen concentration of 90-100% saturation was used.

Test Organism:

Salmo gairdner (rainbow trout) is the test organism used. The fish are held at a minimum of two weeks in the holding tank before being used. Generally, no treatment is gien to the fish. The number of deaths are recorded on a daily basis during the holding period. If more than one or two deaths a5e seen on an increasing basis, the holding tank is drained, cleaned, sterilized and a new lot of fish is obtained. The fish are fed trout feed every day until two days before the start of the test.

Average Weight: 0.54 g

Average Length: 1.5 cm

Ratio of longest/shortest: 3:2

Wacker Siltronic Corporation

WACKER

1988

FILE

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TLX 4970339
FAX 503-226-0052

January 22, 1988

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
811 S.W. 6th Ave.
Portland, OR 97204

Dear Mr. Davis:

Annual TTO Analysis for NPDES Permit No. 3647-J

As per Schedule B of the above referenced Waste Discharge Permit for our Portland facility, I am submitting the enclosed waste water analysis.

In accordance with 40 CFR 469.21 (a), we are required to monitor all toxic organic compounds annually.

Northwest Testing Laboratories, Inc., of Portland, Oregon, performed an analysis of 26 TTO compounds. Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:dj

Enclosure (1) TTO Analysis from Northwest Testing Laboratories, Inc. dated January 20, 1988

cc: Greg Carr (w/encl)
John Pittman (w/encl)
Mike Pilkington (w/encl)
Tom Rothschild (wo/encl)

SCOEPA00034265

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

January 20, 1988

Wacker Siltronic Corporation
P.O. Box 03180
Portland, Oregon 97203

Attn: Mr. Tom Rothschild

Subject: Analysis on one (1) sample submitted on 1-11-88 per your P.O. Number 69225-0.

Item: Wastewater 1-11-88 at 0820

Analysis:

Trichloroethylene	0.05 ppm
2,4,6 Trichlorophenol	<0.05 ppm
1,2,4 Trichlorobenzene	<0.05 ppm
Chloroform	<0.05 ppm
1,2 Dichlorobenzene	<0.05 ppm
1,3 Dichlorobenzene	<0.05 ppm
1,4 Dichlorobenzene	<0.05 ppm
1,1,1 Trichloroethane	<0.05 ppm
Methylenechloride	<0.05 ppm
Tetrachloroethylene	<0.05 ppm
2 Chlorophenol	<0.05 ppm
1,4 Dichlorophenol	<0.05 ppm
Pentachlorophenol	0.20 ppm

87
<0.05PPM

Report Number 311264

AS A MUTUAL PROTECTION TO CLIENTS THE PUBLIC AND OURSELVES ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS AND ARE INTENDED FOR THE USE OF OUR CLIENTS ONLY NO OTHER PERSON OR ENTITY MAY UTILIZE THE REPORT OR ANY PORTION THEREOF WITHOUT OUR WRITTEN AUTHORIZATION

Analysis: (continued)

1,1 Dichloroethylene	<0.05	ppm
4 Nitrophenol	<0.1	ppm
2 Nitrophenol	<0.1	ppm
Phenol	<0.1	ppm
Napthalene	<0.1	ppm
Anthracene	<0.1	ppm
Isophorone	<0.1	ppm
Toluene	<0.1	ppm
Ethylbenzene	<0.1	ppm
1,2 Diphenolhydrazine	<0.1	ppm
Bis (2-ethylhexyl) Phthalate	<0.1	ppm
Di-n-butyl Phthalate	<0.1	ppm
Butylbenzyl Phthalate	<0.1	ppm

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard B. Holmes
Assistant Supervisor, Chemistry

Report Number 311264

Wacker Siltronic Corporation
P O Box 03180
Portland, OR 97203
7200 N W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 8, 1987

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
811 S.W. 6th Ave.
Portland, OR 97204

Dear Mr. Davis:

Annual TTO Analysis for NPDES Permit No. 3647-J

As per Schedule B of the above referenced Waste Discharge Permit for our Portland facility, I am submitting the enclosed waste water analysis.

In accordance with 40 CFR 469.21 (a), we are required to monitor all toxic organic compounds annually.

Northwest Testing Laboratories, Inc., of Portland, Oregon, performed an analysis of 26 TTO compounds. The only compound above trace limits was Trichloroethylene (TCE), which we monitor for on a monthly basis. This sample was well below our limit of 1.37 mg/1.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure (1) TTO Analysis from Northwest Testing Laboratories, Inc. dated January 5, 1987

cc: Greg Carr (w/encl)
Jim Ellis (w/encl)
Jim Harper (w/encl)
John Pittman (w/encl)
Jerry Schaeffer (w/encl)

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

January 5, 1987

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Mr. Greg Carr

Subject: Analysis on one (1) sample submitted on 12-19-86, per your P.O. Number 61553-0.

Item: Wastewater

Analysis:

Trichloroethylene	0.1 ± 0.05 ppm
2,4,6, Trichlorophenol	<0.05 ppm
1,2,4, Trichlorobenzene	<0.05 ppm
Chloroform	<0.05 ppm
1,2 Dichlorobenzene	<0.05 ppm
1,3 Dichlorobenzene	<0.05 ppm
1,4 Dichlorobenzene	<0.05 ppm
1,1,1 Trichloroethane	<0.05 ppm
Methylenechloride	<0.05 ppm
Tetrachloroethylene	<0.05 ppm
2, Chlorophenol	<0.05 ppm
1,4 Dichlorophenol	<0.05 ppm
Pentachlorophenol	<0.05 ppm

Report No: 302727

Analysis: (continued)

1,1 Dichloroethylene	<0.05 ppm
4 Nitrophenol	<0.5 ppm
2 Nitrophenol	<0.5 ppm
Phenol	<0.5 ppm
Napthalene	<0.5 ppm
Anthracene	<0.5 ppm
Isophorone	<0.5 ppm
Toluene	<0.5 ppm
Ethylbenzene	<0.5 ppm
1,2 Diphenylhdrazine	<0.5 ppm
Bis (2-ethylhexyl) Phthalate	<0.5 ppm
Di-n-butyl Phthalate	<0.5 ppm
Butylbenzyl Phthalate	<0.5 ppm

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes

Howard Holmes
Assistant Supervisor, Chemistry

Report No: 302727

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

January 5, 1986

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Mr. Greg Carr

Subject: Analysis on one (1) sample submitted on 12-19-86, per your P.O. Number 61553-0.

Item: Wastewater

Analysis:

Trichloroethylene	0.1 ± 0.05 ppm
2,4,6, Trichlorophenol	<0.05 ppm
1,2,4, Trichlorobenzene	<0.05 ppm
Chloroform	<0.05 ppm
1,2 Dichlorobenzene	<0.05 ppm
1,3 Dichlorobenzene	<0.05 ppm
1,4 Dichlorobenzene	<0.05 ppm
1,1,1 Trichloroethane	<0.05 ppm
Methylenechloride	<0.05 ppm
Tetrachloroethylene	<0.05 ppm
2, Chlorophenol	<0.05 ppm
1,4 Dichlorophenol	<0.05 ppm
Pentachlorophenol	<0.05 ppm

Report No: 302727

SCOEPA00034271

Analysis: (continued)

1,1 Dichloroethylene	<0.05 ppm
4 Nitrophenol	<0.5 ppm
2 Nitrophenol	<0.5 ppm
Phenol	<0.5 ppm
Napthalene	<0.5 ppm
Anthracene	<0.5 ppm
Isophorone	<0.5 ppm
Toluene	<0.5 ppm
Ethylbenzene	<0.5 ppm
1,2 Diphenylhdrazine	<0.5 ppm
Bis (2-ethylhexyl) Phthalate	<0.5 ppm
Di-n-butyl Phthalate	<0.5 ppm
Butylbenzyl Phthalate	<0.5 ppm

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes

Howard Holmes
Assistant Supervisor, Chemistry

Report No: 302727

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 17, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Sugject: Annual TTO Analysis for
NPDES Permit No. 3647-J

As per Schedule B of the above referenced Waste Discharge Permit for our Portland facility, I am submitting the enclosed waste water analysis.

In accordance with 40 CFR 469.21(a) we are required to monitor all toxic organic compounds annually.

Northwest Testing Laboratories, Inc. of Portland, Oregon, performed an analysis of 26 TTO compounds. The only compound above tracer limits was Trichloroethylene (TCE), which we monitor for on a monthly basis. This sample was well below our limit of 1.37 mg/l.

Please call me at 243-2020, ext. 301 if you have any questions regarding this.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr (w/encl)
Jim Ellis (w/encl)
Jim Harper (w/encl)
John Pittman (w/encl)
Jerry Schaeffer (w/encl)

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

December 20, 1985

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Mr. Greg Carr

Subject: Analysis on one (1) sample submited on 12-11-85, per your P.O. number 53746.

Item: Wastewater

Analysis:

Trichloroethylene	330 ppb
2,4,6 Trichlorophenol	<2.2 ppb
1,2,4 Trichlorobenzene	<2.2 ppb
Chloroform	<2.2 ppb
1,2 Dichlorobenzene	<5.0 ppb
1,3 Dichlorobenzene	<5.0 ppb
1,4 Dichlorobenzene	<5.0 ppb
1,1,1 Trichloroethane	<2.2 ppb
Methylenechloride	<5.0 ppb
Tetrachloroethylene	<1.0 ppb
2, Chlorophenol	<10.0 ppb
2,4 Dichloropheneol	<2.0 ppb
Pentachlorophenol	<0.8 ppb

Report No: 293284

SCOEPA00034274

Analysis: (cont.)

1,1 Dichloroethylene	<5.0 ppb
4, Nitrophenol	<210 ppb
2, Nitrophenol	<210 ppb
Phenol	<210 ppb
Napthalene	<210 ppb
Anthracene	<210 ppb
Isophorone	<210 ppb
Toluene	<210 ppb
Ethylbenzene	<210 ppb
1,2 Diphenylhydrazine	<210 ppb
Bis (2-ethylhexyl) phthalate	<210 ppb
Di-n-butyl Phthalate	<210 ppb
Butylbenzyl Phthalate	<210 ppb

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes
Assistant Supervisor, Chemistry

Report No: 293284

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

December 20, 1985

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Mr. Greg Carr

Subject: Analysis on one (1) sample submited on 12-11-85, per your P.O. number 53746.

Item: Wastewater

Analysis:

Trichloroethylene	330 ppb
2,4,6 Trichlorophenol	<2.2 ppb
1,2,4 Trichlorobenzene	<2.2 ppb
Chloroform	<2.2 ppb
1,2 Dichlorobenzene	<5.0 ppb
1,3 Dichlorobenzene	<5.0 ppb
1,4 Dichlorobenzene	<5.0 ppb
1,1,1 Trichloroethane	<2.2 ppb
Methylenechloride	<5.0 ppb
Tetrachloroethylene	<1.0 ppb
2, Chlorophenol	<10.0 ppb
2,4 Dichloropheneol	<2.0 ppb
Pentachlorophenol	<0.8 ppb

Report No: 293284

SCOEPA00034276

Analysis: (cont.)

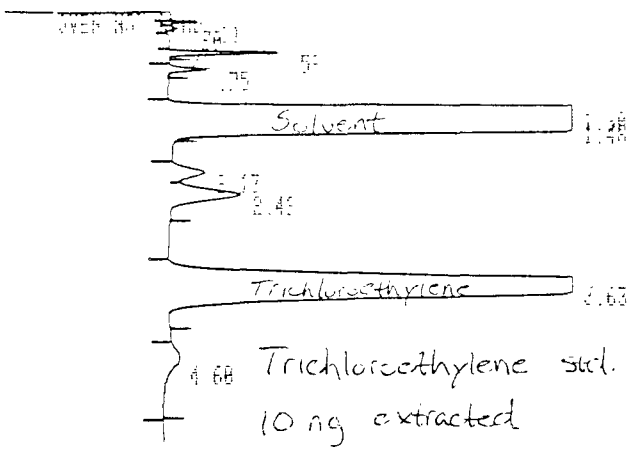
1,1 Dichloroethylene	<5.0 ppb
4, Nitrophenol	<210 ppb
2, Nitrophenol	<210 ppb
Phenol	<210 ppb
Napthalene	<210 ppb
Anthracene	<210 ppb
Isophorone	<210 ppb
Toluene	<210 ppb
Ethylbenzene	<210 ppb
1,2 Diphenylhydrazine	<210 ppb
Bis (2-ethylhexyl) phthalate	<210 ppb
Di-n-butyl Phthalate	<210 ppb
Butylbenzyl Phthalate	<210 ppb

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes
Assistant Supervisor, Chemistry

Report No: 293284

SCOEPA00034277



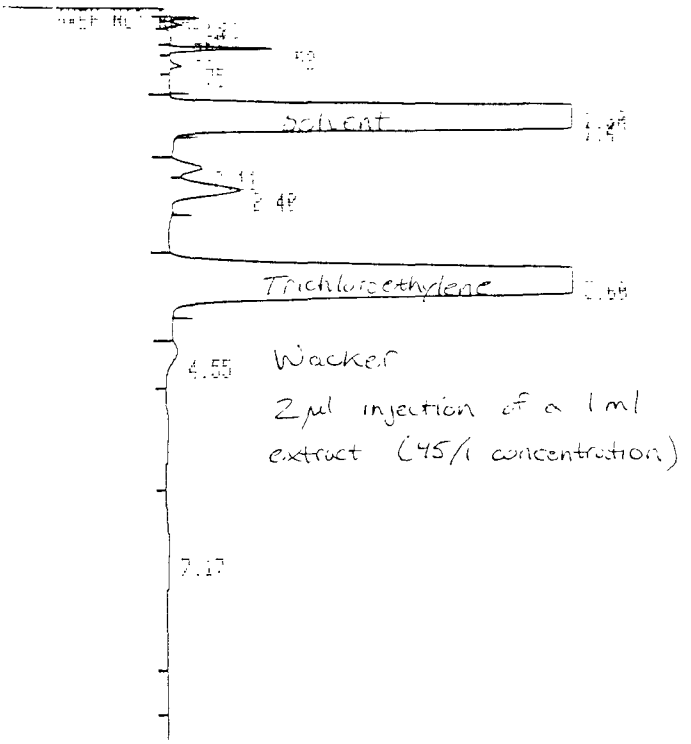
STOP

RUN # 10

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	2829	D BV	0.027	0.056
0.20	1990	VP	0.049	0.039
0.36	1904	PV	0.157	0.038
0.52	18285	VB	0.046	0.361
0.75	7814	BB	0.058	0.154
1.30	577750	PV	0.093	11.412
1.48	3622500	VB	0.120	71.550
2.13	17961	BV	0.149	0.355
2.42	45279	VB	0.179	0.894
3.63	755660	BB	0.252	14.926
4.60	10893	BB	0.255	0.215

TOTAL AREA= 5062800
MUL FACTOR= 1.0000E+00



STOP

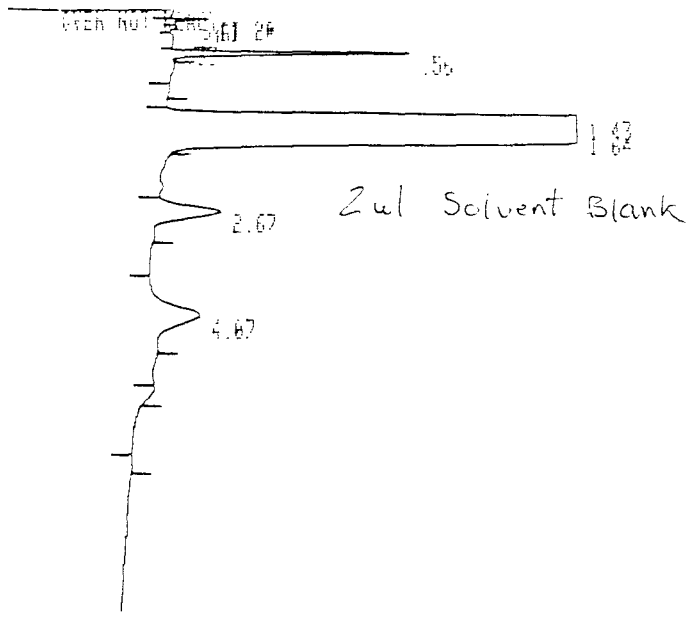
RUN # 11

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	2854	D BV	0.027	0.046
0.20	2496	VP	0.047	0.040
0.35	3302	PV	0.162	0.053
0.52	17690	VV	0.047	0.283
0.75	4617	VV	0.090	0.074
1.30	350770	PV	0.089	5.602
1.47	3573200	VB	0.119	57.060
2.11	16152	PV	0.146	0.258
2.40	44827	VB	0.180	0.716
3.60	2231300	BB	0.257	35.631
4.55	7274	BP	0.271	0.116
7.17	7688	PP	0.896	0.123

TOTAL AREA= 6262100
MUL FACTOR= 1.0000E+00

SCOEPA00034278



STOP

RUN # 3

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	2660	D BV	0.028	0.060
0.21	1768	VP	0.061	0.040
0.33	1384	PP	0.120	0.031
0.56	41726	PB	0.049	0.947
1.43	557560	BV	0.101	12.654
1.64	3713800	VB	0.128	84.287
2.67	41099	BB	0.178	0.933
4.67	46167	PB	0.278	1.048

TOTAL AREA= 4406200
MUL FACTOR= 1.0000E+00

WACKER

D TOR

PURCHASE ORDER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 ◦ PORTLAND, OREGON 97203 ◦ 503/243-2020 ◦ TWX 910-464-4777

DATE	P.O. NUMBER

SHIP TO: WACKER SILTRONIC CORP. - 7200 N.W. FRONT AVE. - PORTLAND, OREGON 97229
SHIP VIA:
F.O.B.:
TERMS:
BUYER:

ITEM	QUANTITY	UNIT	DESCRIPTION	ACCOUNT/ STOCK NO.	DELIVER BY	UNIT PRICE	EXTENSION
						ORDER TOTAL	

ITEMS	SUPERVISOR/ENGINEER	EXT.	END USE

INSTRUCTIONS ON FACE AND REVERSE SIDE ARE MADE PART OF THIS ORDER TO WHICH SELLER AGREES BY ACCEPTANCE OF SAME.

PURCHASING AGENT

SCOEPA00034280

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

October 9, 1985

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Greg Carr

Subject: Price Quotation

Item: Water

Test Required: Total Toxic Organic (T.T.O.)

Price Quote ..... $105.00 each

Price valid through December 31, 1985.

If we may be of further service please feel free to contact me.

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes

Howard Holmes
Assistant Supervisor, Chemistry

Chemistry
Materials

Construction
Energy

Soils Engineering
Conservation

NORTHWEST TESTING LABORATORIES INC.

HOWARD HOLMES
ASST. SUPERVISOR, CHEMISTRY

289-1778 Portland
5405 N. Lagoon Avenue
Portland, OR 97217-0126

364-4452 Salem
3385 34th Ave. NE
Salem, OR 97303

746-9649 Eugene
2285 Nugget Way
Eugene, OR 97403

SCOEPA00034281

cc: John Pittman
Jerry Schaeffer
Greg Carr
Sam Pengelly

STATE OF OREGON
Environmental Quality
Laboratories & Applied Research

INTEROFFICE MEMO

TO: See Distribution List

DATE: November 13, 1985

FROM: Gerald M. Bell, Aquatic Toxicologist

SUBJECT: Results of a Toxicity Bioassay Performed on The Wacker Siltronic of Portland Wastewater Discharge

Wacker Siltronic Corporation operates a silicon wafer manufacturing facility at 7200 N.W. Front Avenue, Portland. The company grows silicon columns and slices them into thin wafers for polishing. The company discharges an average of 0.32 million gallons per day of process wastewater and 0.19 million gallons per day of cooling water to the Willamette River at River Mile 6.3.

An acute toxicity bioassay was requested by Water Quality Program to determine if the discharge could have a lethal effect on a representative fish species.

Results of this type of short-term test indicate acute responses to the effluent but do not reflect the possibility that there may or may not be a long-term chronic (Mutagenesis, carcinogenesis, teratogenicity, and other reproductive and/or birth defects) affect of the effluent on this and other organisms found within the receiving area.

If more specific details are desired about any aspects of this test, contact Gerry Bell - DEQ Laboratory at 229-5983.

GMB:mal

Distribution List

Alan Hose
Harold Sawyer
Andy Schaedel
Fred Bolton
Kent Ashbaker
Larry Patterson
Northwest Region
Al Goodman
Joe Cummins
Bruce Cleland
Murray Tilson - Wacker Siltronics

31-125-1387

WACKER SILTRONICS TOXICITY BIOASSAY RESULTS

COLLECTION

Sample Type: Silicon Manufacturing Waste

Source/Date: Wacker Siltronics Corp., /8 hour composite, September 17, 1985

Dilution Water: Upstream river water

Source/Date: Willamette River/September 17, 1985

TEST SPECIES

Type: *Salmo gairdneri* (Steelhead trout)

Source: Marion Forks Hatchery

Date: September 5, 1985

METHODS

All Methods and procedures utilized in the testing, plus equipment and handling materials recommended are found in the reference source: Methods for Measuring the Acute Toxicity of Effluents to Aquatic Organisms, EPA-600/4-78-012 revised July, 1978. A copy of the methods is available upon request.

RESULTS

Date Test Started: September 18, 1985 **Laboratory #** 85-0690

96 Hour LC_{50} = N/A

95% Upper Confidence Limit N/A : 95% Lower Confidence Limit N/A

Leucocrit Test: N/A

REMARKS

Dilutions tested: 100% effluent, 50% effluent and control (upstream Willamette water). After 24 hours of 100% effluent exposure, the response of the test fish were from 1) Color change 2) erratic swimming 3) loss of equilibrium 4) moribund condition, to 5) death (1). There was no noticeable change in the 50% concentration fish.

SCOEPA00034283

REMARKS (continued)

At the 48 hour mark, all 100% concentration surviving fish (9) were in a moribund condition. There was a noticeable darkening of color in the 50% concentration fish. At this time the surviving 100% concentration fish were transferred to the upstream control water to see if the toxic conditions were reversible. The 50% concentration test was continued.

At the 72 hour mark, all of the surviving 100% concentration fish (8), minus one who had died right after being transferred to the control water, had recovered to a bright color condition. The 50% fish still had a dark color but exhibited no swimming complications.

At the test end; i.e. after 96 hours of exposure, the 50% fish still exhibited the same conditions as they had at the 72 hour mark; a loss of bright color only. At this time all 50% fish were transferred to control water.

24 hours after the transfer of the 50% fish, all of the exposed (100% + 50%) fish accepted food, a sign of total recovery as feeding is one of the first behaviors lost when fish are stressed.

An overall analysis of the test results was that a toxic element or compound is present in the wastewater being discharged that is slowly toxic in a 100% concentration exposure. Fish stress response behavior progressed from loss of bright color (darkening) through erratic swimming, loss of equilibrium, moribund to death. The toxic component was sufficiently diluted at a 50% concentration such that only the loss of color response occurred.

When the stressed fish are removed from the presence of the toxin, their return to a stable condition indicates that the toxin is not persistant or accumulating; and that it can be purged or expelled from the affected organs through the organism's internal detoxifying systems.

SCOEPA00034284

Results of a Laboratory Analysis of the
Wacker Siltronics Effluent Collected on September 17, 1985

PARAMETER	CONCENTRATION
pH	8.17 S.U.
Alkalinity	16 mg/l as $CaCO_3$
Total Hardness	49 mg/l as $CaCO_3$
Color	< 5 PT-CO units
Turbidity	7 F.T.U.
Suspended Solids	5 mg/l
Total Solids	469 mg/l
Conductivity	664 µmhos/cm @ 25°C
Sodium, Diss	3.3 mg/l
Calcium, Diss	18 mg/l
Magnesium, Diss	1.1 mg/l
Fluoride, Total	3.4 mg/l
Cyanide, Total	< 0.002 mg/l
Sulfide ← Iodometric	27 mg/l
Ammonia	7.4 mg/l as N
Nitrite/Nitrate	51 mg/l as N
Total Kjel Nitrogen	6.8 mg/l
Orthophosphate, Diss	0.002 mg/l as P
Phosphate, Total	0.019 mg/l as P
C.O.D. ← Dichromate	19 mg/l
T.O.C.	4 mg/l as C

Arsenic, Diss	0.005 mg/l
Cadmium, Diss	0.001 mg/l
Chromium, Diss	0.004 mg/l
Copper, Diss	0.007 mg/l
Lead, Diss	< 0.010 mg/l
Mercury, Diss	< 0.0005 mg/l
Nickel, Diss	< 0.05 mg/l
Selenium	< 0.005 mg/l
Silver, Total	< 0.001 mg/l
Zinc, Total	0.05 mg/l

SCOEPA00034285

PURGEABLE PRIORITY POLLUTANTS
EPA METHOD 624

DATE: 19 SEP 85

LAB #: 85-866
SAMPLE: COMPOSIT
ITEM #: 1-8

AMOUNT MG/L	PARAMETER	CAS REGISTRY NUMBER	STORET NO.
<.001	CHLOROMETHANE	74-87-3	34418
<.001	BROMOMETHANE	74-83-9	34413
<.001	VINYL CHLORIDE	75-01-4	39175
<.001	CHLOROETHANE	75-00-3	34311
<.001	METHYLENE CHLORIDE	75-09-2	34423
<.001	TRICHLOROFLUOROMETHANE	75-69-4	34488
<.001	1,1-DICHLOROETHYLENE	75-35-4	34501
<.001	1,1-DICHLOROETHANE	75-34-3	34521
.002	TRANS-1,2-DICHLOROETHYLENE	156-60-5	34546
<.001	CHLOROFORM	67-66-3	32106
<.001	1,2-DICHLOROETHANE	107-06-2	34531
<.001	1,1,1-TRICHLOROETHANE	71-55-6	34506
<.001	CARBON TETRACHLORIDE	56-23-5	32102
<.001	BROMODICHLOROMETHANE	75-27-4	32101
<.001	1,2-DICHLOROPROPANE	78-87-5	34541
<.001	CIS-1,3-DICHLOROPROPENE	10061-01-5	34704
.034	TRICHLOROETHYLENE	79-01-6	39180
<.001	BENZENE	71-43-2	34030
<.001	DIBROMOCHLOROMETHANE	124-48-1	32105
<.001	1,1,2-TRICHLOROETHANE	79-00-5	34511
<.001	TRANS-1,3-DICHLOROPROPENE	10061-02-6	34699
<.001	2-CHLOROETHYL VINYL ETHER	110-75-8	34576
<.001	BROMOFORM	75-25-2	32104
<.001	1,1,2,2-TETRACHLOROETHANE	79-34-5	34516
<.001	1,1,2,2-TETRACHLOROETHYLENE	127-18-4	34475
<.001	TOLUENE	108-88-3	34010
<.001	CHLOROBENZENE	108-90-7	34301
<.001	ETHYLBENZENE	100-41-4	34371
<.001	1,3-DICHLOROBENZENE	541-73-1	34566
<.001	1,2 / 1,4-DICHLOROBENZENE	95-50-1 / 106-46-7	
<.001	1,2-DIBROMOETHANE (EDB)	106-93-4	

SCOEPA00034286

TO: Jerry Schaeffer

FROM: Greg Carr

SUB: DEQ Bioassay Test September 17-23, 1985

DATE: September 27, 1985

The DEQ ran a special bioassay text on our effluent to the Williamette River the week of September 16, 1985. On Tuesday September 17, 1985 they visited the Wacker plantsite. They collected 250 gallons of Willamette River water from a spot upstream of the outfall, right along the bank. They also collected 8 3-gallon effluent samples from the outfall pH pump discharge. One sample was taken each hour, to give a composite sampling of our effluent.

The bioassay test was run in the DEQ lab at P.S.U.. They set up 6 tanks of water, maintained at 12 degree C in a temperature-controlled room. Two tanks contained 100% Willamette River water, two contained 50% river water/50% Wacker effluent, and the last two contained 100% Wacker effluent. The water was refreshed at 24 hours intervals with fresh mixes of water. There were 10 steelhead fingerlings in each tank.

I visited the lab on Friday morning, 48 hours after the start of the test. The fingerlings in the river water were fine. The fingerlings in the 50/50 mixture were suffering some stress, because they had darkened in color. The fingerlings in the 100% effluent were very sick, although none had died. They were very dark, and were all laying at the bottom of the tank. The symptoms appeared to be cyanide or sulfide poisioning. Jerry Bell and I discussed what could be hurting the fish. At that time, the best we could think of was sulfide from the Nox Scrubber, some effect of the detergent in the waste, or Hydrogen Peroxide.

Friday evening, eleven of the twenty fingerlings in the 100% effluent had died. Since it was evident that the other nine would die before the test was finished (total 96 hours of test) Jerry removed the nine living fish and put them back into 100% river water. None of the fish in the 50/50 mixture died by the end of the test. They were also put back into river water at the end of the test to see if they would recover. All the fish put back into the 100% river water recovered, even to the extend of going back onto their feed- a very good sign of complete recovery. It's apparent that even severely stressing a fish by prolonged expose to our effluent is reversable if the fish is removed from the effluent. Jerry also said that since our effluent is warmer than the river, these type of fishes (Salmon type) would quickly leave the effluent plume, just because they don't like warm water.

Based on the fishes symptoms, Jerry had the DEQ lab run some extra tests for cyanide and sulfide. The sulfide test was positive - we had 26 to 31 ppm sulfide in the effluent composite sample. This does explain why the fish were stressed by our effluent. At the present, Sam and I think the sulfide comes from the clarifier. We feed aluminum sulfate (alum) into the clarifier to coagulate the suspended solids. The clarifier is probably anaerobic in the bottom; that is, there is not any oxygen. In anaerobic conditions there are sulfur-reducing bacteria that will change sulfates into sulfides (it is their food). Sam says he he can do some analytical work and verify this.

In any event, I don't think we should get too worried. Jerry Bell feels there is not any affect on the fish population on the river, since the fish won't stay in the concentrated waste plume. The waste plume, once diluted, does not effect the fish. A little investigative work on our part is in order however, so that we can have an answer for the DEQ as to why there is sulfide in our effluent.

Greg Carr

GC/md

cc: Jim Ellis
Sam Pengally
Murray Tilson
File

Greg C

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

April 14, 1987

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
611 S.W. 6th Avenue
Portland, Oregon 97204

Dear Mr. Davis:

March, 1987 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for March, 1987.

Our pH measured 64.7 minutes out of the 6.0 to 9.0 compliance range for the month, or approximately 0.14% of the time.

All permit parameters were measured well within our permit limits except for fluoride. Our fluoride analysis ranged from 5.7 mg/l to 10.0 mg/l with an average monthly level of 6.9 mg/l. We have increased our clarifier outlet pH from 8.5 to 9.0 as discussed in our letter last month. We are now performing more tests on our clarifier inlet/outlet to determine removal efficiencies - as well as reviewing upstream sources for possible loading changes.

Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: P.O. Box 03180

Portland, OR 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-9

(17-19) DISCHARGE NUMBER: 83

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	87	03	01	TO	87	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX. (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	285,000	424,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
MV1 BOD	SAMPLE MEASUREMENT	12	14	#/D	3.2	5.0	6.5	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	81	162		-	18	36			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	19	28	#/D	5.5	7.7	10.5	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	81	162		-	23	30			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.005	<.005	#/D	<.002	<.002	<.002	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.11	.27		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.006	<.007	#/D	<.002	<.002	.003	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	1.3	2.8		-	.03	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	18	27	#/D	5.7	6.9	10.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	33	66		-	6	12			1/7	24 HC
MV1 T.T.O.	SAMPLE MEASUREMENT	-	-	-	-	-	.12	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: John Pittman	503	243-2020	87	04	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034290

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS P.O. Box 03180
Portland, OR 97203
FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-9 PERMIT NUMBER
(17-19) 83 DISCHARGE NUMBER
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	87	03	01	TO	87	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	98,000	145,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT									Monthly Record	
Total PO_3= MV3	SAMPLE MEASUREMENT	-	-	-	0	.1	.3	mg/l		1/7	Grab
	PERMIT REQUIREMENT									1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	384,000	479,000	GPD	-	-	-	-		Totalizing	
	PERMIT REQUIREMENT									Monthly	
Outfall Temperature	SAMPLE MEASUREMENT	-	-		23	23.3	24			1/7	Grab
	PERMIT REQUIREMENT						29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		2.8	-	9.9	pH units		Continuous	
	PERMIT REQUIREMENT				6.0		9.0			Record	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
John Pittman/Dir Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: John Pittman	503	243-2020	87	04	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

Total time in compliance was 99.9% of the time. Total time out of compliance was 64.7 minutes, or .14% of the time. No excursions were longer than 1 hour.

SCOEPA00034291

Murray

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 12, 1987

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
611 S.W. 6th Avenue
Portland, Oregon 97204

Dear Mr. Davis:

February, 1987 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for February, 1987.

Our pH measured 16.8 minutes out of the 6.0 to 9.0 compliance range for the month, or approximately 0.04% of the time.

All permit parameters were measured well within our permit limits except for fluoride. Our fluoride analysis ranged from 5.5 mg/l to 8.0 mg/l with an average monthly level of 6.8 mg/l. To reduce our effluent fluoride concentration, we have increased our clarifier pH from 8.5 to 9.0. This should bring us back in compliance.

Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME: WAC[illegible] SILTRONIC CORPORATION

ADDRESS: PO Box 03180
Portland, OR 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE [illegible]NITORING REPORT (*DMR*)

Form Approved
[illegible] No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-9

(17-19) DISCHARGE NUMBER: 82

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	87 (20-21)	02 (22-23)	01 (24-25)	TO	87 (26-27)	02 (28-29)	28 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waster Flow - MVI	SAMPLE MEASUREMENT	314,000	435,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			[illegible]	
MVI BOD	SAMPLE MEASUREMENT	14	20	#/D	4	5	6	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	31	162		-	[illegible]	30			1/7	24 HC
MVI TSS	SAMPLE MEASUREMENT	21	27	#/D	4.5	7.5	11.5	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	31	162		-	[illegible]	30			1/7	24 HC
MVI Cr 6+	SAMPLE MEASUREMENT	<.009	<.009	#/D	<.003	<.003	<.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.31	.97		-	[illegible]	[illegible]			1/7	24 HC
MVI Cr Total	SAMPLE MEASUREMENT	<.02	<.02	#/D	<.006	<.006	<.006	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	1.6	5.4		-	[illegible]	1.0			1/7	24 HC
MVI Fluoride	SAMPLE MEASUREMENT	20	26	#/D	5.5	6.8	8.0	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT	34	85		-	[illegible]	12				
MVI T.T.O	SAMPLE MEASUREMENT	-	-		-	-	.06	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By: John Pittman	503	243-2020	87	03	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

Fluoride discharge averaged 6.8 mg/l. See attached cover letter.

SCOEPA00034293

GENERAL INSTRUCTIONS

1. If form has been partially completed by preprinting, disregard instructions directed at entry of that information already preprinted.
2. Enter "PERMITTEE NAME/MAILING ADDRESS (and facility name/location, if different)," "PERMIT NUMBER," and "DISCHARGE NUMBER" where indicated. (A separate form is required for each discharge.)
3. Enter dates beginning and ending "MONITORING PERIOD" covered by form where indicated.
4. Enter each "PARAMETER" as specified in monitoring requirements of permit.
5. Enter "SAMPLE MEASUREMENT" data for each parameter under "QUANTITY" and "QUALITY" in units specified in permit. "AVERAGE" is normally arithmetic average (geometric average for bacterial parameters) of all sample measurements for each parameter obtained during "MONITORING PERIOD." "MAXIMUM" and "MINIMUM" are normally extreme high and low measurements obtained during "MONITORING PERIOD." (NOTE to municipals with secondary treatment requirement, enter 30-day average of sample measurements under "AVERAGE" and enter maximum 7-day average of sample measurements obtained during monitoring period under "MAXIMUM".)
6. Enter "PERMIT REQUIREMENT" for each parameter under "QUANTITY" and "QUALITY" as specified in permit.
7. Under "NO. EX" enter number of sample measurements during monitoring period that exceed maximum (and/or minimum or 7-day average as appropriate) permit requirement for each parameter. If none, enter "0".
8. Enter "FREQUENCY OF ANALYSIS" both as "SAMPLE MEASUREMENT" (actual frequency of sampling and analysis used during monitoring period) and as "PERMIT REQUIREMENT" specified in permit (e.g., Enter "CONT." for continuous monitoring, "1/7" for one day per week, "1/30" for one day per month, "1/90" for one day per quarter, etc.).
9. Enter "SAMPLE TYPE" both as "SAMPLE MEASUREMENT" (actual sample type used during monitoring period) and as "PERMIT REQUIREMENT" (e.g., Enter "GRAB" for individual sample, "24HC" for 24-hour composite, "N/A" for continuous monitoring, etc.).

FOLD HERE FIRST

10. WHERE VIOLATIONS OF PERMIT REQUIREMENTS ARE REPORTED, ATTACH A BRIEF EXPLANATION TO DESCRIBE CAUSE AND CORRECTIVE ACTIONS TAKEN. REFERENCE EACH VIOLATION BY DATE.
11. If "no discharge" occurs during monitoring period, enter "NO DISCHARGE" across form in place of data entry.
12. Enter "NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER" with "SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT," "TELEPHONE NUMBER," and "DATE" at bottom of form.
13. Mail signed Report to Office(s) by date(s) specified in permit. Retain copy for your records.
14. More detailed instructions for use of this DISCHARGE MONITORING REPORT (DMR) form may be obtained from Office(s) specified in permit.

LEGAL NOTICE

This report is required by law (33 U.S.C. 1318; 40 C.F.R. 125.27). Failure to report or failure to report truthfully can result in civil penalties not to exceed $10,000 per day of violation, or in criminal penalties not to exceed $25,000 per day of violation, or by imprisonment for not more than one year, or by both.

FOLD HERE SECOND

PLACE STAMP HERE

FOLD HERE THIRD

STAPLE HERE

SCOEPA00034294

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS P.O. Box 03180
Portland, OR 97203
FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-9 PERMIT NUMBER

(17-19) 83 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	87 (20-21)	03 (22-23)	01 (24-25)	TO	87 (26-27)	03 (28-29)	31 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	98,000	145,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
Total PO_3= MV3	SAMPLE MEASUREMENT	-	-	-	0	.1	.3	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	9.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	384,000	479,000	GPD	-	-	-	-		Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
Outfall Temperature	SAMPLE MEASUREMENT	-	-		23	23.3	24			1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.1			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		2.8	-	9.9	pH units		Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			Recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John Pittman/Dir Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

By: John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 87 MO 04 DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

Total time in compliance was 99.9% of the time. Total time out of compliance was 64.7 minutes, or .14% of the time. No excursions were longer than 1 hour.

SCOEPA00034295

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

February 13, 1987

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
611 S.W. 6th Ave.
Portland, OR 97204

Dear Mr. Davis:

January, 1987 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for January, 1987.

Our pH measured 142 minutes out of the 6.0 to 9.0 compliance range for the month, or approximately 0.30% of the time.

All permit parameters were measured well within our permit limits, based on our new NPDES permit approved by the Environmental Quality Commission on January 23, 1987.

Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: PO Box 03180
Portland, OR 97203

FACILITY: 7200 NW Front Ave

LOCATION: Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)

DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-9

(17-19) DISCHARGE NUMBER: 81

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	87	01	01	TO	87	01	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	321,000	452,000	GPD	-	-	-			Continuous Totalizing	
	PERMIT REQUIREMENT	"	"		"	"	"			Recorder	
MV1 BOD	SAMPLE MEASUREMENT	14	22		3	6	10	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	81	192		-	15	30			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	8	13		2	3	4	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	81	192		-	15	30			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.005	<.006		<.002	<.002	<.002	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.11	.27		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.013	<.016		<.005	<.005	<.005	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	1.6	3.4		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	14	20		3.8	5.3	6.2	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	33	66		-	6	12			1/7	24 HC
MV1 T.T.O.	SAMPLE MEASUREMENT	-	-		-	-	.06	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: [signature]	503 (AREA CODE)	243-2020 (NUMBER)	87 (YEAR)	02 (MO)	10 (DAY)
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034297

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-9 — PERMIT NUMBER

(17-19) 81 — DISCHARGE NUMBER

2834JJ
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	87	01	01	TO	87	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	73,000	226,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	"	"		"	"				Recorder	
Total PO_3 = MV3	SAMPLE MEASUREMENT	-	-		.2	1.0	1.5	mg/l		1/7	Grab
	PERMIT REQUIREMENT	"	"		"	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	394,000	510,000	GPD	-	-	-	-		Totalizing Recorder	
	PERMIT REQUIREMENT	"	"		"						
Outfall Temperature	SAMPLE MEASUREMENT	-	-		16.3	19.7	23.0	°C		1/7	Grab
	PERMIT REQUIREMENT	"	"		"	"	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		3.2	-	10.6	pH units		Continuous Recorder	
	PERMIT REQUIREMENT	"	"		6.0	"	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By: John Pittman	503 243-2020	87	02	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was within compliance 99.7% of the time. Total time out of complianee was 142 minutes, or .02% of the time. No excursion was longer than one hour.

SCOEPA00034298

WEEKLY FCILITIES ANALYSES

WEEK ENDING: 3-6-87

TEST	SAMPLE			
	OWW	MV-E	WWPT EFF	COMB OUTFALL
1. BOD (mg/l)			6.5 *	
2. TSS (mg/l)			9.0 *	
3. FLUORIDE (mg/l)	16.8 #		6.1 *	
4. TOTAL INORG PHOS (mg/l)		0.013 *		
5. CHROMIUM IV (mg/l)			<0.002*	
6. CHROMIUM TOTAL (mg/l)			0.002 *	
7. TCE (ppm)	0.09 #			
8. TEMPERATURE (C)		_____*		23 *
9. pH		_____*		6.3 *

10. BACTERIOLOGY (COLONIES/L)

HOUSE RODI _____ POLISHING RODI _____ SPECIAL RODI _____

COMMENTS: _____

_____

_____

NOTES: * DISCHARGE PERMIT CITY OF PORTLAND

DISCHARGE PERMIT DEPARTMENT OF ENVIRONMENTAL QAULITY

TJR 3-31-87

WEEKLY FCILITIES ANALYSES

WEEK ENDING: 3-13-87

TEST	SAMPLE			
	OWW	MV-E	WWPT EFF	COMB OUTFALL
1. BOD (mg/l)			3.2 *	
2. TSS (mg/l)			5.5 *	
3. FLUORIDE (mg/l)	4.25 #		5.85*	
4. TOTAL INORG PHOS (mg/l)		0.044*		
5. CHROMIUM IV (mg/l)			< 0.002*	
6. CHROMIUM TOTAL (mg/l)			0.003 *	
7. TCE (ppm) 3-11-87	0.12 #			
8. TEMPERATURE (C)		_____*		_____*
9. pH		_____*		_____*

10. BACTERIOLOGY (COLONIES/L)

HOUSE RODI _____ POLISHING RODI _____ SPECIAL RODI _____

COMMENTS: Data put Together/gathered by T.J.R.

NOTES: * DISCHARGE PERMIT CITY OF PORTLAND

DISCHARGE PERMIT DEPARTMENT OF ENVIRONMENTAL QAULITY

TJR 3-31-87

WEEKLY FCILITIES ANALYSES

WEEK ENDING: 3-20-87

TEST	SAMPLE			
	OWW	MV-E	WWPT EFF	COMB OUTFALL
1. BOD (mg/l)			5.0 *	
2. TSS (mg/l)			5.7 *	
3. FLUORIDE (mg/l)	1.33 #		10.0 * AquaTec	
4. TOTAL INORG PHOS (mg/l)		8. *		
5. CHROMIUM IV (mg/l)			<0.002 *	
6. CHROMIUM TOTAL (mg/l)			<0.002 *	
7. TCE (ppm)	0.09 #			
8. TEMPERATURE (C)				24 *
9. CHLORINE FREE (mg/l)				*

10. BACTERIOLOGY (COLONIES/ml)

HOUSE RODI 0 POLISHING RODI 0.042 SPECIAL RODI 0.176

COMMENTS: _____

_____

_____

NOTES: * DISCHARGE PERMIT CITY OF PORTLAND

DISCHARGE PERMIT DEPARTMENT OF ENVIRONMENTAL QAULITY

TJR 3-26-87

WEEKLY FCILITIES ANALYSES

WEEK ENDING: 3-27-87

TEST	SAMPLE			
	OWW	MV-E	WWPT EFF	COMB OUTFALL
1. BOD (mg/l)			5.3 *	
2. TSS (mg/l)			10.5 *	
3. FLUORIDE (mg/l)	1.13 #		5.7 * → Aqua Tec	
4. TOTAL INORG PHOS (mg/l)		0.12 * (3-23-87) 0.30 (3-27-87)		
5. CHROMIUM IV (mg/l)			<0.002 *	
6. CHROMIUM TOTAL (mg/l)			<0.002 *	
7. TCE (3-25-87) (ppm)	0.11 #			
8. TEMPERATURE (C)		20 pH: 7.2		23 * pH 7.3
9. CHLORINE FREE (mg/l)				— *

10. BACTERIOLOGY (COLONIES/ml)

HOUSE RODI 0.001 POLISHING RODI 0.039 SPECIAL RODI 0.235

NOTES: * DISCHARGE PERMIT CITY OF PORTLAND

DISCHARGE PERMIT DEPARTMENT OF ENVIRONMENTAL QAULITY

TJR 3-26-87

SCOEPA00034302

cc Greg
Mike
Tom

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

March 11, 1987

Wacker Siltronic Corp.
P. O. Box 03180
Portland, OR 97203

Laboratory Report No. 870321

Subject: Chemical analysis of wastewater sample.
Samples received: March 6, 1987

Analysis	Clarifier effluent	OWW	MV-3
BOD-5, mg/L	6.5		
S. S., mg/L	9.0		
Fluoride, mg/L	6.1	16.8	
Tptal phosphate, mg/L			0.013

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

RECEIVED
MAR 12 1987
ACCOUNTS PAYABLE

SCOEPA00034303

RECEIVED
FEB 18 1987
WACKER SILTRONIC ENGINEERING

RECEIVED
FEB 1987
WACKER SILTRONIC ENGINEERING

cc: Greg. Mike

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

February 13, 1987

Wacker Siltronic Corp.
P. O. Box 02180
Portland, OR 97203

Laboratory Report No. 870233

Subject: Chemical analysis of wastewater samples.
Samples received: February 6, 1987

Analysis	Clarifier effluent	ONW	MV-3
BOD-5, mg/L	0.8		
S. S., mg/L	4.5		
Fluoride, mg/L	8.0	7.5	
Total phosphate, mg/L			0.176

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

FEB 17 1987
ACCOUNTS PAYABLE

WATER AND WASTEWATER ANALYSIS

SCOEPA00034304

RECEIVED
MAR 9 1987
WACKER SILTRONIC ENGINEERING

cc: Tom Gray Mike

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

March 5, 1987

Wacker Siltronic Corp.
P. O. Box 03180
Portland, OR 97203

Laboratory Report No. 8702103

Subject: Chemical analysis of wastewater samples.
Samples received: February 27, 1987

Analysis	Clarifier effluent	OWW	MV-3
BOD-5 , mg/L	3.6		
S. S. , mg/L	11.5		
Fluoride, mg/L	5.5	16	
Total phosphate, mg/L			0.055

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

SCOEPA00034305

Greg
Mike
Tom

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

February 26, 1987

Wacker Siltronic Corp.
P. O. Box 03180
Portland, OR 97203

Laboratory Report No. 870279

Subject: Chemical analysis of wastewater sample.
Sample received: February 20, 1987

Analysis	Clarifier effluent	CWW	MV-3
BOD-5 , mg/L	4.6		
S. S. , mg/L	7.5		
Fluoride, mg/L	5.75	2.3	
Total phosphate, mg/L			0.14

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

RECEIVED
FEB 27 1987
ACCOUNTS PAYABLE

WATER AND WASTEWATER ANALYSIS

SCOEPA00034306

Gary, Mike Tom

aqua tech laboratory, inc.

2417 S.E. HAWTHORNE PORTLAND, OREGON 97214
(503) 233-9871

February 20, 1987

Wacker Siltronic Corp.
P. O. Box 03180
Portland, OR 97203

Laboratory Report No. 870256

Subject: Chemical analysis of wastewater samples.
Samples received: February 13, 1987

Analysis	Clarifier effluent	OWW	MV-3
BOD-5, mg/L	4.2		
S. S., mg/L	6.5		
Fluoride, mg/L	7.75	11.0	
Total phosphate, mg/L			0.13

AQUA-TECH LABORATORY, INC.

C. L. Chang

C. L. Chang

RECEIVED
FEB 23 1987
WACKER SILTRONIC ENGINEERING

WATER AND WASTEWATER ANALYSIS

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/20/87
ANALYSTS: [illegible]

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ <0.006				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/27/87
ANALYSTS: [signature]

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ <0.006				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034309

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/13/87
ANALYSTS: W. Nixon

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ <0.006				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034310

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/16/87
ANALYSTS: [illegible]

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ <0.006				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034311

WACKER SILTRONIC CORPORATION

STR# 222

SPECIAL TEST REPORT: INCOMING INSPECTION &ANALYTICAL SUPPORT LABS

DATE REPORTED 3/3/87

TEST METHOD DESCRIPTION AND IDENTIFICATION:

Test Combined Effluent Composite and WAD Composite for fluoride. The combined effluent sample is being split with Aquatec. AquaTEC results are coming back high and want to check fluoride results and isolate source of apparent excess fluoride in the combined effluent.

SAMPLE COLLECTED BY: Greg Carr DATE 2/27/87

SAMPLE ANALYZED BY: Elinor Levin DATE 3/3/87

RESULTS:

SAMPLE	FLUORIDE PPM
COMBINED EFFLUENT (CE) 2/27/86	5.7
WEAK ACID DRAIN (WAD)	1.5

NPDES PARAMETER LIMITS FLUORIDE ION PPM NOM 6 MAX 20

NOTEBOOK PAGE BH 56 DISC FILE B:CEWADF.37

FTIR # IC# EDS#

COPIES SENT TO: Murray, Greg

FORM# 107-016

WACKER SILTRONIC CORPORATION

STR# 223,224

SPECIAL TEST REPORT: INCOMING INSPECTION & ANALYTICAL SUPPORT LABS

DATE REPORTED 3/5/87

TEST METHOD DESCRIPTION AND IDENTIFICATION:

FLUORIDE AND PH IN WAD SUMP AND INLET

A WAD sump sample was submitted to fluoride ion analysis and pH. A sample from the WAD inlet was submitted later for fluoride ion analysis and pH.

SAMPLE COLLECTED BY: Jeff Jones DATE 3/3/87

WAD inlet 3/3/87 2130 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 3/3,4/87

RESULTS:

SAMPLE	PH	PPM FLUORIDE ION
WAD Sump	1.6	5,010
WAD Inlet	1.9	2,310

NOTEBOOK PAGE BH 56-57 DISC FILE B:WADSUMF.337

FTIR # IC# EDS#

COPIES SENT TO: Murray, Mike, Greg

FORM# 107-016

SCOEPA00034313

dwtp287 TIME OUT — GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
31.00	6.0 - 9.0	1	536507	121273	1894880	3793928	1	51330	196120	20300	69300	265420
32	0.00	2	541640	140885	1895083	3794621	2	156770	376020	11500	64400	440420
33	0.00	3	557317	178487	1895198	3795265	3	165430	406990	16100	61100	468090
34	0.00	4	573860	219186	1895359	3795876	4	180660	435030	14600	61700	496730
35	0.00	5	591926	262689	1895505	3796493	5	155270	411290	14300	61000	472290
36	0.00	6	607453	303818	1895648	3797103	6	147130	393500	13900	59600	453100
37	10.40	7	622166	343168	1895787	3797699	7	55460	185440	12200	55300	240740
38	10.40	8	627712	361712	1895909	3798252	8	41240	190080	17700	56300	246380
39	10.40	9	631836	380720	1896086	3798815	9	142070	400470	13300	52600	453070
40	10.40	10	646043	420767	1896219	3799341	10	149350	391870	13200	50300	442170
41	10.40	11	660978	459954	1896351	3799844	11	164490	408440	14100	52900	461340
42	10.40	12	677427	500798	1896492	3800373	12	160350	412030	16700	58100	470130
43	10.40	13	693462	542001	1896659	3800954	13	141970	355110	16100	62300	417410
44	10.40	14	707659	577512	1896820	3801577	14	60080	244750	13200	72100	316850
45	10.40	15	713667	601987	1896952	3802298	15	35590	236520	11500	61700	298220
46	10.40	16	717226	625639	1897067	3802915	16	36240	196120	15000	66100	262220
47	10.40	17	720850	645251	1897217	3803576	17	156730	360580	17400	83500	444080
48	10.90	18	736523	681309	1897391	3804411	18	170490	389420	15000	75800	465220
49	10.90	19	753572	720251	1897541	3805169	19	155220	353880	13900	69000	422880
50	10.90	20	769094	755639	1897680	3805859	20	162480	339520	16300	72200	411720
51	10.90	21	785342	789591	1897843	3806581	21	110290	199790	13800	76400	276190
52	10.90	22	796371	809570	1897981	3807345	22	31770	183480	19000	79000	262480
53	16.80	23	799548	827918	1898171	3808135	23	137630	360800	16900	93900	454700
54	16.80	24	813311	863998	1898340	3809074	24	148840	307880	14700	120300	428180
55	16.80	25	828195	894786	1898487	3810277	25	158680	289230	14700	110500	399730
56	16.80	26	844063	923709	1898634	3811382	26	161860	306770	14700	144000	450770
57	16.80	27	860249	954386	1898781	3812822	27	115740	278350	13300	103800	382150
58	16.80	28	871823	982221	1898914	3813860	28	43230	173780	12500	109000	282780
59	16.80	1	876146	999599	1899039	3814950	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	435030	180660	20300	144000	496730
MINIMUM FLOW GPD	173780	31770	11500	50300	240740
AVERAGE FLOW GPD	313688	121300	14854	75079	388766
MAXIMUM FLOW GPM	302	125	14	100	345
MINIMUM FLOW GPM	121	22	8	35	167
AVERAGE FLOW GPM	218	84	10	52	270
TOTAL FLOW GAL	8783260	3396390	415900	2102200	10885460

RO Blowdown switched to MV0 #3 @16:15, 2/23/87.

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
6.00	MG/L	6.2	4.5	0.003	0.006	8.0		0.18	393500
	LBS/DAY	20.3	14.8	0.010	0.020	26.3			
13.00	MG/L	4.2	6.5	0.003	0.006	7.8		0.13	355110
	LBS/DAY	12.4	19.3	0.009	0.018	23.1			
20.00	MG/L	4.6	7.5	0.003	0.006	5.8		0.14	339520
	LBS/DAY	13.0	21.2	0.008	0.017	16.4			
27.00	MG/L	3.6	11.5	0.003	0.006	5.5		0.06	278350
	LBS/DAY	8.4	26.7	0.007	0.014	12.8			
5.00	MG/L								411290
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	4.7	7.5	0.003	0.006	6.8			
4.00	LBS/DAY	13.5	20.5	0.009	0.017	19.6			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	TCE	FL-	SEWER FLOWS	
6.00	MG/L	0.06	7.50	147130	OWW
	LBS/DAY	0.07	9.20	0.91	DILUTION FACTOR
MG/L DISCHARGE		0.05	6.85		
13.00	MG/L	0.06	11.00	141970	OWW
	LBS/DAY	0.07	13.02	0.90	DILUTION FACTOR
MG/L DISCHARGE		0.05	9.88		
20.00	MG/L		2.30	162480	OWW
	LBS/DAY	0.00	3.12	0.91	DILUTION FACTOR
MG/L DISCHARGE		0.00	2.09		
27.00	MG/L		16.00	115740	OWW
	LBS/DAY	0.00	15.44	0.90	DILUTION FACTOR
MG/L DISCHARGE		0.00	14.35		
5.00	MG/L			155270	OWW
	LBS/DAY	0.00	0.00	0.92	DILUTION FACTOR
MG/L DISCHARGE		0.00	0.00		
AVERAGE	MG/L	0.03	9.01		
4.00	LBS/DAY	0.04	10.20		
MG/L DISCHARGE		0.03	8.29		

dwtp187 TIME OUT

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
0.00	6.0 - 9.0	1	190248	127427	1885143	3771312	1	1700	161870	14900	43300	205170
1	16.20	2	190418	143614	1885292	3771743	2	2190	153740	14000	48100	201840
2	16.20	3	190637	158988	1885432	3772226	3	7060	110130	16000	59500	169630
3	16.20	4	191343	170001	1885592	3772821	4	27640	172000	25400	69900	241900
4	16.20	5	194107	187201	1885846	3773520	5	161530	401700	41900	50800	452500
5	16.20	6	210260	227371	1886265	3774028	6	159320	417580	43600	49300	466880
6	16.20	7	226192	269129	1886701	3774521	7	149750	426730	44000	49100	475830
7	35.20	8	241167	311802	1887141	3775012	8	172170	388530	43700	44500	433030
8	35.20	9	258384	350655	1887578	3775457	9	138090	360550	33800	78300	438850
9	35.20	10	272193	386710	1887916	3776240	10	26310	202260	11800	225800	428060
10	35.20	11	274824	406936	1888034	3778498	11	43140	275640	33600	148300	423940
11	35.20	12	279138	434500	1888370	3779981	12	160040	451790	43900	58700	510490
12	35.20	13	295142	479679	1888809	3780568	13	153710	373390	40300	65900	439490
13	35.80	14	310513	517038	1889212	3781227	14	157120	384150	34500	64900	449050
14	35.80	15	326225	555453	1889557	3781876	15	156750	400640	44100	58500	459140
15	35.80	16	341900	595517	1889998	3782461	16	153160	396660	26100	68600	465260
16	134.50	17	357216	635183	1890259	3783147	17	60860	131050	12100	96800	227850
17	134.50	18	363302	648288	1890380	3784115	18	24220	221930	21600	106500	328430
18	134.50	19	365724	670481	1890596	3785180	19	184130	368420	44300	71500	439920
19	134.50	20	384137	707323	1891039	3785895	20	160770	387610	38700	61300	448910
20	134.50	21	400214	746084	1891426	3786508	21	165680	400820	46500	65300	466120
21	134.50	22	416782	786166	1891891	3787161	22	173740	388770	90500	55800	444570
22	142.30	23	434156	825043	1892796	3787719	23	153420	375940	44100	49500	425440
23	142.30	24	449498	862637	1893237	3788214	24	40030	169890	32300	69600	239490
24	142.30	25	453501	879626	1893560	3788910	25	61250	234920	19300	115500	350420
25	142.30	26	459626	903118	1893753	3790065	26	161980	419670	17000	78800	498470
26	142.30	27	475824	945085	1893923	3790853	27	154900	384420	18300	62200	446620
27	142.30	28	491314	983527	1894106	3791475	28	166170	411310	19400	63000	474310
28	142.30	29	507931	1024658	1894300	3792105	29	144080	412860	18900	62400	475260
29	142.30	30	522339	1065944	1894489	3792729	30	136230	373620	18800	55000	428620
30	142.30	31	535962	1103306	1894677	3793279	31	5450	179670	20300	64900	244570
31	142.30	1	536507	1121273	1894880	3793928	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL	SEWER
MAXIMUM FLOW GPD	451790	184130	90500	225800	510490	TOTAL
MINIMUM FLOW GPD	110130	1700	11800	43300	169630	
AVERAGE FLOW GPD	320595	111696	31410	72955	393550	143106
MAXIMUM FLOW GPM	314	128	63	157	355	
MINIMUM FLOW GPM	76	1	8	30	118	
AVERAGE FLOW GPM	223	78	22	51	273	99
TOTAL FLOW GAL	9758790	3457140	953400	2196700	11955490	4410540

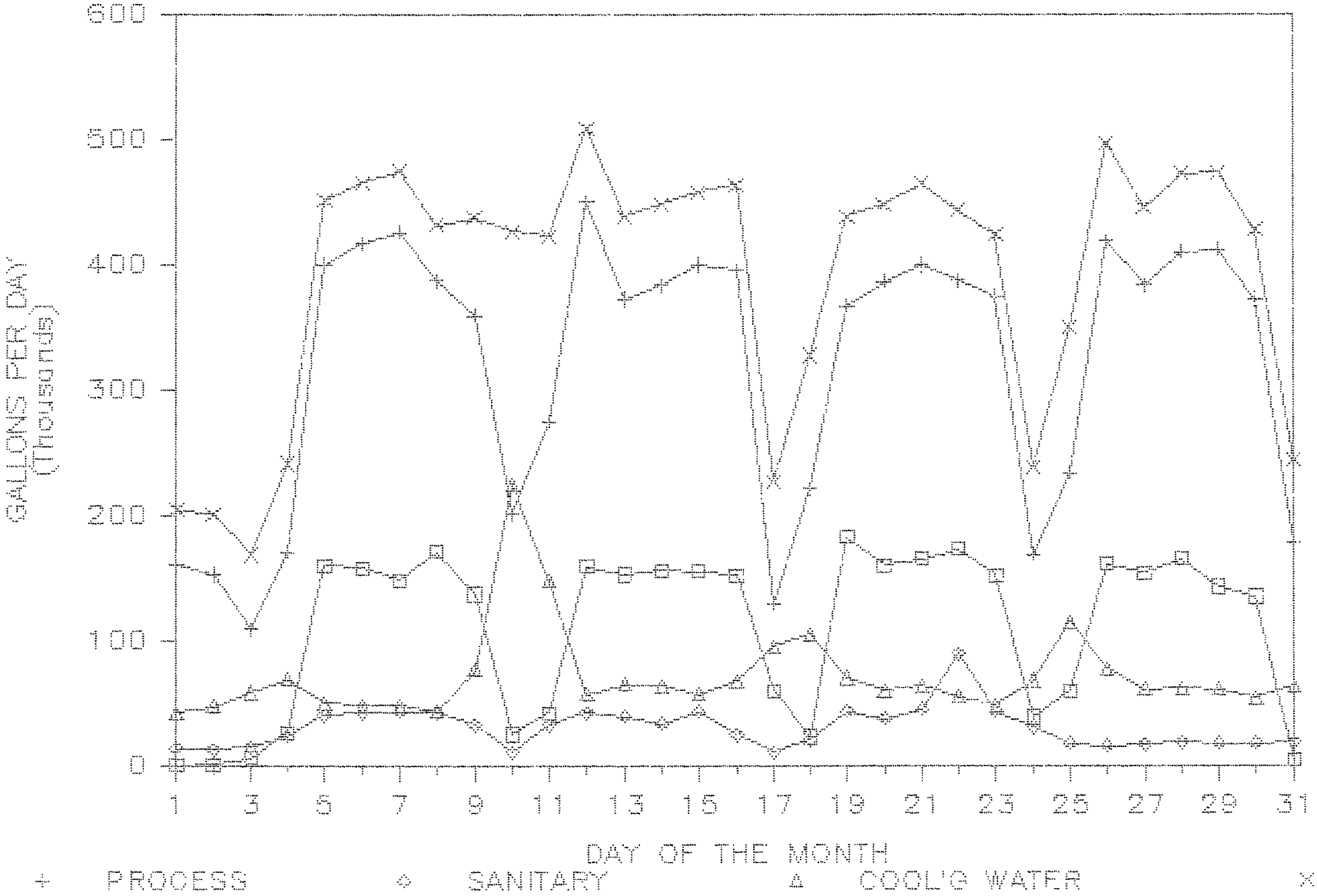
DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
2.00	MG/L	10.0	2.0	0.002	0.004	5.7	15.30	0.00	153740
	LBS/DAY	12.8	2.6	0.003	0.005	7.3			
14.00	MG/L	4.0	4.0	0.002	0.005	6.2			384150
	LBS/DAY	12.8	12.8	0.006	0.016	19.9			
23.00	MG/L	7.0	3.0	0.002	0.005	3.8	23.00		375940
	LBS/DAY	21.9	9.4	0.006	0.016	11.9			
30.00	MG/L	3.0	2.0	0.002	0.005	5.6	21.00		373620
	LBS/DAY	9.3	6.2	0.006	0.016	17.4			
5.00	MG/L								401700
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	6.0	2.8	0.002	0.005	5.3	14.8	0.0	422287.5
4.00	LBS/DAY	~~11.4~~ 14.2	7.8	0.005	0.013	14.1			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
2.00	MG/L								1.20	2190	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.02	0.14	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.16		
14.00	MG/L								3.60	157120	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	4.72	0.82	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	2.95		
23.00	MG/L								2.50	153420	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	3.20	0.78	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	1.94		
30.00	MG/L								0.10	136230	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.11	0.86	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.09		
9.00	MG/L			0.003	0.002	0.023	0.006			138090	OWW
	LBS/DAY	0.0	0.0	0.003	0.002	0.026	0.007	0.00	0.00	0.80	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.002	0.002	0.018	0.005	0.00	0.00		
AVERAGE	MG/L	0.0	0.0	0.001	0.001	0.006	0.002	0.00	1.85		
4.00	LBS/DAY	0.0	0.0	0.001	0.001	0.007	0.002	0.00	2.01		
MG/L DISCHARGE		0.0	0.0	0.001	.000	0.005	0.001	0.00	1.29		

SCOEPA00034315

WASTEWATER FLOWS

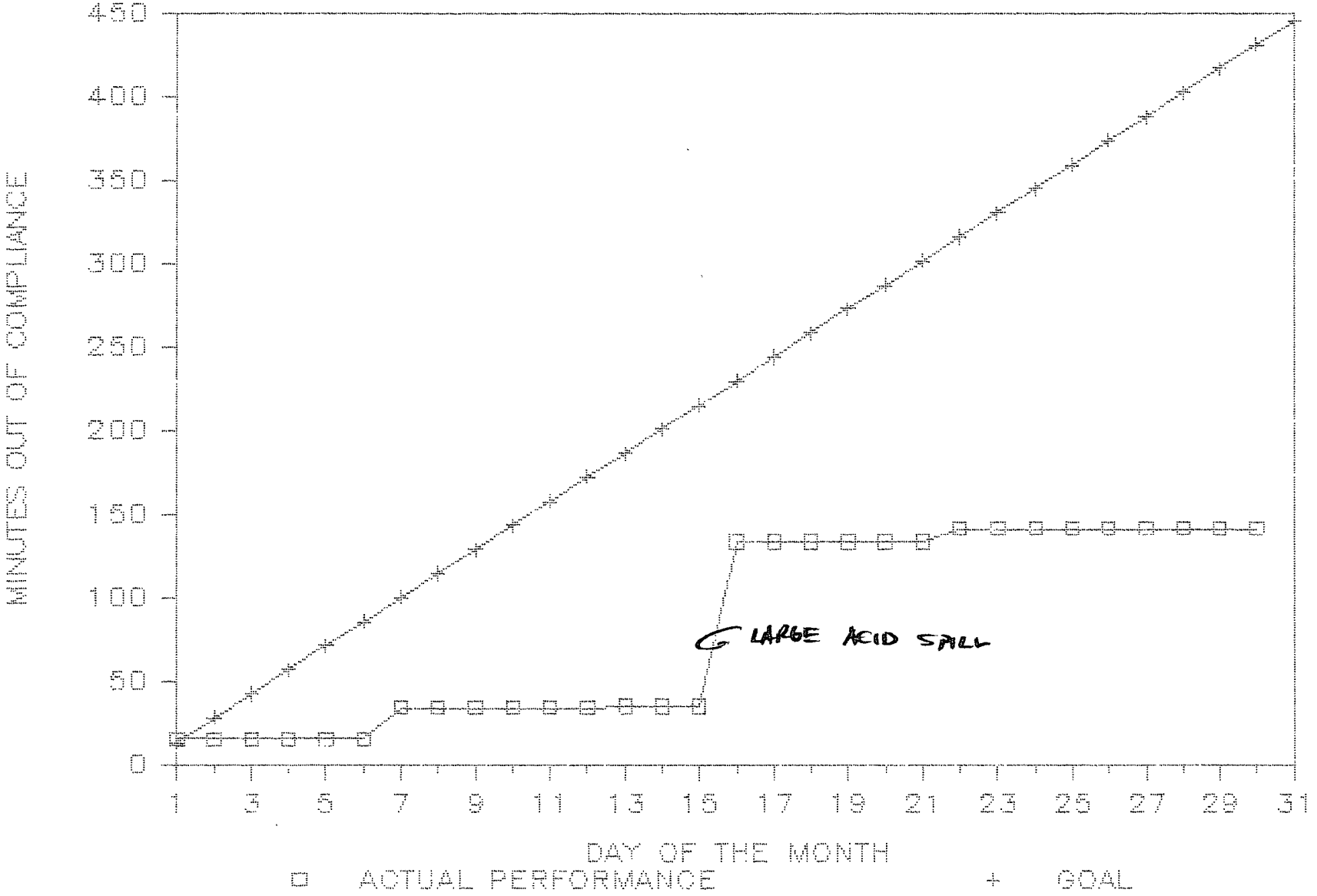
JANUARY 1987



SCOEPA00034316

pH COMPLIANCE

JANUARY 1987



SCOEPA00034317

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE:
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 1/30/87	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲–	+			
TSS	mg/l	–	23	60	▲– 2	+ 236			
F^-	mg/l	–	6	20	▲– 5.6	0.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲–				
Cr^{total}	mg/l	–	0.3	1	▲–				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲	
Temperature	°C	–	–	27			▲ 36	▲ 21	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034318

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/30/87
ANALYSTS: R. Lee

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034319

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE:
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 1/23/87	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 7	+			
TSS	mg/l	–	23	60	▲ 3	+ 128			
F^-	mg/l	–	6	20	▲ 3.8	2.5			
Cr^{6+}	mg/l	–	0.02	0.05	▲				
Cr^{total}	mg/l	–	0.3	1	▲				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.5	▲	
Temperature	°C	–	–	27			▲ 38	▲ 23	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034320

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/23/87
ANALYSTS: D/O Tan

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034321

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/16/87
ANALYSTS: D. M. Kar

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034322

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE:
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 1/14/87	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 4	+			
TSS	mg/l	–	23	60	▲ 4	+ 152			
F^-	mg/l	–	6	20	▲ 6.2	3.6			
Cr^{6+}	mg/l	–	0.02	0.05	▲				
Cr^{total}	mg/l	–	0.3	1	▲				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034323

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE:
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 1/16/87	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 2	+			
TSS	mg/l	–	23	60	▲ 3	+ 188			
F^-	mg/l	–	6	20	▲ 4.2	0.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲				
Cr^{total}	mg/l	–	0.3	1	▲				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.9	▲	
Temperature	°C	–	–	27			▲ 20.4	▲ 23.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034324

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE:
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 1/2/87	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 10	+			
TSS	mg/l	–	23	60	▲ 2	+ 202			
F^-	mg/l	–	6	20	▲ 5.7	1.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲				
Cr^{total}	mg/l	–	0.3	1	▲				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.5	▲	
Temperature	°C	–	–	27			▲ 30.2	▲ 15.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034325

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/2/87
ANALYSTS: (W) / N. Law.

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲	+			
TSS	mg/l	–	15	30	▲	+			
F^-	mg/l	–	6	20	▲				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.004				
Phosphates	mg/l	–	2	5			▲		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲	▲	
Temperature	°C	–	–	27			▲	▲	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034326

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 17, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Sugject: Annual TTO Analysis for
NPDES Permit No. 3647-J

As per Schedule B of the above referenced Waste Discharge Permit for our Portland facility, I am submitting the enclosed waste water analysis.

In accordance with 40 CFR 469.21(a) we are required to monitor all toxic organic compounds annually.

Northwest Testing Laboratories, Inc. of Portland, Oregon, performed an analysis of 26 TTO compounds. The only compound above tracer limits was Trichloroethylene (TCE), which we monitor for on a monthly basis. This sample was well below our limit of 1.37 mg/l.

Please call me at 243-2020, ext. 301 if you have any questions regarding this.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr (w/encl)
Jim Ellis (w/encl)
Jim Harper (w/encl)
John Pittman (w/encl)
Jerry Schaeffer (w/encl)

NORTHWEST TESTING LABORATORIES, INC.

CONSTRUCTION INSPECTION
MATERIALS INSPECTION
CHEMICAL ANALYSIS
PHYSICAL TESTING

5405 N. Lagoon Avenue
P.O. Box 17126
Portland, Oregon 97217-0126
Phone: (503) 289-1778

NON-DESTRUCTIVE TESTING
WELDING CERTIFICATION
SOIL TESTING
ASSAYING

December 20, 1985

Wacker Siltronic Corp.
P.O. Box 03180
Portland, OR 97203

Attention: Mr. Greg Carr

Subject: Analysis on one (1) sample submited on 12-11-85, per your P.O. number 53746.

Item: Wastewater

Analysis:

Trichloroethylene	330 ppb
2,4,6 Trichlorophenol	<2.2 ppb
1,2,4 Trichlorobenzene	<2.2 ppb
Chloroform	<2.2 ppb
1,2 Dichlorobenzene	<5.0 ppb
1,3 Dichlorobenzene	<5.0 ppb
1,4 Dichlorobenzene	<5.0 ppb
1,1,1 Trichloroethane	<2.2 ppb
Methylenechloride	<5.0 ppb
Tetrachloroethylene	<1.0 ppb
2, Chlorophenol	<10.0 ppb
2,4 Dichloropheneol	<2.0 ppb
Pentachlorophenol	<0.8 ppb

Report No: 293284

Analysis: (cont.)

1,1 Dichloroethylene	<5.0 ppb
4, Nitrophenol	<210 ppb
2, Nitrophenol	<210 ppb
Phenol	<210 ppb
Napthalene	<210 ppb
Anthracene	<210 ppb
Isophorone	<210 ppb
Toluene	<210 ppb
Ethylbenzene	<210 ppb
1,2 Diphenylhydrazine	<210 ppb
Bis (2-ethylhexyl) phthalate.....	<210 ppb
Di-n-butyl Phthalate	<210 ppb
Butylbenzyl Phthalate	<210 ppb

Respectfully,
NORTHWEST TESTING LABORATORIES, INC.

Howard Holmes
Assistant Supervisor, Chemistry

Report No: 293284

Murray

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P O Box 03180
Portland, OR 97203
7200 N.W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 8, 1987

Mr. George Davis
Field Representative
Northwest Region
Department of Environmental Quality
611 S.W. 6th Ave.
Portland, OR 97204

Dear Mr. Davis:

December, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for December, 1986.

Our pH measured 27.1 minutes out of the 6.0 to 9.0 compliance range for the month, or approximately 0.06% of the time.

The BOD loading parameter for the combined effluent stream was out of compliance, due to the present delay of issuing our new 5-year permit. We anticipate that our new permit, as proposed by the Water Quality Division, will be issued at the Environmental Quality Commission on January 23, 1987.

Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 80

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	12	01	TO	86	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MVI	SAMPLE MEASUREMENT	320,000	435,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MVI Bod	SAMPLE MEASUREMENT	37	53	#/D	4	12	16	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	25	50		-	15	30			1/7	24 HC
MVI TSS	SAMPLE MEASUREMENT	14	19	#/D	2.0	4.5	6.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	25	50		-	15	30			1/7	24 HC
MVI Cr 6+	SAMPLE MEASUREMENT	<.016	<.016	#/D	<.005	<.005	<.005	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.03	.05			1/7	24 HC
MVI Cr Total	SAMPLE MEASUREMENT	<.022	<.022	#/D	<.007	<.007	<.007	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MVI Fluoride	SAMPLE MEASUREMENT	16	21	#/D	3.2	5.0	6.8	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	10	20		-	6	12			1/7	24 HC
MVI T.T.O.	SAMPLE MEASUREMENT	-	-	-	-	-	.08	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By: [signature]	503	243-2020	87	01	12
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034331

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO BOX 03180
Portland, OR. 97203
FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-0003058-7
(17-19) DISCHARGE NUMBER: 80
2834JJ
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	12	01	TO	86	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	50,000	143,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	.5	1.0	1.5	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.5	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	370,000	545,000	GPD	-	-	-	-		Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	19.0	20.9	22.4	°C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	- -	-	4.5	-	10.6	pH units		Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By:	503 243-2020	87	01	12
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

Total time out of compliance was 27.1 minutes, or .06% of the time. No incidents were longer than one hour. Total time in complaince was 99.94% of the time.

SCOEPA00034332

Appendix 1

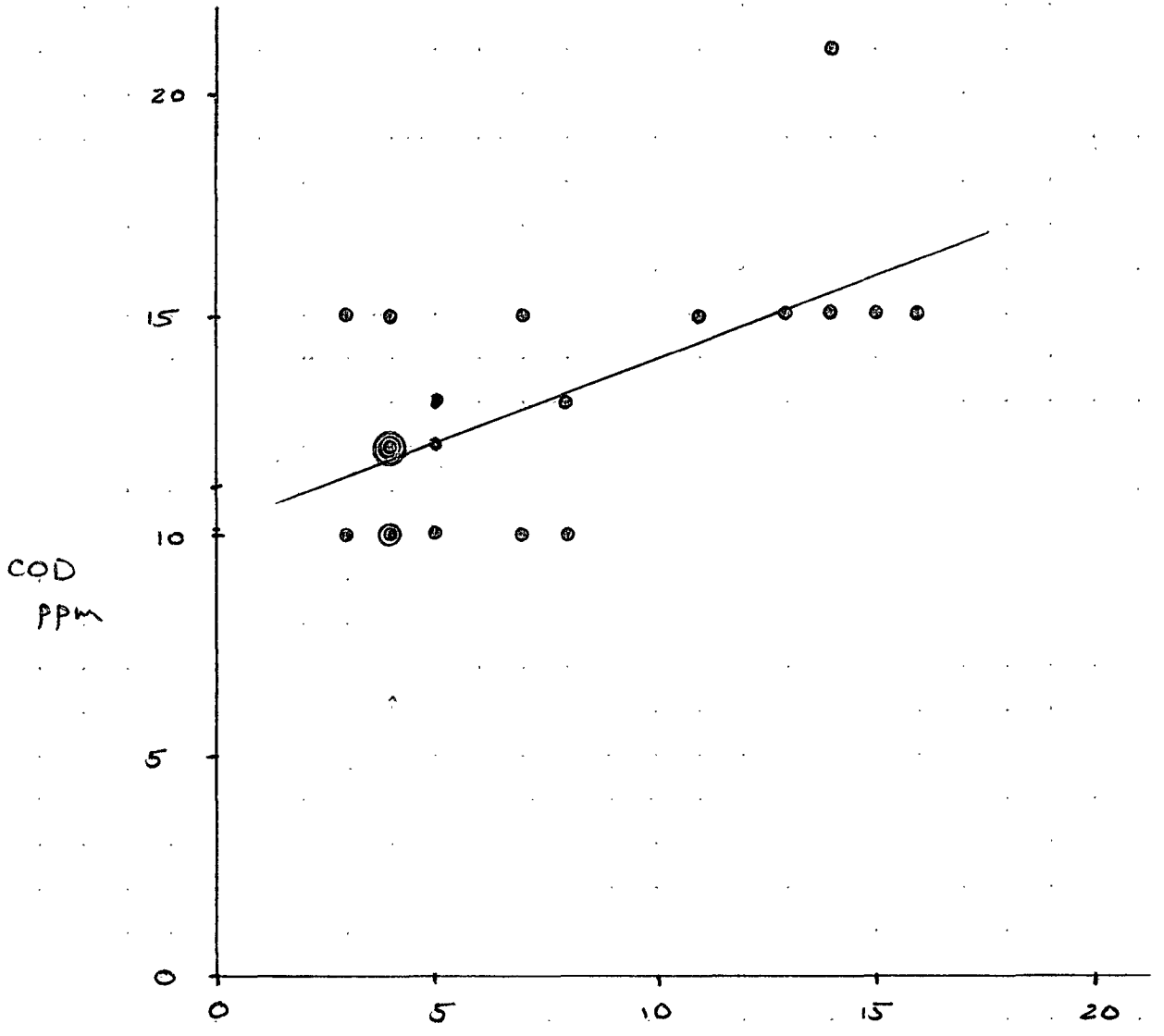
BOD VS COD WACKER SILTRONIC COMBINED EFFLUENT

8/1/86 - 12/29/86

slope = .38

intercept = 1.91

r = .63



2/5/87

GEC

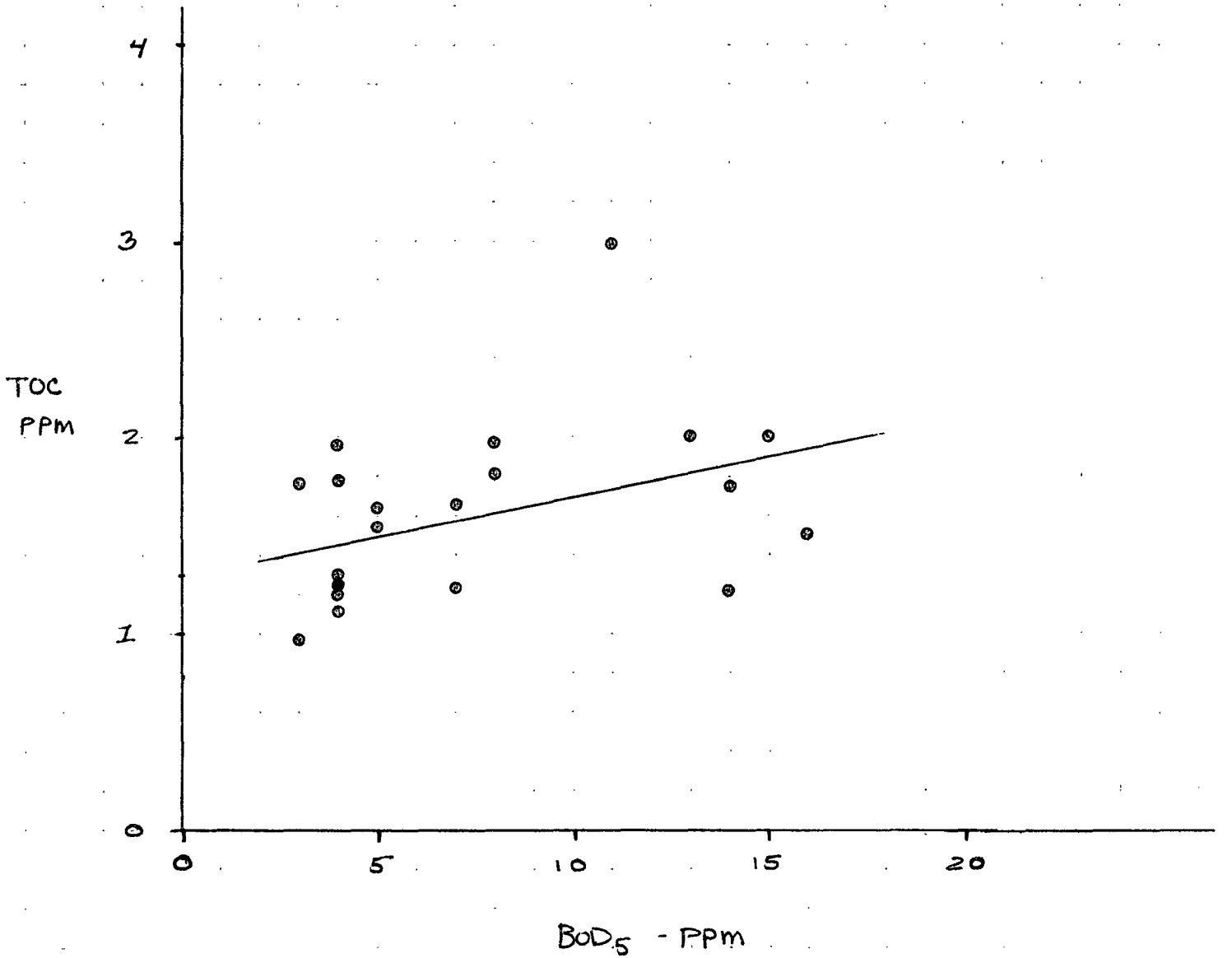
SCOEPA00034333

Appendix 2

BOD Vs TOC WACKER SILTRONIC COMBINED EFFLUENT

8/1/86 - 12/29/86

slope = .0383
intercept = 1.33
corr. = .38



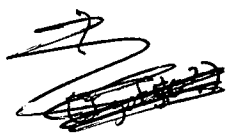
2/5/87
GEC

SCOEPA00034334

(Retype) Appendix 3

BOD - COD - TOC DATA

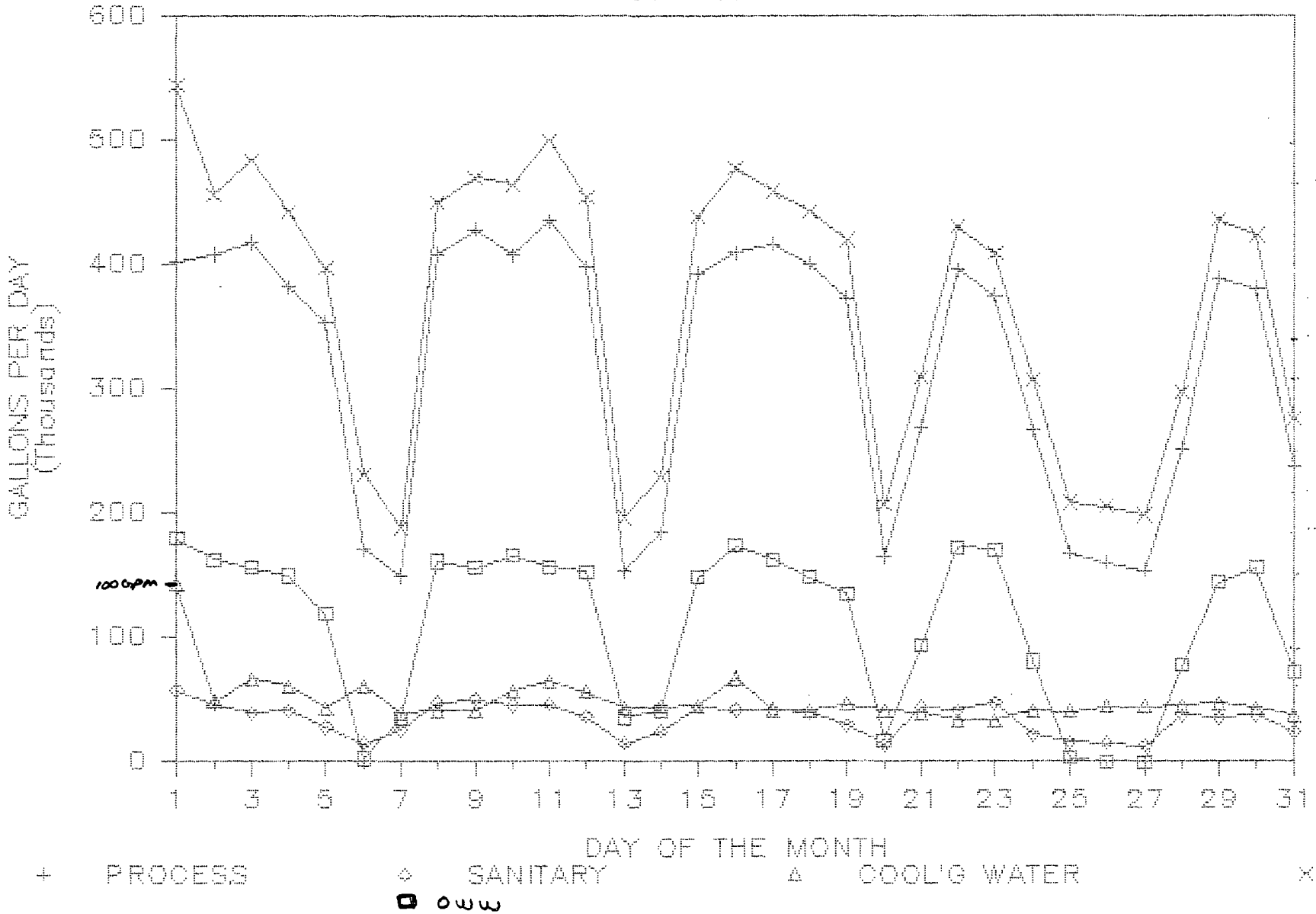
DATE	BOD	COD	TOC
8/1/86	4	10	1.25
8/8/86	4	10	1.27
8/15/86	4	15	1.07
8/22/86	3	10	0.96
~~8/28/86~~	~~5~~	~~13~~	~~NO DATA~~
9/5/86	3	15	1.74
9/12/86	4.	12	1.12
9/19/86	5.	10	1.64
9/26/86	8.	13	1.81
10/3/86	7.	10	1.66
~~10/10/86~~		~~12~~	~~1.70~~
10/17/86	7	15	1.26
10/24/86	5	12	1.53
10/31/86	11	15	2.93
11/7/86	8	10	1.94
11/14/86	15	15	2.02
11/21/86	4	12	1.94
11/26/86	14	20	1.72
12/5/86	13	15	2.01
12/12/86	16	15	1.52
12/19/86	4	12	1.78
12/29/86	14	15	1.22



SCOEPA00034335

WASTEWATER FLOWS

DECEMBER 1986



SCOEPA00034336

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION
December 16, 1986

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 12/5/86
0945 Hrs, PWW 12/12/86 0930 hrs, OWW 12/12/86 0940hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 12/5/86
12/12/86

RESULTS:

SAMPLE	TCE PPM
OWW 12/5/86	0.07
PWW 12/12/86	0.08
OWW 12/12/86	0.10

Notebook-Page BE 122-125 Disc File B:WAST.D16

COPIES SENT TO: Murray, Mike, Greg
FORM# 107-016

SCOEPA00034337

Greg Carr

DWTP1286 TIME OUT

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
334.00	6.0 - 9.0	1	846086	135249	1874440	3755808	1	179650	402090	57800	142900	544990
335	*	2	864051	175458	1875018	3757237	2	163120	409040	46200	48500	457540
336	*	3	880363	216362	1875480	3757722	3	156590	418620	39400	66600	485220
337	*	4	896022	258224	1875874	3758388	4	149880	382960	41100	60600	443560
338	*	5	911010	296520	1876285	3758994	5	119360	354020	28300	43700	397720
339	*	6	922946	331922	1876568	3759431	6	2630	170590	15000	61300	231890
340	*	7	923209	348981	1876718	3760044	7	35270	149280	25800	39900	189180
341	*	8	926736	363909	1876976	3760443	8	161940	409100	48100	41300	450400
342	*	9	942930	404819	1877457	3760856	9	156800	429100	50300	41300	470400
343	*	10	958610	447729	1877960	3761269	10	166450	407990	46000	57300	465290
344	*	11	975255	488528	1878420	3761842	11	157280	435490	46900	65200	500690
345	*	12	990983	532077	1878889	3762494	12	152920	398740	36600	56500	455240
346	*	13	1006275	571951	1879255	3763059	13	36070	153400	14700	43600	197000
347	*	14	1009882	587291	1879402	3763495	14	41500	184720	25100	45000	229720
348	*	15	1014032	605763	1879653	3763945	15	148410	394100	45000	45500	439600
349	*	16	1028873	645173	1880103	3764400	16	174360	410350	42100	67500	477850
350	*	17	1046309	686208	1880524	3765075	17	163020	417410	41500	42200	459610
351	*	18	1062611	727949	1880939	3765497	18	148350	401750	40000	41500	443250
352	*	19	1077446	768124	1881339	3765912	19	135470	374180	30100	46400	420580
353	*	20	1090993	805542	1881640	3766376	20	17760	165670	13800	41200	206870
354	*	21	1092769	822109	1881778	3766788	21	93710	270360	45000	39800	310160
355	*	22	1102140	849145	1882228	3767186	22	172650	396870	41900	33800	430670
356	*	23	1119405	888832	1882647	3767524	23	170810	376210	47100	33500	409710
357	*	24	1136486	926453	1883118	3767859	24	81220	267100	22000	41300	308400
358	*	25	1144608	953163	1883338	3768272	25	3260	167990	16100	40700	208690
359	*	26	1144934	969962	1883499	3768679	26	660	160520	15500	45000	205520
360	*	27	1145000	986014	1883654	3769129	27	500	154180	13400	44700	198880
361	*	28	1145050	1001432	1883788	3769576	28	77370	252160	37700	45200	297360
362	*	29	1152787	1026648	1884165	3770028	29	144750	389250	35600	47100	436350
363	*	30	1167262	1065573	1884521	3770499	30	156730	381130	38000	43100	424230
364	*	31	1182935	1103686	1884901	3770930	31	73130	237410	24200	38200	275610
365	*	1	1190248	1127427	1885143	3771312	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL SEWER	
MAXIMUM FLOW GPD	435490	179650	57800	142900	544990	237450
MINIMUM FLOW GPD	149280	500	13400	33500	189180	13900
AVERAGE FLOW GPD	320057	111020	34526	50013	370070	145546
MAXIMUM FLOW GPM	302	125	40	99	378	165
MINIMUM FLOW GPM	104	0	9	23	131	10
AVERAGE FLOW GPM	222	77	24	35	257	101
TOTAL FLOW GAL	9684370	3368490	1046100	1512200	11196570	4414590

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
5.00	MG/L	13.0	6.0	0.005	0.007	4.7	22.70	0.70	354020
	LBS/DAY	38.4	17.7	0.015	0.021	13.9			
12.00	MG/L	16.0	2.0	0.005	0.007	3.2	22.40	0.50	398740
	LBS/DAY	53.2	6.7	0.017	0.023	10.6			
19.00	MG/L	4.0	6.0	0.005	0.007	6.8	19.00	1.30	374180
	LBS/DAY	12.5	18.7	0.016	0.022	21.2			
30.00	MG/L	14.0	4.0	0.005	0.007	5.4	19.40	1.50	381130
	LBS/DAY	44.5	12.7	0.016	0.022	17.2			
5.00	MG/L								354020
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	11.8	4.5	0.005	0.007	5.0	20.9	1.0	365533.5
4.00	LBS/DAY	37.1	14.0	0.016	0.022	15.7			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	TCE	FL-	SEWER FLOWS	
5.00	MG/L	0.07	1.20	119360	OWW
	LBS/DAY	0.07	1.19	0.81	DILUTION FACTOR
MG/L DISCHARGE		0.06	0.97		
12.00	MG/L	0.10	3.80	152920	OWW
	LBS/DAY	0.13	4.85	0.81	DILUTION FACTOR
MG/L DISCHARGE		0.08	3.07		
19.00	MG/L	0.09	1.70	135470	OWW
	LBS/DAY	0.10	1.92	0.82	DILUTION FACTOR
MG/L DISCHARGE		0.07	1.39		
30.00	MG/L	0.09	2.50	156730	OWW
	LBS/DAY	0.12	3.27	0.80	DILUTION FACTOR
MG/L DISCHARGE		0.07	2.01		
5.00	MG/L			119360	OWW
	LBS/DAY	0.00	0.00	0.81	DILUTION FACTOR
MG/L DISCHARGE		0.00	0.00		
AVERAGE	MG/L	0.09	2.30		
4.00	LBS/DAY	0.10	2.81		
MG/L DISCHARGE		0.07	1.86		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/5/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 12/5/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 13	+			
TSS	mg/l	–	15	30	▲ 6	+			
F^-	mg/l	–	6	20	▲ 4.7	1.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.005				
Cr^{total}	mg/l	–	0.3	1	▲ <0.007				
Phosphates	mg/l	–	2	5			▲ 0.7		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.8	▲	
Temperature	°C	–	–	27			▲ 23.7	▲ 22.7	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034340

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/12/86
ANALYSTS: D / N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 12/12	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 16	+			
TSS	mg/l	–	15	30	▲ 2	+			
F^-	mg/l	–	6	20	▲ 3.2	3.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.005				
Cr^{total}	mg/l	–	0.3	1	▲ <0.007				
Phosphates	mg/l	–	2	5			▲ 0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.5	▲	
Temperature	°C	–	–	27			▲ 24.5	▲ 22.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034341

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/19/86
ANALYSTS: D. N. Lowe

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	-	NPDES PARAMETER LIMITS							
Date 12/19	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 4	+			
TSS	mg/l	-	15	30	▲ 6	+			
F^-	mg/l	-	6	20	▲ 6.8	1.7			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.005				
Cr^{total}	mg/l	-	0.3	1	▲ <0.007				
sphates	mg/l	-	2	5			▲ 1.3		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 7.2	▲	
Temperature	°C	-	-	27			▲ 18.6	▲ 19.0	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034342

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION

DATE: 12/30/86

ANALYSTS: D / N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 12/30	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲14	+			
TSS	mg/l	–	15	30	▲4	+			
F^-	mg/l	–	6	20	▲5.4	2.5			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.005				
Cr^{total}	mg/l	–	0.3	1	▲<0.007				
Phosphates	mg/l	–	2	5			▲1.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲7.1	▲	
Temperature	°C	–	–	27			▲23.1	▲19.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034343

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

December 12, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P.O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: November, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for November, 1986.

Our pH measured 50.7 minutes out of the 6.0 to 9.0 compliance range for the month or approximately 0.1% of the time.

Other BOD and TSS loading parameters for the combined effluent stream were out of compliance in part due to the present delay of issuing our new 5-year permit. We anticipate that our new permit as proposed by the Water Quality Division will be issued at the Environmental Quality Commission on January 23, 1987.

One of the weekly 24-hr composite samples was analyzed to have a TSS concentration of 42 mg/l whereas our daily maximum allowed level is 30 mg/l. This was not the result of poor clarifier performance as the turbidity was not of a silicon nature and therefor probably came through our Weak Acid (WAD) collection and treatment system. This unusual occurrence is being reviewed by the Environmental Engineering Department.

Please call me at 243-2020, extension 301, if you have any questions regarding this report.

Very Truly Yours,

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME Wacker Siltronic Corporation

ADDRESS P. O. BOx 03180
Portland, OR 97203

FACILITY 7200 N.W. Front AVe.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR 003058-7 — PERMIT NUMBER

(17-19) 79 — DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	11	01	TO	86	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV 3	SAMPLE MEASUREMENT	106,000	380,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO3 MV3	SAMPLE MEASUREMENT	-	-	-	.2	1.0	1.8	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	-				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	417,000	759,000	GPD	-	-	-	-		totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	-	--	29.4	deg. C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall pH	SAMPLE MEASUREMENT	-	-	-	600	=	9.5	pH units	0	continuous	
	PERMIT REQUIREMENT	-	-		6.0		9.0				
John L. Pittman/ Director of Engineering	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
John L. Pittman/ Director of Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: John L Pittman	(503) 243-2020	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR / MO / DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.9 % of the time. Time out of compliance was 50.7 minutes, Or 0.12% of the time.
No incidents were longer than one (1) hour. See cover letter dated 12/12/86 for discussion of other non compliance conditions.

SCOEPA00034345

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME Wacker Siltronic Corporation

ADDRESS P. O. Box 03180
Portland, OR 97203

FACILITY 7200 N.W. Front Ave

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 70

2834-J
03450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	86	11	01	TO	86	11	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MVI	SAMPLE MEASUREMENT	312,000	433,000	GPD	--	--	--	--		Continuous	
	PERMIT REQUIREMENT										
MVI BOD	SAMPLE MEASUREMENT	31	45	#/D	4	10	15	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT	35	50	#/D	--	30	60				
MV1 TSS	SAMPLE MEASUREMENT	45	121	#/D	3	15	42	mg/l	2	1/7	24 HC
	PERMIT REQUIREMENT	35	60		--	30	60				
MV1 Cr6+	SAMPLE MEASUREMENT	.006	.006	#/D	.002	.002	.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		--	.05	.1				
MV1 Cr Total	SAMPLE MEASUREMENT	.006	.009	#/D	.001	.002	.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		--	.2	.5				
MV1 Fluoride	SAMPLE MEASUREMENT	15	20	#/D	3.4	5.0	6.8	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT	10	20		--	4	8				
MV1 T.T.O.	SAMPLE MEASUREMENT	--	--	--	--	--	.12	mg/l		1/30	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
John L. Pittman / Director of Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: John L Pittman	(503) 243-2020	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR / MO / DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034346

DWTP1186 TIME OUT

DY OF YR	OF pH	DY OF MO	DWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	DWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
304.00	6.0 - 9.0	1	527536	200104	1864101	3724137	1	22730	132200	18200	48800	181000
305	0.00	2	529809	213324	1864283	3724625	2	45390	179520	25500	68700	248220
306	0.00	3	534348	231276	1864538	3725312	3	139430	433460	36900	49200	482660
307	0.00	4	548291	274622	1864907	3725804	4	146320	391290	47900	47800	439090
308	0.00	5	562923	313751	1865386	3726282	5	159800	404330	45400	45700	450030
309	0.00	6	578903	354184	1865840	3726739	6	145770	405590	39900	46400	451990
310	0.00	7	593480	394743	1866239	3727203	7	120320	394740	27000	49200	443940
311	0.00	8	605512	434217	1866509	3727695	8	88980	247450	15100	40900	288350
312	0.00	9	614410	458962	1866660	3728104	9	90760	229390	27900	57600	286990
313	0.00	10	623486	481901	1866939	3728680	10	145910	384410	46400	49600	434010
314	0.00	11	638077	520342	1867403	3729176	11	161700	417810	43500	45200	463010
315	0.00	12	654247	562123	1867838	3729628	12	177050	426910	50200	45100	472010
316	0.00	13	671952	604814	1868340	3730079	13	159590	433080	48000	56600	489680
317	0.00	14	687911	648122	1868820	3730645	14	147060	357860	33200	91900	449760
318	0.00	15	702617	683908	1869152	3731564	15	29040	142810	15300	53200	196010
319	0.00	16	705521	698189	1869305	3732096	16	41590	186290	27900	72500	258790
320	0.00	17	709680	716818	1869584	3732821	17	134220	402490	36100	41600	444090
321	0.00	18	723102	757067	1869945	3733237	18	159540	407660	44100	46700	454360
322	0.00	19	739056	797833	1870386	3733704	19	158020	386610	61100	50700	437310
323	0.00	20	754858	836494	1870997	3734211	20	152410	411470	53900	51700	463170
324	0.00	21	770099	877641	1871536	3734728	21	134150	353300	36000	53000	406300
325	0.00	22	783514	912971	1871896	3735258	22	43260	174140	21300	110900	285040
326	0.00	23	787840	930385	1872109	3736367	23	47610	121520	34100	277400	398920
327	0.00	24	792601	942537	1872450	3739141	24	160210	370710	45400	371300	742010
328	0.00	25	808622	979608	1872904	3742854	25	140910	379200	39000	380100	759300
329	44.00	26	822713	1017528	1873294	3746655	26	115460	362220	31900	297500	659720
330	44.00	27	834259	1053750	1873613	3749630	27	14730	222220	19400	210500	432720
331	44.00	28	835732	1075972	1873807	3751735	28	29060	232780	18300	221700	454480
332	50.40	29	838638	1099250	1873990	3753952	29	25330	173740	15400	122300	296040
333	50.40	30	841171	1116624	1874144	3755175	30	49150	186250	29600	63300	249550
334	50.40	1	846086	1135249	1874440	3755808	1					

STREAM	COMBINED	DWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	433460	177050	61100	380100	759300
MINIMUM FLOW GPD	121520	14730	15100	40900	181000
AVERAGE FLOW GPD	311715	106183	34463	105570	417285
MAXIMUM FLOW GPM	301	123	42	264	527
MINIMUM FLOW GPM	84	10	10	28	126
AVERAGE FLOW GPM	216	74	24	73	290
TOTAL FLOW GAL	9351450	3185500	1033900	3167100	12518550

DATE OF ANALYSIS	CONBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
7.00	MG/L	8.0	4.0	0.002	0.002	3.4	20.90	1.80	394740
	LBS/DAY	26.3	13.2	0.007	0.007	11.2			
14.00	MG/L	15.0	10.0	0.002	0.003	6.8	21.50	0.90	357860
	LBS/DAY	44.8	29.8	0.006	0.009	20.3			
21.00	MG/L	4.0	3.0	0.002	0.001	4.7	19.40	1.20	353300
	LBS/DAY	11.8	8.8	0.006	0.003	13.8			
26.00	MG/L	14.0	42.0	0.002	0.002	5.1	20.20	0.20	362220
	LBS/DAY	42.3	126.9	0.006	0.006	15.4			
5.00	MG/L								404330
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	10.3	14.8	0.002	0.002	5.0	20.5	1.0	468112.5
4.00	LBS/DAY	31.3	44.7	0.006	0.006	15.2			

DATE OF ANALYSIS	DWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
7.00	MG/L	855.0	298.0					0.12	1.40	120320 DWW
	LBS/DAY	858.0	299.0	0.000	0.000	0.000	0.000	0.12	1.40	0.82 DILUTION FACTOR
MG/L DISCHARGE		698.3	243.4	0.000	0.000	0.000	0.000	0.10	1.14	
14.00	MG/L	650.0	148.0					0.12	0.70	147060 DWW
	LBS/DAY	797.2	181.5	0.000	0.000	0.000	0.000	0.15	0.86	0.82 DILUTION FACTOR
MG/L DISCHARGE		530.3	120.7	0.000	0.000	0.000	0.000	0.10	0.57	
21.00										
21.00	MG/L	488.0	94.0	.006	.006	.048	<.005	0.10	3.20	134150 DWW
	LBS/DAY	546.0	105.2	0.000	0.000	0.000	0.000	0.11	3.58	0.79 DILUTION FACTOR
MG/L DISCHARGE		384.7	74.1	0.005	0.005	0.038	<0.004	0.08	2.52	
26.00	MG/L	580.0	112.0					0.07	1.60	115460 DWW
	LBS/DAY	558.5	107.8	0.000	0.000	0.000	0.000	0.07	1.54	0.78 DILUTION FACTOR
MG/L DISCHARGE		454.4	87.8	0.000	0.000	0.000	0.000	0.05	1.25	
5.00	MG/L									159800 DWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.78 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
AVERAGE	MG/L	643.3	163.0	0.000	0.000	0.000	0.000	0.10	1.54	
4.00	LBS/DAY	689.9	173.4	0.000	0.000	0.000	0.000	0.11	1.85	
MG/L DISCHARGE		516.9	131.5	0.000	0.000	0.000	0.000	0.08	1.37	

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/7/86
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pensely		NPDES PARAMETER LIMITS							
Date 11-7-86									
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 8	+ 855			
TSS	mg/l	-	15	30	▲ 4	+ 298			
F^-	mg/l	-	6	20	▲ 3.4	1.4			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.002				
Phosphates	mg/l	-	2	5			▲ 1.8		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.8	▲ 20.9	
Temperature	°C	-	-	27			▲	▲ 19.6	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034348

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/14/86
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pendy		NPDES PARAMETER LIMITS							
Date 11/14/86									
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 15	+ 650			
TSS	mg/l	–	15	30	▲ 10	+ 148			
F^-	mg/l	–	6	20	▲ 6.8	0.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.9		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.2	▲ 21.2	
Temperature	°C	–	–	27			▲	▲ 21.5	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034349

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/21/86
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly		NPDES PARAMETER LIMITS							
Date 11/21/86									
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲4	+488			
TSS	mg/l	-	15	30	▲3	+94			
F^-	mg/l	-	6	20	▲4.7	3.2			
Cr^{6+}	mg/l	-	0.02	0.05	▲<0.002				
Cr^{total}	mg/l	-	0.3	1	▲0.001				
Phosphates	mg/l	-	2	5			▲1.2		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲6.6	▲18.2	
Temperature	°C	-	-	27			▲	▲19.4	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034350

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/26/86
ANALYST: D. N. Bass

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly		NPDES PARAMETER LIMITS							
Date 11/26/86									
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲14	+580			
TSS	mg/l	-	15	30	▲42	+112			
F^-	mg/l	-	6	20	▲5.1	1.6			
Cr^{6+}	mg/l	-	0.02	0.05	▲<0.002				
Cr^{total}	mg/l	-	0.3	1	▲0.002				
Phosphates	mg/l	-	2	5			▲0.2		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲7.7	▲22.4	
Temperature	°C	-	-	27			▲	▲20.2	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034351

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

November 14, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: October, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for October, 1986. For the month of October, our discharge was within all measured parameters.

Our pH measured 149 minutes out of compliance for the month of October or about 0.30% of the time. One pH excursion measured greater than 1 hour out of compliance. This resulted from an accidental spill of concentrated acid into the Weak Acid Drain System. In our follow-up investigation, we were unable to locate the exact source of this spill, but have informed all production supervisors of this problem.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WAC[illegible]R SILTRONIC CORPORATION
ADDRESS P.O. Box 03180
Portland, OR. 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER
(17-19) 78 DISCHARGE NUMBER
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	10	01	TO	86	10	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	372,000	455,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	23	37	#/D	5	7	11	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	14	26	#/D	2	4	8	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24 HC
MV1 Cr6+	SAMPLE MEASUREMENT	.005	.007	#/D	<.001	.002	.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.009	<.011	#/D	<.003	<.003	<.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	16	25	#/D	3.8	5	6.9	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-	.13			1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	By: John Pittman	503	243-2020	86	11	13
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034353

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME WACKER SILTRONIC CORPORATION
ADDRESS P.O. Box 03180
Portland, OR 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 78
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86 (20-21)	10 (22-23)	01 (24-25)	TO	86 (26-27)	10 (28-29)	31 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	50,000	162,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			Totalizing Recorder	
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-		.7	1.5	2.2		0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	*2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	422,000	603,000	GPD	-	-	-	-		1/1	Totalizing Recorder
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	21.4	23.0	24.1	degree C	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-	-	1.8	-	11.3	pH Units	1	Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			Recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir. Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

By: John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 11 | DAY 13

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.7% of the time. Time out of compliance was 149 minutes, or .33% of the time. One incident was longer than 1 hour.

SCOEPA00034354

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10/3/86
ANALYSTS: [illegible] / N. [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/3	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 7	+ 445			
TSS	mg/l	–	15	30	▲ 6	+ 110			
F^-	mg/l	–	6	20	▲ 4.7	1.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.003				
Phosphates	mg/l	–	2	5			▲ 1.8		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 21.7	▲ 23.6	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034355

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10/10/18
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 4 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/10	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 6	+ 417			
TSS	mg/l	–	15	30	▲ 2	+ 182			
F^-	mg/l	–	6	20	▲ 6.9	7.5			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.003				
Phosphates	mg/l	–	2	5			▲ 0.7		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.8	▲	
Temperature	°C	–	–	27			▲ 22.6	▲ 23.5	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034356

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10/17/18
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/17	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 7	+ 450			
TSS	mg/l	–	15	30	▲ 2	+ 252			
F^-	mg/l	–	6	20	▲ 3.8	11			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ <0.003				
Phosphates	mg/l	–	2	5			▲ 2.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 22.6	▲ 24.1	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034357

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10/24/86
ANALYSTS: [illegible] N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION		-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pugelly	-	NPDES PARAMETER LIMITS							
Date 10/24	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 5	+ 555			
TSS	mg/l	-	15	30	▲ 8	+ 210			
F^-	mg/l	-	6	20	▲ 4.1	3.2			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ <0.003				
Phosphates	mg/l	-	2	5			▲ 1.6		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.5	▲	
Temperature	°C	-	-	27			▲ 22.7	▲ 21.4	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034358

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10/31/86
ANALYSTS: [illegible] / N. Loro

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 10/31	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 11	+ 487			
TSS	mg/l	-	15	30	▲ 4	+ 30			
F^-	mg/l	-	6	20	▲ 5.6	5.9			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	-	0.3	1	▲ <0.003				
Phosphates	mg/l	-	2	5			▲ 1.2		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 7.4	▲	
Temperature	°C	-	-	27			▲ 22.5	▲ 22.3	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034359

dwtp1086 TIME OUT

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
273.00	6.0 - 9.0	1	100320	52230	1847950	3708574	1	195300	423760	67700	50400	474160
274	0.00	2	119850	94606	1848527	3709078	2	171510	435040	55300	46900	481940
275	0.00	3	137001	138110	1849080	3709547	3	130950	304680	47400	44700	349380
276	0.00	4	150096	168578	1849554	3709994	4	85040	150620	42600	43600	194220
277	0.00	5	158600	183640	1849980	3710430	5	109000	202990	51500	41100	244090
278	15.00	6	169500	203939	1850495	3710841	6	197000	429810	58700	39600	469410
279	15.00	7	189200	246920	1851082	3711237	7	126800	431830	61600	37600	469430
280	15.00	8	201880	290103	1851698	3711613	8	164090	446170	57600	36800	482970
281	15.00	9	218289	334720	1852274	3711981	9	163790	455450	61400	36500	491950
282	20.10	10	234668	380265	1852888	3712346	10	162550	430920	57700	36900	467820
283	20.10	11	250923	423357	1853465	3712715	11	51610	214130	62000	40600	254730
284	20.10	12	256084	444770	1854085	3713121	12	83460	296720	47000	33800	330520
285	20.10	13	264430	474442	1854555	3713459	13	136290	377510	56500	36100	413610
286	27.40	14	278059	512193	1855120	3713820	14	159080	441060	57500	162400	603460
287	27.40	15	293967	556299	1855695	3715444	15	164510	443250	57700	41200	484450
288	27.40	16	310418	600624	1856272	3715856	16	173900	431380	57300	39200	470580
289	27.40	17	327808	643762	1856845	3716248	17	171190	420800	51600	57100	477900
290	27.40	18	344927	685842	1857361	3716819	18	83310	260810	43800	87400	348210
291	58.30	19	353258	711923	1857799	3717693	19	61360	289110	54700	67200	356310
292	58.30	20	359394	740834	1858346	3718365	20	151680	412220	44900	60000	472220
293	58.30	21	374562	782056	1858795	3718965	21	159910	441090	55200	79800	520890
294	58.30	22	390553	826165	1859347	3719763	22	172370	426820	58500	46600	473420
295	58.30	23	407790	868847	1859932	3720229	23	152150	412590	48300	43600	456190
296	130.30	24	423005	910106	1860415	3720665	24	152550	382810	42600	42700	425510
297	130.30	25	438260	948387	1860841	3721092	25	72490	292770	42600	38900	331670
298	130.30	26	445509	977664	1861267	3721481	26	53820	257230	40000	40100	297330
299	130.30	27	450891	1003387	1861667	3721882	27	146720	412610	47800	46200	458810
300	130.30	28	465563	1044648	1862145	3722344	28	142330	398630	46600	44700	443330
301	148.60	29	479796	1084511	1862611	3722791	29	156900	422380	49700	45500	467880
302	148.60	30	495486	1126749	1863108	3723246	30	172670	384850	61300	44600	429450
303	148.60	31	512753	1165234	1863721	3723692	31	172070	397490	61300	44600	442090
304	148.60	1	529960	1204983	1864334	3724138	1					

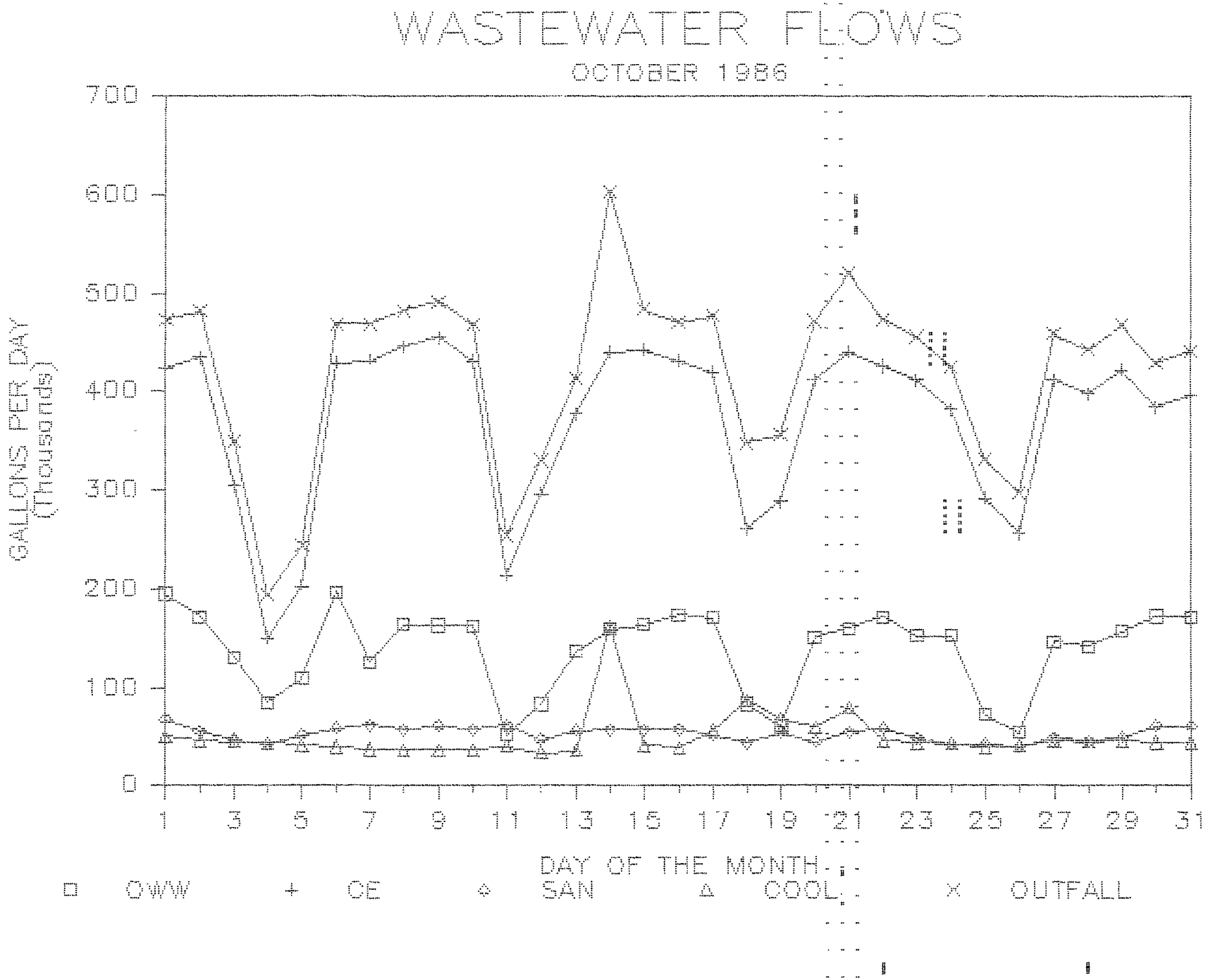
STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	455450	197000	67700	162400	603460
MINIMUM FLOW GPD	150620	51610	40000	33800	194220
AVERAGE FLOW GPD	371856	138594	53174	50206	422062
MAXIMUM FLOW GPM	316	137	47	113	419
MINIMUM FLOW GPM	105	36	28	23	135
AVERAGE FLOW GPM	258	96	37	35	293
TOTAL FLOW GAL	11130040	4124330	1587100	1511800	12641840

owwt mv2 = 5,711,430 Gal
Limit 4,360,840 Gal
overage 1,350,590
or 24% high!

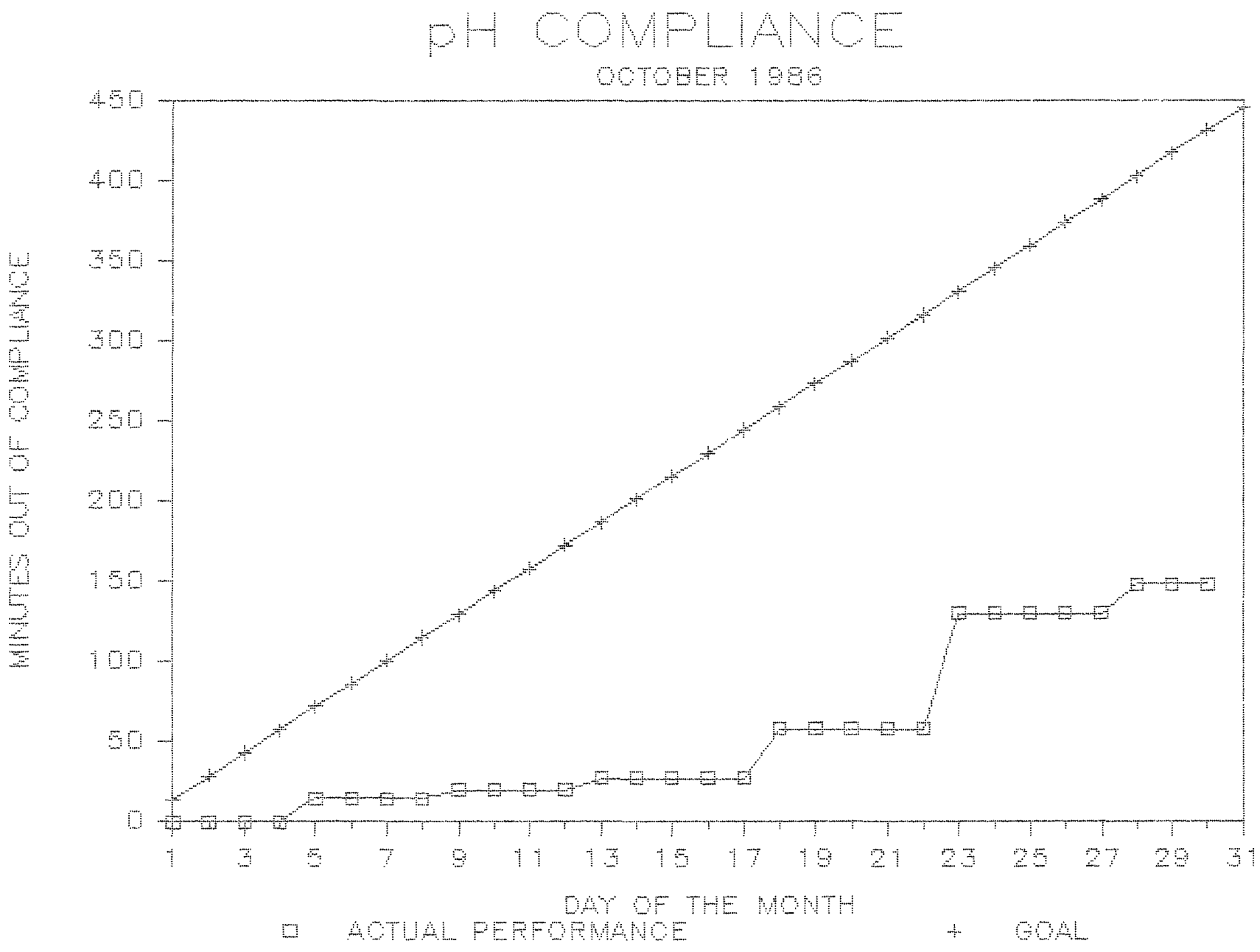
DATE OF ANALYSIS	OWW + COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
3.00	MG/L	7.0	6.0	0.002	0.003	4.7	23.60	1.80	304680
	LBS/DAY	17.8	15.2	0.005	0.009	11.9			
10.00	MG/L	6.0	2.0	0.002	0.003	6.9	23.50	0.70	430920
	LBS/DAY	21.6	7.2	0.007	0.011	24.8			
17.00	MG/L	7.0	2.0	0.001	0.003	3.8	24.10	2.20	420800
	LBS/DAY	24.6	7.0	0.004	0.011	13.3			
24.00	MG/L	5.0	8.0	0.001	0.003	4.1	21.40	1.60	382810
	LBS/DAY	16.0	25.5	0.003	0.010	13.1			
31.00	MG/L	11.0	4.0	0.002	0.002	5.6	22.30	~~5.10~~ 1.2	397490
	LBS/DAY	36.5	13.3	0.007	0.007	18.6			
AVERAGE	MG/L CE	7.2	4.4	0.002	0.003	5.0	23.0	~~4.90~~ 1.5	387340.0
5.00	LBS/DAY	23.3	13.7	0.005	0.009	16.3			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
3.00	MG/L	445.0	110.0						1.30	130950	OWW
	LBS/DAY	486.0	120.1	0.000	0.000	0.000	0.000	0.00	1.42	0.73	DILUTION FACTOR
MG/L DISCHARGE		326.7	80.8	0.000	0.000	0.000	0.000	0.00	0.95		
10.00	MG/L	417.0	182.0						7.50	162550	OWW
	LBS/DAY	565.3	246.7	0.000	0.000	0.000	0.000	0.00	10.17	0.74	DILUTION FACTOR
MG/L DISCHARGE		307.8	134.3	0.000	0.000	0.000	0.000	0.00	5.54		
17.00	MG/L	450.0	252.0	0.004	0.007	0.033	0.003		11.00	171190	OWW
	LBS/DAY	642.5	359.8	0.006	0.010	0.047	0.004	0.00	15.70	0.77	DILUTION FACTOR
MG/L DISCHARGE		345.8	193.6	0.003	0.005	0.025	0.002	0.00	8.45		
24.00	MG/L	555.0	210.0						3.20	152550	OWW
	LBS/DAY	706.1	267.2	0.000	0.000	0.000	0.000	0.00	4.07	0.78	DILUTION FACTOR
MG/L DISCHARGE		433.8	164.2	0.000	0.000	0.000	0.000	0.00	2.50		
31.00	MG/L	487.0	30.0						5.90	172070	OWW
	LBS/DAY	698.9	43.1	0.000	0.000	0.000	0.000	0.00	8.47	0.74	DILUTION FACTOR
MG/L DISCHARGE		359.1	22.1	0.000	0.000	0.000	0.000	0.00	4.35		
AVERAGE	MG/L	2854.0	784.0	0.004	0.007	0.033	0.003	0.000	28.90		
1.00	LBS/DAY	3098.8	1036.6	0.006	0.010	0.047	0.004	0.00	38.83		
MG/L DISCHARGE		1773.2	595.0	0.003	0.005	0.025	0.002	0.00	21.79		
AVERAGE	MG/L	588.5	196.0	0.001	0.002	0.008	0.001	0.00	7.23		
4.00	LBS/DAY	774.7	259.2	0.001	0.002	0.012	0.001	0.00	9.96		
MG/L DISCHARGE		443.3	148.7	0.001	0.001	0.006	0.001	0.00	5.45		

SCOEPA00034360



SCOEPA00034361



SCOEPA00034362

Wacker Siltronic Corporation
P O Box 03180
Portland OR 97203
7200 N W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

October 10, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: September, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for September, 1986. For the month of September, our discharge was within compliance for all measured parameters.

Our pH measured 19.5 minutes out of compliance for the month of September or about 0.05% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR. 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16)	(17-19)
OR-003058-7	77
PERMIT NUMBER	DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

FROM YEAR	MO	DAY	TO YEAR	MO	DAY
86	09	01	86	09	30
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV2	SAMPLE MEASUREMENT	367,000	485,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT										
MV1 BOD	SAMPLE MEASUREMENT	17	30	#/D	3	5	8	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240			43	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	14	38	#/D	1	4	10	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	61	150			23	60			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.007	.008	#/D	<.002	<.002	.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1			.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	.007	.015	#/D	.003	.004	.004	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.3	1.0			.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	20	36	#/D	4.3	5.9	915	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7			8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.16	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-				1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

Byt [signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
503	243-2020	86	10	10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: PO Box 03180
Portland, OR 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR 97220

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 77

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	86	09	01	TO	86	09	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	147,000	404,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT										
Total PO3 MV3e	SAMPLE MEASUREMENT	-	-		.1	.8	1.3	mg/l		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	514,000	817,000	GPD	-	-	-	-		1/1 Totalizing	
	PERMIT REQUIREMENT										
Outfall Temperature	SAMPLE MEASUREMENT	-	-		23.8	24.6	25.0	degree C		1/7	Grab
	PERMIT REQUIREMENT										
Outfall pH	SAMPLE MEASUREMENT	-	-	-	4.3	-	9.6	pH units		Continuous	
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir. Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

By: [signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 86 MO 10 DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.95% of the time. Time out of compliance was 19.5 minutes or .05% of the time. No incidents were longer than 1 hour.

SCOEPA00034365

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/5/86
ANALYSTS: [illegible] / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 7/5/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 3	+ 300			
TSS	mg/l	–	15	30	▲ 1	+ 170			
F^-	mg/l	–	6	20	▲ 4.3	3.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 23.1	▲ 24.8	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034366

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/12/86
ANALYSTS: [signature] Nancy L

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/12/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 4	+ 425			
TSS	mg/l	–	15	30	▲ 2	+ 224			
F^-	mg/l	–	6	20	▲- 4.8	1.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲- < 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 1.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.6	▲	
Temperature	°C	–	–	27			▲ 21.5	▲ 23.8	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034367

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/19/86
ANALYSTS: [signature] Stacy L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 9/19/86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 5	+ 443			
TSS	mg/l	-	15	30	▲ 2	+ 382			
F^-	mg/l	-	6	20	▲ 4.8	32			
Cr^{6+}	mg/l	-	0.02	0.05	▲ < 0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.003				
Phosphates	mg/l	-	2	5			▲ 0.8		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 7.1	▲	
Temperature	°C	-	-	27			▲ 22.7	▲ 24.8	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034368

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/26/66
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/26/66	–								
Time	UNITS	MIN	NOM	MAX					
5 day – BOD	mg/l	–	15	30	▲ 8	+ 412			
TSS	mg/l	–	15	30	▲ 10	+ 212			
F^-	mg/l	–	6	20	▲ 9.5	8.9			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ 1.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.4	▲	
Temperature	°C	–	–	27			▲ 23.2	▲ 25.0	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

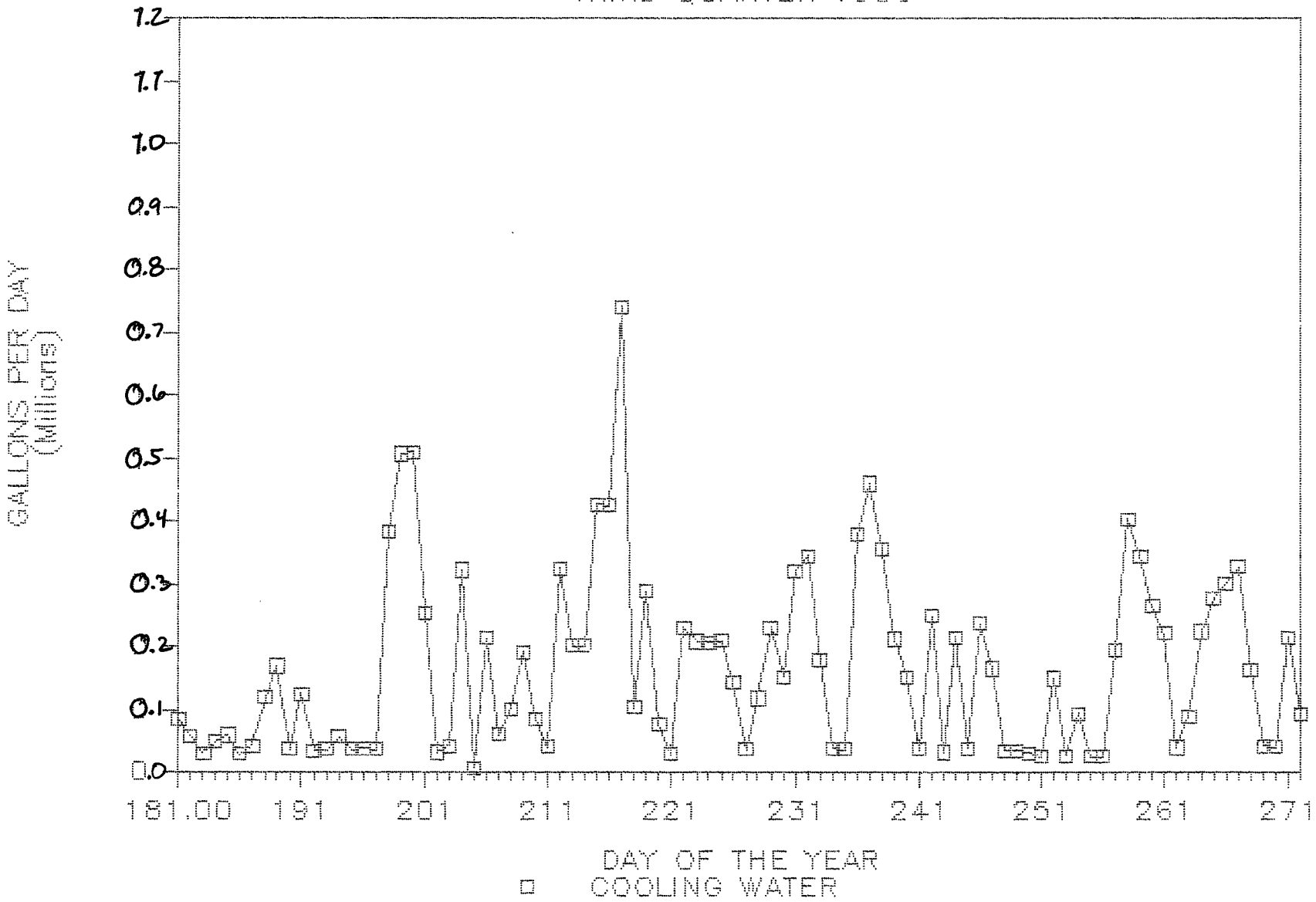
▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034369

WASTEWATER FLOWS

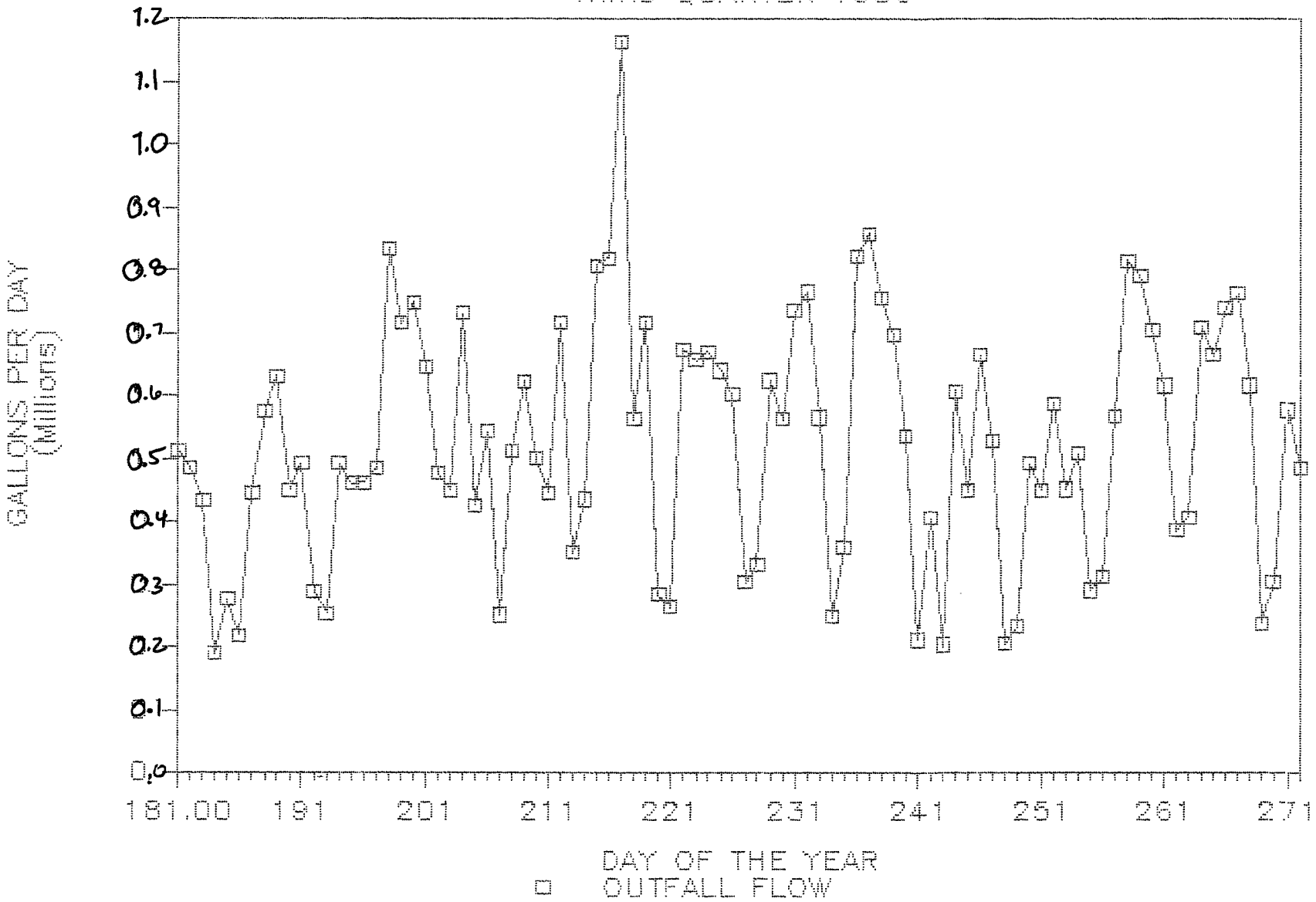
THIRD QUARTER 1986



SCOEPA00034370

WASTEWATER FLOWS

THIRD QUARTER 1986



SCOEPA00034371

DWTP986 TIME OUT

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
243.00	6.0 - 9.0	1	678754	952260	1831619	3664484	1	33760	172590	39700	32900	205490
244	0.00	2	682130	969519	1832016	3664813	2	166370	392630	48400	216200	608830
245	11.60	3	698767	1008782	1832500	3666975	3	154070	409470	49500	40400	449870
246	11.60	4	714174	1049729	1832995	3667379	4	193370	427690	60400	238500	666190
247	11.60	5	733511	1092498	1833599	3669764	5	150830	362080	48900	166400	528480
248	11.60	6	748594	1128706	1834088	3671428	6	19140	169440	31600	36700	206140
249	11.60	7	750508	1145650	1834404	3671795	7	36400	199150	39100	35100	234250
250	11.60	8	754148	1165565	1834795	3672146	8	172310	460230	56800	32500	492730
251	11.60	9	771379	1211588	1835363	3672471	9	182410	424750	56700	26800	451550
252	11.60	10	789620	1254063	1835930	3672739	10	170820	438540	55200	150800	589340
253	11.60	11	806702	1297917	1836482	3674247	11	274050	425040	60800	28000	453040
254	11.60	12	834107	1340421	1837090	3674527	12	73540	413600	51000	95200	508800
255	11.60	13	841461	1381781	1837600	3675479	13	77250	266550	42000	25400	291950
256	11.60	14	849186	1408436	1838020	3675733	14	71980	286770	38300	26100	312870
257	11.60	15	856384	1437113	1838403	3675994	15	161310	374540	60200	195300	569840
258	11.60	16	872515	1474567	1839005	3677947	16	185010	412440	59700	404100	816540
259	11.60	17	891016	1515811	1839602	3681988	17	184450	447580	66600	345300	792880
260	11.60	18	909461	1560569	1840268	3685441	18	186650	442010	54700	265100	707110
261	11.60	19	928126	1604770	1840815	3688092	19	163000	394800	60100	222700	617500
262	13.90	20	944426	1644250	1841416	3690319	20	121170	345770	44300	41400	387170
263	18.50	21	956543	1678827	1841859	3690733	21	83500	319110	53500	89600	408710
264	18.50	22	964893	1710738	1842394	3691629	22	194500	485360	61400	224900	710260
265	18.50	23	984343	1759274	1843008	3693878	23	164470	386660	66600	278900	665560
266	18.50	24	1000790	1797940	1843674	3696667	24	185400	439650	61300	302200	741850
267	18.50	25	1019330	1841905	1844287	3699689	25	176920	435170	67300	327700	762870
268	19.50	26	1037022	1885422	1844960	3702966	26	180880	454230	61700	163400	617630
269	19.50	27	1055110	1930845	1845577	3704600	27	59280	196180	49900	42900	239080
270	19.50	28	1061038	1950463	1846076	3705029	28	71620	263370	53400	42600	305970
271	19.50	29	1068200	1976800	1846610	3705455	29	161100	361470	64800	217100	578570
272	19.50	30	1084310	2012947	1847258	3707626	30	160110	392830	59200	94800	487630
273	19.50	1	1100321	2052230	1847850	3708574	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	485360	274050	67300	404100	816540
MINIMUM FLOW GPD	169440	19140	31600	25400	205490
AVERAGE FLOW GPD	366657	140522	54103	146967	513623
MAXIMUM FLOW GPM	337	190	47	281	567
MINIMUM FLOW GPM	118	13	22	18	143
AVERAGE FLOW GPM	255	98	38	102	357
TOTAL FLOW GAL	10999700	4215670	1623100	4409000	15408700

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
5.00	MG/L	3.0	1.0	0.002	0.004	4.3	24.80	.1	362080
	LBS/DAY	9.1	3.0	0.006	0.012	13.0			
12.00	MG/L	4.0	2.0	0.002	0.003	4.8	23.80	1.3	413600
	LBS/DAY	13.8	6.9	0.007	0.010	16.6			
19.00	MG/L	5.0	2.0	0.002	0.003	4.8	24.80	.8	394800
	LBS/DAY	16.5	6.6	0.007	0.010	15.8			
26.00	MG/L	8.0	10.0	0.002	0.004	9.5	25.00	1.1	454230
	LBS/DAY	30.3	37.9	0.008	0.015	36.0			
5.00	MG/L								362080
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	5.0	3.8	0.002	0.004	5.9	24.6	.80	496697.5
4.00	LBS/DAY	17.4	13.6	0.007	0.012	20.3			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
5.00	MG/L	300.0	170.0						3.70	150830 OWW
	LBS/DAY	377.4	213.8	0.000	0.000	0.000	0.000	0.00	4.65	0.76 DILUTION FACTOR
MG/L DISCHARGE		226.6	128.4	0.000	0.000	0.000	0.000	0.00	2.79	
12.00	MG/L	425.0	224.0	0.013	0.003	0.017	0.003	0.21	1.30	73540 OWW
	LBS/DAY	260.7	137.4	0.008	0.002	0.010	0.002	0.13	0.80	0.59 DILUTION FACTOR
MG/L DISCHARGE		251.0	132.3	0.008	0.002	0.010	0.002	0.12	0.77	
19.00	MG/L	443.0	382.0						32.00	163000 OWW
	LBS/DAY	602.2	519.3	0.000	0.000	0.000	0.000	0.00	43.50	0.73 DILUTION FACTOR
MG/L DISCHARGE		323.7	279.1	0.000	0.000	0.000	0.000	0.00	23.38	
26.00	MG/L	412.0	212.0						8.90	180880 OWW
	LBS/DAY	621.5	319.8	0.000	0.000	0.000	0.000	0.00	13.43	0.75 DILUTION FACTOR
MG/L DISCHARGE		307.2	158.1	0.000	0.000	0.000	0.000	0.00	6.64	
5.00	MG/L									150830 OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.76 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
AVERAGE	MG/L	395.0	247.0	0.003	0.001	0.004	0.001	0.05	10.45	
4.00	LBS/DAY	465.4	297.6	0.002	.000	0.003	.000	0.03	15.59	
MG/L DISCHARGE		277.1	174.5	0.002	.000	0.003	.000	0.03	8.39	

SCOEPA00034372

Greg Carr

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

September 12, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: August, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for August, 1986 for the month of September our discharge was within compliance for all measured parameters.

Our pH measured 65.8 minutes out of compliance for the month of August or about 0.15% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: PO Box 03180
Portland, OR. 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 76

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	86	08	01	TO	86	08	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	356,000	484,000	GPD	-	-	-	-		Continuous	Totalizing
	PERMIT REQUIREMENT	-	-		-	-	-			Recorded	
MV1 BOD	SAMPLE MEASUREMENT	15	20	#/D	3	4	5	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90				
MV1 TSS	SAMPLE MEASUREMENT	12	19	#/D	2	3	5	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60				
MV1 Cr 6+	SAMPLE MEASUREMENT	<.01	<.01	#/D	<.003	<.003	<.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05				
MV1 Cr Total	SAMPLE MEASUREMENT	.04	.12	#/D	<.003	.01	.03	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0				
MV1 Fluoride	SAMPLE MEASUREMENT	18.8	23.9	#/D	3.8	5.3	7.4	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16				
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.14	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

By: John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503, NUMBER 243-2020

DATE: YEAR 86, MO 09, DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034374

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME: WACKER SILTRONIC CORPORATION
ADDRESS: PO Box 03180
Portland, OR 97203
FACILITY: 7200 NW Front Ave.
LOCATION: Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 76
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86 (20-21)	08 (22-23)	01 (24-25)	TO	86 (26-27)	08 (28-29)	31 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	231,000	742,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-		<.1	.5	1.5	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	586,000	1,166,000	GPD	-	-	-			1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	23.5	24.4	25.2	degree C	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	
Outfall pH	SAMPLE MEASUREMENT	-	-	-	3.8	-	9.3	pH units	0	Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John Pittman/Dir. Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020
DATE: YEAR 86 | MO 09 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.85% of the time. Time out of compliance was 65.8 minutes, or 0.15% of the time. No incidents were longer than 1 hour.

SCOEPA00034375

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8/28/86
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 8/28/86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 5	+447			
TSS	mg/l	-	23	60	▲ 4	+196			
F^-	mg/l	-	6	20	▲ 5.2	10.3			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <.003				
Cr^{total}	mg/l	-	0.3	1	▲ .003				
Phosphates	mg/l	-	2	5			▲ .3		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 7.2	▲	
Temperature	°C	-	-	27			▲ 22.9	▲ 24.7	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034376

dwtp886 TIME OUT

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
212.00	6.0 - 9.0	1	297821	850087	1817489	3592895	1	158220	390270	56300	325900	716170
213	0.00	2	313643	889114	1818052	3596154	2	53480	148580	25400	203100	351680
214	4.30	3	318991	903972	1818306	3598185	3	69460	233810	43200	203300	437110
215	19.50	4	325937	927353	1818738	3600218	4	175660	380800	55000	428300	809100
216	19.50	5	343503	965433	1819288	3604501	5	173020	394670	57700	426200	820870
217	19.50	6	360805	1004900	1819865	3608763	6	179880	424220	60200	742000	1166220
218	19.50	7	378793	1047322	1820467	3616183	7	197150	460100	69800	104500	564600
219	19.50	8	398508	1093332	1821165	3617228	8	174580	428520	50100	289600	718120
220	19.50	9	415966	1136184	1821666	3620124	9	49190	206310	26700	79000	285310
221	20.80	10	420885	1156815	1821933	3620914	10	47620	236920	34500	30500	267420
222	21.70	11	425647	1180507	1822278	3621219	11	167230	442680	53400	232900	675580
223	21.70	12	442370	1224775	1822812	3623548	12	157660	447600	46700	209800	657400
224	21.70	13	458136	1269535	1823279	3625646	13	155060	461660	46900	208900	670560
225	21.70	14	473642	1315701	1823748	3627735	14	155710	431100	48000	210100	641200
226	21.70	15	489213	1358811	1824228	3629836	15	140120	458370	43300	146000	604370
227	21.70	16	503225	1404648	1824661	3631296	16	37640	265850	26200	38200	304050
228	21.70	17	506989	1431233	1824923	3631678	17	54310	212250	37300	119600	331850
229	21.70	18	512420	1452458	1825296	3632874	18	163270	393720	61500	232000	625720
230	21.70	19	528747	1491830	1825911	3635194	19	167980	410070	51200	153100	563170
231	21.70	20	545545	1532837	1826423	3636725	20	140930	413540	41500	322500	736040
232	21.70	21	559638	1574191	1826838	3639950	21	151790	420980	41700	345400	766380
233	21.70	22	574817	1616289	1827255	3643404	22	131170	387670	59900	178900	566570
234	50.80	23	587934	1655056	1827854	3645193	23	29570	209290	30400	40200	249490
235	50.80	24	590891	1675985	1828158	3645595	24	55180	320450	40400	38700	359150
236	50.80	25	596409	1708030	1828562	3645982	25	167930	443830	40900	379400	823230
237	65.80	26	613202	1752413	1828971	3649776	26	154440	399760	50400	460200	859960
238	65.80	27	628646	1792389	1829475	3654378	27	151960	400850	48600	355100	755950
239	65.80	28	643842	1832474	1829961	3657929	28	166890	483780	52700	213500	697280
240	65.80	29	660531	1880852	1830488	3660064	29	147860	382150	46400	153800	535950
241	65.80	30	675317	1919067	1830952	3661602	30	13960	175090	34800	38300	213390
242	65.80	31	676713	1936576	1831300	3661985	31	20410	156840	31900	249900	406740
243	65.80	1	678754	1952260	1831619	3664484	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	483780	197150	69800	742000	1166220
MINIMUM FLOW GPD	148580	13960	25400	30500	213390
AVERAGE FLOW GPD	355540	122882	45581	230932	586472
MAXIMUM FLOW GPM	336	137	48	515	810
MINIMUM FLOW GPM	103	10	18	21	148
AVERAGE FLOW GPM	247	85	32	160	407
TOTAL FLOW GAL	10864890	3788920	1381100	6909000	17773890

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
1.00	MG/L	4.0	2.0	0.003	0.003	3.8	23.50	0.10	390270
	LBS/DAY	13.0	6.5	0.010	0.010	12.4			
8.00	MG/L	4.0	2.0	0.003	0.004	6.2	24.60	0.10	428520
	LBS/DAY	14.3	7.1	0.011	0.014	22.2			
15.00	MG/L	4.0	5.0	0.003	0.007	3.8	25.20	0.70	458370
	LBS/DAY	15.3	19.1	0.011	0.027	14.5			
22.00	MG/L	3.0	4.0	0.003	0.011	7.4	24.10	1.50	387670
	LBS/DAY	9.7	12.9	0.010	0.036	23.9			
28.00	MG/L	5.0	4.0	0.003	0.030	5.2	24.70	0.30	483780
	LBS/DAY	20.2	16.1	0.012	0.121	21.0			
AVERAGE	MG/L CE	4.0	3.4	0.003	0.011	5.3	24.4	0.5	429722.0
5.00	LBS/DAY	14.5	12.4	0.011	0.041	18.8			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
1.00	MG/L	520.0	104.0						4.70	158220	OWW
	LBS/DAY	686.2	137.2	0.000	0.000	0.000	0.000	0.00	6.20	0.74	DILUTION FACTOR
MG/L DISCHARGE		383.5	76.7	0.000	0.000	0.000	0.000	0.00	3.47		
8.00	MG/L	400.0	108.0					0.67	16.20	174580	OWW
	LBS/DAY	582.4	157.2	0.000	0.000	0.000	0.000	0.98	23.59	0.78	DILUTION FACTOR
MG/L DISCHARGE		310.8	83.9	0.000	0.000	0.000	0.000	0.52	12.59		
15.00	MG/L	573.0	20.0					0.17	3.80	140120	OWW
	LBS/DAY	669.6	23.4	0.000	0.000	0.000	0.000	0.20	4.44	0.76	DILUTION FACTOR
MG/L DISCHARGE		437.7	15.3	0.000	0.000	0.000	0.000	0.13	2.90		
22.00	MG/L	318.0	172.0					0.20	9.20	131170	OWW
	LBS/DAY	347.9	188.2	0.000	0.000	0.000	0.000	0.22	10.06	0.69	DILUTION FACTOR
MG/L DISCHARGE		218.3	118.1	0.000	0.000	0.000	0.000	0.14	6.32		
28.00	MG/L	447.0	196.0					0.22	10.30	166890	OWW
	LBS/DAY	622.2	272.8	0.000	0.000	0.000	0.000	0.31	14.34	0.76	DILUTION FACTOR
MG/L DISCHARGE		339.7	149.0	0.000	0.000	0.000	0.000	0.17	7.83		
AVERAGE	MG/L	451.6	120.0	0.000	0.000	0.000	0.000	0.25	8.84		
5.00	LBS/DAY	581.6	155.8	0.000	0.000	0.000	0.000	0.34	11.73		
MG/L DISCHARGE		338.0	88.6	0.000	0.000	0.000	0.000	0.19	6.62		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8/1/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/1/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day – BOD	mg/l	–	15	30	▲4	+520			
TSS	mg/l	–	15	30	▲2	+104			
F^-	mg/l	–	6	20	▲3.8	4.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	–	0.3	1	▲0.003				
Phosphates	mg/l	–	2	5			▲.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.2	▲	
Temperature	°C	–	–	27			▲23.8	▲23.5	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034378

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8/8/86
ANALYST: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 8-8-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 4	+ 400			
TSS	mg/l	–	15	30	▲ 2	+ 106			
F^-	mg/l	–	6	20	▲ 6.2	16.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ .1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 24.7	▲ 24.6	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034379

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8/15/86
ANALYST: S Powell

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Powell	–	NPDES PARAMETER LIMITS							
Date 8/15/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 4	+ 573			
TSS	mg/l	–	15	30	▲ 5	+ 20			
F^-	mg/l	–	6	20	▲- 3.8	3.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.007				
Phosphates	mg/l	–	2	5			▲ .7		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.7	▲	
Temperature	°C	–	–	27			▲ 23.2	▲ 25.2	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034380

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8/22/86
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/22/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 3	+ 318			
TSS	mg/l	–	15	30	▲ 4	+ 172			
F^-	mg/l	–	6	20	▲ 7.4	9.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.011				
Phosphates	mg/l	–	2	5			▲ 1.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.9	▲	
Temperature	°C	–	–	27			▲ 24.5	▲ 24.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034381

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 8/21/86
0840 hrs, OWW 8/27/86 0830 HRS.

SAMPLE ANALYZED BY: Elinor Levin DATE 8/21/86, 8/27/86

RESULTS:

SAMPLE	TCE PPM
OWW 8/21/86	0.20
OWW 8/27/86	0.22

COPIES SENT TO: Mike Pilkington Greg Barry Murray Gibson
FORM# 107-016

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 8/8/86
1600 hrs, OWW 8/13/86 0905 hrs, PWW 8/13/86 0900 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 8/13/86

RESULTS:

SAMPLE	TCE PPM
OWW 8/8/86	0.67
OWW 8/13/86	0.17
PWW 8/13/86	0.14

COPIES SENT TO: Mike Pilkington, Murray, Greg
FORM# 107-016

Greg C.

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

August 11, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: July, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for July, 1986 for the month of July our discharge was within compliance for all measured parameters.

Our pH only measured 9.9 minutes out of compliance for the month of July, or about 0.02% of the time.

Please call me at 243-2020, ext. 216 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
3 No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER
(17-19) 75 DISCHARGE NUMBER
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX. (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
PROCESS WASTEWATER FLOW - MV1	SAMPLE MEASUREMENT	363,000	462,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	14	19	#/D	2	4	5	mg/l		1/7	24HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24HC
MV1 TSS	SAMPLE MEASUREMENT	17	25	#/D	4	5	8	mg/l		1/7	24HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.02	.02	#/D	<.004	.005	.006	mg/l		1/7	24HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.03	<.03	#/D	<.009	<.009	<.009	mg/l		1/7	24HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24HC
MV1 Fluoride	SAMPLE MEASUREMENT	17	26	#/D	3.2	4.8	6.8	mg/l		1/7	24HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16				
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-	.16	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.32			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John Pittman/Dir. Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

By: John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 86 MO 08 DAY 11

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034385

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKER-SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 75

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	124,000	510,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	"	"		"	"	"				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-		.1	.4	.7	mg/l		1/7	Grab
	PERMIT REQUIREMENT	"	"		"	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	487,000	835,000	GPD	-	-	-	-		1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	"	"		"	"	"				
Outfall Flow Temperature	SAMPLE MEASUREMENT	-	-	-	20.9	21.7	22.4	degree C		1/7	Grab
	PERMIT REQUIREMENT	"	"		"	"	32.4			1/7	Grab
Outfall PH	SAMPLE MEASUREMENT	-	-		3.8	-	9.0	pH units		Continuous Recorder	
	PERMIT REQUIREMENT	"	"		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir.Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

By: John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 86 MO 08 DAY 11

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.98% of the time. Time out of compliance was 9.9 minutes, or .02% of the time. No incidents were longer than 1 hour.

SCOEPA00034386

dwtp786 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

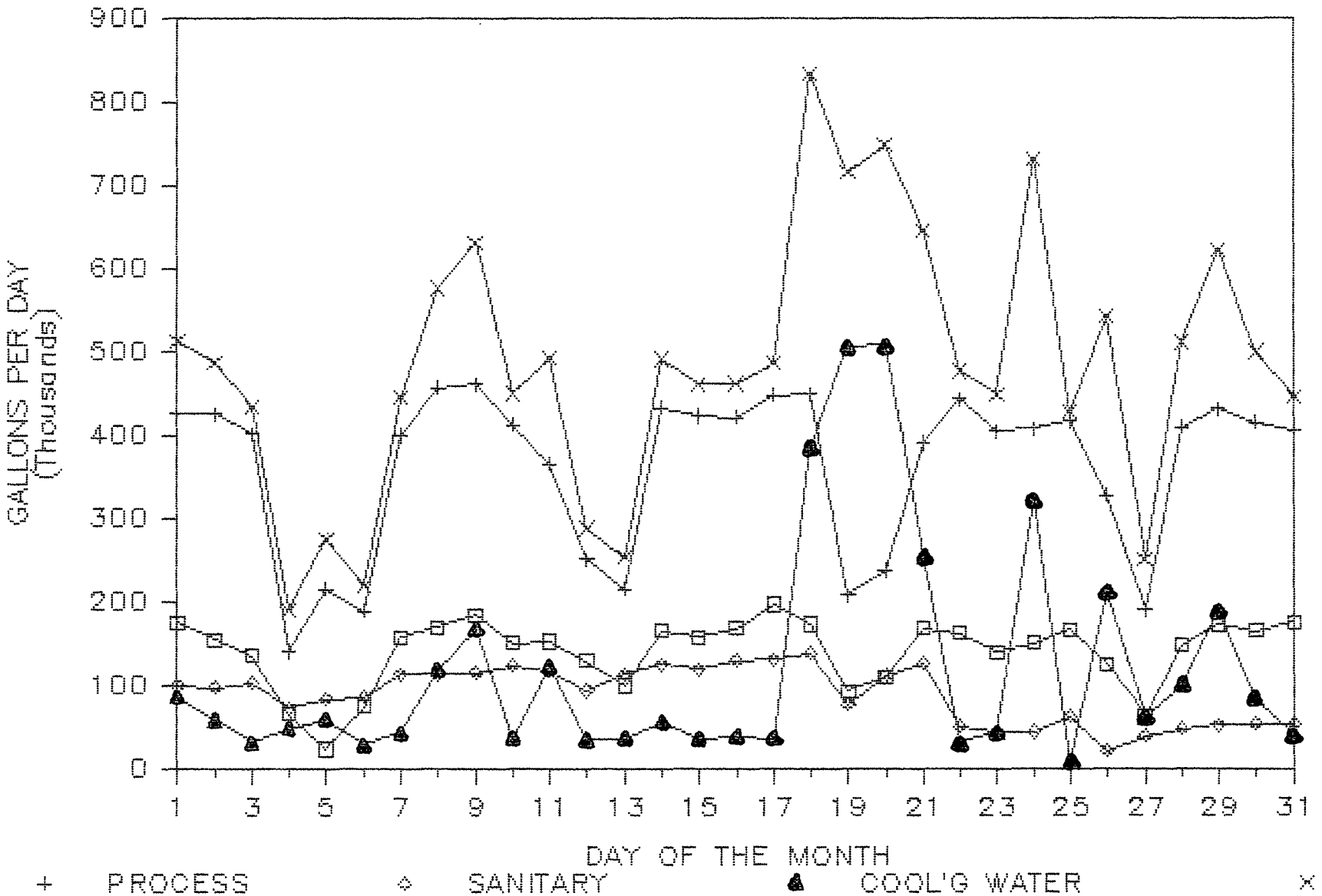
DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
181.00	6.0 - 9.0	1	855272	723368	1789369	3554560		1	176380	427550	101300	87100	514650
182	*	2	872910	766123	1790382	3555431		2	155640	426580	98500	60300	486880
183	*	3	888474	808781	1791367	3556034		3	137890	403180	105900	32400	435580
184	*	4	902263	849099	1792426	3556358		4	66000	142640	74200	48900	191540
185	*	5	908863	863363	1793168	3556847		5	24940	216390	84300	60500	276890
186	*	6	911357	885002	1794011	3557452		6	75620	190210	87900	30200	220410
187	*	7	918919	904023	1794890	3557754		7	159390	401560	115400	44800	446360
188	*	8	934858	944179	1796044	3558202		8	171360	457690	115300	120200	577890
189	*	9	951994	989948	1797197	3559404		9	185330	461900	117200	170600	632500
190	*	10	970527	1036138	1798369	3561110		10	152410	413750	125400	37600	451350
191	*	11	985768	1077513	1799623	3561486		11	154200	366980	119800	125800	492780
192	*	12	1001188	1114211	1800821	3562744		12	130990	253040	95400	36600	289640
193	*	13	1014287	1139515	1801775	3563110		13	101290	217150	114700	38100	255250
194	*	14	1024416	1161230	1802922	3563491		14	167000	434590	127300	57900	492490
195	*	15	1041116	1204689	1804195	3564070		15	159990	424910	120800	37800	462710
196	*	16	1057115	1247180	1805403	3564448		16	170290	422710	131900	40200	462910
197	*	17	1074144	1289451	1806722	3564850		17	198260	449180	133200	38000	487180
198	*	18	1093970	1334369	1808054	3565230		18	174740	450010	140200	385300	835310
199	*	19	1111444	1379370	1809456	3569083		19	95300	209720	79000	507500	717220
200	*	20	1120974	1400342	1810246	3574158		20	112740	239690	114300	509900	749590
201	*	21	1132248	1424311	1811389	3579257		21	169800	392420	128800	255700	648120
202	*	22	1149228	1463553	1812677	3581814		22	164460	444860	51600	32900	477760
203	*	23	1165674	1508039	1813193	3582143		23	141510	405930	44000	44800	450730
204	*	24	1179825	1548632	1813633	3582591		24	152630	409080	45500	323900	732980
205	*	25	1195088	1589540	1814088	3585830		25	168150	419230	64200	9000	428230
206	*	26	1211903	1631463	1814730	3585920		26	126480	329270	23300	214200	543470
207	*	27	1224551	1664390	1814963	3588062		27	65880	191340	40400	61500	252840
208	*	28	1231139	1683524	1815367	3588677		28	148610	411020	48900	102300	513320
209	*	29	1246000	1724626	1815856	3589700		29	175070	432150	53100	192300	624450
210	*	30	1263507	1767841	1816387	3591623		30	166840	416640	55400	84800	501440
211	*	31	1280191	1809505	1816941	3592471		31	176300	405820	54800	42400	448220
212	*	1	1297821	1850087	1817489	3592895		1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	461900	198260	140200	509900	835310
MINIMUM FLOW GPD	142640	24940	23300	9000	191540
AVERAGE FLOW GPD	363458	142758	90710	123661	487119
MAXIMUM FLOW GPM	321	138	97	354	580
MINIMUM FLOW GPM	99	17	16	6	133
AVERAGE FLOW GPM	252	99	63	86	338
TOTAL FLOW GAL	10861370	4249190	2757200	3791100	14652470

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
3.00	MG/L	5.0	4.0	0.004	0.009	5.2	21.60	0.20	403180
	LBS/DAY	16.8	13.5	0.013	0.030	17.5			
11.00	MG/L	4.0	8.0	0.006	0.009	4.1	20.90	0.10	366980
	LBS/DAY	12.2	24.5	0.018	0.028	12.5			
18.00	MG/L	5.0	4.0	0.004	0.009	6.8	21.70	0.50	450010
	LBS/DAY	18.8	15.0	0.015	0.034	25.5			
25.00	MG/L	2.0	4.0	0.005	0.009	3.2	22.40	0.70	419230
	LBS/DAY	7.0	14.0	0.017	0.031	11.2			
5.00	MG/L								216390
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	4.0	5.0	0.005	0.009	4.8	21.7	.4	
4.00	LBS/DAY	13.7	16.7	0.016	0.031	16.7			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
3.00	MG/L	332.0	170.0					.17	2.30	137890	OWW
	LBS/DAY	381.8	195.5	0.000	0.000	0.000	0.000	0.00	2.65	0.57	DILUTION FACTOR
MG/L DISCHARGE		187.8	96.2	0.000	0.000	0.000	0.000	0.00	1.30		
11.00	MG/L	455.0	178.0					.15	1.40	154200	OWW
	LBS/DAY	585.1	228.9	0.000	0.000	0.000	0.000	0.00	1.80	0.56	DILUTION FACTOR
MG/L DISCHARGE		256.1	100.2	0.000	0.000	0.000	0.000	0.00	0.79		
18.00	MG/L	398.0	130.0						2.60	174740	OWW
	LBS/DAY	580.0	189.5	0.000	0.000	0.000	0.000	0.00	3.79	0.55	DILUTION FACTOR
MG/L DISCHARGE		220.8	72.1	0.000	0.000	0.000	0.000	0.00	1.44		
25.00	MG/L	795.0	214.0					.35	5.40	168150	OWW
	LBS/DAY	1114.9	300.1	0.000	0.000	0.000	0.000	0.00	7.57	0.72	DILUTION FACTOR
MG/L DISCHARGE		575.3	154.9	0.000	0.000	0.000	0.000	0.00	3.91		
5.00	MG/L							.20		24940	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.23	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	495.0	173.0	0.000	0.000	0.000	0.000	0.00	2.93		
4.00	LBS/DAY	665.5	228.5	0.000	0.000	0.000	0.000	0.00	3.95		
MG/L DISCHARGE		310.0	105.8	0.000	0.000	0.000	0.000	0.00	1.86		

WASTEWATER FLOWS



FYI - cc: John Pittman
Greg Green

VICTOR ATIYEH
Governor

Department of Environmental Quality

522 S.W. FIFTH AVENUE, BOX 1760, PORTLAND, OREGON 97207 PHONE: (503) 229-5696

August 4, 1986

Mr. Murray Tilson
Wacker Siltronic Corporation
P. O. Box 03180
Portland, OR 97203

Re: Wacker Siltronic Corp.
File No. 93450

Dear Mr. Tilson:

This is in response to your letter of August 1, 1986, regarding the plan to monitor the organic strength of your waste water.

Your proposal calls for analyzing the weekly composite samples for a six month period for BOD-5, COD, and TOC. A summary of the data with relevent conclusions will be submitted by July 1, 1987. Your plan is hereby approved.

If you have any questions, please feel free to contact this office at 229-5374.

Sincerely,

Larry D. Patterson

Larry D. Patterson, P.E.
Industrial Waste Engineer
Water Quality Division

LDP:c
WC840
cc: Northwest Region

Q-1A (2-86)

SCOEPA00034389

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 7/30/86
1020 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 7/30/86

RESULTS:

SAMPLE	TCE PPM
OWW 7/30/86	0.20

COPIES SENT TO: Murray, Greg
FORM# 107-016

SCOEPA00034390

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 7/15/86
0820 hrs; OWW 7/23/86 0910 HRS.

SAMPLE ANALYZED BY: Elinor Levin DATE 7/15/86
7/23/86

RESULTS:

SAMPLE	TCE PPM
OWW 7/15/86	0.15
OWW 7/23/86	0.35

COPIES SENT TO: Mike Pilkington, Murray Tilson, Greg Carr

FORM# 107-016

SCOEPA00034391

Greg

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

July 11, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: June, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for June, 1986 for the month of June our discharge was within compliance for all measured parameters.

Our pH only measured 137 minutes out of compliance for the month of June, or about 0.3% of the time. One incident was longer than 1 hour in duration.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
John Pittman

SCOEPA00034392

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: P.O. Box 03180
Portland, OR. 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 74

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	86	06	01	TO	86	06	30

2834-J
93450

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	364,000	460,000	GPD	-	-	-	-		Continuous	Totalizing
	PERMIT REQUIREMENT	-	-		-	-	-				Recorder
MV1 BOD	SAMPLE MEASUREMENT	26	61	#/D	3	7	16	mg/l	o	1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	25	76	#/D	2	7	20	mg/l	o	1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.007	<.007	#/D	<.002	<.002	<.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.014	<.014	#/D	<.004	<.004	<.004	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	19.9	25.3	#/D	4.3	5.7	7.1	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-				1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

By: John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 07 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Form 3320-1 (Rev. 10-79) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED

(REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034393

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WAC : SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR. 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER
(17-19) 74 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86 (20-21)	06 (22-23)	01 (24-25)	TO	86 (26-27)	06 (28-29)	30 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	57,000	220,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	<.1	.2		0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	422,000	680,000	GPD	-	-	-	-		1/1Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-		20.9	22.5	23.7	degree C	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-	-	3.3	-	9.4	pH units	1	Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John Pittman/Dir. Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

By: John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 07 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.7% of the time. Time out of compliance was 137 minutes, or .3% of the time. One incident was longer than 1 hour

SCOEPA00034394

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/3/86
ANALYSTS: Eleanor Lin / Doug L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲5	+332			
TSS	mg/l	–	15	30	▲4	+170			
F^-	mg/l	–	6	20	▲5.2	2.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.004				
Cr^{total}	mg/l	–	0.3	1	▲<0.009				
Phosphates	mg/l	–	2	5			▲.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.8	▲	
Temperature	°C	–	–	27			▲22.4	▲21.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034395

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/11/86
ANALYSTS: Elinor Lewis / Gary L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 4	+455			
TSS	mg/l	–	15	30	▲ 8	+178			
F^-	mg/l	–	6	20	▲- 4.1	1.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.004				
Cr^{total}	mg/l	–	0.3	1	▲ <0.009				
Phosphates	mg/l	–	2	5			▲ .1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.5	▲	
Temperature	°C	–	–	27			▲ 23 6	▲ 20.9	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034396

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/18/86
ANALYSTS: Elmer Levin / Hong L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 5	+ 398			
TSS	mg/l	–	15	30	▲ 4	+ 130			
F^-	mg/l	–	6	20	▲ 6.8	2.6			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.004				
Cr^{total}	mg/l	–	0.3	1	▲ <0.009				
Phosphates	mg/l	–	2	5			▲ .5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 22.8	▲ 21.7	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034397

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/28/86
ANALYSTS: Glenn Levin / Barry L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 2	+ 795			
TSS	mg/l	–	15	30	▲ 4	+ 214			
F^-	mg/l	–	6	20	▲- 3.2	5.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲- 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ < 0.009				
Phosphates	mg/l	–	2	5			▲ .7		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲	
Temperature	°C	–	–	27			▲ 24.2	▲ 22.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034398

Murray Tilson

PH violations July 1986

7/9 strong acid dump WHD CE TO 3.8

7/7 OWW Regen. 11.6 11.8 80 min. Total

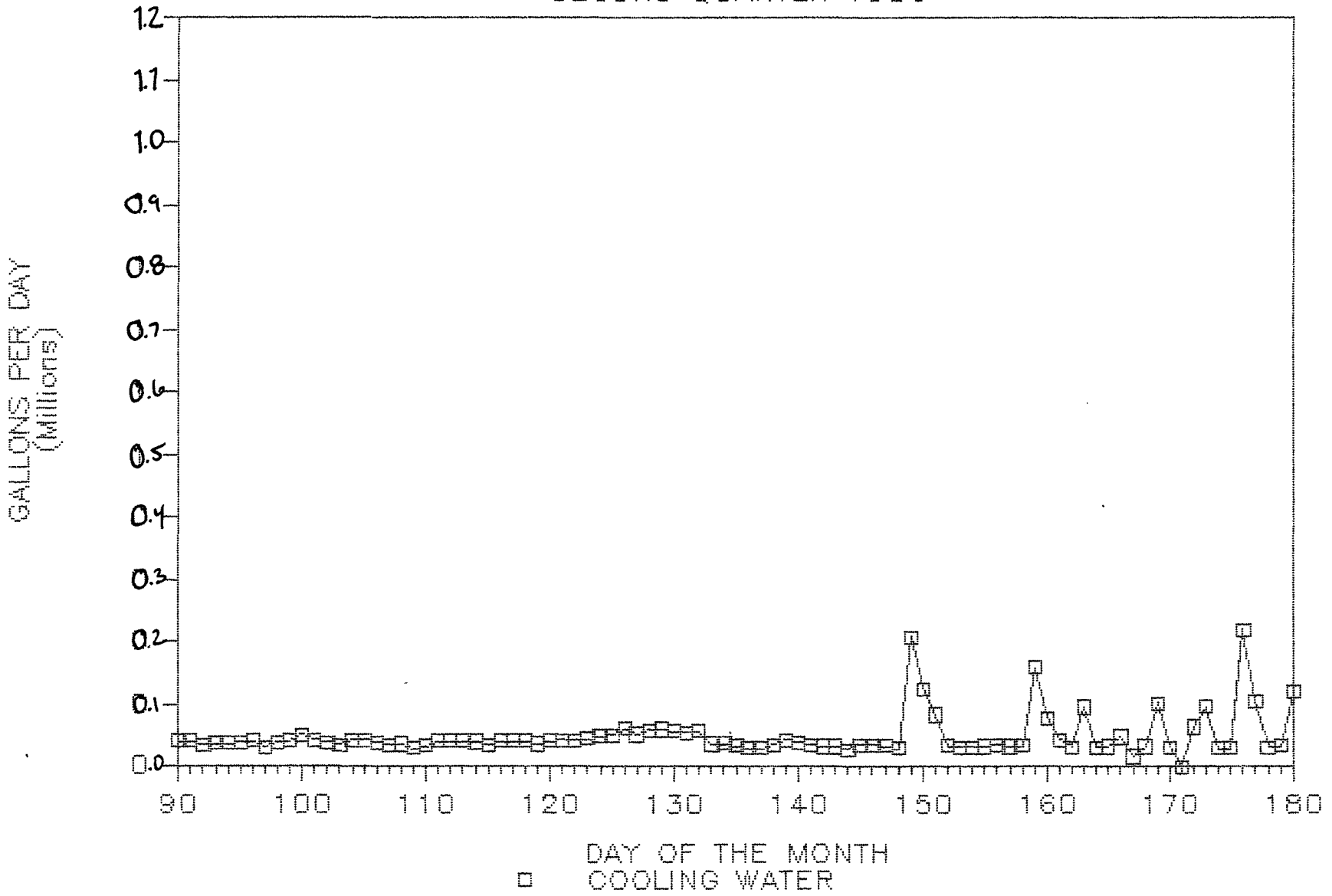
pH summary June 1986

6/13	OWW	50 min	11.8	} acid pump failure
6/12	OWW	20 min	10.5	
6/9	OWW	1 hr 40 min	10.5	?
6/6	CE	~10 min	3.8	acid dump?
6/5	CE	~10 min	4.5	" " ?
6/3	CE	1 hr	3.3	" " ?

SCOEPA00034401

WASTEWATER FLOWS

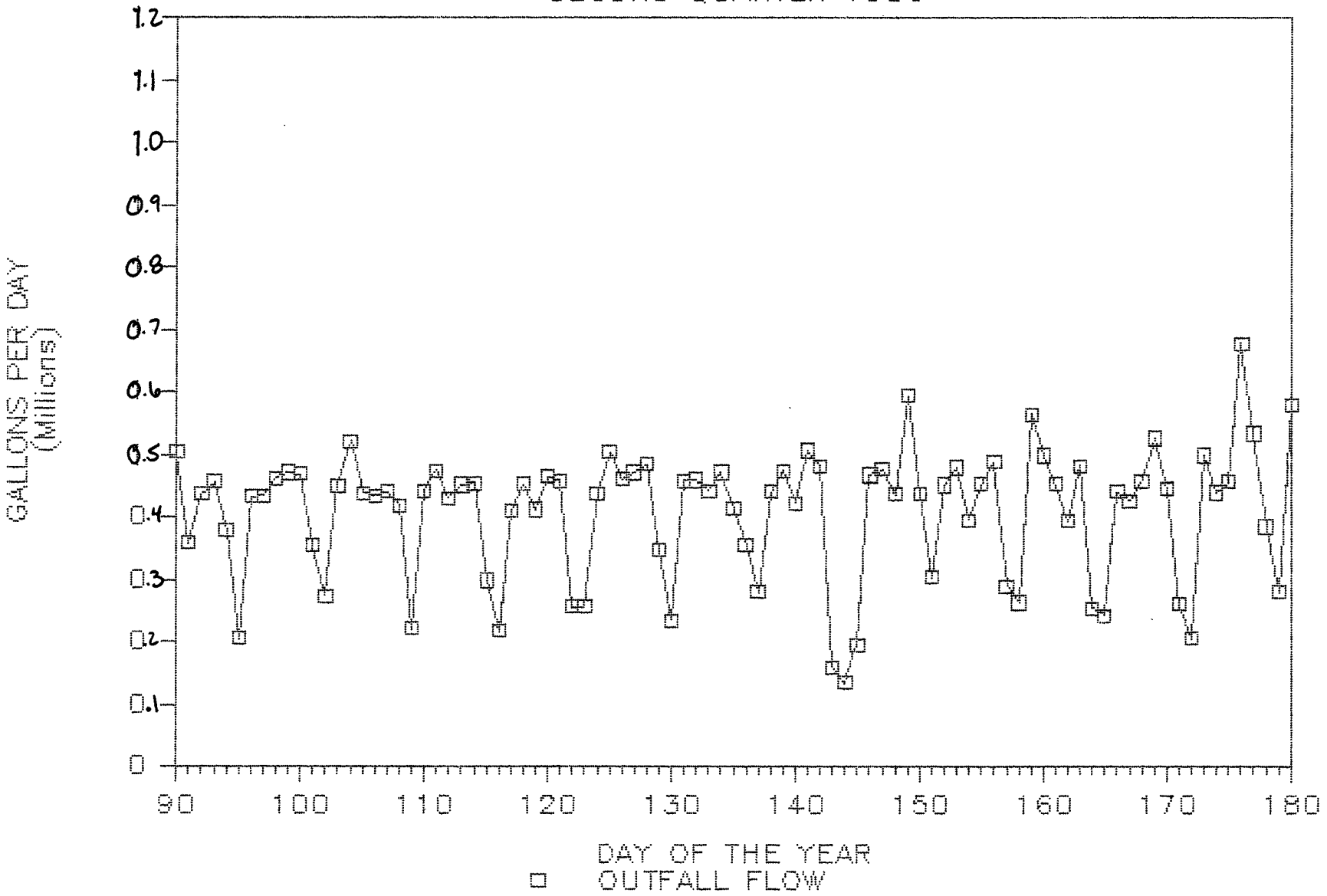
SECOND QUARTER 1986



SCOEPA00034402

WASTEWATER FLOWS

SECOND QUARTER 1986



SCOEPA00034403

DWTP686 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
151.00	6.0 - 9.0	1	379693	632693	1764347	3536979		81150	221070	75000	84600	305670
152	25.30	2	387808	654800	1765097	3537825		180450	419570	89300	33500	453070
153	52.00	3	405853	696757	1765990	3538160		201930	448800	94500	31500	480300
154	115.00	4	426046	741637	1766935	3538475		178820	364160	112800	32400	396560
155	115.00	5	443928	778053	1768063	3538799		206210	421430	108800	33000	454430
156	135.40	6	464549	820196	1769151	3539129		202100	454320	96200	35400	489720
157	135.40	7	484759	865628	1770113	3539483		138390	257150	56800	33200	290350
158	135.40	8	498598	891343	1770681	3539815		109880	230030	57900	34000	264030
159	135.40	9	509586	914346	1771260	3540155		155810	405820	74400	159200	565020
160	135.40	10	525167	954928	1772004	3541747		167250	419900	76900	79700	499600
161	137.30	11	541892	996918	1772773	3542544		160730	411260	58700	43000	454260
162	137.30	12	557965	1038044	1773360	3542974		150220	362840	63700	32200	395040
163	137.30	13	572987	1074328	1773997	3543296		177360	388060	70000	95500	483560
164	137.30	14	590723	1113134	1774697	3544251		128980	223240	44800	31800	255040
165	137.30	15	603621	1135458	1775145	3544569		101810	210220	64800	33000	243220
166	137.30	16	613802	1156480	1775793	3544899		198170	394830	91500	48400	443230
167	137.30	17	633619	1195963	1776708	3545383		198000	410280	90800	17200	427480
168	137.30	18	653419	1236991	1777616	3545555		194950	426770	86300	33200	459970
169	137.30	19	672914	1279668	1778479	3545887		189560	426020	88800	101500	527520
170	137.30	20	691870	1322270	1779367	3546902		147090	413420	62300	32500	445920
171	137.30	21	706579	1363612	1779990	3547227		92870	261440	47400	0	261440
172	137.30	22	715866	1389756	1780464	3547227		78070	142470	72300	64400	206870
173	137.30	23	723673	1404003	1781187	3547871		177950	402800	83800	96600	499400
174	137.30	24	741468	1444283	1782025	3548837		175910	411440	90300	29400	440840
175	137.30	25	759059	1485427	1782928	3549131		177570	429110	117300	29600	458710
176	137.30	26	776816	1528338	1784101	3549427		195100	460030	111800	219800	679830
177	137.30	27	796326	1574341	1785219	3551625		174790	427780	120900	107200	534980
178	137.30	28	813805	1617119	1786428	3552697		163330	354650	96200	31900	386550
179	137.30	29	830138	1652584	1787390	3553016		81740	247700	85900	33400	281100
180	137.30	30	838312	1677354	1788249	3553350		169600	460140	112000	121000	581140
181	137.30	1	855272	1723368	1789369	3554560						

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	460140	206210	120900	219800	679830
MINIMUM FLOW GPD	142470	78070	44800	0	206870
AVERAGE FLOW GPD	363558	158526	83407	58603	422162
MAXIMUM FLOW GPM	320	143	84	153	472
MINIMUM FLOW GPM	99	54	31	0	144
AVERAGE FLOW GPM	252	110	58	41	293
TOTAL FLOW GAL	10906750	4755790	2502200	1758100	12664850

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
6.00	MG/L	16.0	20.0	0.002	0.004	5.5	22.40	0.10	454320
	LBS/DAY	60.6	75.8	0.008	0.015	20.8			
13.00	MG/L	6.0	2.0	0.002	0.004	5.8	23.70	0.10	388060
	LBS/DAY	19.4	6.5	0.006	0.013	18.8			
20.00	MG/L	4.0	3.0	0.002	0.004	4.3	20.90	0.20	413420
	LBS/DAY	13.8	10.3	0.007	0.014	14.8			
27.00	MG/L	3.0	2.0	0.002	0.004	7.1	23.10	0.10	427780
	LBS/DAY	10.7	7.1	0.007	0.014	25.3			
5.00	MG/L								421430
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	7.3	6.8	0.002	0.004	5.7			
4.00	LBS/DAY	26.1	24.9	0.007	0.014	19.9			

SCOEPA00034404

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/6/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6/6/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 16	+ 407			
TSS	mg/l	–	15	30	▲ 20	+ 194			
F^-	mg/l	–	6	20	▲ 5.5	2.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ < 0.004				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 20.6	▲ 22.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034405

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/13/86
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6-13-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 6	+ 277			
TSS	mg/l	–	15	30	▲ 2	+ 352			
F^-	mg/l	–	6	20	▲- 5.8	6.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.004				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 19.4	▲ 23.7	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034406

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/20/86
ANALYSTS: W. Lyle / Nancy L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6-20-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 4	+ 377			
TSS	mg/l	–	15	30	▲- 3	+ 118			
F^-	mg/l	–	6	20	▲- 4.3	3.6			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.002				
Cr^{total}	mg/l	–	0.3	1	▲- <0.004				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.4	▲	
Temperature	°C	–	–	27			▲ 20.2	▲ 20.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

	BOD mg/l
PWW + 15 mg/l 9N9	12
PWW + 30 " "	20

SCOEPA00034407

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/27/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6-27-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 3	+ 357			
TSS	mg/l	–	15	30	▲- 2	+ 442			
F^-	mg/l	–	6	20	▲- 7.1	1.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.002				
Cr^{total}	mg/l	–	0.3	1	▲- <0.004				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲	
Temperature	°C	–	–	27			▲ 21.7	▲ 23.1	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

BOD mg/l

PWW +15 mg/l 9N9 12
" +30 " " 19
" + Nitrification Inhib. 2

SCOEPA00034408

Metals sampld 6/20
Zn .023
Cd <.008
Cr <.02
Ag <.01

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, and samples the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 6/13/86
0920 hrs; OWW 6/20/86 0930 hrs; OWW 6/27/86 0830 hrs.

SAMPLE ANALYZED BY: Elinor Levin DATE 6/13/86, 6/20/86, 6/27/86

RESULTS:

SAMPLE	TCE PPM
oww 6/6	.19
OWW 6/13/86	0.22
OWW 6/20/86	0.17
OWW 6/27/86	0.30

pww 6/6 .11

COPIES SENT TO: Greg Carr, Murray Gibson
FORM# 107-016

SCOEPA00034409

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

July 9, 1986

Ms. Molly Heany
Bureau of Environmental Services
City of Portland
1120 S.W. Fifth Ave.
Portland, OR 97204-1972

Dear Ms. Heany:

Subject: TCE Permit Violation of 6/30/86

This letter will serve as a formal follow-up to a TCE permit violation of our Municipal Discharge Permit (No. 469-01) on June 30, 1986.

In the process of converting one of our cleaning processes that uses TCE to a non-TCE process, we inadvertently discharged approximately one pint of TCE solution into the OWW drain system during a bath dumping process. Quick action was taken to minimize the full effect of this discharge by pumping out the bottom portion of our OWW forwarding sump and transferring this material to our SOD containment area for processing through our TCE steam stripper.

We notified your office of our current situation as soon as possible that day and reviewed the situation in detail with you during the following day at our plant site. The following is a summary of the TCE concentrations taken from the OWW system during that time period as analyzed with our gas chromatograph:

Date:	Time	TCE (mg/1):
6/30	12:18 p.m.	26
7/1	11:15 a.m.	0.17
7/2	09:00 a.m.	0.16

Grab samples taken from the effluent line at the OWW forwarding sump indicate that within 4 hours after the TCE spill incident, the OWW system was discharging at the normal background level of less than 1 ppm TCE.

We believe we responded in a timely and effective manner to minimize any potential problems associated with your sewerage collection and treatment system.

Please call me at 243-2020, extension 301, if you have further questions regarding this incident.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

cc: Greg Carr
John Pittman

SCOEPA00034411

Greg

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

June 13, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: May, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for May, 1986 For the month of May our discharge was within compliance for all measured parameters.

Our pH only measured 365 minutes out of compliance for the month of May, or about 0.8% of the time. Two incidents were longer than 1 hour in duration.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Environmental Manager

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 73

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	05	01	TO	86	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	115,000	2,130,000	GPD	-	-	-			Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO 3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	<.1	.2	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	468,000	2,440,000	GPD	-	-	-	-		1/1	
	PERMIT REQUIREMENT	-	-		-	-	-			Totalizing Recorder	
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	18.9	20.9	22.4	0 degree		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		3.2	-	11.4	pH units	2	Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
By: John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By: [signature]	503	243-2020	86	06	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.2% of the time. Time out of compliance was 365 minutes, or .8% of the time. Two incidents were longer than 1 hour.

SCOEPA00034413

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME: WACKER SILTRONIC CORPORATION
ADDRESS: PO Box 03180
Portland, OR 97203
FACILITY: 7200 NW Front Ave.
LOCATION: Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 73

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	05	01	TO	86	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	353,000	473,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	68	104	#/D	4	19	30	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	17	23	#/D	3	4.6	6	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	50			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.004	<.004	#/D	<.001	<.001	<.001	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	103	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	.019	.028	#/D	.002	.005	.008	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0				
MV1 Fluoride	SAMPLE MEASUREMENT	17	18	#/D	4.1	4.7	5.6	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.11	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	By:	503	243-2020	86	06	11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034414

dwtp586 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	TIME OUT OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
120.00	6.0 - 9.0	1	838401	537539	1737927	3521280	1	146900	423280	66700	42400	465680
121	0.00	2	853091	579867	1738594	3521704	2	169380	415120	83300	43900	459020
122	0.00	3	870029	621379	1739427	3522143	3	115520	213840	58400	43900	257740
123	101.80	4	881581	642763	1740011	3522582	4	96310	212390	76200	45500	257890
124	101.80	5	891212	664002	1740773	3523037	5	157630	389730	85300	49700	439430
125	101.80	6	906975	702975	1741626	3523534	6	182580	453470	90700	51600	505070
126	101.80	7	925233	748322	1742533	3524050	7	147090	400470	93900	61700	462170
127	101.80	8	939942	788369	1743472	3524667	8	152150	419980	88600	52900	472880
128	101.80	9	955157	830367	1744358	3525196	9	145090	425610	78100	58900	484510
129	101.80	10	969666	872928	1745139	3525785	10	123340	285860	73200	61000	346860
130	101.80	11	982000	901514	1745871	3526395	11	82410	179400	68300	57400	236800
131	101.80	12	990241	919454	1746554	3526969	12	171930	404380	99600	55500	459880
132	101.80	13	1007434	959892	1747550	3527524	13	179520	403190	112400	57300	460490
133	101.80	14	1025386	1000211	1748674	3528097	14	176550	407430	117400	37100	444530
134	101.80	15	1043041	1040954	1749848	3528468	15	183860	434580	104400	38200	472780
135	101.80	16	1061427	1084412	1750892	3528850	16	143540	380920	79600	33600	414520
136	101.80	17	1075781	1122504	1751688	3529186	17	120210	325620	66000	31300	356920
137	137.10	18	1087802	1155066	1752348	3529499	18	106830	251230	78100	30700	281930
138	157.60	19	1098485	1180189	1753129	3529806	19	160000	407270	97600	35800	443070
139	157.60	20 *	1219221	1220916	1754105	3530164	20	167180	431200	83300	43400	474600
140	157.60	21	1235939	1264036	1754938	3530598	21	155550	385520	100700	38900	424420
141	157.60	22	1251494	1302588	1755945	3530987	22	179080	472730	119100	35100	507830
142	177.00	23	1269402	1349861	1757136	3531338	23	172210	449200	90800	33300	482500
143	177.00	24	1286623	1394781	1758044	3531671	24	45480	128620	69300	32700	161320
144	177.00	25	1291171	1407643	1758737	3531998	25	33470	109150	66700	27900	137050
145	252.00	26	1294518	1418558	1759404	3532277	26	54670	161060	71000	35300	196360
146	252.00	27	1299985	1434664	1760114	3532630	27	145420	432450	91800	35900	468350
147	252.00	28	1314527	1477909	1761032	3532989	28	175590	443070	86700	34400	477470
148	252.00	29	1332086	1522216	1761899	3533333	29	162330	408030	87300	29600	437630
149	259.10	30	1348319	1563019	1762772	3533629	30	162420	385520	82300	208800	594320
150	365.00	31	1364561	1601571	1763595	3535717	31	151320	311220	75200	2126200	2437420
151	365.00	1	1379693	1632693	1764347	3556979	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	472730	183860	119100	2126200	2437420
MINIMUM FLOW GPD	109150	33470	58400	27900	137050
AVERAGE FLOW GPD	353275	140825	85226	115158	468434
MAXIMUM FLOW GPM	328	128	83	1477	1693
MINIMUM FLOW GPM	76	23	41	19	95
AVERAGE FLOW GPM	245	98	59	80	325
TOTAL FLOW GAL	10640320	4214240	2566800	1443700	12084020

NOTE: OWW TOTALIZER IN ERROR ON 6/20 DUE TO SIGNAL/POWER PROBLEMS

corrected

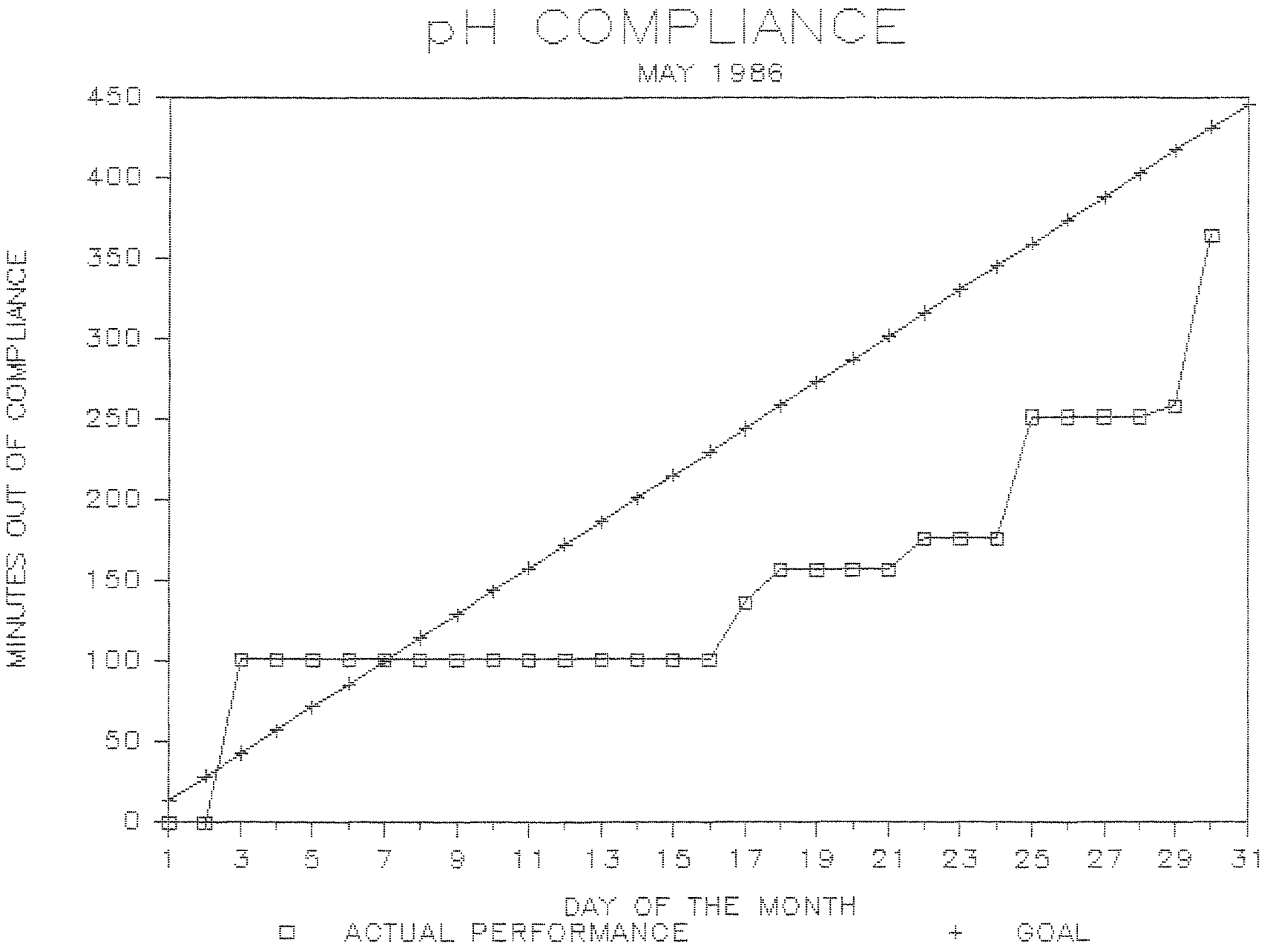
DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
9.00	MG/L	26.0	4.0	0.001	0.008	4.8	21.20	0.10	425610
	LBS/DAY	92.3	14.2	0.004	0.028	17.0			
15.00	MG/L	4.0	3.0	0.001	0.002	4.2	21.80	0.10	434580
	LBS/DAY	14.5	10.9	0.004	0.007	15.2			
23.00	MG/L	9.0	6.0	0.001	0.005	4.1	20.40	0.20	449200
	LBS/DAY	33.7	22.5	0.004	0.019	15.4			
28.00	MG/L	28.0	6.0	0.001	0.005	4.7	22.40	0.10	443070
	LBS/DAY	103.5	22.2	0.004	0.018	17.4			
30.00	MG/L	30.0	4.0	0.001	0.007	5.6	18.90	0.20	385520
(April)	LBS/DAY	96.5	12.9	0.003	0.023	18.0			
AVERAGE	MG/L CE	19.4	4.6	0.001	0.005	4.7	20.9	0.1	
5.00	LBS/DAY	~~68.1~~	~~16.5~~	~~0.004~~	0.019	16.6			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
30.00	MG/L	432.0	174.0						1.30	162420	OWW
(April)	LBS/DAY	585.2	235.7	0.000	0.000	0.000	0.000	0.00	1.76	0.66	DILUTION FACTOR
MG/L DISCHARGE		286.7	115.5	0.000	0.000	0.000	0.000	0.00	0.86		
9.00	MG/L	235.0	212.0						0.10	145090	OWW
	LBS/DAY	284.4	256.5	0.000	0.000	0.000	0.000	0.00	0.12	0.65	DILUTION FACTOR
MG/L DISCHARGE		152.8	137.8	0.000	0.000	0.000	0.000	0.00	0.07		
15.00	MG/L	577.0	214.0						0.10	183860	OWW
	LBS/DAY	884.8	328.1	0.000	0.000	0.000	0.000	0.00	0.15	0.64	DILUTION FACTOR
MG/L DISCHARGE		368.0	136.5	0.000	0.000	0.000	0.000	0.00	0.06		
23.00	MG/L	702.0	206.0						2.70	172210	OWW
	LBS/DAY	1008.2	295.9	0.000	0.000	0.000	0.000	0.00	3.88	0.65	DILUTION FACTOR
MG/L DISCHARGE		459.6	134.9	0.000	0.000	0.000	0.000	0.00	1.77		
28.00	MG/L	493.0	630.0						0.10	175590	OWW
	LBS/DAY	722.0	922.6	0.000	0.000	0.000	0.000	0.00	0.15	0.67	DILUTION FACTOR
MG/L DISCHARGE		330.0	421.8	0.000	0.000	0.000	0.000	0.00	0.07		
AVERAGE	MG/L	487.8	287.2	0.000	0.000	0.000	0.000	0.00	0.86		
5.00	LBS/DAY	696.9	407.8	0.000	0.000	0.000	0.000	0.00	1.21		
MG/L DISCHARGE		319.4	189.3	0.000	0.000	0.000	0.000	0.00	0.57		

pH summary May 1986

5/31 CE 3.7, 3.2 minimum, 9.8 max — pH probes bad
5/30 CE 3.1 minimum — pH probes bad
5/28 OWW 11.3 — 20 minutes CCW overflow from NOX
5/26 CE (MU1 - CE pump stopped) minimum 4.2, 75 minutes (one shot)
5/23 CE 5.4,
OWW 2.6 for 10 minutes - acid pump cross-connection
5/19 OWW 3.9 for 25 minutes - alum tank overflow
5/13 OWW 11.3 for 25 minutes - looks like CCW Hx overflow
5/5 CE 11.4 for 1hr 35 min (75 min) 1 shot
- caustic down RO drain, bypassing WWTP
5/2 OWW - 11.4 for 60 minutes - possibly CCW Hx overflow

SCOEPA00034416



SCOEPA00034417

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/30/86
ANALYSTS: [signature] Darryl

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4/30/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 30	+ 432			
TSS	mg/l	–	15	30	▲ 4	+ 174			
F^-	mg/l	–	6	20	▲ 5.6	1.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.007				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 17.2	▲ 18.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS DEQ Split

SCOEPA00034418

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/9/86
ANALYSTS: [illegible] / Wang L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5/9/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 26	+ 235			
TSS	mg/l	–	15	30	▲ 4	+ 212			
F^-	mg/l	–	6	20	▲ 4.8	2.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.021				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 18.4	▲ 21.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034419

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/15/86
ANALYSTS: [redacted] / Barry L.

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION		–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5/15/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 4	+ 577			
TSS	mg/l	–	15	30	▲ 3	+ 214			
F^-	mg/l	–	6	20	▲ 4.2	2.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.002				
Phosphates	mg/l	–	2	5			▲ 2.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 19.4	▲ 21.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034420

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/23/86
ANALYSTS: [illegible] / Wong L.

[illegible]ILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5/23/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 9	+ 702			
TSS	mg/l	–	15	30	▲- 6	+ 206			
F^-	mg/l	–	6	20	▲- 4.1	2.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 18.7	▲ 20.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034421

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/28/86
ANALYSTS: [signature] / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 5/28/86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 28	+ 493			
TSS	mg/l	-	15	30	▲ 6	+ 630			
F^-	mg/l	-	6	20	▲ 4.7	< .1			
Cr^{6+}	mg/l	-	0.02	0.05	▲ < 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.005				
Phosphates	mg/l	-	2	5			▲ < .1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.4	▲	
Temperature	°C	-	-	27			▲ 21.6	▲ 22.4	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034422

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

May 9, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: April, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for April, 1986. For the month of April our discharge was within compliance for all measured parameters.

As discussed in our telephone conversation on April 22, we had to divert our lapping and slicing waste water stream (which normally goes to the City of Portland sewerage system) into our clarifier system for a 5 hour period. This was caused by a plugged discharge line. This incident resulted in approximately 30 lbs. of BOD flowing through our WWTP and being discharged to the Willamette River. We are making arrangements to have an outside contractor perform a regular periodic cleanout of this discharge line to prevent this "plugging" from occuring in the future.

Our pH only measured 177 minutes out of compliance for the month of April, or about 0.4% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

SCOEPA00034423

PERMITTEE NAME/ADDRESS (Facility Name/Location if different)

NAME: WACKER SILTRONIC CORPORATION

ADDRESS: PO Box 03180
Portland, OR. 97203

FACILITY: 7200 NW Front Ave.

LOCATION: Portland, OR 97229

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 72

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	86	04	01	TO	86	04	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	368,000	478,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	60	114	#/D	4.0	17.5	33	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	17.2	34.5	#/D	2.0	5.0	10.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.02	<.02	#/D	<.006	<.006	<.006	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	.01	.17	#/D	<.005	.004	.003	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	19.5	25.9	#/D	4.3	5.7	7.4	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.04	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 05 | DAY 06

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034424

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR. 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-000
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 72

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	04	01	TO	86	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

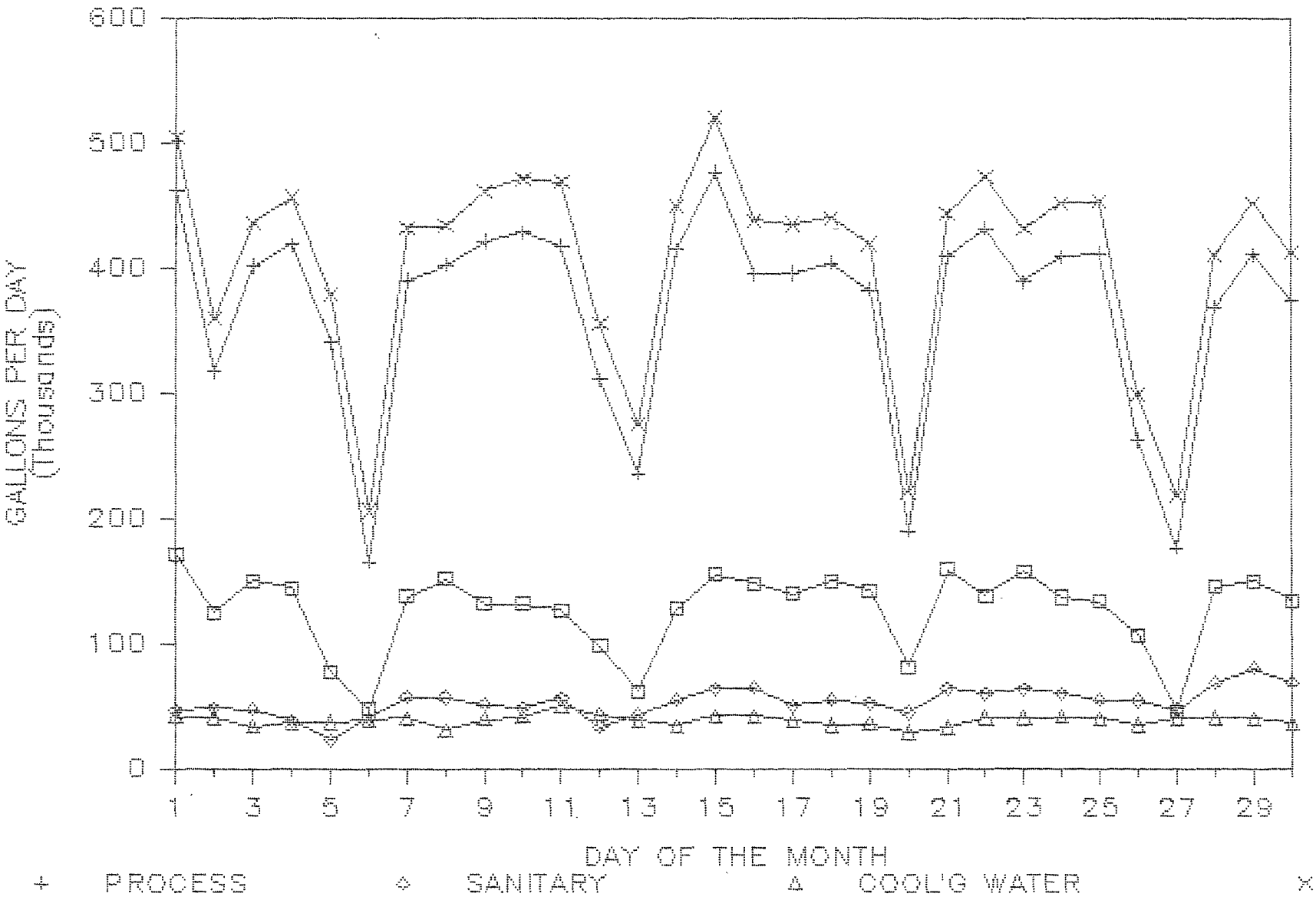
PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	40,000	51,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	.14	.2	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	408,000	522,000	GPD	-	-	-	-		1/1Totalizin	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	16.7	18.5	20.0	degree C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		3.9	-	10.9	pH units		Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			Recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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 SEE 18 U.S.C § 1001 AND 33 U.S.C § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	John Pittman	503	243-2020	YEAR	MO	DA
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER			

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.6% of the time. Time out of compliance was 176.7 minutes, or .4% of the time. No incidents were longer than 1 hour.

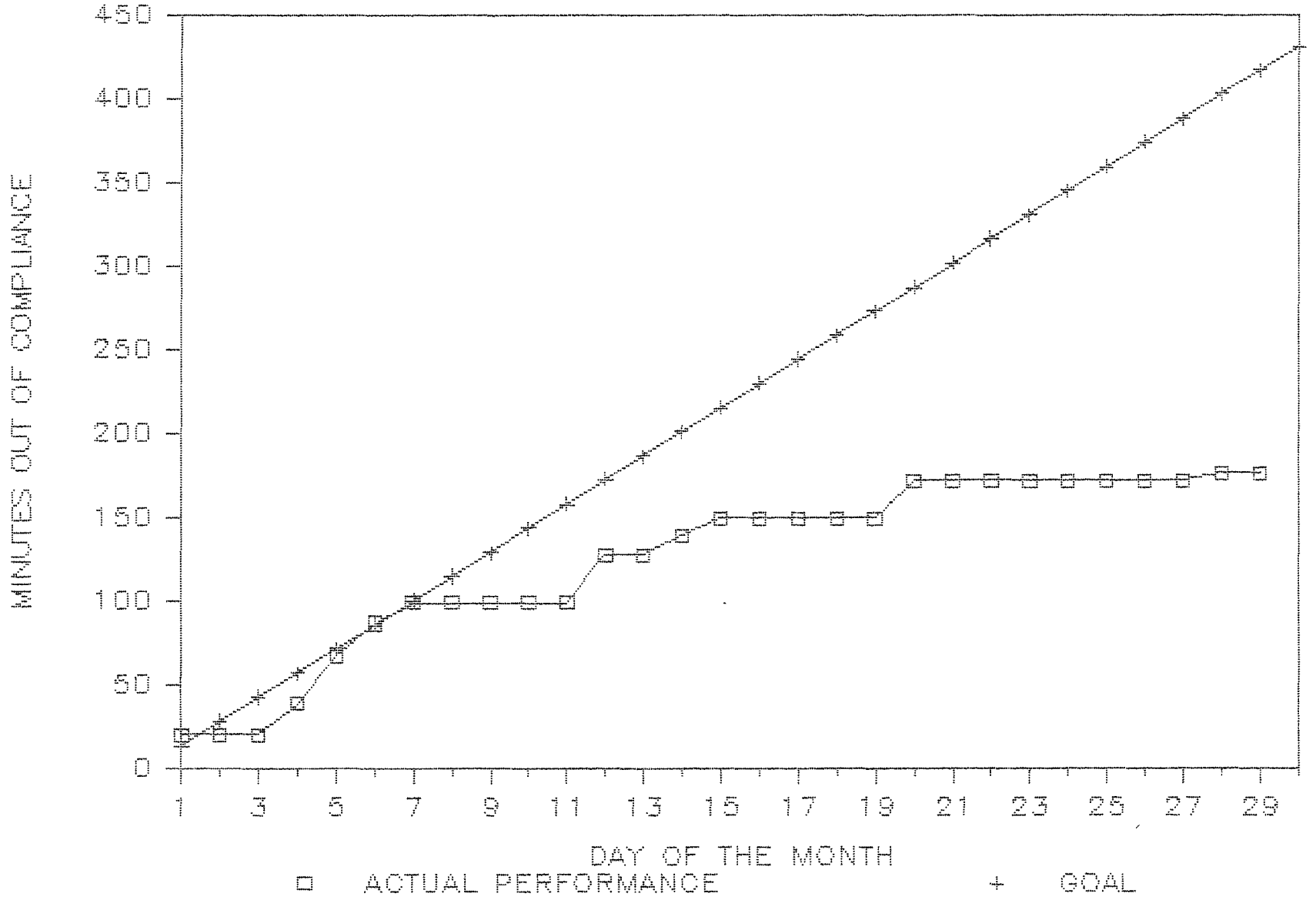
WASTEWATER FLOWS



SCOEPA00034426

pH COMPLIANCE

APRIL 1986



SCOEPA00034427

DWTP486 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
90.00	6.0 - 9.0	1	454207	432239	1721611	3509360		1	172600	463470	47300	42400	505870
91	20.70	2	471467	478586	1722084	3509784		2	126220	317870	49700	42100	359970
92	20.70	3	484089	510373	1722581	3510205		3	151780	402970	48200	34900	437870
93	20.70	4	499267	550670	1723063	3510554		4	145310	419550	39500	38200	457750
94	39.40	5	513798	592625	1723458	3510936		5	78900	341600	23800	38000	379600
95	68.00	6	521688	626785	1723696	3511316		6	48470	166630	41300	40100	206730
96	87.50	7	526535	643448	1724109	3511717		7	139020	392020	58800	41800	433820
97	99.90	8	540437	682650	1724697	3512135		8	152600	403290	57600	32000	435290
98	99.90	9	555697	722979	1725273	3512455		9	132720	422360	52600	40600	462960
99	99.90	10	568969	765215	1725799	3512861		10	132920	430140	49200	42500	472640
100	99.90	11	582261	808229	1726291	3513286		11	127510	419000	56700	51100	470100
101	99.90	12	595012	850129	1726860	3513797		12	99130	312090	34700	44200	356290
102	128.50	13	604925	881338	1727207	3514239		13	62890	236570	44600	39300	275870
103	128.50	14	611214	904995	1727653	3514632		14	128720	416290	56000	35400	451690
104	139.90	15	624086	946624	1728213	3514986		15	156140	478430	65300	43100	521530
105	150.10	16	639700	994467	1728866	3515417		16	148980	396370	66400	43100	439470
106	150.10	17	654598	1034104	1729530	3515848		17	140430	397020	51400	39000	436020
107	150.10	18	668641	1073806	1730044	3516238		18	151330	405430	55800	36000	441430
108	150.10	19	683774	1114349	1730602	3516598		19	143630	383570	53500	37100	420670
109	150.10	20	698137	1152706	1731137	3516969		20	83080	191930	45800	30400	222330
110	172.40	21	706445	1171899	1731595	3517273		21	159980	410290	64700	34200	444490
111	172.40	22	722443	1212928	1732242	3517615		22	139060	432610	60600	42100	474710
112	172.40	23	736349	1256189	1732848	3518036		23	158900	390350	64800	42200	432550
113	172.40	24	752239	1295224	1733496	3518458		24	138330	410480	61200	42400	452880
114	172.40	25	766072	1336272	1734108	3518882		25	134380	413360	56100	41400	454760
115	172.40	26	779510	1377608	1734669	3519296		26	108370	263720	55600	36000	299720
116	172.40	27	790347	1403980	1735225	3519656		27	47580	177490	48300	41500	218990
117	172.40	28	795105	1421729	1735708	3520071		28	146290	369820	69800	42000	411820
118	176.70	29	809734	1458711	1736406	3520491		29	150970	412050	81800	41600	453650
119	176.70	30	824831	1499916	1737224	3520907		30	135700	376230	70300	37300	413530
120	176.70	1	838401	1537539	1737927	3521280		1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	478430	172600	81800	51100	521530
MINIMUM FLOW GPD	166630	47580	23800	30400	206730
AVERAGE FLOW GPD	368433	128065	54387	39733	408167
MAXIMUM FLOW GPM	332	120	57	35	362
MINIMUM FLOW GPM	116	33	17	21	144
AVERAGE FLOW GPM	256	89	38	28	283
TOTAL FLOW GAL	11053000	3841940	1631600	1192000	12245000

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
4.00	MG/L	4.0	2.0	0.006	0.005	7.4	16.70	0.10	419550
	LBS/DAY	14.0	7.0	0.021	0.017	25.9			
11.00	MG/L	4.0	4.0	0.006	0.003	4.8	17.90	0.10	419000
	LBS/DAY	14.0	14.0	0.021	0.010	16.8			
18.00	MG/L	29.0	4.0	0.006	0.003	6.1	19.20	0.15	405430
	LBS/DAY	98.1	13.5	0.020	0.010	20.6			
25.00	MG/L	33.0	10.0	0.006	0.004	4.3	20.00	0.20	413360
	LBS/DAY	113.8	34.5	0.021	0.014	14.8			
5.00	MG/L								341600
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	17.5	5.0	0.006	0.004	5.7			
4.00	LBS/DAY	59.9	17.2	0.021	0.013	19.5			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
4.00	MG/L	447.0	136.0					0.13	3.70	145310	OWW
	LBS/DAY	541.7	164.8	0.000	0.000	0.000	0.000	0.16	4.48	0.79	DILUTION FACTOR
MG/L DISCHARGE		351.5	106.9	0.000	0.000	0.000	0.000	0.10	2.91		
11.00	MG/L	758.0	152.0					0.16	1.20	127510	OWW
	LBS/DAY	806.1	161.6	0.000	0.000	0.000	0.000	0.17	1.28	0.69	DILUTION FACTOR
MG/L DISCHARGE		524.1	105.1	0.000	0.000	0.000	0.000	0.11	0.83		
18.00	MG/L	540.0	70.0						5.50	151330	OWW
	LBS/DAY	681.5	88.3	0.000	0.000	0.000	0.000	0.00	6.94	0.73	DILUTION FACTOR
MG/L DISCHARGE		394.5	51.1	0.000	0.000	0.000	0.000	0.00	4.02		
25.00	MG/L	485.0	112.0						4.60	134380	OWW
	LBS/DAY	543.6	125.5	0.000	0.000	0.000	0.000	0.00	5.16	0.71	DILUTION FACTOR
MG/L DISCHARGE		342.2	79.0	0.000	0.000	0.000	0.000	0.00	3.25		
22.00	MG/L			0.003	0.003	0.007	0.010			139060	OWW
	LBS/DAY	0.0	0.0	0.003	0.003	0.008	0.012	0.00	0.00	0.70	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.002	0.002	0.005	0.007	0.00	0.00		
AVERAGE	MG/L	557.5	117.5	0.001	0.001	0.002	0.003	0.07	3.52		
4.00	LBS/DAY	643.2	135.1	0.001	0.001	0.002	0.003	0.08	4.46		
MG/L DISCHARGE		403.1	85.5	0.001	0.001	0.001	0.002	0.05	2.75		

SCOEPA00034428

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/4/86
ANALYSTS: [signature] A. Lord

FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-4-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 4	+ 447			
TSS	mg/l	–	23	60	▲ 2	+ 136			
F^-	mg/l	–	6	20	▲ 7.4	3.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.006				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ .1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 13.5	▲ 16.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034429

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/11/86
ANALYSTS: [signature] N. Lozo

FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-11-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 4	+ 758			
TSS	mg/l	–	23	60	▲ 4	+ 152			
F^-	mg/l	–	6	20	▲ 4.8	1.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.006				
Cr^{total}	mg/l	–	0.3	1	▲ <0.003				
Phosphates	mg/l	–	2	5			▲ .1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 14.5	▲ 17.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./Day		120	240					
TSS	lbs./Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034430

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/25/86
ANALYSTS: [signature] R. Long

FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-25-86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 33	+ 485			
TSS	mg/l	–	23	60	▲ 10	+ 112			
F^-	mg/l	–	6	20	▲ 4.3	4.6			
Cr^{6+}	mg/l	–	.0.02	0.05	▲ < 0.006				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ .2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲	
Temperature	°C	–	–	27			▲ 18.6	▲ 20.0	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

Lapping Sump Grab BOD 1220 mg/l

SCOEPA00034431

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/18/86
ANALYSTS: [signature] N. Ross

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 4-18-86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 29	+ 540			
TSS	mg/l	-	23	60	▲ 4	+ 70			
F^-	mg/l	-	6	20	▲ 6.1	5.5			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.006				
Cr^{total}	mg/l	-	0.3	1	▲ 0.003				
Phosphates	mg/l	-	2	5			▲ .15		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.3	▲	
Temperature	°C	-	-	27			▲ 17.1	▲ 19.2	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD								
BOD	lbs./Day		120	240					
TSS	lbs./Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034432

Greg C

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

April 11, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: March, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for March, 1986.

For the month of March our discharge was well within compliance for all measured parameters.

Our pH only measured 95 minutes out of compliance for the month of March, or about 0.2% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 N.W. Front Ave.

LOCATION Portland, OR 97220

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR 002059 7

(17-19) DISCHARGE NUMBER: 71

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	03	01	TO	86	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	288,000	426,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
MV1 BOD	SAMPLE MEASUREMENT	64	136	#/D	6	20.5	44	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		"	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	14.5	28.1	#/D	2	6.5	14	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	61	160		"	23	60			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.014	<.014	#/D	<.005	<.005	<.005	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		"	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.029	.09	#/D	<.002	.009	.025	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		"	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	11.4	18.6	#/D	3.4	4.0	5.3	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		"	8	16				
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.12	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	-	-		"	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 — NUMBER 243-2020

DATE: YEAR 86 — MO 04 — DAY 08

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034434

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 — PERMIT NUMBER

(17-19) 71 — DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	03	01	TO	86	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

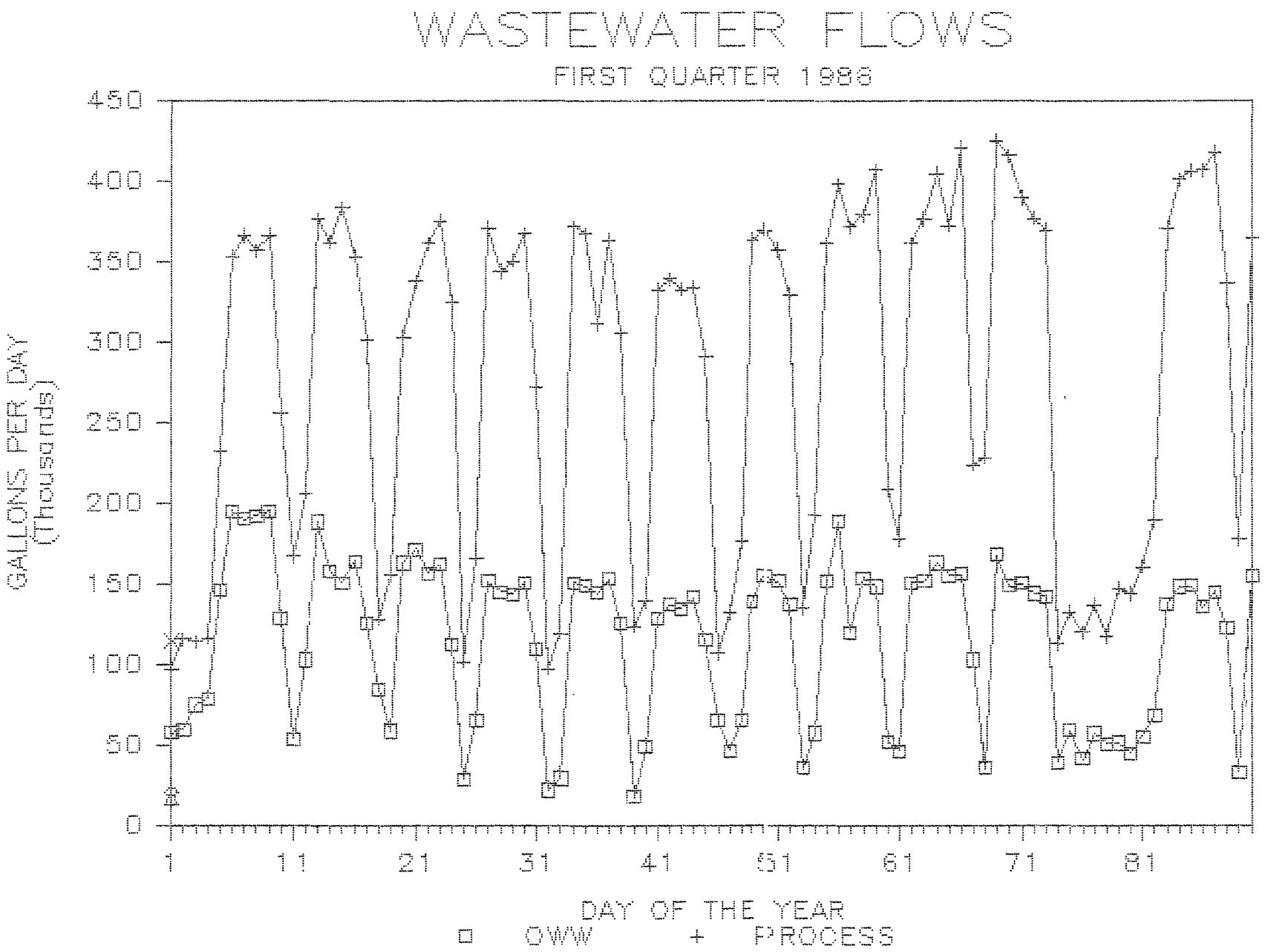
PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	42,000	78,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	<.1	<.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	329,000	470,000	GPD	-	-	-			1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	11.9	12.4	12.8	C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-		3.1	-	11.1	pH units		Continuous Recorder	
	PERMIT REQUIREMENT				6.0		9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	John Pittman	503	243-2020	86	04	08
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.8% of the time. Time out of compliance was 94.6 minutes, or .21% of the time. No incidents were longer than 1 hour

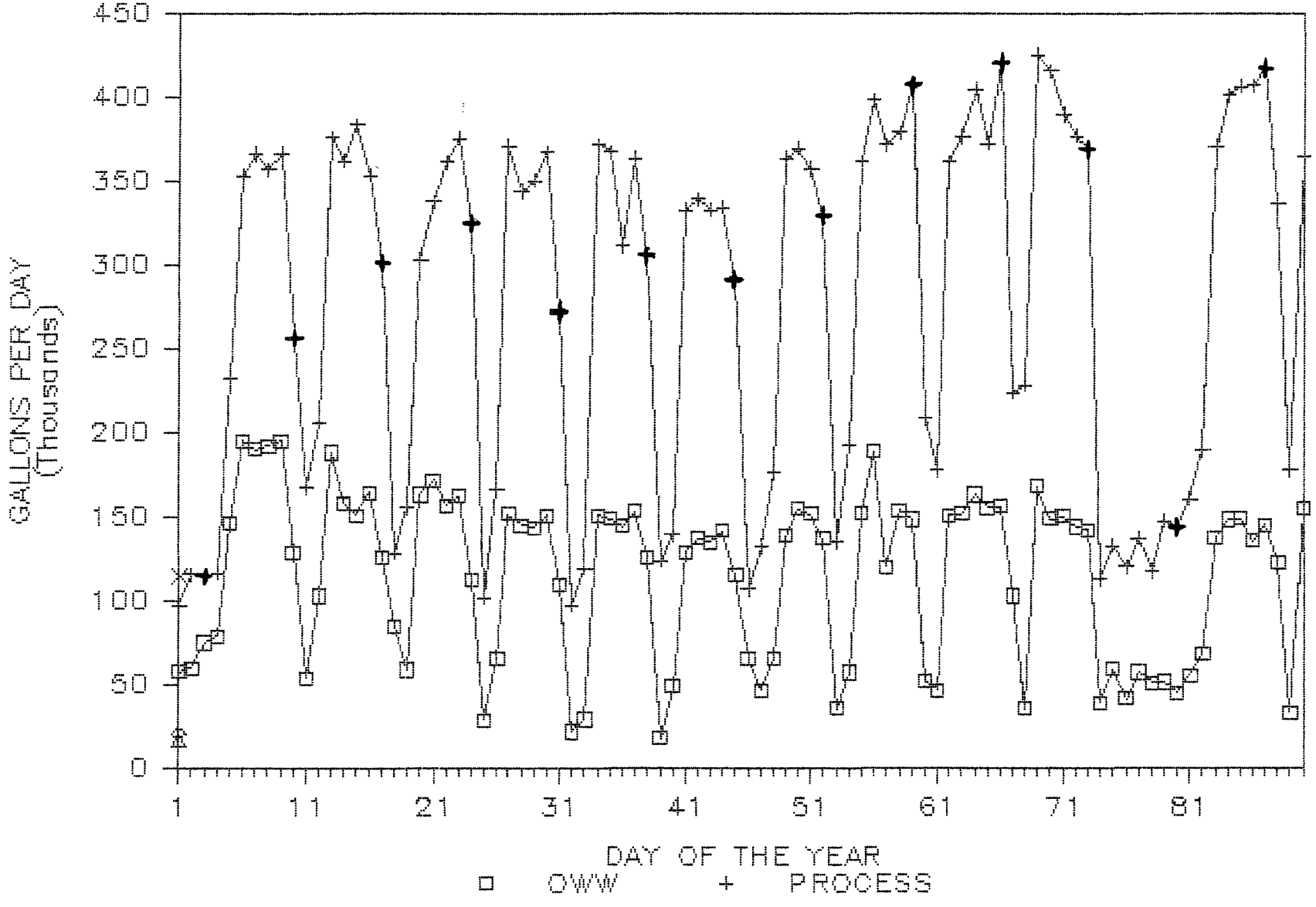
SCOEPA00034435



SCOEPA00034436

WASTEWATER FLOWS

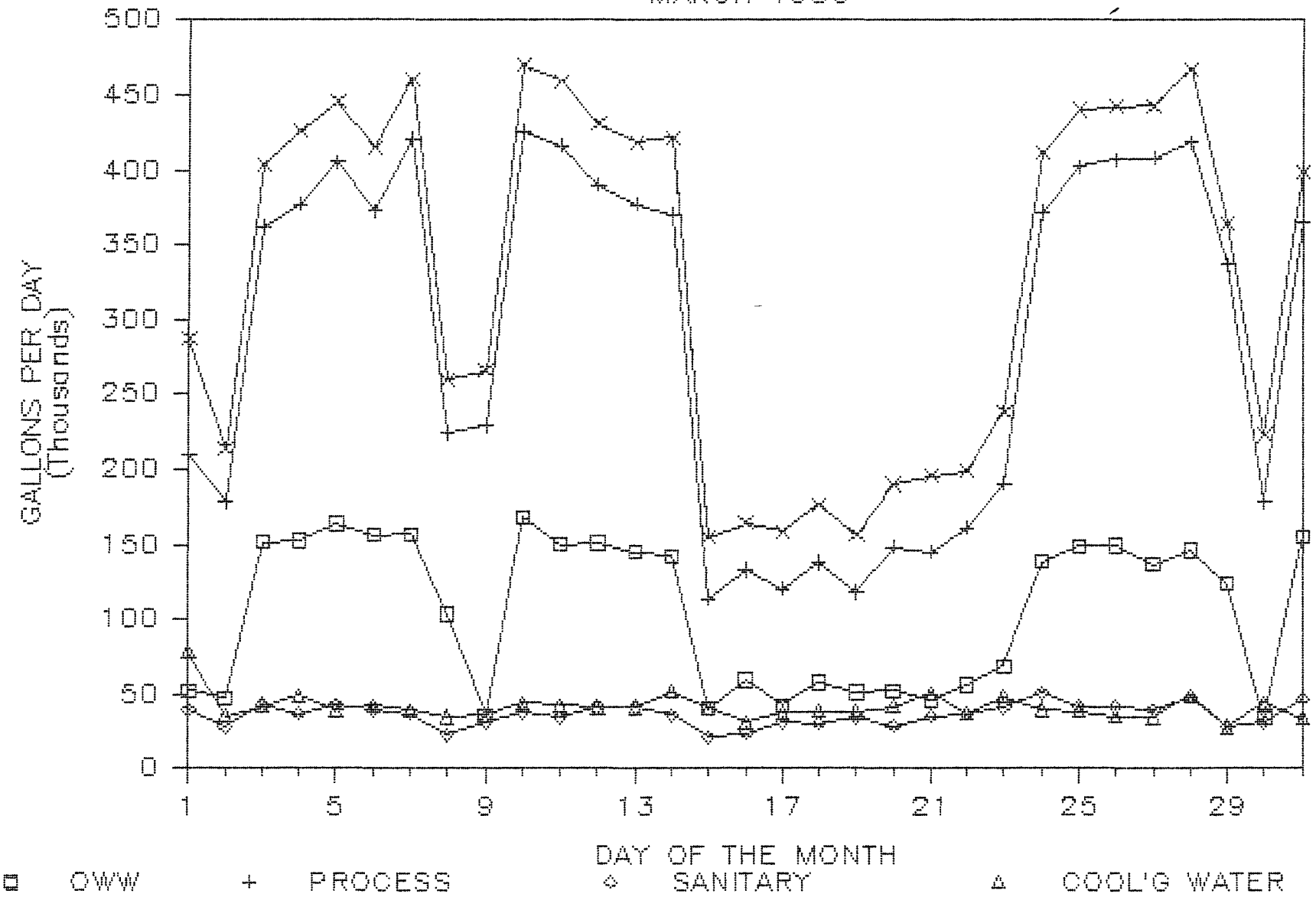
FIRST QUARTER 1986



SCOEPA00034437

WASTEWATER FLOWS

MARCH 1986



SCOEPA00034438

DWTP386 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
59.00	6.0 - 9.0	1	125543	540570	1710323	3496460	1	52820	209530	39200	77700	287230
60	0.00	2	130825	561523	1710715	3497237	2	47600	178370	27800	35500	213870
61	0.00	3	135585	579360	1710993	3497592	3	151400	361690	43300	41900	403590
62	0.00	4	150725	615529	1711426	3498011	4	152820	377180	36900	49100	426280
63	0.00	5	166007	653247	1711795	3498502	5	163910	405700	42800	39700	445400
64	0.00	6	182398	693817	1712223	3498899	6	156170	372950	39600	42400	415350
65	4.40	7	198015	731112	1712619	3499323	7	157140	421310	37000	39700	461010
66	4.40	8	213729	773243	1712989	3499720	8	103750	224810	23000	35000	259810
67	4.40	9	224104	795724	1713219	3500070	9	36430	229060	31500	36600	265660
68	4.40	10	227747	818630	1713534	3500436	10	168850	425660	38100	44300	469960
69	4.40	11	244632	861196	1713915	3500879	11	149790	416580	34700	42600	459180
70	39.40	12	259611	902854	1714262	3501305	12	151000	390370	41700	40900	431270
71	39.40	13	274711	941891	1714679	3501714	13	144880	377340	41600	41600	418940
72	39.40	14	289199	979625	1715095	3502130	14	142810	370180	36600	52100	422280
73	39.40	15	303480	1016643	1715461	3502651	15	40210	113670	21400	41300	154970
74	39.40	16	307501	1028010	1715675	3503064	16	59590	133120	24000	31500	164620
75	39.40	17	313460	1041322	1715915	3503379	17	42520	120890	31300	38000	158890
76	48.20	18	317712	1053411	1716228	3503759	18	57800	137860	30800	38700	176560
77	48.50	19	323492	1067197	1716536	3504146	19	51530	118190	34600	38200	156390
78	48.50	20	328645	1079016	1716882	3504528	20	52160	148130	29100	42000	190130
79	48.50	21	333861	1093829	1717173	3504948	21	45810	144870	35700	50900	195770
80	48.50	22	338442	1108316	1717530	3505457	22	56070	161640	36900	37200	198840
81	67.30	23	344049	1124480	1717899	3505829	23	68400	190470	41600	48400	238870
82	67.30	24	350889	1143527	1718315	3506313	24	138580	371600	51200	40000	411600
83	67.30	25	364747	1180687	1718827	3506713	25	149240	401870	41800	38500	440370
84	67.30	26	379671	1220874	1719245	3507098	26	149520	407190	41500	35300	442490
85	67.30	27	394623	1261593	1719660	3507451	27	136630	407740	39700	35200	442940
86	67.30	28	408286	1302367	1720057	3507803	28	146110	418660	48600	49100	467760
87	67.30	29	422897	1344233	1720543	3508294	29	123800	336840	29000	27800	364640
88	67.30	30	435277	1377917	1720833	3508572	30	33790	178370	31300	44800	223170
89	67.30	31	438656	1395754	1721146	3509020	31	155510	364850	46500	34000	398850
90	94.60	1	454207	1432239	1721611	3509360	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	425660	168850	51200	77700	469960
MINIMUM FLOW GPD	113670	33790	21400	27800	154970
AVERAGE FLOW GPD	287635	106021	36413	41613	329248
MAXIMUM FLOW GPM	296	117	36	54	326
MINIMUM FLOW GPM	79	23	15	19	108
AVERAGE FLOW GPM	200	74	25	29	229
TOTAL FLOW GAL	8551840	3131130	1082300	1256000	9807840

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
7.00	MG/L	22.0	8.0	0.005	0.025	5.3	12.80	0.10	421310
	LBS/DAY	77.3	28.1	0.018	0.088	18.6			
14.00	MG/L	44.0	2.0	0.005	0.005	3.5	12.10	0.10	370180
	LBS/DAY	135.8	6.2	0.015	0.015	10.8			
21.00	MG/L	6.0	14.0	0.005	0.002	3.6	12.60	0.10	144870
	LBS/DAY	7.2	16.9	0.006	0.002	4.3			
28.00	MG/L	10.0	2.0	0.005	0.003	3.4	11.90	0.10	418660
	LBS/DAY	34.9	7.0	0.017	0.010	11.9			
5.00	MG/L								405700
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	20.5	6.5	0.005	0.009	4.0			
4.00	LBS/DAY	63.8	14.5	0.014	0.029	11.4			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
7.00	MG/L	643.0	48.0					1.33	3.60	157140	OWW
	LBS/DAY	842.7	62.9	0.000	0.000	0.000	0.000	1.74	4.72	0.81	DILUTION FACTOR
MG/L DISCHARGE		520.5	38.9	0.000	0.000	0.000	0.000	1.08	2.91		
14.00	MG/L	543.0	215.0					0.50	1.40	142810	OWW
	LBS/DAY	646.7	256.1	0.000	0.000	0.000	0.000	0.60	1.67	0.80	DILUTION FACTOR
MG/L DISCHARGE		432.2	171.1	0.000	0.000	0.000	0.000	0.40	1.11		
21.00	MG/L	9.0	1.0						5.70	45810	OWW
	LBS/DAY	3.4	0.4	0.000	0.000	0.000	0.000	0.00	2.18	0.56	DILUTION FACTOR
MG/L DISCHARGE		5.1	0.6	0.000	0.000	0.000	0.000	0.00	3.20		
28.00	MG/L	557.0	50.0	0.037	0.004	0.016	0.010	0.23	2.90	146110	OWW
	LBS/DAY	678.7	60.9	0.045	0.005	0.019	0.012	0.28	3.53	0.75	DILUTION FACTOR
MG/L DISCHARGE		418.0	37.5	0.028	0.003	0.012	0.008	0.17	2.18		
5.00	MG/L									163910	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.79	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	438.0	78.5	0.009	0.001	0.004	0.003	0.52	3.40		
4.00	LBS/DAY	542.9	95.1	0.011	0.001	0.005	0.003	0.65	3.02		
MG/L DISCHARGE		343.9	62.0	0.007	0.001	0.003	0.002	0.41	2.35		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3/7/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲22	+643			
TSS	mg/l	–	15	30	▲8	+48			
F^-	mg/l	–	6	20	▲5.3	3.6			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.005				
Cr^{total}	mg/l	–	0.3	1	▲0.025				
Phosphates	mg/l	–	2	5			▲0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.1	▲	
Temperature	°C	–	–	27			▲13.2	▲12.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034440

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3/14/86
ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲-44	+543			
TSS	mg/l	–	15	30	▲-2	+215			
F^-	mg/l	–	6	20	▲-3.5	1.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲-<0.005				
Cr^{total}	mg/l	–	0.3	1	▲-0.005				
Phosphates	mg/l	–	2	5			▲0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.7	▲	
Temperature	°C	–	–	27			▲11.9	▲12.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034441

TO: DISTRIBUTION
DATE: 3/21/86
ANALYSTS: [signature]

FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	-	NPDES PARAMETER LIMITS							
Date	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 6	+ 9			
TSS	mg/l	-	15	30	▲ 14	+ <1			
F^-	mg/l	-	6	20	▲ 3.6	5.7			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.005				
Cr^{total}	mg/l	-	0.3	1	▲ <0.002				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 5.9	▲	
Temperature	°C	-	-	27			▲ 13.2	▲ 12.6	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

SHUT DOWN

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034442

TO: DISTRIBUTION

DATE: 3/28/86

ANALYSTS: Cheryl / Honey L.

FACILITIES OP. SUPR.

ENVIRONMENTAL ENGR.

FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 10	+ 557			
TSS	mg/l	–	15	30	▲ 2	+ 50			
F^-	mg/l	–	6	20	▲ 3.4	2.9			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3		
Temperature	°C	–	–	27			▲ 12.2	▲ 11.9	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.

▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034443

Renee Dulay
Northwest Region
Oregon Department of Environmental Quality
PO Box 1760
Portland, Or. 97307
April 24,1986

Mr. Dulay:

This is a brief report summarizing actions taken over the past three years to improve our compliance with the existing NPDES permit. This report is part of the NPDES permit renewal application. Please refer to two compliance letters (copies attached) submitted to the DEQ, dated 3/5/85 and 6/26/85 for specific actions being taken at that time to improve the compliance. Also please refer to the three attached graphs showing the current status of our BOD, TSS and pH compliance. These graphs clearly show our improving compliance status over the period of this current permit. This improvement was accomplished by capital projects that modified many parts of the treatment system, improved staffing and training of operators and process personel, and diversion of a wastestream containing excessive BOD (Biological Oxygen Demand) to the Portland City Sewer.

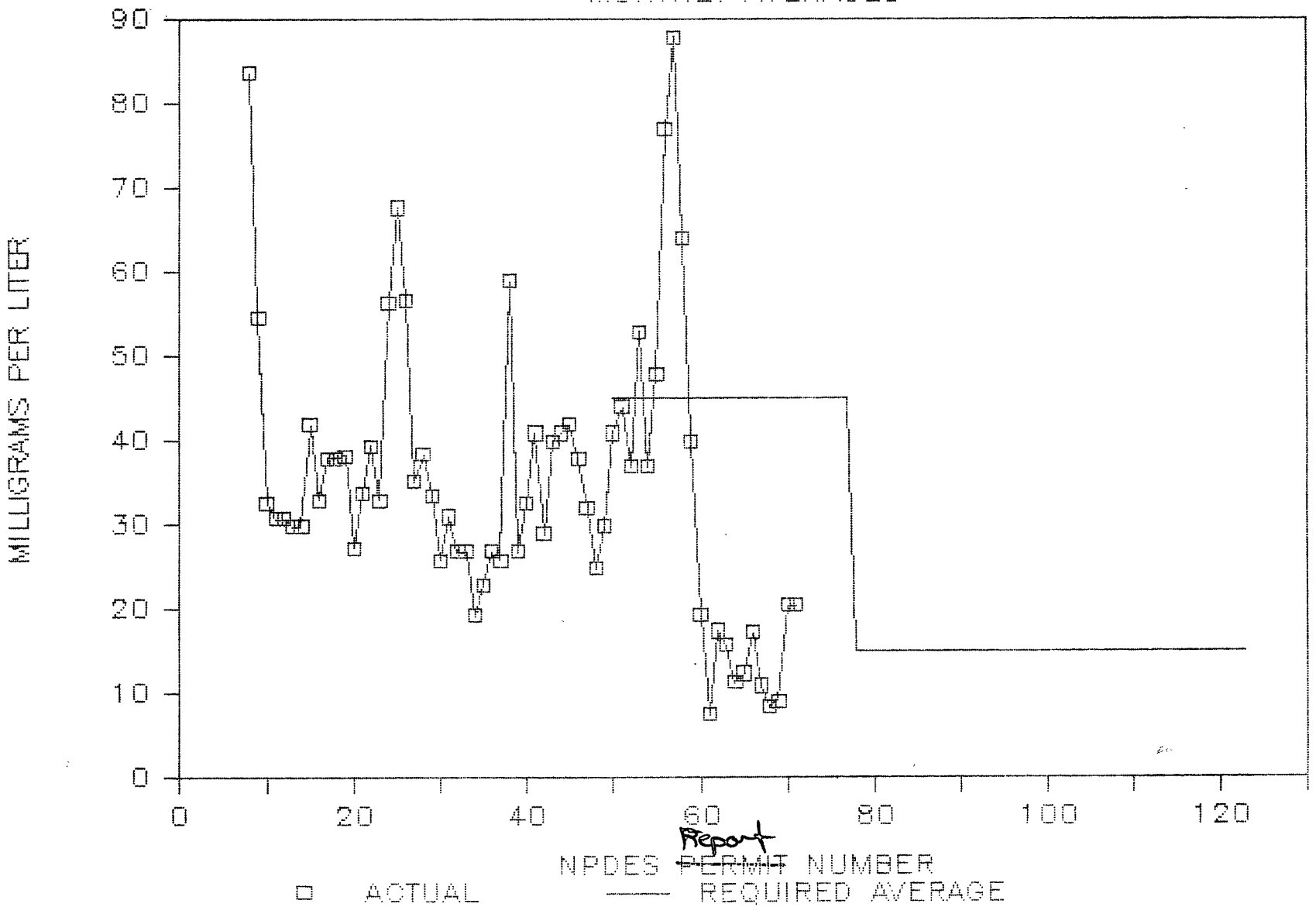
Sincerely Yours,

Gregory Carr
Facilities Engineer

SCOEPA00034444

PROCESS EFFLUENT BOD LEVELS

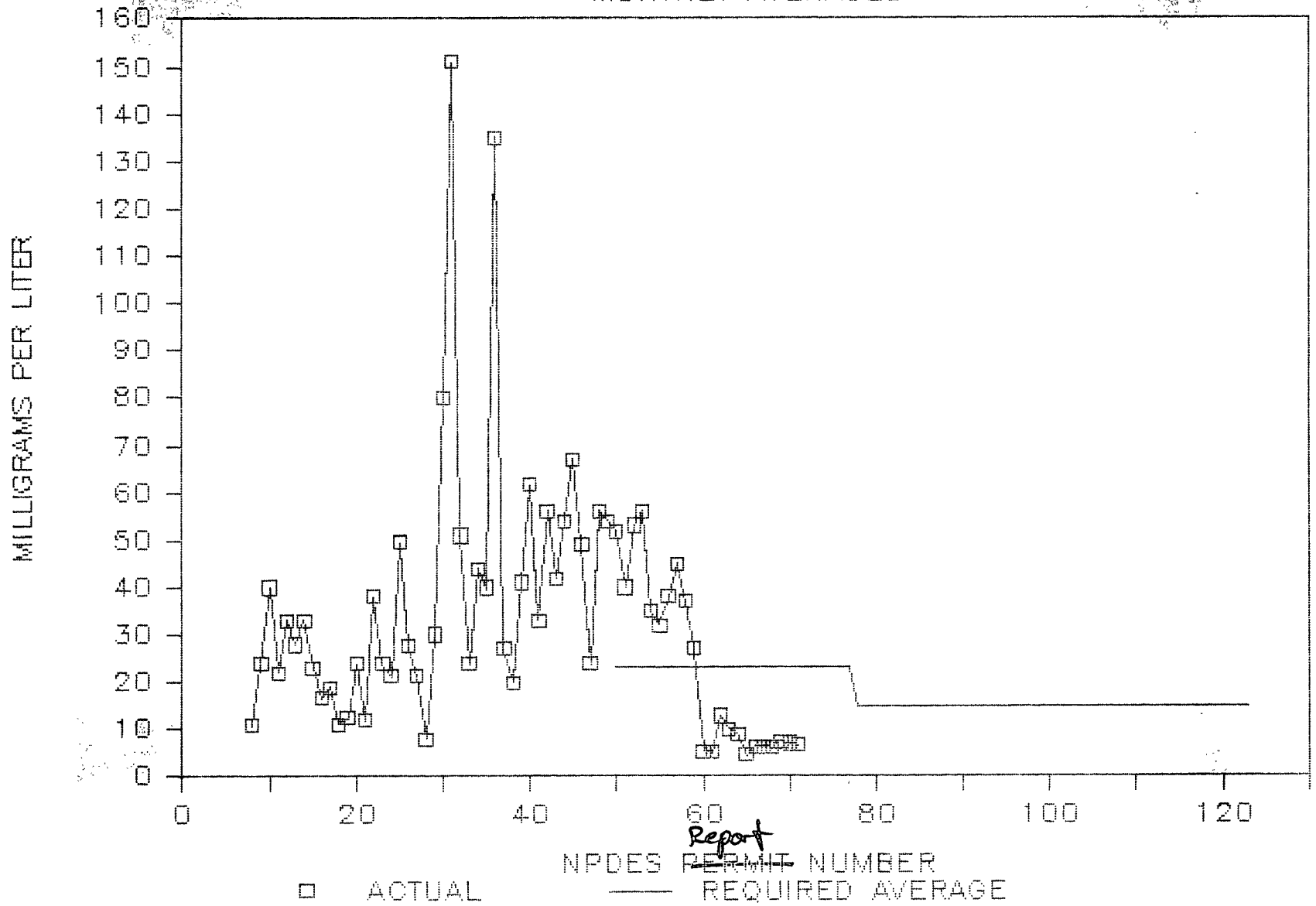
MONTHLY AVERAGES



SCOEPA00034445

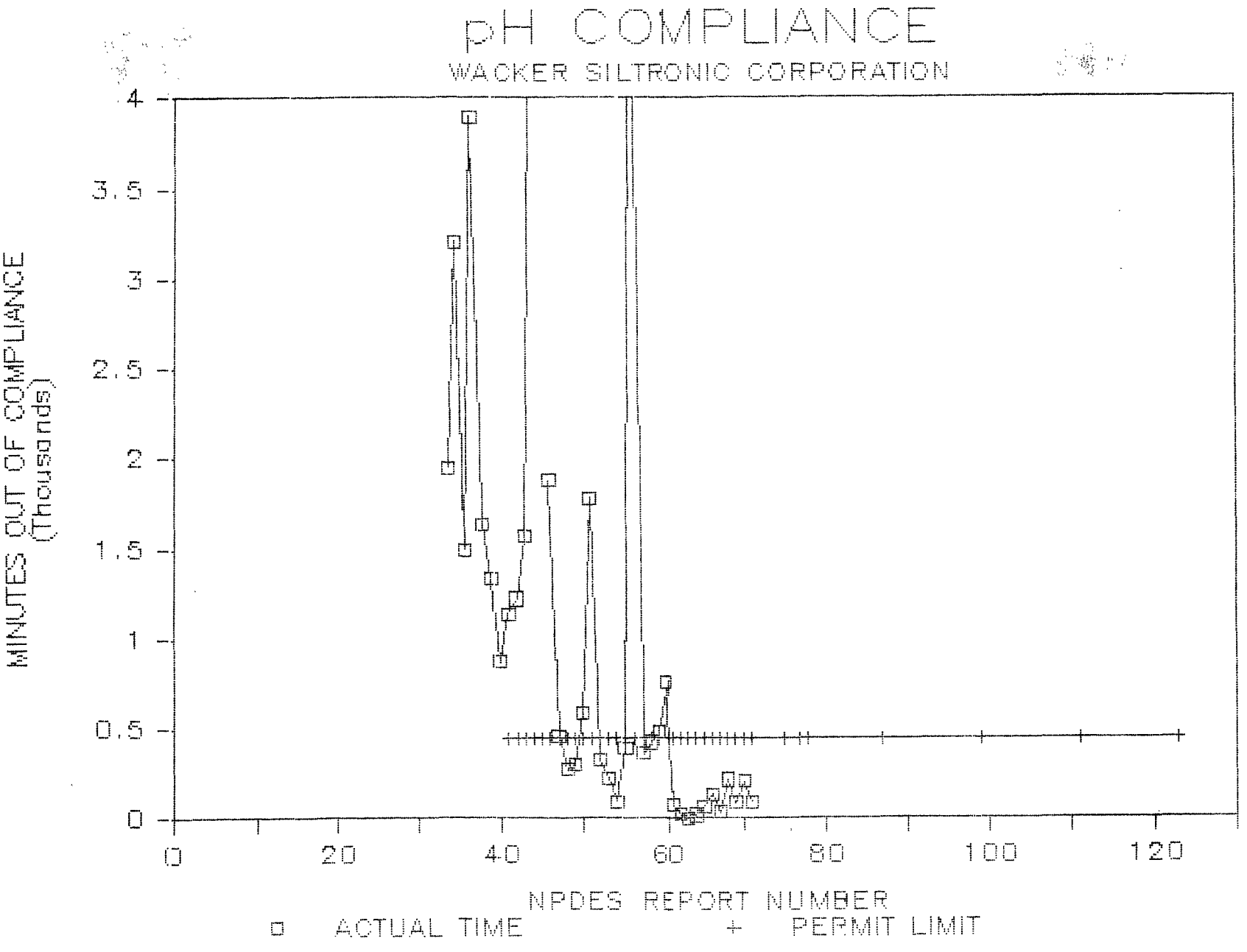
PROCESS EFFLUENT TSS LEVELS

MONTHLY AVERAGES



Report

SCOEPA00034446


pH COMPLIANCE
WACKER SILTRONIC CORPORATION
MINUTES OUT OF COMPLIANCE
(Thousands)
4
3.5
3
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
NPDES REPORT NUMBER
ACTUAL TIME
PERMIT LIMIT

Greg Carr

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 5, 1985

Mr. Renato C. Dulay
Department of Environmental Quality
Northwest Region
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: TSS, BOD, and pH Status for N.P.D.E.S. Permit

This letter is provided as an update on the status of projects and operations regarding the subject permit.

First, as discussed in our meeting on Friday, March 1, an organization has been assembled by Siltronic to handle each of the current environmental concerns. Murray Tilson, who you met Friday, will coordinate all activities aimed at compliance with the existing N.P.D.E.S. Permit, especially in relation to TSS, BOD and pH. As part of this thrust, assignments have been made for controlling waste from the process source, primarily with the use of additional formal training and other informational programs. In addition, CH2M-Hill has been contracted to provide outside help in regard to possible technical solutions to the existing problems and Greg Carr is working with our Facilities Organization to develop data which, hopefully, will result in some process and flow changes. Information has been transmitted to Wacker Chemitronic in West Germany asking for help with process chemical changes, especially in regard to BOD reduction.

Specifically, the status of our program is as follows:

A. pH

Our records indicate that we have continually improved with pH compliance, but there are several remaining projects which will further enhance our performance. A capital project for $15,000 has been approved to divert floor drains in our Boiler Room and in our RO/DI Water Plant to a neutralization system which will eliminate intermittent disposal of weak alkaline/acidic materials. In addition, necessary instrumentation and wiring will be installed so that Wastewater Treatment Plant operators can remotely monitor and correct any slight variations in pH which can occur between the point of neutralization and the river outfall. Both of these projects will be completed by April 29.

B. BOD

Our approach to solving this problem involves the coordination of efforts from both the technical and administrative aspects. As mentioned earlier, an ongoing program is being developed to formally retrain our 835 existing employees about the proper use of drains and drain systems as well as providing them with background information regarding our Wastewater Treatment Plant and Solvent Recovery System. The program will be set up to give new employees the same training during their orientation period. This program is scheduled to be in place by May 17, 1985.

CH2M-Hill is currently evaluating the feasibility of possible technical solutions to the problem, such as, aerated lagoons, trickling filters, etc. These studies will be completed by June 1, 1985.

Greg Carr has actively been working on the feasibility of diverting selected streams to the city sewer. These diversions would reduce the BOD level, but to an unknown extent, and there are some problems which involve the handling of suspended solids in these streams. Because of these unknowns, Greg intends to propose to the City that we divert these streams on a temporary experimental basis to allow for a thorough evaluation. It is proposed to have the diversion completed by April 1, with a one (1) month evaluation period to follow. The feasibility of this project would then be known by May 17.

C. TSS

The stream diversion project discussed above would also have a positive effect on efforts to reduce TSS. Again, the magnitude of this reduction will remain unknown until the evaluation is complete.

CH2M-Hill is also evaluating the feasibility of using post-clarifier filtration for removal of 5-15 micron particles, but obviously the final plan for effective TSS removal is closely related to methods used for BOD reduction and will be established immediately after May 17.

Investigative work involving the waste from the planned Poly-Sitri Plant is also currently ongoing, but this work is being conducted on an independent basis.

Please call us with any questions or comments regarding the above.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis

James R. Ellis
Acting Facilities Manager

JE:jm

cc: Mal Russ
John Pittman
Murray Tilson
Greg Carr
File

June 26, 1985

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

Renato Dulay
Department of Environmental Quality
Northwest Region
P. O. Box 1760
Portland, OR 97209

Subject: NPDES Permit Compliance Status
Permit No. 3847-J

Dear Mr. Dulay:

The following is a technical progress report complete with data regarding Wacker Siltronic's interim and final NPDES effluent requirements. Please also regard this letter as a follow-up to our letters of June 10 and June 11 relating to this subject.

pH Control

We feel confident that we are now able to consistently achieve our pH compliance requirement of being out of compliance for less than 1% of the time. Since our change in meter reading location from the outfall to the waste treatment plant on April 25th, we have been able to achieve compliance. For the first 26 days this month we are 8.3 minutes out of compliance. Our near perfect record this month is attributed to our operator's efforts and an alarm system that signals the operator when the pH goes above 8.5 or below 6.5.

BOD

Our diversion of trenches in the Slicing and Plate Prep area into the organic waste water (OWW) system which discharges to the City's sewerage system has greatly reduced our BOD loading to the Willamette River. This resulted in diverting a 6-10 gpm flow stream containing approximately 100-140 lbs/day BOD loading to the city sewerage system. We have also initiated a control-at-the-source program by recently completing a drain survey. The drain survey is being used by Production personnel as a training aide to educate all employees as to the proper disposition of liquid wastes. This will help to minimize the discharge of unwanted organic wastes through the waste treatment plant.

A review of the attached BOD graphs shows that we are now able to achieve our interim and final limits of 15 mg/l BOD on a monthly average. Effectively operating our control-at-the-source program should allow us to achieve our final limits on a consistent basis.

TSS

Recent operational changes to our treatment system include increasing the alum feed concentration, changing the alum feed location and increasing the pH in the clarifer. These changes have increased the performance of our clarifier and resulted in our system being able to achieve our interim compliance level.

We are now reviewing possible methods of advanced treatment to consistently achieve our final limits of 15 mg/l. Progress on this will be forthcoming in our August 1, 1985 compliance status report.

I have also attached graphs showing our outfall BOD and TSS concentration on a monthly and weekly basis. Although we feel confident that we can achieve the final effluent concentration limits for BOD and TSS though programs discussed above, we have concerns regarding the proposed loading requirements based on a flow of 0.2 MGD as used in our permit for the final limits. We would be available to discuss this in detail at your convenience. In summary, I feel our company is showing excellent progress in achieving our October, 1986, effluent requirements.

Please call me at 240-2020, ext. 301, if you have any questions regarding this.

Sincerely,

WACKER SILTRONIC CORPORATION

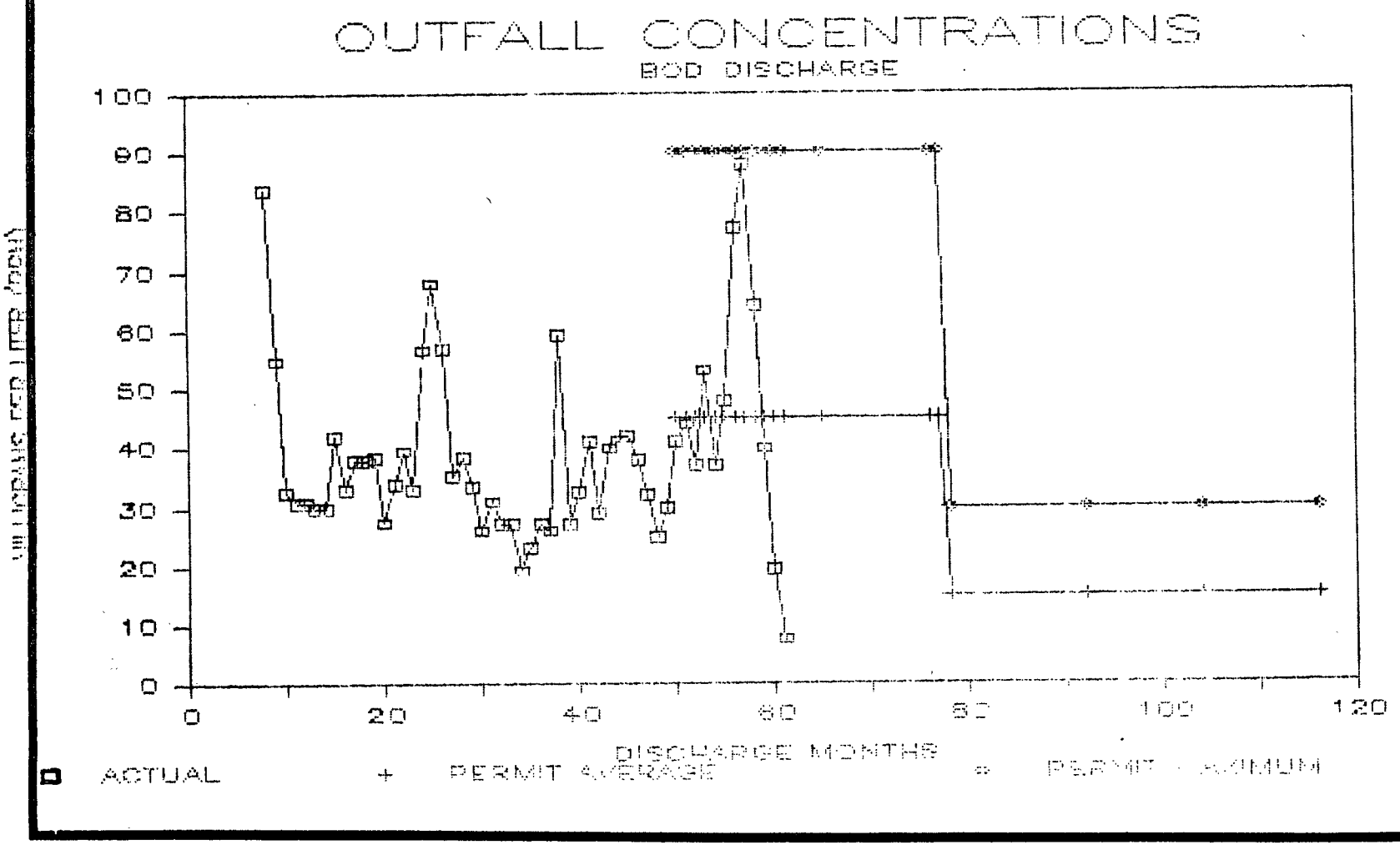
Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:bw

Enclosure

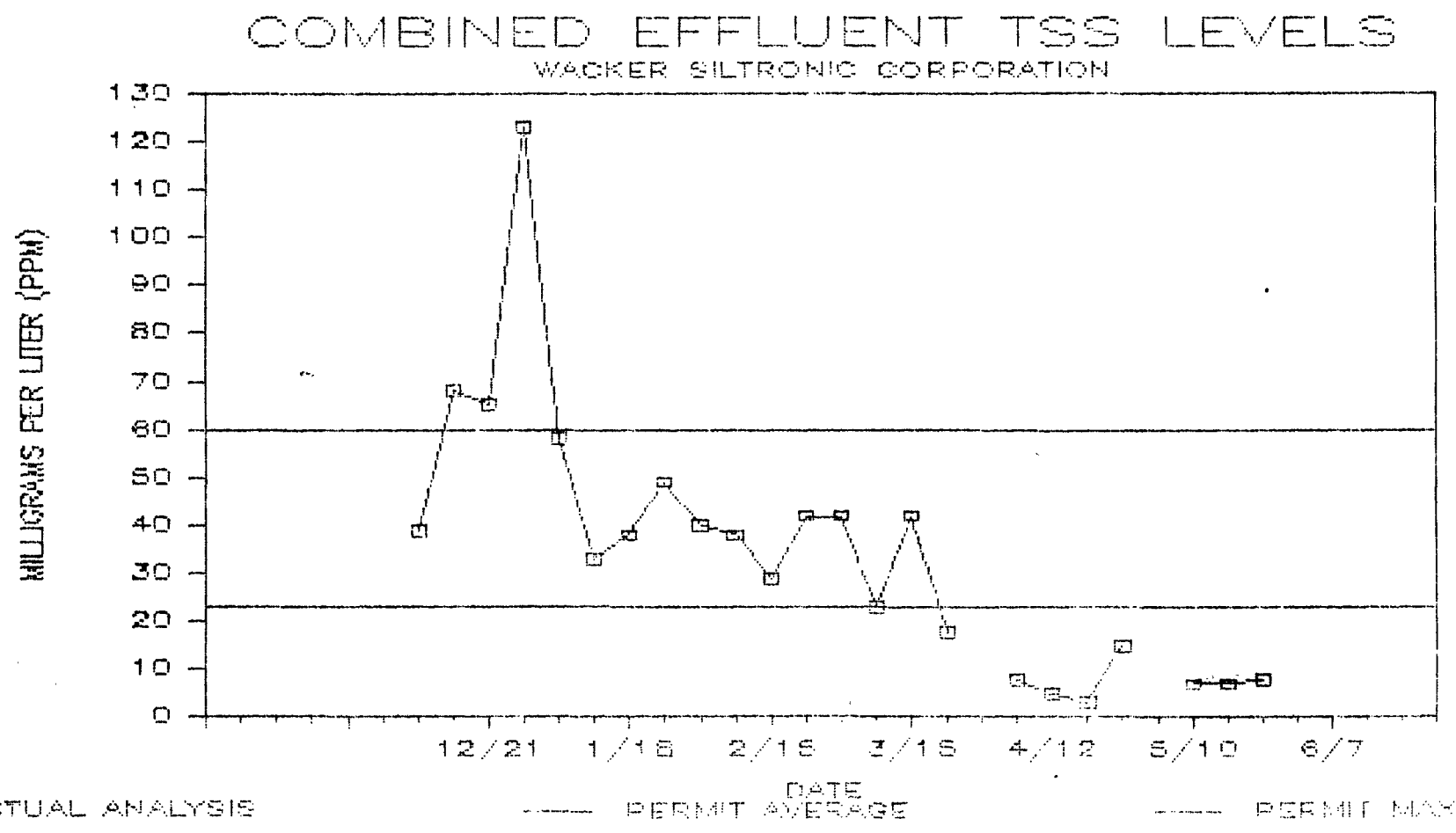
cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Mal Russ

WACKER SILTRONIC



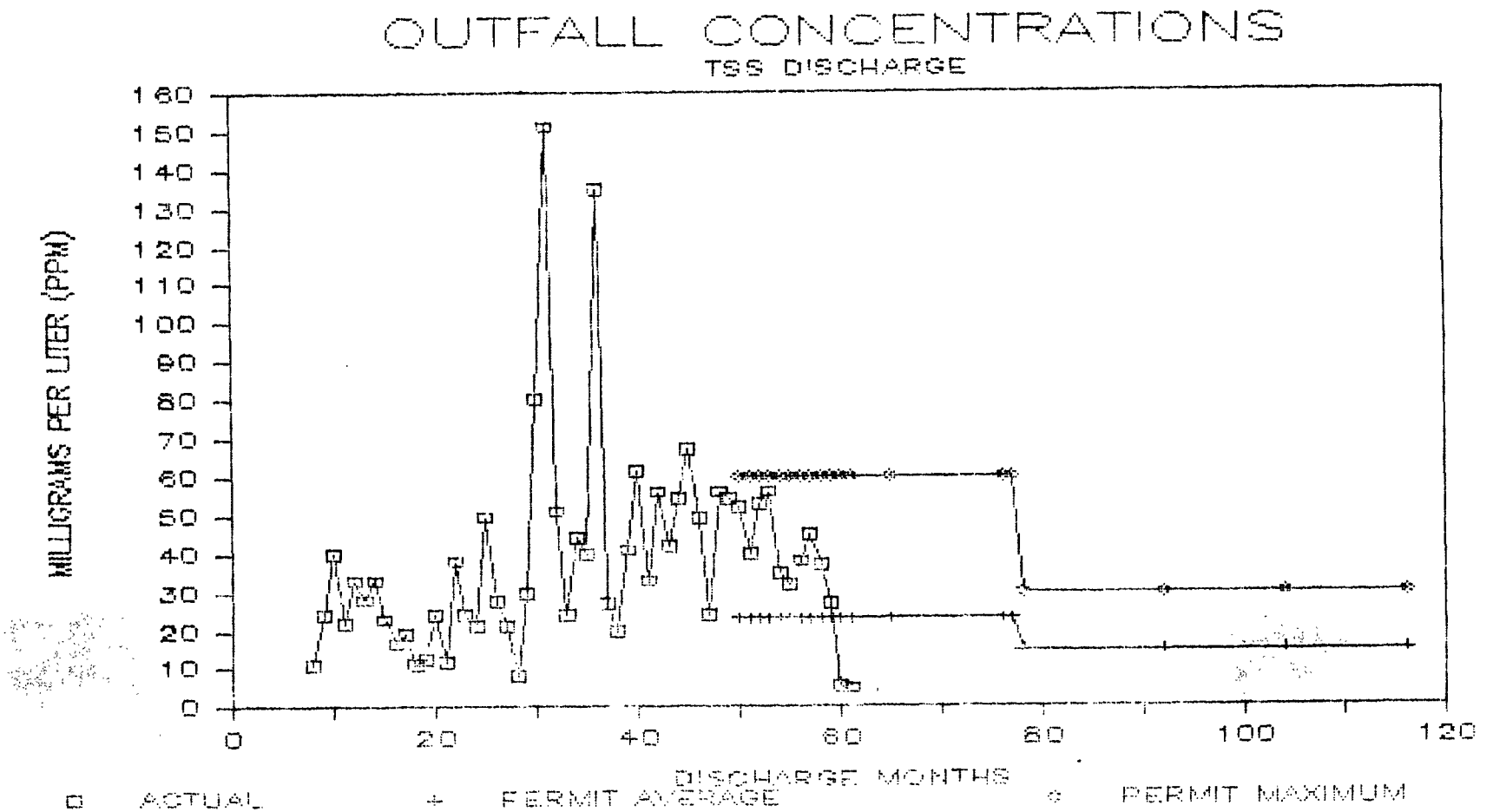
F-3

WACKER SILTRONIC



F-4

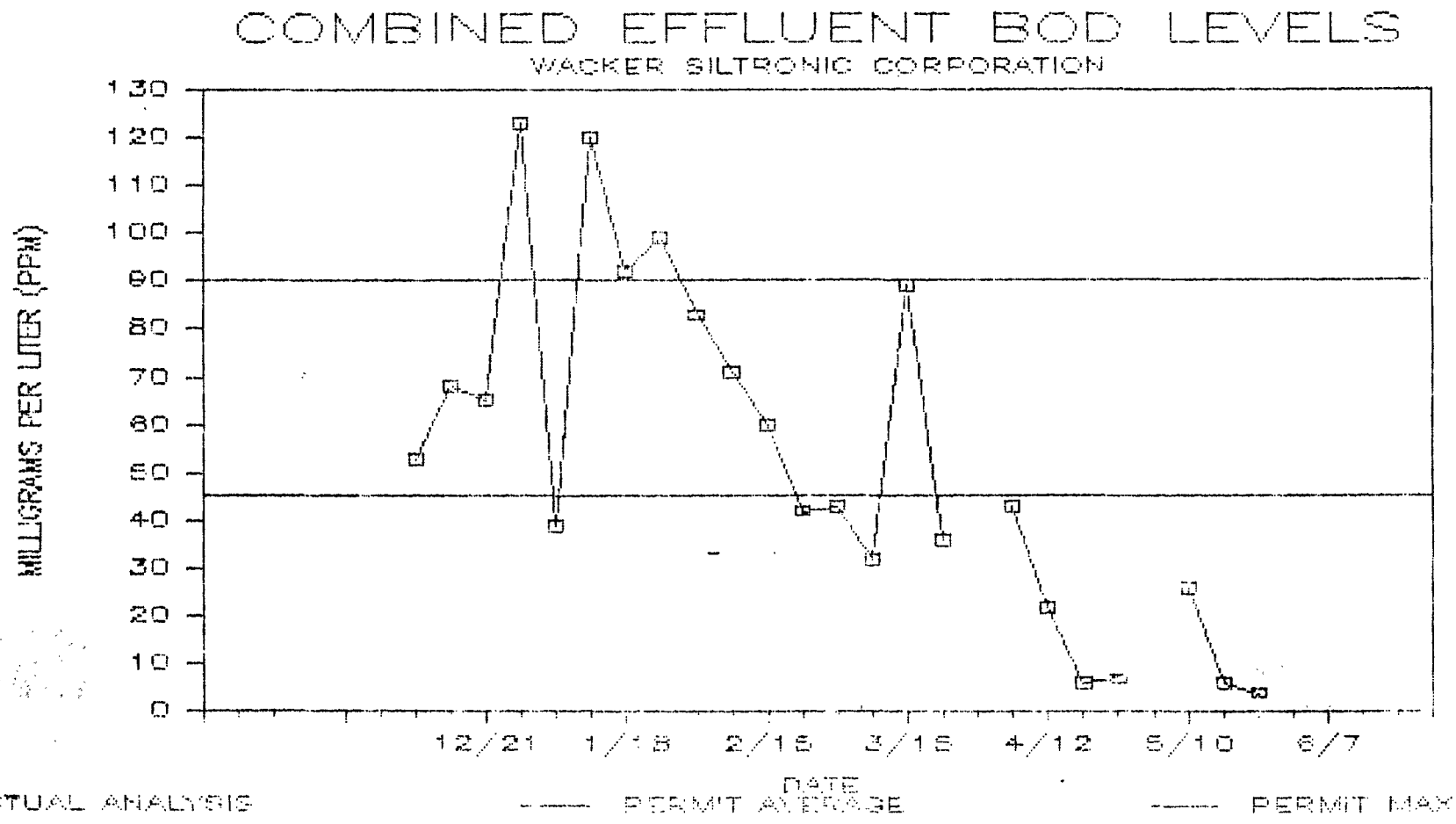
WACKER SILTRONIC



F-5

SCOEPA00034455

WACKER SILTRONIC



F-2

SCOEPA00034456

Greg

Wacker Siltronic Corporation

WACKER

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 12, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
PO Box 1760
Portland, Oregon 97207

Mr. Dulay:

Subject: February 1986 NPDES Monitoring Report

As per our NPDES permit number 3647-J, we are submitting the enclosed Monitoring report for February 1986.

The pH measured 205 minutes out of compliance for the month of February, or .5% of the time.

The TSS was out of compliance once during the month, on February 28th. The bottom sludge line on the clarifier became plugged, and maintenance efforts to unplug it resulted in disturbing the sludge blanket in the clarifier. Since this took place during the weekly composite sampling interval, the TSS of the resultant sample was 104 ppm TSS. This problem has been fixed. Excluding this unusual upset from reporting data gives us an average TSS concentration of 7 ppm TSS, with an average loading of 17 pounds per day TSS, based on three weekly composite samples.

Please call me at 243-2020, ext. 132, if you have any questions. Murray Tilson is on active Military duty and will be back March 24, 1986, which is another shutdown week for Wacker.

Sincerely,

WACKER SILTRONIC CORPORATION

Greg Carr

Greg E. Carr
Facilities Engineer

GEC/md

cc: Jerry Schaeffer
Murray Tilson
File

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WA[illegible]R SILTRONIC CORPORATION

ADDRESS PO Box 03180

Portland, OR 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)

DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
[illegible] No. 2040-0004
Expires 2-29-84

(2-16)	(17-19)
OR-003058-7	70
PERMIT NUMBER	DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD						
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow	SAMPLE MEASUREMENT	48,000	167,000	GPD	-	-	-			Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			Totalizing Recorder	
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	<.1	.2	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	331,000	440,000	GPD	-	-	-	-		1/1	Totalizing
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
Outfull Temperature	SAMPLE MEASUREMENT	-	-	-	11.2	12.2	12.9		0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-	-	3.8	-	10.6	pH unit		Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			Recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir.Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	[signature]	503	243-2020	86	03	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.5% of the time. Time out of compliance was 205.2 minutes, or .51% of the time. No incidents were longer than 1 hour.

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME Hacker Electronic Corporation

ADDRESS PO Box 03100
Portland, OR. 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
O.M.B. No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR 0020508 7

(17-19) DISCHARGE NUMBER: 70

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	02	01	TO	86	02	28
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV2	SAMPLE MEASUREMENT	283,000	407,000	GPD	0-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	53	87	#/D	5.0	20.5	34.0	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	120	240		-	30	60			1/7	24HC
MV1 TSS	SAMPLE MEASUREMENT	101	353	#/D	4	31	104	mg/l	1	1/7	24HC
	PERMIT REQUIREMENT	73	100		-	23	50			1/7	24HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.003	.003	#/D	<.001	<.001	.001	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	.03	.3		-	.02	.05			1/7	24HC
MV1 Cr Total	SAMPLE MEASUREMENT	.013	.027	#/D	<.003	.004	.008	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	.5	1.0		-	.2	1.0			1/7	24HC
MV1 Fluoride	SAMPLE MEASUREMENT	12.8	16.6	#/D	3.2	4.6	5.7	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	21.8	42.7		-	9	15			1/7	24HC
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.3	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		503	243-2020	86	03	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

TSS was out of compliance for one day due to the sludge line plugging. See attached letter.

SCOEPA00034459

dwtp286 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
31.00	6.0 - 9.0	1	607475	751132	1700496	3482755		1	22810	98300	31400	89100	187400
32	0.00	2	609756	760962	1700810	3483646		2	30070	120160	36100	28900	149060
33	0.00	3	612763	772978	1701171	3483935		3	151700	372510	42900	26400	398910
34	0.00	4	627933	810229	1701600	3484199		4	2209910	367960	49000	28200	396160
35	20.10	5	848924	847025	1702090	3484481		5	145300	311890	43700	43400	355290
36	20.10	6	863454	878214	1702527	3484915		6	154290	364050	42900	36500	400550
37	20.10	7	878883	914619	1702956	3485280		7	126540	307270	42800	40000	347270
38	20.10	8	891537	945346	1703384	3485680		8	18810	124820	26500	26000	150820
39	20.10	9	893418	957828	1703649	3485940		9	49900	139780	33400	27000	166780
40	20.10	10	898408	971806	1703983	3486210		10	129690	333630	29600	33200	366830
41	116.90	11	911377	1005169	1704279	3486542		11	137850	339910	29000	27900	367810
42	116.90	12	925162	1039160	1704569	3486821		12	135450	333590	30100	35500	369090
43	116.90	13	938707	1072519	1704870	3487176		13	142000	335230	30700	32300	367530
44	116.90	14	952907	1106042	1705177	3487499		14	115650	292010	28900	67800	359810
45	172.40	15	964472	1135243	1705466	3488177		15	65380	107670	22000	95100	202770
46	172.40	16	971010	1146010	1705686	3489128		16	47300	132910	34600	167200	300110
47	172.40	17	975740	1159301	1706032	3490800		17	66340	176730	28400	19900	196630
48	172.40	18	982374	1176974	1706316	3490999		18	139040	364370	35600	47200	411570
49	172.40	19	996278	1213411	1706672	3491471		19	155170	370480	37900	42700	413180
50	172.40	20	1011795	1250459	1707051	3491898		20	152360	357880	34600	32700	390580
51	172.40	21	1027031	1286247	1707397	3492225		21	137760	330460	36500	68300	398760
52	172.40	22	1040807	1319293	1707762	3492908		22	36120	135260	38500	123500	258760
53	172.40	23	1044419	1332819	1708147	3494143		23	58010	193140	21500	49100	242240
54	205.20	24	1050220	1352133	1708362	3494634		24	152710	361930	42800	22500	384430
55	205.20	25	1065491	1388326	1708790	3494859		25	189500	399000	37000	34100	433100
56	205.20	26	1084441	1428226	1709160	3495200		26	120470	372240	39300	32300	404540
57	205.20	27	1096488	1465450	1709553	3495523		27	154560	379970	39900	32500	412470
58	205.20	28	1111944	1503447	1709952	3495848		28	149220	407470	39900	32500	439970
59	205.20	1	1126866	1544194	1710351	3496173		1					

Note errors in OWW FLOW

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	407470	2209910	49000	167200	439970
MINIMUM FLOW GPD	98300	18810	21500	19900	149060
AVERAGE FLOW GPD	283236	185497	35196	47921	331158
	334300				
MAXIMUM FLOW GPM	283	1535	34	116	306
MINIMUM FLOW GPM	68	13	15	14	104
AVERAGE FLOW GPM	197	129	24	33	230
TOTAL FLOW GAL	7930620	5193910	985500	1341800	9272420

true flow - 776 gpm

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
7.00	MG/L	34.0	6.0	0.001	0.003	5.7	12.90	0.10	307270
	LBS/DAY	87.1	15.4	0.003	0.008	14.6			
14.00	MG/L	34.0	10.0	0.001	0.003	3.2	11.20	0.10	292010
	LBS/DAY	82.8	24.4	0.002	0.007	7.8			
21.00	MG/L	9.0	4.0	0.001	0.003	4.8	12.80	0.20	330460
	LBS/DAY	24.8	11.0	0.003	0.008	13.2			
28.00	MG/L	5.0	104.0	0.001	0.008	4.6	11.90	0.10	407470
	LBS/DAY	17.0	353.4	0.003	0.027	15.6			
5.00	MG/L								311890
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	20.5	31.0	0.001	0.004	4.6			
4.00	LBS/DAY	52.9	101.0	0.003	0.013	12.8			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-		SEWER FLOWS
7.00	MG/L	355.0	78.0						4.80	126540	OWW
	LBS/DAY	374.6	82.3	0.000	0.000	0.000	0.000	0.00	5.07	0.75	DILUTION FACTOR
MG/L DISCHARGE		265.3	58.3	0.000	0.000	0.000	0.000	0.00	3.59		
14.00	MG/L	395.0	132.0						2.00	115650	OWW
	LBS/DAY	381.0	127.3	0.000	0.000	0.000	0.000	0.00	1.93	0.80	DILUTION FACTOR
MG/L DISCHARGE		316.0	105.6	0.000	0.000	0.000	0.000	0.00	1.60		
21.00	MG/L	1058.0	126.0						0.10	137760	OWW
	LBS/DAY	1215.6	144.8	0.000	0.000	0.000	0.000	0.00	0.11	0.79	DILUTION FACTOR
MG/L DISCHARGE		836.4	99.6	0.000	0.000	0.000	0.000	0.00	0.08		
28.00	MG/L	405.0	150.0						1.50	149220	OWW
	LBS/DAY	504.0	186.7	0.000	0.000	0.000	0.000	0.00	1.87	0.79	DILUTION FACTOR
MG/L DISCHARGE		319.6	118.4	0.000	0.000	0.000	0.000	0.00	1.18		
5.00	MG/L									145300	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.77	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	553.3	121.5	0.000	0.000	0.000	0.000	0.00	2.19		
4.00	LBS/DAY	618.8	135.3	0.000	0.000	0.000	0.000	0.00	2.24		
MG/L DISCHARGE		434.3	95.5	0.000	0.000	0.000	0.000	0.00	1.61		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/7/86
ANALYSTS: [signature] N. Lara

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION		-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 2/7/86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 34	+ 355			
TSS	mg/l	-	15	30	▲ 6	+ 78			
F^-	mg/l	-	6	20	▲ 5.7	4.8			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	-	0.3	1	▲ <0.003				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.7	▲	
Temperature	°C	-	-	27			▲ 13.2	▲ 12.9	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034461

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/14/86
ANALYSTS: [signature] / N. Lowe

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 2/14/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 34	+ 395			
TSS	mg/l	–	15	30	▲ 10	+ 132			
F^-	mg/l	–	6	20	▲ 3.2	2.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 13.8	▲ 11.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034462

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/21/86
ANALYSTS: [illegible] / N. Lara

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	+	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 2/21/86	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 9	+ 1058			
TSS	mg/l	-	15	30	▲ 4	+ 126			
F^-	mg/l	-	6	20	▲ 4.8	0.1			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ <0.003				
Phosphates	mg/l	-	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.2	▲	
Temperature	°C	-	-	27			▲ 14.6	▲ 12.8	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034463

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/28/86
ANALYSTS: [illegible] / N. Izzo

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 2/28/86	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 5	+ 405			
TSS	mg/l	–	15	30	▲ 104	+ 150			
F^-	mg/l	–	6	20	▲ 4.6	1.5			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.7	▲	
Temperature	°C	–	–	27			▲ 13.1	▲ 11.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034464

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

February 12, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: January, 1986 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for January, 1986.

For the month of January our discharge was well within compliance for all measured parameters.

Our pH only measured 86 minutes out of compliance for the month of January, or about 0.2% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME MACKE[illegible]LTRONIC CORPORATION

ADDRESS PO Box 03180

Portland, OR 97203

FACILITY 17200 NW Ernest Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)

DISCHARGE M[illegible]ITORING REPORT (*DMR*)

Form Approved
O[illegible] No. 2040-0004
E[illegible]res 2-29-84

(2-16) OR 002058 7 — PERMIT NUMBER

(17-19) 60 — DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR (20-21)	MO (22-23)	DAY (24-25)	TO YEAR (26-27)	MO (28-29)	DAY (30-31)
86	01	01	86	01	31

2834-J
93450

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	274,000	384,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			[illegible]	[illegible]
MV1 BOD	SAMPLE MEASUREMENT	21.3	54.5	#/D	2.0	9.2	24	mg/l		1/7	24HC
	PERMIT REQUIREMENT	139	2403		-	45	89			2/w	24HC
MV1 TSS	SAMPLE MEASUREMENT	13.9	27.2	#/D	4.0	7.4	12	mg/l		1/7	24HC
	PERMIT REQUIREMENT	69	150		-	29	58			2/w	24HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.011	<.011	#/D	<.005	<.005	<.005	mg/l		1/7	24HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.011	<.011	#/D	<.005	<.005	<.005	Mg/l		1/7	24HC
	PERMIT REQUIREMENT	.5	1.0		-	.2	1.0			1/7	24HC
MV1 Fluoride	SAMPLE MEASUREMENT	9.7	15.8	#/D	3.7	4.4	5.9	mg/l		1/7	24HC
	PERMIT REQUIREMENT	21.3	42.7		-	1	16			2/w	24HC
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-	.19	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	503	243-2020	86	02	10
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034466

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR. 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 69

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	01	01	TO	86	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	14,300	72,700	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT										
Total PO 3 MV3	SAMPLE MEASUREMENT	-	-		<.1	<.1	<.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	289,000	389,000	GPD	-	-	-	-		1/1 Totalizing	
	PERMIT REQUIREMENT										
Outfall Temperature	SAMPLE MEASUREMENT	-	-		13.3	14.1	14.7	°C		1/7	Grab
	PERMIT REQUIREMENT										
Outfall pH	SAMPLE MEASUREMENT	-	-	-	5.6	-	11.0	pH units		Continuous Recorder	
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir. Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 02 | DAY 10

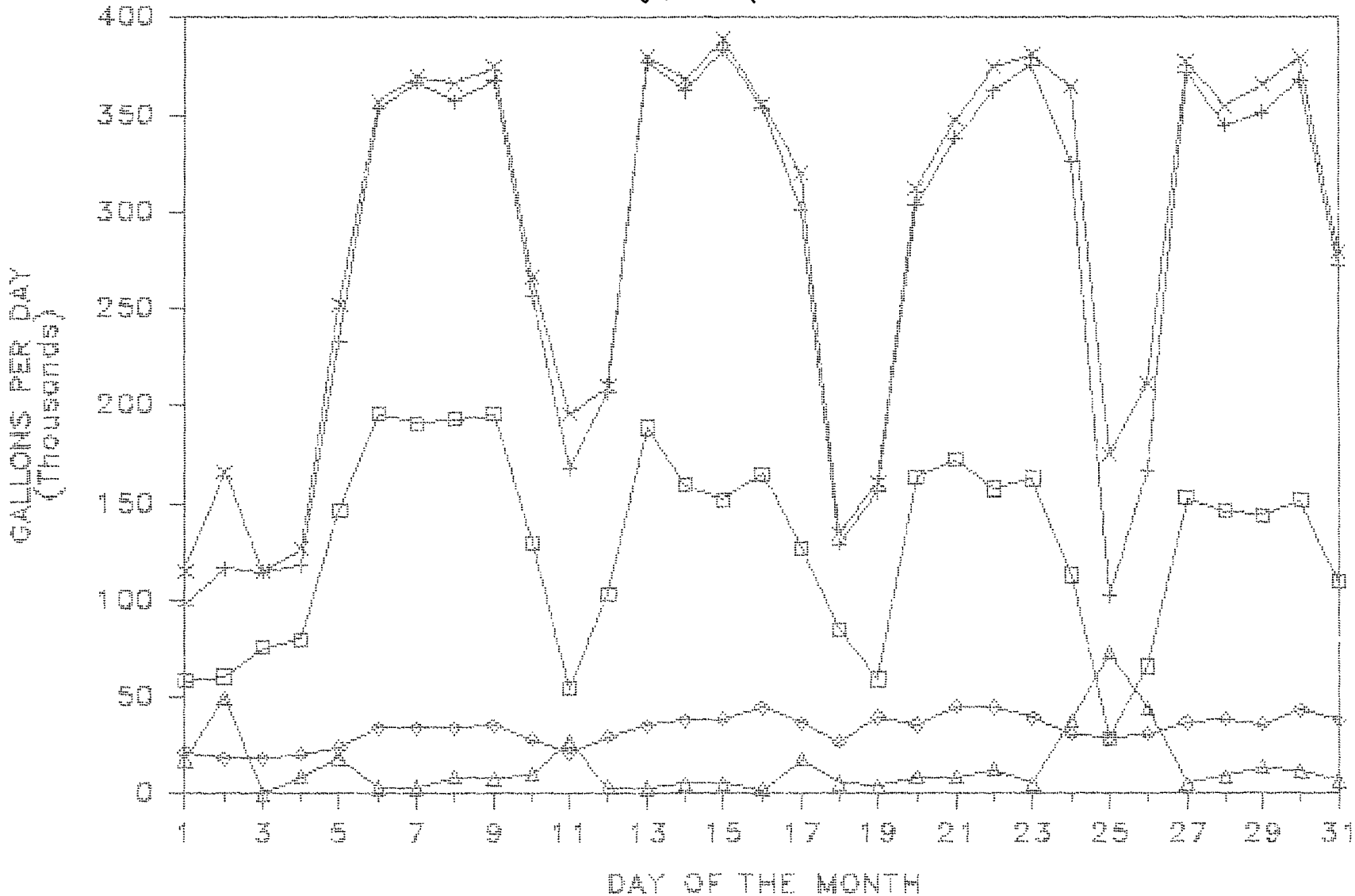
COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.8% of the time. Time out of compliance was 85.8 minutes, or .19% of the time. No incidents were longer than 1 hour.

SCOEPA00034467

WASTEWATER FLOWS

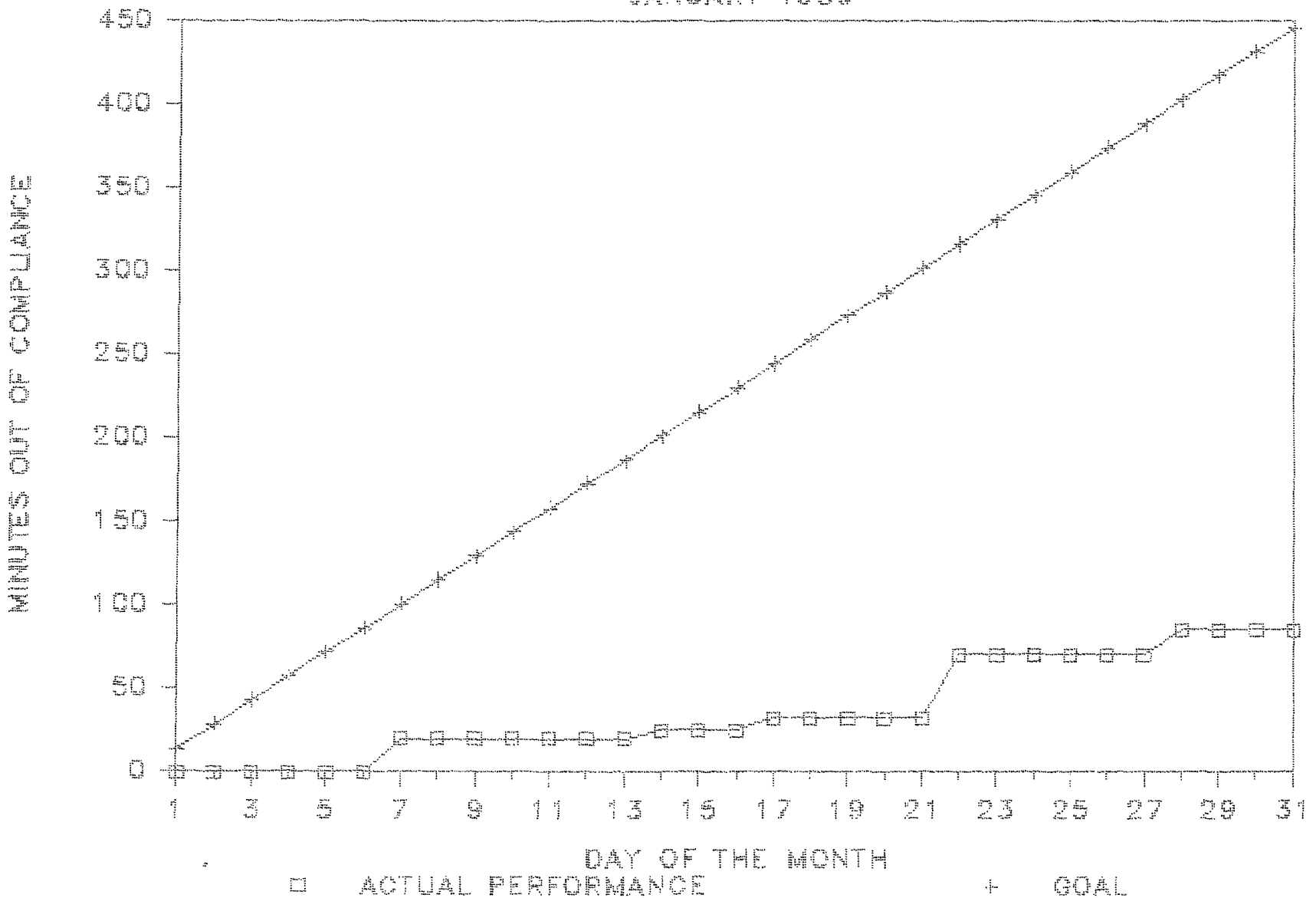
JANUARY 1986



SCOEPA00034468

pH COMPLIANCE

JANUARY 1986



SCOEPA00034469

DWTP186 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF dH	DY OF MO	DWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	DWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
0.00	6.0 - 9.0	1	209149	902750	1690178	3471319		1 58370	97750	21700	17600	115350
1	0.00	2	214986	912525	1690395	3471731		2 60750	116420	18400	49800	166220
2	0.00	3	221061	924167	1690579	3472465		3 75630	114800	18400	0	114800
3	0.00	4	228624	935647	1690763	3472701		4 79980	117680	20500	8600	126280
4	0.00	5	236622	947415	1690968	3473023		5 146490	233040	24000	18900	251840
5	0.00	6	251271	970719	1691208	3473447		6 195750	354070	34400	3200	357270
6	0.00	7	270846	1006126	1691552	3473715		7 190980	366890	34200	3100	369990
7	20.60	8	289944	1042815	1691894	3473982		8 193220	357350	34200	8900	366250
8	20.60	9	309266	1078550	1692236	3474307		9 195620	367330	35700	7800	375130
9	20.60	10	328828	1115283	1692593	3474621		10 129440	256320	28400	10200	266520
10	20.60	11	341772	1140915	1692877	3474959		11 54430	167910	21400	27800	195710
11	20.60	12	347215	1157706	1693091	3475473		12 103690	206790	29800	3500	210290
12	20.60	13	357584	1178385	1693389	3475744		13 188810	377020	35300	3200	380220
13	20.60	14	376465	1216087	1693742	3476012		14 159340	362710	38000	5300	368010
14	25.40	15	392399	1252358	1694122	3476301		15 151850	384090	38800	5100	389190
15	25.40	16	407584	1290767	1694510	3476588		16 164780	353870	44600	2000	355870
16	25.40	17	424062	1326154	1694956	3476844		17 126710	301880	36600	17900	319780
17	32.70	18	436733	1356342	1695322	3477259		18 85480	129200	27100	5900	135100
18	32.70	19	445281	1369262	1695593	3477554		19 59400	156290	39800	4300	160590
19	32.70	20	451221	1384891	1695991	3477833		20 163730	304090	36000	8800	312890
20	32.70	21	467594	1415300	1696351	3478157		21 172250	338520	45400	8600	347120
21	32.70	22	484819	1449152	1696805	3478479		22 157440	362230	44900	12900	375130
22	71.00	23	500563	1485375	1697254	3478844		23 162780	375860	39600	5500	381360
23	71.00	24	516841	1522961	1697650	3479135		24 113000	325940	31100	38300	364240
24	71.00	25	528141	1555555	1697961	3479754		25 29240	102480	29100	72700	175180
25	71.00	26	531065	1565803	1698252	3480717		26 65840	166640	31000	44700	211340
26	71.00	27	537649	1582467	1698562	3481400		27 152640	371990	37000	5600	377590
27	71.00	28	552913	1619666	1698932	3481692		28 146150	344850	38700	9500	354350
28	85.80	29	567528	1654131	1699319	3482023		29 144200	351340	36400	14200	365540
29	85.80	30	581948	1689285	1699683	3482401		30 151530	367960	43200	11800	379760
30	85.80	31	597101	1726081	1700115	3482755		31 109700	272250	38100	7200	279450
31	85.80	1	608071	1753306	1700496	3483063		1				

STREAM	COMBINED	DWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	384090	195750	45400	72700	389190
MINIMUM FLOW GPD	97750	29240	18400	0	114800
AVERAGE FLOW GPD	274373	128685	33284	14284	288657
Thurs- Fridays	289,100				
MAXIMUM FLOW GPM	267	136	32	50	270
MINIMUM FLOW GPM	68	20	13	0	80
AVERAGE FLOW GPM	191	89	23	10	200
TOTAL FLOW GAL	8233310	3879520	993700	435600	8668910

NOTE : MV3 READINGS ARE CORRECTED BY SUBTRACTING
23,600 GALLONS PER DAY FROM EACH TOTAL
TO ACCOUNT FOR TOTALIZER ERRORS

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
4.00	MG/L	2.0	13.0	0.005	0.005	3.7	13.90	0.10	117680
	LBS/DAY	2.0	12.8	0.005	0.005	3.6			
10.00	MG/L	6.0	4.0	0.005	0.005	4.2	14.70	0.10	256320
	LBS/DAY	12.8	8.6	0.011	0.011	9.0			
17.00	MG/L	4.0	4.0	0.005	0.005	3.9	14.20	0.10	301880
	LBS/DAY	10.1	10.1	0.013	0.013	9.8			
24.00	MG/L	10.0	4.0	0.005	0.005	5.8	14.50	0.10	325940
	LBS/DAY	27.2	10.9	0.014	0.014	15.8			
31.00	MG/L	24.0	12.0	0.005	0.005	4.5	13.30	0.10	272250
	LBS/DAY	54.5	27.2	0.011	0.011	10.2			
AVERAGE	MG/L CE	9.2	7.4	0.005	0.005	4.4			
5.00	LBS/DAY	21.3	13.9	0.011	0.011	9.7			

TCE GRAB SAMPLE FOR C.E. ON 1/8/86 WAS .19 PPM.

DATE OF ANALYSIS	DWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
4.00	MG/L		28.0					0.36	1.60	79980 DWW
	LBS/DAY	0.0	18.7	0.000	0.000	0.000	0.000	0.24	1.07	0.80 DILUTION FACTOR
MG/L DISCHARGE		0.0	22.3	0.000	0.000	0.000	0.000	0.29	1.27	
10.00	MG/L	617.0	747.0					0.32	0.10	129440 DWW
	LBS/DAY	666.1	806.4	0.000	0.000	0.000	0.000	0.35	0.11	0.82 DILUTION FACTOR
MG/L DISCHARGE		506.0	612.6	0.000	0.000	0.000	0.000	0.26	0.08	
17.00	MG/L	582.0	234.0	0.010	0.002	0.043	0.008	0.25	0.10	126710 DWW
	LBS/DAY	615.0	247.3	0.011	0.002	0.045	0.008	0.26	0.11	0.78 DILUTION FACTOR
MG/L DISCHARGE		451.6	181.6	0.008	0.002	0.033	0.006	0.19	0.08	
24.00	MG/L	1350.0	122.0					3.44	0.30	113000 DWW
	LBS/DAY	1272.3	115.0	0.000	0.000	0.000	0.000	3.24	0.28	0.78 DILUTION FACTOR
MG/L DISCHARGE		1058.6	95.7	0.000	0.000	0.000	0.000	2.70	0.24	
31.00	MG/L	302.0	254.0					1.18	0.10	109700 DWW
	LBS/DAY	276.3	232.4	0.000	0.000	0.000	0.000	1.08	0.09	0.74 DILUTION FACTOR
MG/L DISCHARGE		224.2	188.5	0.000	0.000	0.000	0.000	0.88	0.07	
AVERAGE	MG/L	713 ~~2051.0~~	27 ~~285.0~~	0.010	0.002	0.043	0.008	1.11	~~3.35~~ .44	~~2.20~~
5.00	LBS/DAY	707 ~~2029.7~~	28 ~~141.7~~	0.011	0.002	0.045	0.008	1.03	~~3.17~~ .38	~~1.65~~
MG/L DISCHARGE		560 ~~2240.3~~	220 ~~140.6~~	0.008	0.002	0.033	0.006	.80	~~4.32~~ .35	~~1.74~~

SCOEPA00034470

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/4/86
ANALYSTS: [illegible] / N. Liao

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 2	+ *			
TSS	mg/l	–	15	30	▲ 13	+ 28			
F^-	mg/l	–	6	20	▲ 3.7	1.6			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ < 0.005				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 12.8	▲ 13.9	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS
* OWW BOD not available due to H_2O_2 interference from Special DI flush

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/10/86
ANALYSTS: D. [illegible] / M. Lara

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 6	+ 617			
TSS	mg/l	–	15	30	▲ 4	+ 747			
F^-	mg/l	–	6	20	▲ 4.2	< 0.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ < 0.005				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 13.1	▲ 14.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034472

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/17/86
ANALYSTS: D. [illegible] / N. Lo

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 4	+ 582			
TSS	mg/l	–	15	30	▲ 4	+ 234			
F^-	mg/l	–	6	20	▲- 3.9	< 0.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲- < 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ < 0.005				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 12.6	▲ 14.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034473

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/24/86
ANALYSTS: [signature] / N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day - BOD	mg/l	–	15	30	▲- 10	+ 1350			
TSS	mg/l	–	15	30	▲- 4	+ 122			
F^-	mg/l	–	6	20	▲- 5.8	< 0.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.005				
Cr^{total}	mg/l	–	0.3	1	▲- <0.005				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.5	▲	
Temperature	°C	–	–	27			▲ 13.4	▲ 14.5	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034474

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/31/86
ANALYSTS: [signature] / M. Lozo

FACILITIES MGR.
FACILITIES OP SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 24	+ 302			
TSS	mg/l	–	15	30	▲ 12	+ 254			
F^-	mg/l	–	6	20	▲ 4.5	<.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.005				
Cr^{total}	mg/l	–	0.3	1	▲ <0.005				
Phosphates	mg/l	–	2	5			▲ <.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 13.7	▲ 13.3	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034475

DWTP186 DY OF YR	TIME OUT OF pH	TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. DY OF MO	DWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	GRAPH IS [ALT] AND [G] AT THE SAME TIME DWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
0.00	6.0 - 9.0	1	209149	902750	1690178	3471319	1	58370	97750	21700	17600	115350
1	*	2	214986	912525	1690395	3471731	2	60750	116420	18400	49800	166220
2	*	3	221061	924167	1690579	3472465	3	75630	114800	18400	0	114800
3	*	4	228624	935647	1690763	3472701	4	79980	117680	20500	8600	126280
4	*	5	236622	947415	1690968	3473023	5	146490	233040	24000	18800	251840
5	*	6	251271	970719	1691208	3473447	6	195750	354070	34400	3200	357270
6	*	7	270846	1006126	1691552	3473715	7	190980	366890	34200	3100	369990
7	*	8	289944	1042815	1691894	3473982	8	193220	357350	34200	8900	366250
8	*	9	309266	1078550	1692236	3474307	9	195620	367330	35700	7800	375130
9	*	10	328828	1115283	1692593	3474621	10	129440	256320	28400	10200	266520
10	*	11	341772	1140915	1692877	3474959	11	54430	157910	21400	27800	195710
11	*	12	347215	1157706	1693091	3475473	12	103690	206790	29800	3500	219290
12	*	13	357584	1178385	1693389	3475744	13	188810	377020	35300	3200	380220
13	*	14	376445	1216087	1693742	3476012	14	159340	362710	38000	5300	368010
14	*	15	392399	1252358	1694122	3476301	15	151850	384090	38800	5100	389190
15	*	16	407584	1290767	1694510	3476588	16	164780	353870	44660	2000	355870
16	*	17	424062	1326154	1694956	3476844	17	126710	301880	36600	17900	319780
17	*	18	436733	1356342	1695322	3477259	18	85480	129200	27100	5900	135100
18	*	19	445281	1369262	1695593	3477554	19	59400	156290	39800	4300	160590
19	*	20	451221	1384891	1695991	3477833	20	163730	304090	36000	8800	312890
20	*	21	467594	1415300	1696351	3478157	21	172250	338520	45400	8600	347120
21	*	22	484819	1449152	1696805	3478479	22	157440	362230	44900	12900	375130
22	*	23	500563	1485375	1697254	3478844	23	162780	375860	39600	3500	381360
23	*	24	516841	1522961	1697650	3479135	24	113000	325940	31100	38300	364240
24	*	25	526141	1555555	1697961	3479754	25	29240	102480	29100	72700	175180
25	*	26	531065	1565803	1698252	3480717	26	65840	166640	31000	44700	211340
26	*	27	537649	1582467	1698562	3481400	27	152640	371990	37000	5600	377590
27	*	28	552913	1619666	1698932	3481692	28	146150	344850	38700	9500	354350
28	*	29	567528	1654151	1699319	3482023	29	144200	351340	36400	14200	365540
29	*	30	581948	1689285	1699683	3482401	30	151530	367960	43200	11800	379760
30	*	31	597101	1726081	1700115	3482755	31	109700	272250	38100	7200	279450
31	*	1	608071	1753306	1700496	3483063	1					

STREAM	COMBINED	DWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	384090	195750	45400	72700	389190
MINIMUM FLOW GPD	97750	29240	18400	0	114800
AVERAGE FLOW GPD	274373	128685	33284	14284	288657
MAXIMUM FLOW GPM	267	136	32	50	270
MINIMUM FLOW GPM	68	20	13	0	80
AVERAGE FLOW GPM	191	89	23	10	200
TOTAL FLOW GAL	8233310	3879520	993700	435600	8668910

NOTE : MV3 READINGS ARE CORRECTED BY SUBTRACTING 23,600 GALLONS PER DAY FROM EACH TOTAL TO ACCOUNT FOR TOTALIZER ERRORS

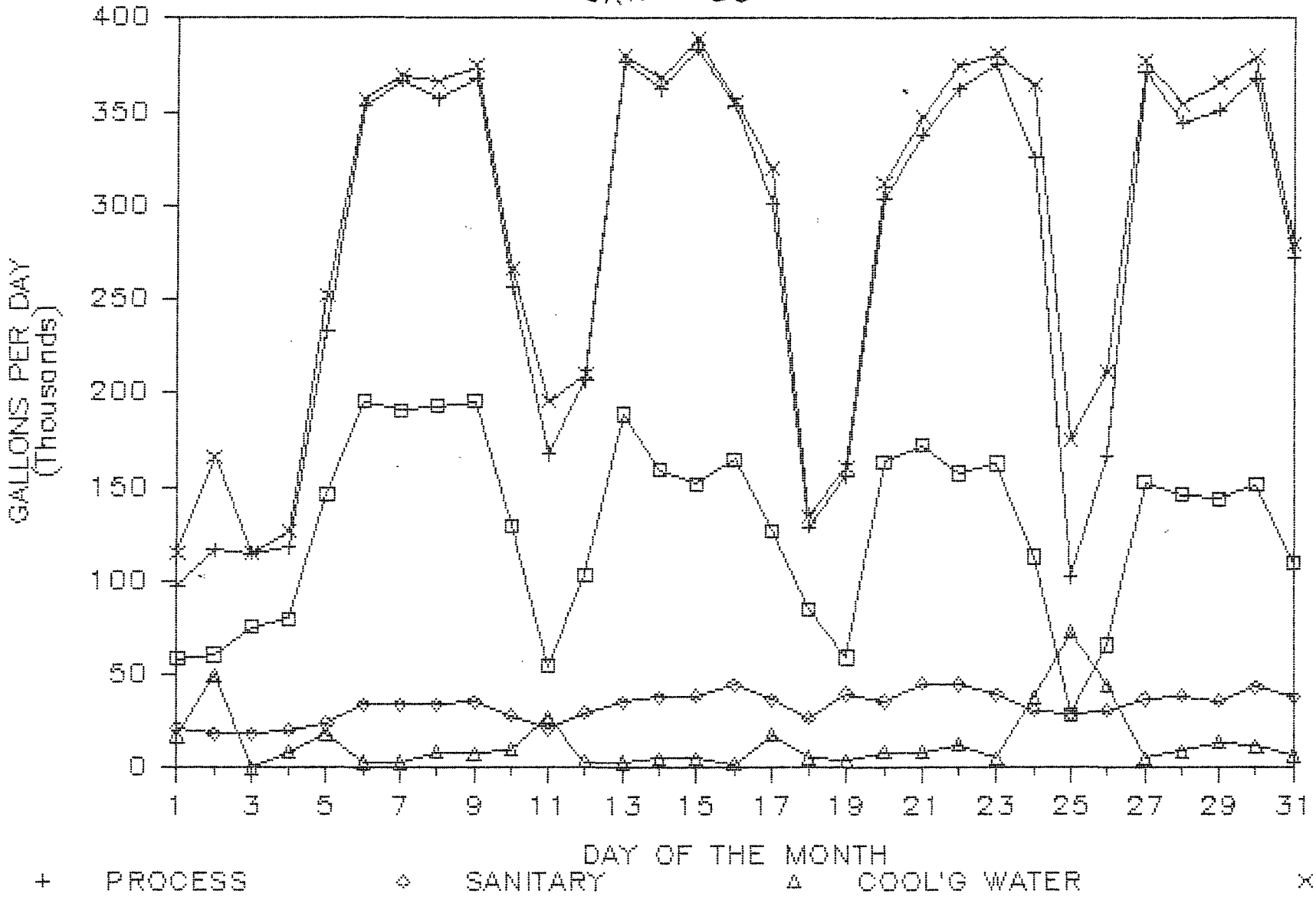
Σ 13,542,130 gallons

avg 4 36,840 gallons/day

SCOEPA00034476

WASTEWATER FLOWS

JAN 1986



SCOEPA00034477

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 13, 1986

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: December, 1985 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for December, 1985

For the month of December our discharge was well within compliance for all measured parameters.

Our pH only measured 216 minutes out of compliance for the month of December, or about 0.48% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly your,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKE[illegible]ILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE [illegible]ITORING REPORT (*DMR*)

Form Approved
[illegible] No. 2040-0004
[illegible]pires 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER

(17-19) 68 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	12	01	TO	85	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	218,000	415,000	GPD	-	-	-	-		Continuous Totalizing	
	PERMIT REQUIREMENT	-	-		-	-	-			Recorder	
MV1 BOD	SAMPLE MEASUREMENT	19	53	#/D	2.0	8.5	23.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	10	14	#/D	3.0	6.0	10.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24 HC
MV1 CR 6+	SAMPLE MEASUREMENT	<.004	<.004	#/D	<.002	<.002	<.002	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	<.004	<.004	#/D	<.002	<.002	.002	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	10.5	14.1	#/D	4.0	5.7	6.7	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.09	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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. SEE 18 U.S.C § 1001 AND 33 U.S.C § 1319 *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		503	243-2020	86	01	10
James R. Ellis for JLP			AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034479

Facility Name/Location if different)

NAME WACKER [illegible]LTRONIC CORPORATION

ADDRESS PO Box [illegible]180

Portland, OR. 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Ex. 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 68

2834 - J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	12	01	TO	85	12	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	90,400	230,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO3	SAMPLE MEASUREMENT	-	-		<.1	<.1	<.1	mg/l		1/7 Grab	
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	309.000	615,000	GPD	-	-	-	-		1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-		14.1	16.5	17.9			1/7 Grab	
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7 Grab	
Outfall pH	SAMPLE MEASUREMENT	-	-		2.7	-	9.6	pH Unit		Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

James R. Ellis for JLP

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 86 | MO 01 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

pH was in compliance 99.5% of the time. Time out of compliance was 216 minutes, or .48% of the time.
No incidents were longer than 1 hour.

SCOEPA00034480

awta1265 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF aH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
334.00	6.0 - 9.0	1	581170	225911	1680626	3443294		1	90870	153800	50300	122500	276300
335	0.00	2	590257	241291	1681129	3444519		2	175340	153800	34400	118300	272100
336	0.00	3	607791	256671	1681473	3445702		3	209930	338720	44500	187600	526320
337	33.80	4	628784	290543	1681918	3447578		4	223220	385230	41800	229900	615130
338	42.00	5	651106	329066	1682336	3449877		5	298750	352120	36400	217800	569920
339	69.50	6	680981	364278	1682700	3452055		6	86390	278800	34400	229300	508100
340	69.50	7	689620	392158	1683044	3454348		7	119160	99500	17800	215700	315200
341	69.50	8	701536	402108	1683222	3456505		8	148480	198510	26300	188700	387210
342	69.50	9	716384	421959	1683485	3458392		9	190040	415210	34500	146500	561710
343	69.50	10	735388	463480	1683830	3459857		10	157950	338800	35100	60800	399600
344	69.50	11	751183	497360	1684181	3460465		11	160000	290040	47500	51700	341740
345	69.50	12	850798	526364	1684656	3460982		12	190640	314420	36900	30900	345320
346	69.50	13	869862	557806	1685025	3461291		13	140010	276120	39300	37100	313220
347	69.50	14	883863	585418	1685418	3461662		14	63530	135000	22200	57700	192700
348	69.50	15	890216	598918	1685640	3462239		15	116250	226760	34800	40800	267560
349	69.50	16	901841	621594	1685988	3462647		16	192770	393260	32000	31700	424960
350	69.50	17	921118	660920	1686308	3462964		17	164560	396240	35300	31900	428140
351	76.20	18	937574	700544	1686661	3463283		18	190290	387000	36500	36800	423800
352	92.80	19	956603	739244	1687026	3463651		19	190750	347030	36300	36800	383830
353	92.80	20	975678	773947	1687389	3464019		20	155210	277170	31400	31800	308970
354	99.30	21	991199	801664	1687703	3464337		21	106450	175500	27900	24700	200200
355	159.00	22	1001844	819214	1687982	3464584		22	74790	78870	24000	8700	87570
356	159.00	23	1009323	827101	1688222	3464671		23	110110	77200	24500	67200	144400
357	159.00	24	1020334	834821	1688467	3465343		24	67910	57250	24700	24800	82050
358	159.00	25	1027125	840546	1688714	3465591		25	81110	75190	21900	31200	106390
359	159.00	26	1035236	848065	1688933	3465903		26	94010	81640	22400	33600	115240
360	159.00	27	1044637	856229	1689157	3466239		27	65370	91370	19800	33600	124970
361	159.00	28	1051174	865366	1689355	3466575		28	59890	107790	23000	27100	134890
362	159.00	29	1057163	876145	1689585	3466846		29	49940	79180	21500	42500	121680
363	159.00	30	1062157	884063	1689800	3467271		30	49000	95930	20000	210700	306630
364	159.00	31	1205689	893656	1690000	3469378		31	34600	90940	17800	194100	285040
365	216.60	1	1209149	902750	1690178	3471319		1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	415210	298750	50300	229900	615130
MINIMUM FLOW GPD	57250	34600	17800	8700	82050
AVERAGE FLOW GPD	218335	130881	30813	90403	308738
MAXIMUM FLOW GPM	288	207	35	160	427
MINIMUM FLOW GPM	40	24	12	6	57
AVERAGE FLOW GPM	152	91	21	63	214
TOTAL FLOW GAL	6677450	4022720	937400	2608400	9285850

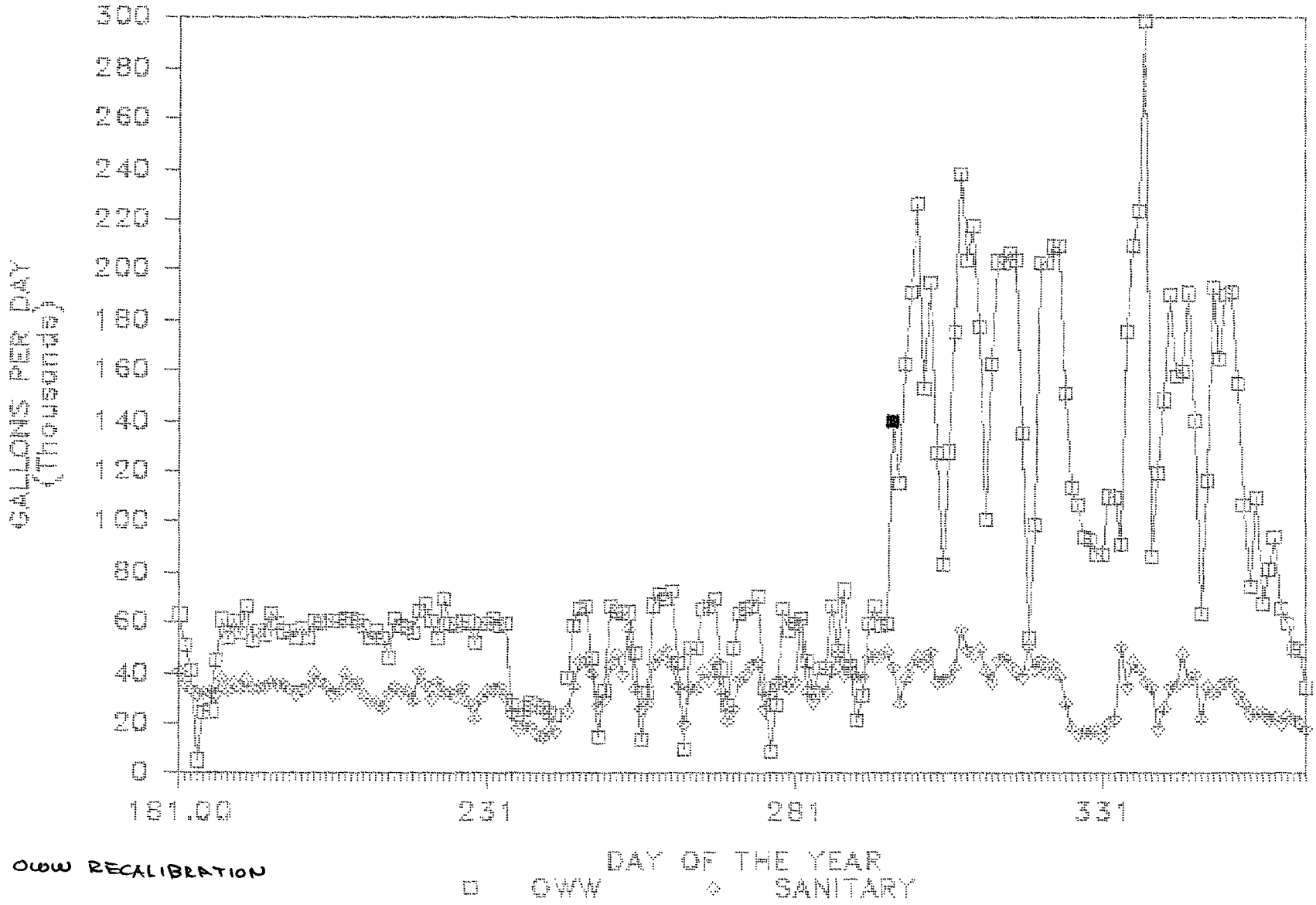
* OWW TOTALIZER — INCORRECT READINGS DUE TO POWER INTERRUPTIONS ON 12/12 and 12/31

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
6.00	MG/L	4.0	5.0	0.002	0.002	4.0	17.20	0.10	278800
	LBS/DAY	9.3	11.6	0.005	0.005	9.3			
13.00	MG/L	5.0	3.0	0.002	0.002	5.8	16.80	0.10	276120
	LBS/DAY	11.5	6.9	0.005	0.005	13.4			
20.00	MG/L	23.0	6.0	0.002	0.002	6.1	17.90	0.10	277170
	LBS/DAY	53.2	13.9	0.005	0.005	14.1			
27.00	MG/L	2.0	10.0	0.002	0.002	6.7	14.10	0.10	91370
	LBS/DAY	1.5	7.6	0.002	0.002	5.1			
5.00	MG/L								352120
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	8.5	6.0	0.002	0.002	5.7	16.5		
4.00	LBS/DAY	18.9	10.0	0.004	0.004	10.5			

DATE OF ANALYSIS	DWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
6.00	MG/L	492.0	160.0					0.22	1.10	86390	DWW
	LBS/DAY	354.5	115.3	0.000	0.000	0.000	0.000	0.16	0.79	0.72	DILUTION FACTOR
MG/L DISCHARGE		351.9	114.4	0.000	0.000	0.000	0.000	0.16	0.79		
13.00	MG/L	382.0	264.0					0.21	1.00	140010	DWW
	LBS/DAY	446.1	308.3	0.000	0.000	0.000	0.000	0.25	1.17	0.78	DILUTION FACTOR
MG/L DISCHARGE		298.3	206.1	0.000	0.000	0.000	0.000	0.16	0.78		
20.00	MG/L	847.0	20.0					0.23	1.10	155210	DWW
	LBS/DAY	1096.4	25.9	0.000	0.000	0.000	0.000	0.30	1.42	0.83	DILUTION FACTOR
MG/L DISCHARGE		704.5	16.6	0.000	0.000	0.000	0.000	0.19	0.91		
27.00	MG/L	13.0	44.0						3.20	65370	DWW
	LBS/DAY	7.1	24.0	0.000	0.000	0.000	0.000	0.00	1.74	0.77	DILUTION FACTOR
MG/L DISCHARGE		10.0	33.8	0.000	0.000	0.000	0.000	0.00	2.46		
5.00	MG/L									298750	DWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.89	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	433.5	122.0	0.000	0.000	0.000	0.000	0.17	1.60		
4.00	LBS/DAY	476.0	118.4	0.000	0.000	0.000	0.000	0.23	1.28		
MG/L DISCHARGE		341.2	92.7	0.000	0.000	0.000	0.000	0.13	1.23		

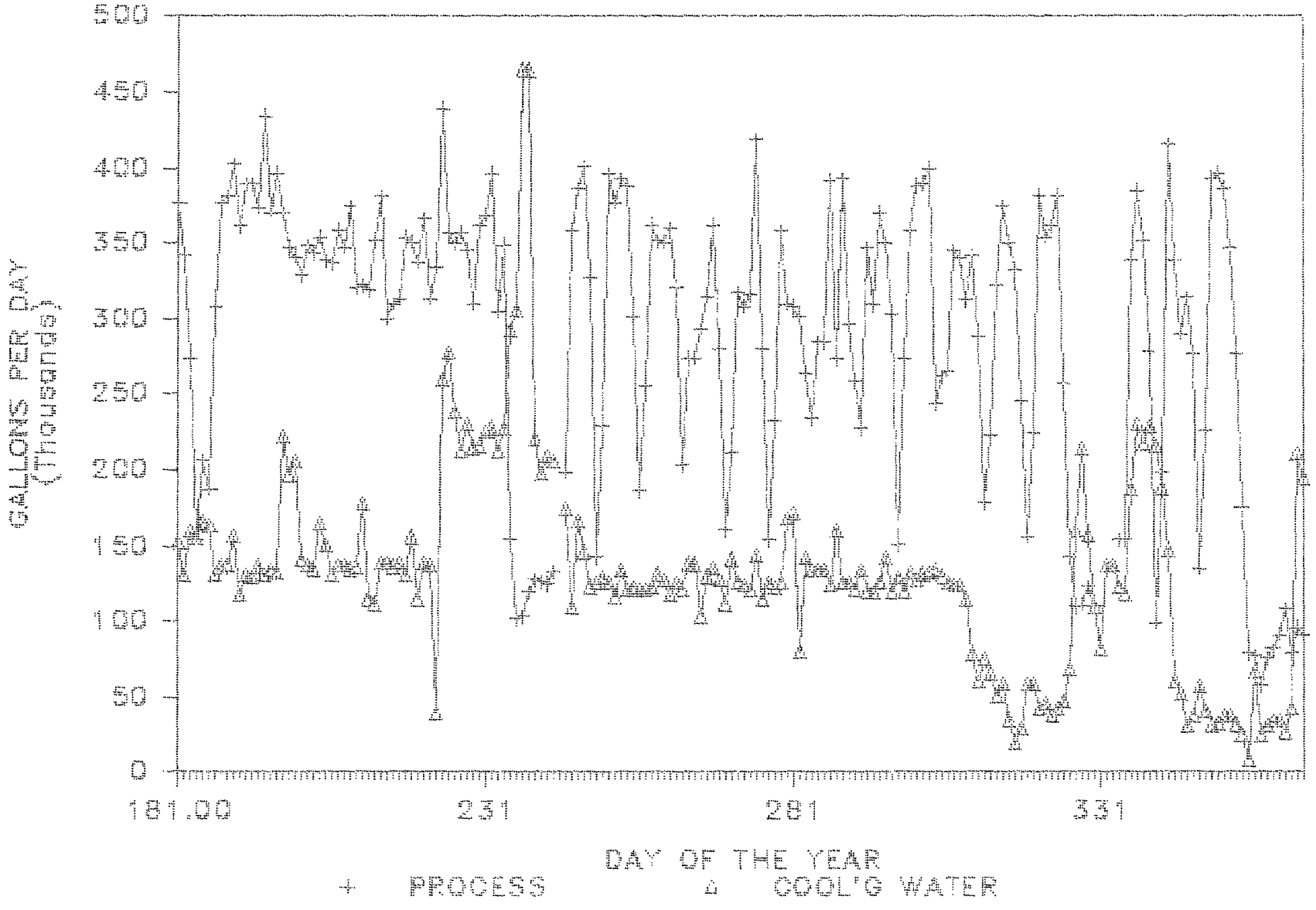
SCOEPA00034481

WASTEWATER FLOWS



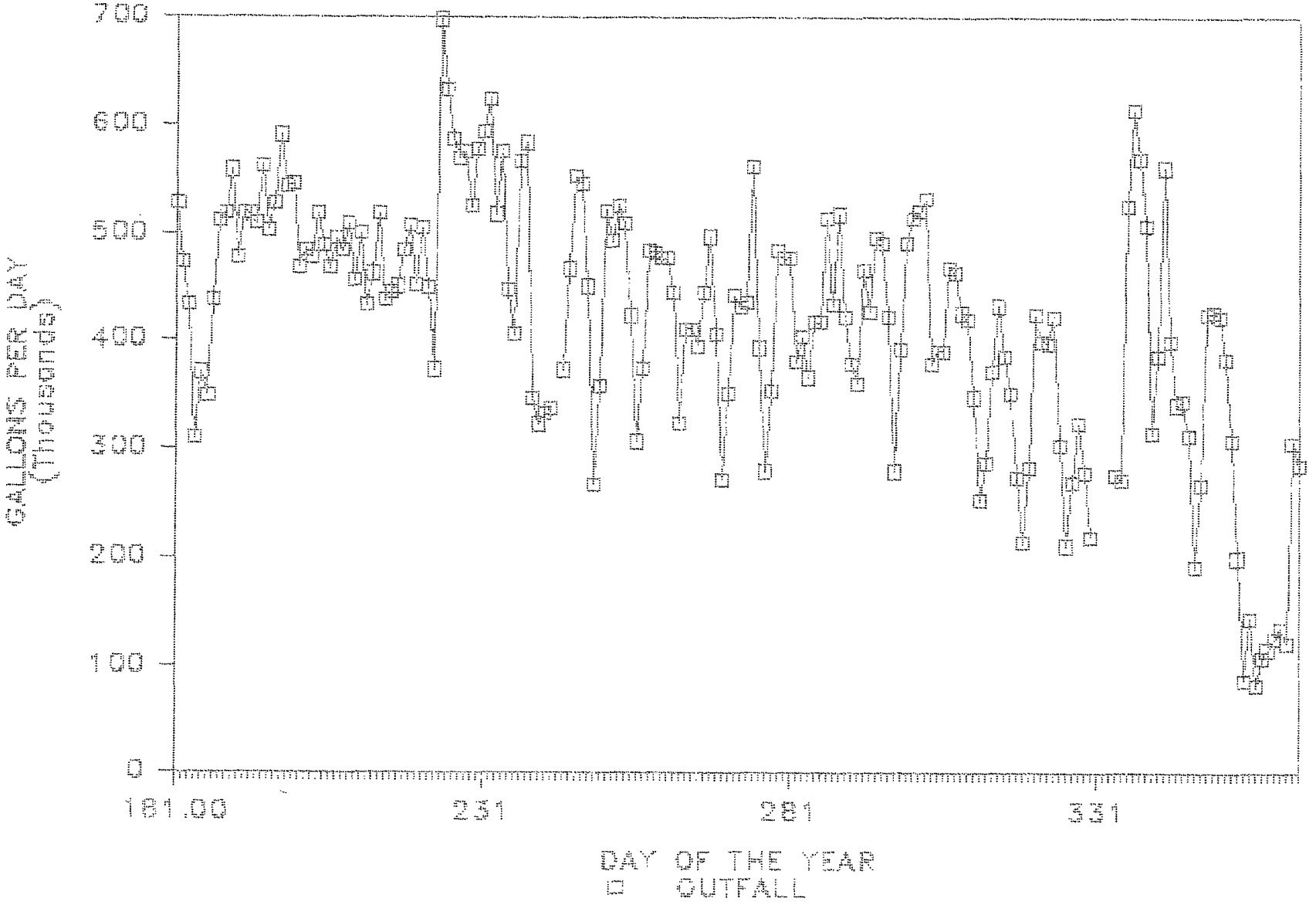
■ OWW RECALIBRATION

WASTEWATER FLOWS



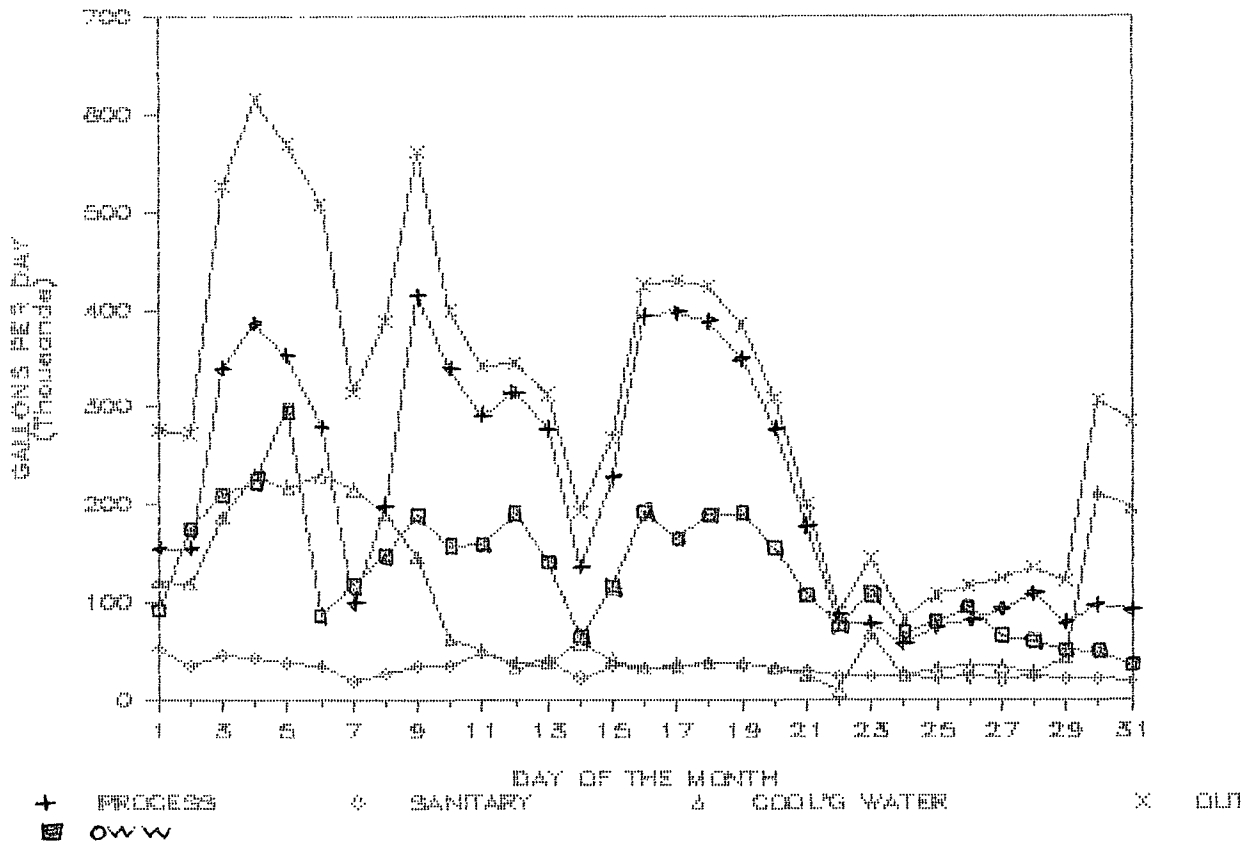
SCOEPA00034483

WASTEWATER FLOWS



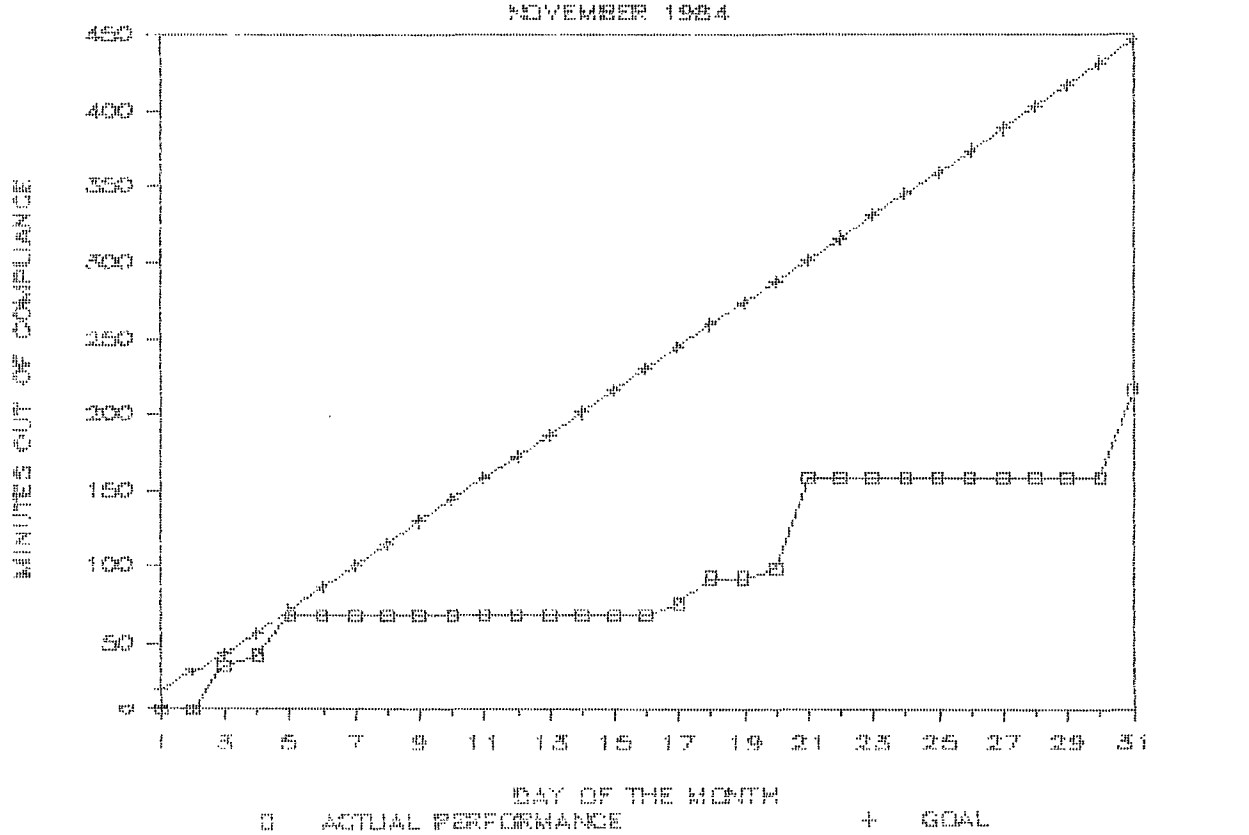
SCOEPA00034484

WASTEWATER FLOWS



pH COMPLIANCE

NOVEMBER 1984



WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 12/11/85
OWW,PWW 1000HRS.

SAMPLE ANALYZED BY: Elinor Levin DATE 12/11/85

RESULTS:

SAMPLE	TCE PPM
PWW 12/11/85	0.09
OWW 12/11/85	0.21

COPIES SENT TO: Gregg, Murray
FORM# 107-016

SCOEPA00034486

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/6/85
ANALYSTS: Nancy L / D Shook

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 4	+ 492			
TSS	mg/l	–	15	30	▲ 5	+ 160			
F^-	mg/l	–	6	20	▲ 4.0	1.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.002				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲	
Temperature	°C	–	–	27			▲ 14.1	▲ 17.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034487

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/13/85
ANALYSTS: Nancy L / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 5	+ 382			
TSS	mg/l	–	15	30	▲- 3	+ 264			
F^-	mg/l	–	6	20	▲- 5.8	< 1			
Cr^{6+}	mg/l	–	0.02	0.05	▲- < 0.002				
Cr^{total}	mg/l	–	0.3	1	▲- < 0.002				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 13.1	▲ 16.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034488

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/20/85
ANALYSTS: Nancy L. / D. Shaw

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 23	+ 847			
TSS	mg/l	–	15	30	▲ 6	+ 20			
F^-	mg/l	–	6	20	▲ 6.1	1.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.002				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.4	▲	
Temperature	°C	–	–	27			▲ 12.8	▲ 17.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034489

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 12/27/85
ANALYSTS: Nancy L. / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 2	+ 13			
TSS	mg/l	–	15	30	▲ 10	+ 44			
F^-	mg/l	–	6	20	▲ 6.7	3.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ <0.002				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲	
Temperature	°C	–	–	27			▲ 12.6	▲ 14.1	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034490

DEPARTMENT OF ENVIRONMENTAL QUALITY
SOURCE INSPECTION FORM

cc: [illegible] CHG, NAG
Jerry S
Sam P.

☒ WQ ☐ SW ☐ AQ ☐ NC

COUNTY: MULTNOMAH
SOURCE NAME: WACKER SILTRONIC
OFFICIAL CONTACTED: MURRAY TILSON
SOURCE ADDRESS: 7200 NW FRONT AVE. PORTLAND, OR 97229

TABLE A PARA	PREP. TIME	TRANS TIME	INSPECTION TIME	PAPER TIME
	5	9	3.0	2

PERMIT NUMBER CO.	PERMIT NUMBER SOURCE	POINT	ACTION NO.	ACTION TYPE	DATE SCHEDULED MO. DAY YR.	DATE ACHIEVED MO. DAY YR.	RESULT	INSPEC. NO.
	3847-J		7			10 9 85	X	

1 PLANT IN COMPLIANCE
2
3
4

COMPLIANCE STATUS *(RESULT CODE)*

	IN COMP.	NOT IN COMPLIANCE	ON SCHEDULE
All permit conditions	Q		
Permit emission limits	R	A	I
Emission standards	S	B	J
Performance reqts.	T	C	K
Monitoring & Reporting	U	D	L
Open burning limits	V	E	M
Procedural Reqts.	W	F	N
Fugitive emissions	X	G	O
Other	Y	H	P

SOURCES IN VIOLATION & LIMITS VIOLATED

TREATMENT/PROCESS EQUIPMENT – ADDITIONAL REMARKS – OPERATING CONDITIONS

WASTEWATER TREATMENT PLANT IS OPERATING. SLICING, LAPPING & PREP PROCESS WASTEWATER WERE DIVERTED TO THE CITY SEWER. pH CONTROL FOR COMBINED EFFLUENT RELOCATED AT THE WWTP CONTROL FOR BETTER MONITORING. 2 FACILITIES OPERATORS ASSIGNED PER 12 HR SHIFTS.

WWTP EFFLUENT FLOW = 130 gpm pH = 7.3
COMBINED EFF. FLOW = 0.478 MGD pH = 7.

SAMPLE RESULTS:

		Wacker's Analysis
TSS mg/l =	9	5
F^- mg/l =	3.3	4.8
Cr_{tot} mg/l =	0.004	0.004
Cr^{+6} mg/l =	<0.002	<.003
T-PO_4 as P mg/l =	0.105	

Richard C Hellay 10-9-85
SIGNATURE OF INSPECTOR AND DATE

DIVISION COPY

[signature] 10/9/85
SIGNATURE OF PERSON INTERVIEWED AND DATE

DEQ/RO-101 (4/80)

SCOEPA00034491

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

December 11, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: November, 1985 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for November, 1985

For the month of November our discharge was well within compliance for all measured parameters.

Our pH only measured 37 minutes out of compliance for the month of November, or about 0.08% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly your,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACKER LTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, Oregon 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 67

MONITORING PERIOD
FROM YEAR (20-21) 85 MO (22-23) 11 DAY (24-25) 01
TO YEAR (26-27) 85 MO (28-29) 11 DAY (30-31) 30

2834-J
93450

Form Approved
OMB No. 2040-0004
Expires 2-29-84

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	87,000	214,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-		<.1	<.1	<.1	mg/1		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	348,000	470,000	GPD	-	-	-	-		1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	16.2	16.9	17.4	Degree C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-	-	5.2	-	9.4	pH unit		Continious Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	John Pittman	503	243-2020	85	12	09
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.92% of the time. Time out of compliance was 37 minutes, or .08% of the time. No incidents were longer than 1 hour.

SCOEPA00034493

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WA[illegible]ER SILTRONIC CORP.

ADDRESS PO BOX 03180
PORTLAND, OREGON 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
[illegible] No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 — PERMIT NUMBER

(17-19) 67 — DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85 (20-21)	11 (22-23)	01 (24-25)	TO	85 (26-27)	11 (28-29)	30 (30-31)

NOTE: Read instructions before completing this form.

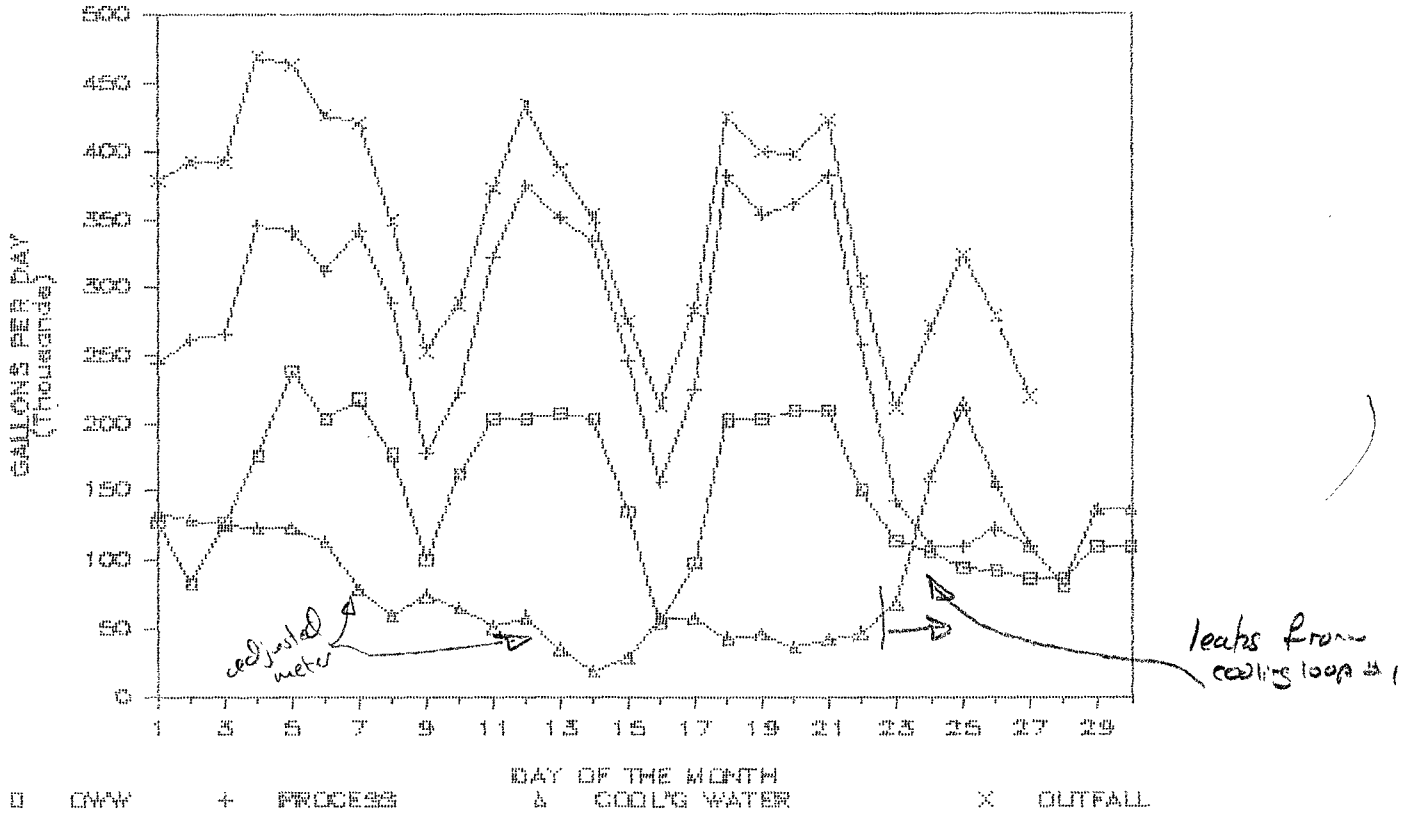
PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	265,000	382,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			Totalizing Recorder	
MV1 BOD	SAMPLE MEASUREMENT	26	39	#/D	4.0	11	18	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	16	26	#/D	1.0	6.3	12	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60			1/7	24 HC
MV1 Cr 6+	SAMPLE MEASUREMENT	<.007	<.009	#/D	<.003	< .003	.003	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	.02	.024	#/D	.006	.008	.010	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	10.5	13.4	#/D	4.0	4.4	5.0	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-	.09	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	John Pittman	503 243-2020	85	12	09
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034494

WASTEWATER FLOWS



dwtp1185 TIME OUT DY OF YR	OF pH	TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	GRAPH IS [ALT] AND [G] AT THE SAME TIME OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
304.00	6.0 - 9.0	1	131499	526958	1669835	3417098	1	127380	244080	36300	134600	378680
305	0.00	2	144237	551366	1670198	3418444	2	82860	261910	37600	129800	391710
306	27.30	3	152523	577557	1670574	3419742	3	127840	265730	38300	125800	391530
307	37.20	4	165307	604130	1670957	3421000	4	175510	345330	43000	124200	469530
308	37.20	5	182658	638663	1671387	3422242	5	238540	340350	56900	123800	464150
309	37.20	6	206712	672698	1671956	3423480	6	203880	312260	49200	114500	426760
310	37.20	7	227100	703924	1672448	3424625	7	217570	342110	47100	78500	420610
311	37.20	8	248857	738135	1672919	3425410	8	177130	288780	49800	59900	348680
312	37.20	9	266570	767013	1673417	3426009	9	100910	178700	40800	74500	253200
313	37.20	10	276661	784883	1673825	3426754	10	162320	223010	36700	64900	287910
314	37.20	11	292893	807184	1674192	3427403	11	203410	321880	45400	50900	372780
315	37.20	12	313234	839372	1674646	3427912	12	202670	374790	46100	58500	433290
316	37.20	13	333501	876851	1675107	3428497	13	207180	351090	43400	35000	386090
317	37.20	14	354219	911960	1675541	3428847	14	203830	333130	40600	18900	352030
318	37.20	15	374602	945273	1675947	3429036	15	135080	246030	38300	28800	274830
319	37.20	16	388110	969876	1676330	3429324	16	54180	156260	50500	58200	214460
320	37.20	17	393528	985502	1676835	3429906	17	98970	224990	41500	58200	283190
321	37.20	18	403425	1008001	1677250	3430488	18	202530	382180	45100	43100	425280
322	37.20	19	423678	1046219	1677701	3430919	19	203230	353960	40600	46200	400160
323	37.20	20	444001	1081615	1678107	3431381	20	209340	361330	43400	36900	398230
324	37.20	21	464935	1117748	1678541	3431750	21	209550	381820	38900	41800	423620
325	37.20	22	485890	1155930	1678930	3432168	22	151110	257400	28200	47000	304400
326	37.20	23	501001	1181670	1679212	3432638	23	113570	142930	18400	68500	211430
327	37.20	24	512358	1195963	1679396	3433323	24	106470	110070	15700	160200	270270
328	37.20	25	523005	1206970	1679553	3434925	25	94300	110310	16400	213900	324210
329	37.20	26	532435	1218001	1679717	3437064	26	93070	122660	16500	156700	279360
330	37.20	27	541742	1230267	1679882	3438631	27	87270	110240	17500	109500	219740
331	37.20	28	550469	1241291	1680057	3439726	28	86920		14800	82100	
332	37.20	29	559161		1680205	3440547	29	110240		20300	137400	
333	37.20	30	570185		1680408	3441921	30	109850		21800	137300	
334	37.20	1	581170		1680626	3443294	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	382180	238540	56900	213900	469530
MINIMUM FLOW GPD	110070	54180	14800	18900	211430
AVERAGE FLOW GPD	264568	149890	35970	87320	348375
MAXIMUM FLOW GPM	265	166	40	149	326
MINIMUM FLOW GPM	76	38	10	13	147
AVERAGE FLOW GPM	184	104	25	61	242
TOTAL FLOW GAL	7143330	4496710	1079100	2619600	9406130

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
1.00	MG/L	18.0	1.0	0.003	0.006	5.0	17.40	0.10	244080
	LBS/DAY	36.6	2.0	0.006	0.012	10.2			
8.00	MG/L	16.0	4.0	0.003	0.010	4.0	16.20	0.10	288780
	LBS/DAY	38.5	9.6	0.007	0.024	9.6			
12.00	MG/L	6.0	8.0	0.003	0.007	4.3	17.10	0.10	374790
	LBS/DAY	18.8	25.0	0.009	0.022	13.4			
22.00	MG/L	4.0	12.0	0.003	0.009	4.1	16.80	0.10	257400
	LBS/DAY	8.6	25.8	0.006	0.019	8.8			
5.00	MG/L								340350
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	11.0	6.3	0.003	0.008	4.4	16.9	0.1	
4.00	LBS/DAY	25.6	15.6	0.007	0.019	10.5			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
1.00	MG/L	493.0	60.0						4.80	127380 OWW
	LBS/DAY	523.7	63.7	0.000	0.000	0.000	0.000	0.00	5.10	0.78 DILUTION FACTOR
MG/L DISCHARGE		383.7	46.7	0.000	0.000	0.000	0.000	0.00	3.74	
8.00	MG/L	402.0	184.0						2.00	177130 OWW
	LBS/DAY	593.9	271.8	0.000	0.000	0.000	0.000	0.00	2.95	0.78 DILUTION FACTOR
MG/L DISCHARGE		313.8	143.6	0.000	0.000	0.000	0.000	0.00	1.56	
12.00	MG/L	457.0	853.0						8.80	202670 OWW
	LBS/DAY	772.5	1441.8	0.000	0.000	0.000	0.000	0.00	14.87	0.81 DILUTION FACTOR
MG/L DISCHARGE		372.3	694.9	0.000	0.000	0.000	0.000	0.00	7.17	
22.00	MG/L	367.0	134.0						4.80	151110 OWW
	LBS/DAY	462.5	168.9	0.000	0.000	0.000	0.000	0.00	6.05	0.84 DILUTION FACTOR
MG/L DISCHARGE		309.3	112.9	0.000	0.000	0.000	0.000	0.00	4.05	
5.00	MG/L									238540 OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.81 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
AVERAGE	MG/L	429.8	307.8	0.000	0.000	0.000	0.000	0.00	5.00	
4.00	LBS/DAY	588.1	486.6	0.000	0.000	0.000	0.000	0.00	7.24	
MG/L DISCHARGE		344.8	249.5	0.000	0.000	0.000	0.000	0.00	4.13	

SCOEPA00034496

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION

DATE: 4/22/85

ANALYSTS: [signature]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 4	+ 367			
TSS	mg/l	–	15	30	▲ 12	+ 134			
F^-	mg/l	–	6	20	▲ 4.1	4.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.009				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 15.2	▲ 16.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.

▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034497

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/1/85
ANALYSTS: [signature] / N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 18	+ 493			
TSS	mg/l	–	15	30	▲ 1	+ 60			
F^-	mg/l	–	6	20	▲ 5.0	4.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.006				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 15.1	▲ 17.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/8/85
ANALYSTS: D. Chapman / N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲16	+402			
TSS	mg/l	–	15	30	▲4	+184			
F^-	mg/l	–	6	20	▲6.7	2.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	–	0.3	1	▲0.01				
Phosphates	mg/l	–	2	5			▲<0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.8	▲	
Temperature	°C	–	–	27			▲14.8	▲16.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034499

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 11/12/85
ANALYSTS: [illegible] N. Lao

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 6	+ 457			
TSS	mg/l	–	15	30	▲ 8	+ 853			
F^-	mg/l	–	6	20	▲ 4.3	8.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.007				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.7	▲	
Temperature	°C	–	–	27			▲ 16.4	▲ 17.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034500

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 11/8/88 1300 hrs. PWW 11/12/85 0830 hrs. OWW 11/12/85 0830 hrs.

SAMPLE ANALYZED BY: Elinor Levin DATE 11/12/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.20 PPM TCE ADDED TCE PPM	% RECOVERY
OWW 11/8/85	0.62	not determined	
PWW 11/12/85	0.09	0.21	60 %
OWW 11/12/85	0.15	0.31	80 %

diluted .48 - .12

COPIES SENT TO: Murray, Greg

FORM# 107-016

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

November 11, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: October, 1985 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for October, 1985.

For the month of October our discharge was well within compliance for all measured parameters.

Our pH only measured 134 minutes out of compliance for the month of October, or about 0.34% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly your,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME WACK SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, Oregon 97203
FACILITY 7200 NW Front Ave.
LOCATION Portland, Oregon 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER
(17-19) 66 DISCHARGE NUMBER
2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85 (20-21)	10 (22-23)	01 (24-25)	TO	85 (26-27)	10 (28-29)	30 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	308,000	420,000	GPD	-	-	-	-	0	Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	42	68	#/D	6.0	17.3	27.0	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	120	240		-	45	90			"	"
MV1 TSS	SAMPLE MEASUREMENT	15	20	#/D	5.0	6.3	8.0	mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		-	23	60			"	"
MV1 Cr 6+	SAMPLE MEASUREMENT	.007	.008	#/D	<.003	<.003	.003	mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			"	"
MV1 Cr Total	SAMPLE MEASUREMENT	.01	.014	#/D	<.003	.004	.006	mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			"	"
MV1 Fluoride	SAMPLE MEASUREMENT	15.9	26	#/D	4.4	6.4	10.5	mg/l	0	"	"
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			"	"
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	0.11	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
John Pittman/Dir. Engineering
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 11 | DAY 07

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180

Portland, Oregon 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, Oregon 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)

DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 66

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	10	01	TO	85	10	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

2834-J
93450

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	130,000	171,000	GPD	-	-	-	-		Continuous Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	<.1	.15	.30	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	438,000	563,000	GPD	-	-	-	-		1/1 Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	17.8	18.8	19.8	deg.C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	-	-		3.0	-	9.8	pH unit		Continuous Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir. Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 11 | DAY 07

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.7% of the time. Time out of compliance was 134 minutes or .3% of the time. No incidents were longer than 1 hour.

SCOEPA00034504

dwtp1085 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
273.00	6.0 - 9.0	1	892542	573631	1657411	3376802		1	65780	308150	39300	124200	432350
274	0.00	2	899120	604446	1657804	3378044		2	66280	315580	43200	120500	436080
275	0.00	3	905748	636004	1658236	3379249		3	70350	418760	44400	144500	563260
276	0.00	4	912783	677880	1658680	3380694		4	34310	280060	25600	114300	394360
277	26.60	5	916214	705686	1658936	3381837		5	8790	153840	31500	126000	279840
278	26.60	6	917093	721270	1659251	3383097		6	27240	232190	36400	122200	354390
279	26.60	7	919817	744489	1659615	3384319		7	65170	358390	37200	125900	484290
280	26.60	8	926334	780328	1659987	3385578		8	57350	309830	34000	167700	477530
281	26.60	9	932069	811311	1660327	3387255		9	59540	307750	36800	171200	478950
282	26.60	10	938023	842086	1660695	3388967		10	61480	301700	59800	79900	381600
283	26.60	11	944171	872256	1661293	3389766		11	44990	263140	33200	141700	404840
284	26.60	12	948670	898570	1661625	3391183		12	32750	233610	28900	133400	367010
285	60.40	13	951945	921931	1661914	3392517		13	41920	284520	32400	134000	418520
286	60.40	14	956137	950383	1662238	3393857		14	41920	284520	32400	134000	418520
287	70.00	15	960329	978835	1662562	3395197		15	66780	391840	40800	123700	515540
288	70.00	16	967007	1018019	1662970	3396434		16	49260	273660	47300	160000	433660
289	70.00	17	971933	1045385	1663443	3398034		17	73020	392220	39600	125600	517820
290	95.50	18	979235	1084607	1663839	3399290		18	42650	296810	43200	125700	422510
291	95.50	19	983500	1114288	1664271	3400547		19	21210	258480	39000	121400	379880
292	95.50	20	985621	1140136	1664661	3401761		20	31460	227720	38200	133900	361620
293	95.50	21	988767	1162908	1665043	3403100		21	59420	346650	46800	120000	466650
294	95.50	22	994709	1197573	1665511	3404300		22	66530	309300	46600	118800	428100
295	95.50	23	1001362	1228503	1665977	3405488		23	58950	370730	47300	126400	497130
296	95.50	24	1007257	1265576	1666450	3406752		24	59650	350230	48700	142100	492330
297	95.50	25	1013222	1300599	1666937	3408173		25	140370	302960	42400	119600	422560
298	95.50	26	1027259	1330895	1667361	3409369		26	115310	150870	28000	129200	280070
299	95.50	27	1038790	1345982	1667641	3410661		27	162810	273030	38100	119600	392630
300	95.50	28	1055071	1373285	1668022	3411857		28	190880	358910	42700	132800	491710
301	95.50	29	1074159	1409176	1668449	3413185		29	226160	388040	46900	127300	515340
302	133.70	30	1096775	1447980	1668918	3414458		30	152480	389620	43400	131600	521220
303	133.70	31	1112023	1486942	1669352	3415774		31	194760	400160	48300	132400	532560
304	133.70	1	1131499	1526958	1669835	3417098		1					

AVG 50,594

AVG 168,967

3.3810?

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	418760	226160	59800	171200	563260
MINIMUM FLOW GPD	150870	8790	25600	79900	279840
AVERAGE FLOW GPD	307525	77083	40077	129987	437512
MAXIMUM FLOW GPM	291	157	42	119	391
MINIMUM FLOW GPM	105	6	18	55	194
AVERAGE FLOW GPM	214	54	28	90	304
TOTAL FLOW GAL	9133110	2194810	1194100	3897200	13030310

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
4.00	MG/L	26.0	6.0	0.003	0.006	4.4	17.80	0.10	280060
	LBS/DAY	60.7	14.0	0.007	0.014	10.3			
9.00	MG/L	6.0	5.0	0.003	0.004	4.8	19.10	0.30	307750
	LBS/DAY	15.4	12.8	0.008	0.010	12.3			
18.00	MG/L	10.0	8.0	0.003	0.004	10.5	19.80	0.10	296810
	LBS/DAY	24.8	19.8	0.007	0.010	26.0			
00	MG/L	27.0	6.0	0.003	0.003	6.0	18.40	0.10	302960
	LBS/DAY	68.2	15.2	0.008	0.008	15.2			
5.00	MG/L								153840
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	17.3	6.3	0.003	0.004	6.4			
4.00	LBS/DAY	42.3	15.5	0.007	0.010	15.9	18.78	0.15	

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER
4.00	MG/L	395.0	348.0				10/8	3.05	1.30	34310 OWW
	LBS/DAY	113.0	99.6	0.000	0.000	0.000	0.000	0.87	0.37	0.57 DILUTION FACTOR
MG/L DISCHARGE		226.2	199.3	0.000	0.000	0.000	0.000	1.75	0.74	
9.00	MG/L	393.0	168.0				10/14	0.61	1.00	59540 OWW
	LBS/DAY	195.1	83.4	0.000	0.000	0.000	0.000	0.30	0.50	0.62 DILUTION FACTOR
MG/L DISCHARGE		242.9	103.8	0.000	0.000	0.000	0.000	0.38	0.62	
18.00	MG/L	523.0	116.0					0.20	1.00	42650 OWW
	LBS/DAY	186.0	41.3	0.000	0.000	0.000	0.000	0.07	0.36	0.50 DILUTION FACTOR
MG/L DISCHARGE		259.8	57.6	0.000	0.000	0.000	0.000	0.10	0.50	
25.00	MG/L	383.0	206.0					0.30	5.80	140370 OWW
	LBS/DAY	448.4	241.2	0.000	0.000	0.000	0.000	0.35	6.79	0.77 DILUTION FACTOR
MG/L DISCHARGE		294.1	158.2	0.000	0.000	0.000	0.000	0.23	4.45	
5.00	MG/L									8790 OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.22 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
VERAGE	MG/L	423.5	209.5	0.000	0.000	0.000	0.000	1.04	2.28	
4.00	LBS/DAY	235.6	116.4	0.000	0.000	0.000	0.000	0.40	2.00	
G/L DISCHARGE		255.8	129.7	0.000	0.000	0.000	0.000	0.61	1.58	

SCOEPA00034505

Wacker Siltronic Corporation
P. O Box 03180
Portland, OR 97203
7200 N.W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

October 11, 1985

Mr. Renato Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: September, 1985 - NPDES Monitoring Report

As per our NPDES Permit Number 3647-J, we are submitting the enclosed Monitoring Report for September, 1985.

For the month of September our discharge was well within compliance for all measured parameters.

Our pH only measured 65 minutes out of compliance for the month of September, or about 0.14% of the time.

Please call me at 243-2020, ext. 301 if you have any questions.

Very truly yours,

WACKER SILTRONIC CORP.

Murray M. Tilson
FAcilities Operations and Environmental Supervisor

MMT:11

Enclosure

cc: Greg Carr
Jim DiSorbo
Jim Ellis
Jim Harper
John Pittman
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME WACKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-00
Expires 2-28-84

(2-16) OR-003058-1 PERMIT NUMBER

(17-19) 65 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	09	01	TO	85	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	297,000	401,000	GPD	-	-	-	-		Continuous	Totalizer
	PERMIT REQUIREMENT	-	-		-	-					
MV1 BOD	SAMPLE MEASUREMENT	32	55	#/D	7	12,5	20	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	120	240		-	45	90			1/7	
MV1 TSS	SAMPLE MEASUREMENT	12	25	#/D	2,0	4,5	10,0	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	61	160		-	23	60				
MV1 Cr 6t	SAMPLE MEASUREMENT	<,003	,005	#/D	<,001	<,001	,002	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	.03	.1		-	.02	.05				
MV1 Cr Total	SAMPLE MEASUREMENT	,016	,027	#/D	,003	,006	,01	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	.5	1.0		-	.2	0.4				
MV1 Fluoride	SAMPLE MEASUREMENT	9,4	12,9	#/D	2,6	3,7	4,8	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	21,4	42,7		-	8	16				
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	,09	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1,37				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 10 | DA 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

A Form 3320-1 (Rev. 10-79) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

PAGE 1 OF

SCOEPA00034507

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME WACKE[illegible]LTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE [illegible]ITORING REPORT (*DMR*)

Form Approved
[illegible] No. 2040-00
[illegible]res 2-29-84

(2-16) OR-003058-7 PERMIT NUMBER

(17-19) 65 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	09	01	TO	85	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	131,000	214,000	GPD	-	-	-	-		Continuous	
	PERMIT REQUIREMENT	-	-		-	-	-			[illegible]	
Total PO_3= MV3	SAMPLE MEASUREMENT	-	-		<.01	<.01	<.01	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			[illegible]	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	429,000	553,000	GPD	-	-	-	-		1/1Totalizr	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-		20.5	21.1	21.6	deg.C.	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			[illegible]	
Outfall pH	SAMPLE MEASUREMENT	-	-	-	3.4	-	10.1	pH unit	0	Continuous	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0			[illegible]	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir. Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 10 | DA 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

pH was in compliance 99.8% of the time. Time out of compliance was 65 minutes, or .15% of the time. No incidents were longer than 1 hour.

SCOEPA00034508

DEPARTMENT OF ENVIRONMENTAL QUALITY
SOURCE INSPECTION FORM

☐ WQ ☐ SW ☒ AQ ☐ NC

COUNTY: MULTNOMAH

SOURCE NAME: WACKER SILTRONIC CORP

SOURCE ADDRESS: 7200 NW FRONT PORTLAND

OFFICIAL CONTACTED: ENTIRE SOURCE

000

PERMIT NUMBER CO.	PERMIT NUMBER SOURCE	POINT	ACTION NO.	ACTION	ACTION TYPE	DATE SCHEDULED MO.	DATE SCHEDULED DAY	DATE SCHEDULED YR.	DATE ACHIEVED MO.	DATE ACHIEVED DAY	DATE ACHIEVED YR.	RESULT	INSPEC. NO.
26	3002	000	19	7	07	06	01	85	10	09	85	GX	

TABLE A PARA	PREP TIME	TRANS TIME	INSPECTION TIME	PAPER TIME

8 1 PLANT IN COMPLIANCE
8 2
8 3
8 4

COMPLIANCE STATUS (RESULT CODE)

	IN COMP.	NOT IN COMPLIANCE	ON SCHEDULE
All permit conditions	☒		
Permit emission limits	R	A	I
Emission standards	S	B	J
Performance reqts.	T	C	K
Monitoring & Reporting	U	D	L
Open burning limits	V	E	M
Procedural Reqts.	W	F	N
Fugitive emissions	X	G	O
Other	Y	H	P

SOURCES IN VIOLATION & LIMITS VIOLATED

TREATMENT/PROCESS EQUIPMENT – ADDITIONAL REMARKS – OPERATING CONDITIONS

NOx SCRUBBER OPERATING
NOx DISCHARGE = [illegible] PPM
OPACITY READING = 0 %

TCE SCRUBBER OPERATING
TCE DISCHARGE = 16 PPM
OPACITY READING = 0 %

BOILERS ON NATURAL GAS.

Richard Bailey 10-9-85
SIGNATURE OF INSPECTOR AND DATE

10/9/85
SIGNATURE OF PERSON INTERVIEWED AND DATE

DEQ/RO-101 (4/80)

SOURCE COPY

SCOEPA00034509

DEPARTMENT OF ENV( )NMENTAL QUALITY
SOURCE INSPECTION FORM

☒ WQ ☐ SW ☐ AQ ☐ NC

COUNTY: ROCKINGHAM

SOURCE NAME: WACKER ELECTRONIC

OFFICIAL CONTACTED: MURRAY TILSON

SOURCE ADDRESS: [illegible] ROCKINGHAM, NC

TABLE A PARA	PREP TIME	TRANSIT TIME	INSPECTION TIME	PAPER TIME

PERMIT NUMBER CO	SOURCE	POINT NO	ACTION NO	TYPE	DATE SCHEDULED MO	DAY	YR	DATE ACHIEVED MO	DAY	YR	RESULT	INSPEC NO
	3004			7				10	9	85	X	

8 1
8 2
8 3
8 4

COMPLIANCE STATUS *(RESULT CODE)*

	IN COMP.	NOT IN COMPLIANCE	ON SCHEDULE
All permit conditions	Q		
Permit emission limits	R	A	I
Emission standards	S	B	J
Performance reqts.	T	C	K
Monitoring & Reporting	U	D	L
Open burning limits	V	E	M
Procedural Reqts.	W	F	N
Fugitive emissions	X	G	O
Other	Y	H	P

SOURCES IN VIOLATION & LIMITS VIOLATED

TREATMENT/PROCESS EQUIPMENT – ADDITIONAL REMARKS – OPERATING CONDITIONS

WASTEWATER TREATMENT PLANT IS PRETREATING
SLICING, LAPPING & PREP PROCESS WASTEWATER WHICH IS
TO THE CITY SEWER. pH CONTROL FOR COMPLIANCE
EFFLUENT IS LOCATED AT THE LWWTP CONTROL FOR
LETTER MONITORING & FACILITIES OPERATIONS. NO CHANGE
FOR THIS SHIFT.
LWWTP EFFLUENT FLOW = 194 gpm pH = 7.3
COMBINED EFF. FLOW = 0.475 MGD pH = 7

SAMPLE RESULTS:

[signature] 10-9-85
SIGNATURE OF INSPECTOR AND DATE

SOURCE COPY

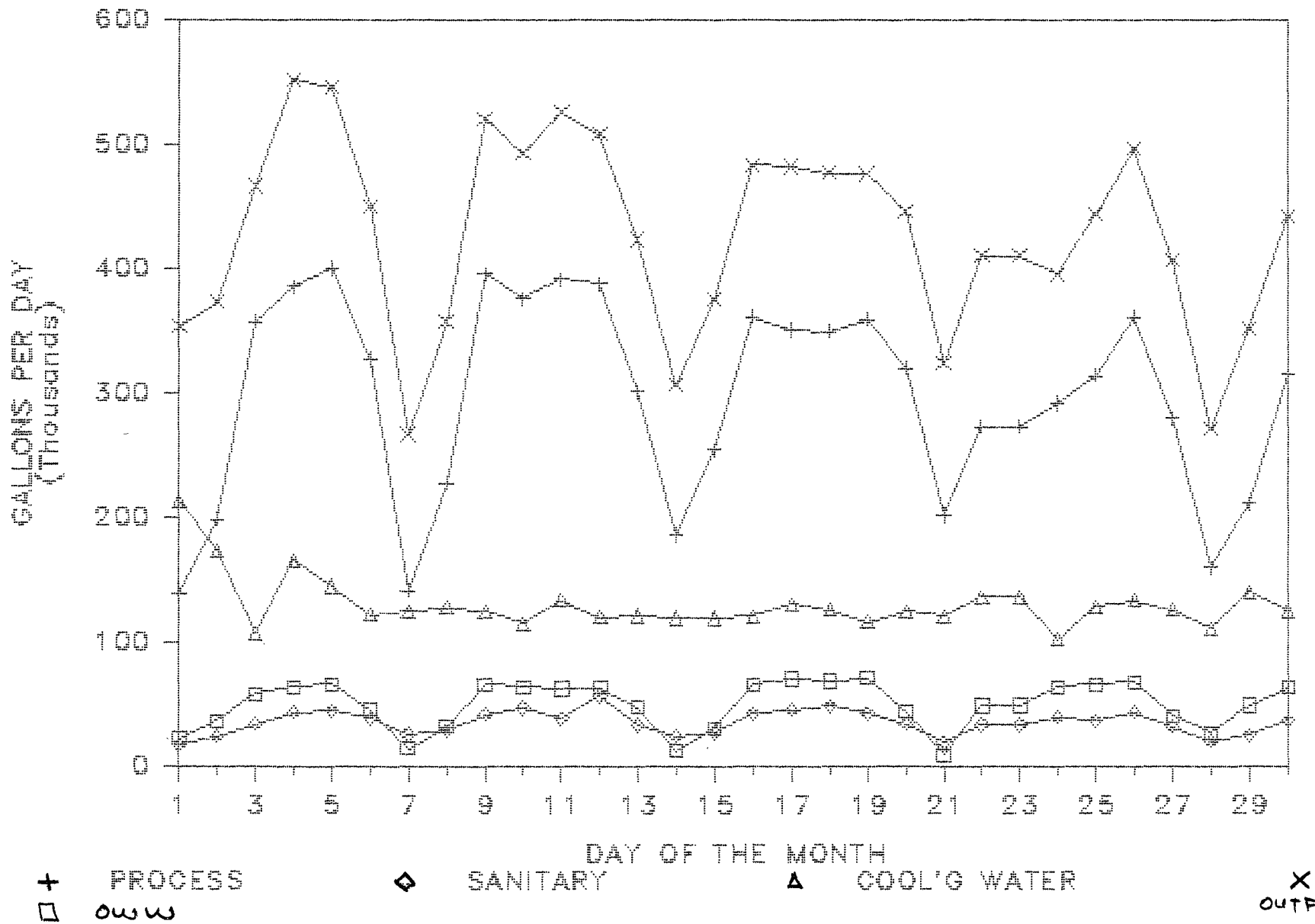
[signature] 10/9/85
SIGNATURE OF PERSON INTERVIEWED AND DATE

DEQ/RO-101 (4/80)

SCOEPA00034510

Sept Oct '85

WASTEWATER FLOWS



SCOEPA00034511

dwtp985 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
243.00	6.0 - 9.0	1	740734	681458	1646557	3337366		1	23070	140510	17900	213800	354310
244	*	2	743041	695509	1646736	3339504		2	37920	199270	24900	174600	373870
245	*	3	746833	715436	1646985	3341250		3	59010	358760	35000	108700	467460
246	*	4	752734	751312	1647335	3342337		4	65410	386240	44500	167000	553240
247	*	5	759275	789936	1647780	3344007		5	66760	400780	45200	146000	546780
248	*	6	765951	830014	1648232	3345467		6	46060	328380	39700	123300	451680
249	*	7	770557	862852	1648629	3346700		7	14990	142090	26400	125700	267790
250	*	8	772056	877061	1648893	3347957		8	33180	229280	29800	129000	358280
251	*	9	775374	899989	1649191	3349247		9	66590	395980	42800	126000	521980
252	*	10	782033	939587	1649619	3350507		10	65040	377280	47700	116200	493480
253	*	11	788537	977315	1650096	3351669		11	63540	392530	39500	134600	527130
254	*	12	794891	1016568	1650491	3353015		12	64140	388530	57600	120600	509130
255	*	13	801305	1055421	1651067	3354221		13	48210	301910	34000	122400	424310
256	*	14	806126	1085612	1651407	3355445		14	13440	187100	25400	120300	307400
257	*	15	807470	1104322	1651661	3356648		15	32000	255590	28300	120200	375790
258	*	16	810670	1129881	1651944	3357850		16	67020	362400	43500	122000	484400
259	*	17	817372	1166121	1652379	3359070		17	71560	351760	46700	131600	483360
260	*	18	824528	1201297	1652846	3360386		18	69530	351030	49100	126600	477630
261	*	19	831481	1236400	1653337	3361652		19	72280	360100	43700	117200	477300
262	*	20	838709	1272410	1653774	3362824		20	44330	321000	34600	125500	446500
263	*	21	843142	1304510	1654120	3364079		21	9900	203070	20300	121600	324670
264	*	22	844132	1324817	1654323	3365295		22	49890	273840	33900	137800	411640
265	*	23	849121	1352201	1654662	3366673		23	49890	273840	33900	137800	411640
266	*	24	854110	1379585	1655001	3368051		24	65180	292850	40900	103600	396450
267	*	25	860628	1408870	1655410	3369087		25	66830	315290	37800	129700	444990
268	*	26	867311	1440399	1655788	3370384		26	69200	362160	44700	135300	497460
269	*	27	874231	1476615	1656235	3371737		27	41670	280460	32800	127000	407460
270	*	28	878398	1504661	1656563	3373007		28	27680	160700	21400	111800	272500
271	*	29	881166	1520731	1656777	3374125		29	49840	211890	25800	141400	353290
272	*	30	886150	1541920	1657035	3375539		30	63920	317110	37600	126300	443410
273	*	1	892542	1573631	1657411	3376802		1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	400780	72280	57600	213800	553240
MINIMUM FLOW GPD	140510	9900	17900	103600	267790
AVERAGE FLOW GPD	297391	50603	36180	131453	428844
MAXIMUM FLOW GPM	278	50	40	148	384
MINIMUM FLOW GPM	98	7	12	72	186
AVERAGE FLOW GPM	207	35	25	91	298
TOTAL FLOW GAL	8921730	1518080	1085400	3943600	12865330

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
6.00	MG/L	20.0	4.0	0.001	0.010	3.0	20.50	0.01	328380
	LBS/DAY	54.8	11.0	0.003	0.027	8.2			
13.00	MG/L	7.0	10.0	0.001	0.004	4.2	21.60	0.01	301910
	LBS/DAY	17.6	25.2	0.003	0.010	10.6			
20.00	MG/L	8.0	2.0	0.002	0.008	4.8	21.40	0.01	321000
	LBS/DAY	21.4	5.4	0.005	0.021	12.9			
27.00	MG/L	15.0	2.0	0.001	0.003	2.6	20.90	.00	280460
	LBS/DAY	35.1	4.7	0.002	0.007	6.1			
5.00	MG/L								400780
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	12.5	4.5	0.001	0.006	3.7			
4.00	LBS/DAY	32.2	11.5	0.003	0.016	9.4			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
6.00	MG/L	365.0	154.0					3.35	5.30	46060	OWW
	LBS/DAY	140.2	59.2	0.000	0.000	0.000	0.000	1.29	2.04	0.54	DILUTION FACTOR
MG/L DISCHARGE		196.0	82.7	0.000	0.000	0.000	0.000	1.80	2.85		
13.00	MG/L	345.0	80.0	0.010	0.001	0.008	0.010	0.24	1.00	48210	OWW
	LBS/DAY	138.7	32.2	0.004	.000	0.003	0.004	0.10	0.40	0.59	DILUTION FACTOR
MG/L DISCHARGE		202.3	46.9	0.006	0.001	0.005	0.006	0.14	0.59		
20.00	MG/L	547.0	120.0					0.16	6.80	44330	OWW
	LBS/DAY	202.2	44.4	0.000	0.000	0.000	0.000	0.06	2.51	0.56	DILUTION FACTOR
MG/L DISCHARGE		307.2	67.4	0.000	0.000	0.000	0.000	0.09	3.82		
27.00	MG/L	325.0	62.0					50.00	1.00	41670	OWW
	LBS/DAY	112.9	21.5	0.000	0.000	0.000	0.000	17.38	0.35	0.56	DILUTION FACTOR
MG/L DISCHARGE		181.9	34.7	0.000	0.000	0.000	0.000	27.98	0.56		
5.00	MG/L									66760	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.60	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	395.5	104.0	0.003	.000	0.002	0.003	5.26	2.62		
4.00	LBS/DAY	148.5	39.3	0.001	.000	0.001	0.001	4.70	1.32		
MG/L DISCHARGE		221.9	57.9	0.001	.000	0.001	0.001	7.50	1.95		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/6/85
ANALYSTS: Nancy Lee / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9-6-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 20	+ 365			
TSS	mg/l	–	23	60	▲ 4	+ 154			
F^-	mg/l	–	6	20	▲ 3.0	5.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.01				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 19.2	▲ 20.5	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034513

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/17/85
ANALYSTS: W-200 / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/13/85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 7	+ 345			
TSS	mg/l	–	23	60	▲ 10	+ 80			
F^-	mg/l	–	6	20	▲ 4.2	< 1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.7	▲	
Temperature	°C	–	–	27			▲ 18.7	▲ 21.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034514

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/20/85
ANALYSTS: N. Lazo / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Peugelly	–	NPDES PARAMETER LIMITS							
Date 9/20/85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 8	+ 547			
TSS	mg/l	–	23	60	▲ 2	+ 120			
F^-	mg/l	–	6	20	▲ 4.8	6.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr total	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲	
Temperature	°C	–	–	27			▲ 17.2	▲ 21.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034515

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9/27/85
ANALYSTS: N-2220 / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 9/27/85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 15	+ 325			
TSS	mg/l	-	23	60	▲ 2	+ 62			
F^-	mg/l	-	6	20	▲ 2.6	< 1			
Cr^{6+}	mg/l	-	0.02	0.05	▲ < 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.003				
Phosphates	mg/l	-	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲	▲ 6.2	
Temperature	°C	-	-	27			▲ 18.4	▲ 20.9	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034516

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 9/13/85
1600 HRS; OWW 9/18/85 0830 HRS; PWW 9/17/85

SAMPLE ANALYZED BY: Elinor Levin DATE 9/18/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.20 PPM TCE ADDED TCE PPM	% RECOVERY
PWW 9/17/85	0.09	0.19	51 %
OWW 9/13/85	0.24	0.37	65 %
OWW 9/18/85	0.16	0.32	80 %

COPIES SENT TO: Greg Murray
FORM# 107-016

SCOEPA00034517

Wacker Siltronic Corporation
P. O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

September 11, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
P. O. Box1760
Portland, OR 97207

Dear Mr. Dulay:

Subject: August 1985 NPDES Monitoring Report

As per NPDES Permit Number 3847-J we are submitting the enclosed Monthly Monitoring Report for August, 1985.

For the month of August our discharge was well within compliance for all measured perameters.

Our pH only measured 18 minutes out of compliance for the month, or about 0.04% of the time.

Please call me at 243-2020, ext. 301, if you have any questions.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:ll

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Mal Russ
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)

NAME .CKER SILTRONIC CORPORATION

ADDRESS PO Box 03180
Portland, OR. 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

PERMIT NUMBER (1-16)	DISCHARGE NUMBER (17-19)
OR-003058-7	64

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85 (20-21)	08 (22-23)	01 (24-25)	TO	85 (26-27)	08 (28-29)	31 (30-31)

2834-J

93450

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	289,000	439,000	GPD	-	-	-	-		Continious Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
MV1 BOD	SAMPLE MEASUREMENT	33	64	#/D	2.0	11.4	22.0	Mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	120	240		-	45	90			"	"
MV1 TSS	SAMPLE MEASUREMENT	24	41	#/D	5	9	14	Mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		-	23	60			"	"
MV1 Cr 6+	SAMPLE MEASUREMENT	<.003	<.003	#/D	<.001	<.001	<.001	Mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			"	"
MV1 Cr Total	SAMPLE MEASUREMENT	.008	.012	#/D	<.002	.003	.004	Mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			"	"
MV1 Fluoride	SAMPLE MEASUREMENT	12	17.6	#/D	4.0	4.6	6.0	Mg/l		"	"
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			"	"
MV1 TTO	SAMPLE MEASUREMENT	-	-	-	-	-	.12	Mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	John Pittman	AREA CODE 503	NUMBER 243-2020	YEAR 85	MO 09	DAY 10
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034519

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME W..KER SILTRONIC CORPORATION
ADDRESS PO Box 03180
Portland, OR. 97203

FACILITY 7200 NW Front Ave
LOCATION Portland, OR. 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-00(
Expires 2-29-84

PERMIT NUMBER (2-16)	DISCHARGE NUMBER (17-19)	
OR-003058-7		2834-J / 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85 (20-21)	08 (22-23)	01 (24-25)	TO	85 (26-27)	08 (28-29)	31 (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	206,000	465,000	GPD	-	-	-	-		Continious Totalizing Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-		<.1	<.1	<.1	Mg/l	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	496,000	699,000	GPD	-	-	-			1/1 Totalizi Recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	21.7	22.9	24.1	°C	0	1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	-	-	-	4.0	-	<9.0	pH Unit	0	Continious Recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

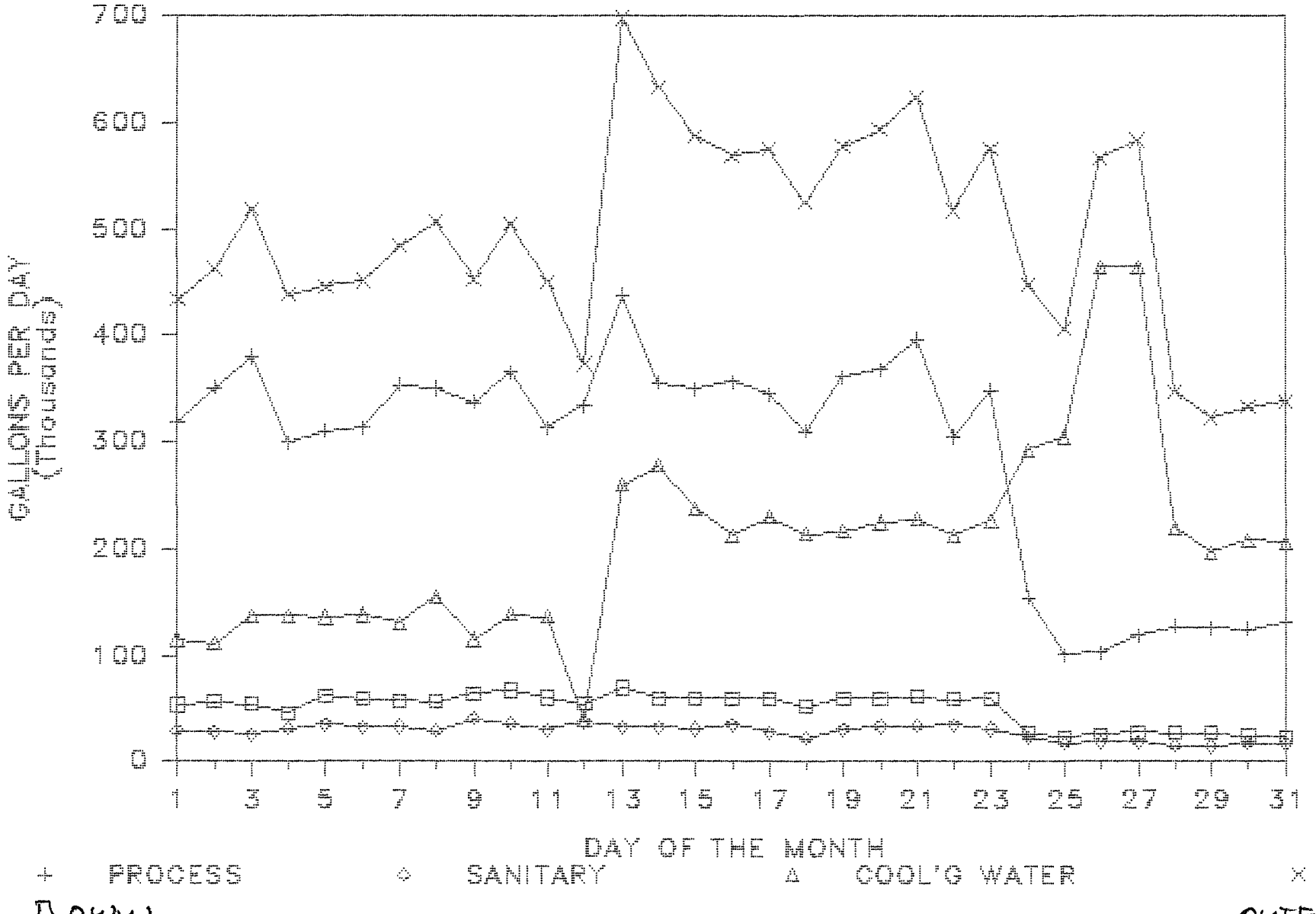
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
John Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	John Pittman	503	243-2020	85	09	10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)
pH was in compliance 99.9% of the time. Time out of compliance was 18 minutes, or .04% of the time.
No incidents were longer than 1 hour.

SCOEPA00034520

Aug of '85

WASTEWATER FLOWS



SCOEPA00034521

gwtp885 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
212.00	6.0 - 9.0	1	584955	785115	1637853	3273378	1	53670	318900	28700	115300	434200
213	0.00	2	590322	817005	1638140	3274531	2	56250	351650	28000	111800	463450
214	0.00	3	595947	852170	1638420	3275649	3	54320	380780	26100	138200	518980
215	0.00	4	601379	890248	1638681	3277031	4	46280	300540	31700	138100	438640
216	0.00	5	606007	920302	1638998	3278412	5	61680	310210	34400	136100	446310
217	0.00	6	612175	951323	1639342	3279773	6	58530	313290	32300	138400	451690
218	0.00	7	618028	982652	1639665	3281157	7	57870	353990	33200	130500	484490
219	0.00	8	623815	1018051	1639997	3282462	8	56050	351100	29200	155800	506900
220	0.00	9	629420	1053161	1640289	3284020	9	64310	337740	40300	115200	452940
221	0.00	10	635851	1086935	1640692	3285172	10	67310	366200	35600	139300	505500
222	0.00	11	642582	1123555	1641048	3286565	11	60600	313600	29800	136900	450500
223	0.00	12	648642	1154915	1641346	3287934	12	53700	334340	36600	39700	374040
224	0.00	13	654012	1188349	1641712	3288331	13	69770	438820	32200	260000	698820
225	0.00	14	660989	1232231	1642034	3290931	14	59990	356190	32300	278000	634190
226	0.00	15	666988	1267850	1642357	3293711	15	59260	349850	30500	238700	588550
227	0.00	16	672914	1302835	1642662	3296098	16	60270	357280	34400	212800	570080
228	0.00	17	678941	1338563	1643006	3298226	17	60170	345550	28000	230100	575650
229	0.00	18	684958	1373118	1643286	3300527	18	51820	310520	22100	214900	525420
230	0.00	19	690140	1404170	1643507	3302676	19	59750	362260	30100	216400	578660
231	0.00	20	696115	1440396	1643808	3304840	20	59600	368890	33000	225200	594090
232	0.00	21	702075	1477285	1644138	3307092	21	61410	396960	33400	227800	624760
233	0.00	22	708216	1516981	1644472	3309370	22	58840	305070	34600	212800	517870
234	0.00	23	714100	1547488	1644818	3311498	23	59910	349510	30500	227100	576610
235	18.00	24	720091	1582439	1645123	3313769	24	27220	154920	23600	292800	447720
236	18.00	25	722813	1597931	1645359	3316697	25	23730	101620	18000	305200	406820
237	18.00	26	725186	1608093	1645539	3319749	26	25920	102950	18800	465000	567950
238	18.00	27	727778	1618388	1645727	3324399	27	27880	119510	18700	464900	584410
239	18.00	28	730566	1630339	1645914	3329048	28	27220	127510	15900	220100	347610
240	18.00	29	733288	1643090	1646073	3331249	29	26800	126290	14400	197200	323490
241	18.00	30	735968	1655719	1646217	3333221	30	24260	124970	17200	208400	333370
242	18.00	31	738394	1668216	1646389	3335305	31	23400	132420	16800	206100	338520
243	18.00	1	740734	1681458	1646557	3337366	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	438820	69770	40300	465000	698820
MINIMUM FLOW GPD	101620	23400	14400	39700	323490
AVERAGE FLOW GPD	289143	50251	28077	206413	495556
MAXIMUM FLOW GPM	305	48	28	323	485
MINIMUM FLOW GPM	71	16	10	28	225
AVERAGE FLOW GPM	201	35	19	143	344
TOTAL FLOW GAL	8831010	1534390	853600	6192700	15023710

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
2.00	MG/L	3.0	14.0	0.001	0.002	6.0	22.80	0.10	351650
	LBS/DAY	8.8	41.1	0.003	0.006	17.6			
9.00	MG/L	8.0	5.0	0.001	0.003	4.1	24.10	0.10	337740
	LBS/DAY	22.5	14.1	0.003	0.008	11.5			
16.00	MG/L	22.0	12.0	0.001	0.004	4.0	21.70	0.10	357280
	LBS/DAY	65.6	35.8	0.003	0.012	11.9			
23.00	MG/L	22.0	7.0	0.001	0.004	4.6	22.20	0.10	349510
	LBS/DAY	64.1	20.4	0.003	0.012	13.4			
30.00	MG/L	2.0	7.0	0.001	0.003	4.1	23.60	0.10	124970
	LBS/DAY	2.1	7.3	0.001	0.003	4.3			
AVERAGE	MG/L CE	11.4	9.0	0.001	0.003	4.6	22.9	0.1	
5.00	LBS/DAY	32.6	23.7	0.003	0.008	11.7			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
2.00	MG/L	407.0	256.0						2.40	56250	OWW
	LBS/DAY	190.9	120.1	0.000	0.000	0.000	0.000	0.00	1.13	0.67	DILUTION FACTOR
MG/L DISCHARGE		271.7	170.9	0.000	0.000	0.000	0.000	0.00	1.60		
9.00	MG/L	602.0	176.0						1.20	64310	OWW
	LBS/DAY	322.9	94.4	0.000	0.000	0.000	0.000	0.00	0.64	0.61	DILUTION FACTOR
MG/L DISCHARGE		370.1	108.2	0.000	0.000	0.000	0.000	0.00	0.74		
16.00	MG/L	290.0	126.0						1.00	60270	OWW
	LBS/DAY	145.8	63.3	0.000	0.000	0.000	0.000	0.00	0.50	0.64	DILUTION FACTOR
MG/L DISCHARGE		184.6	80.2	0.000	0.000	0.000	0.000	0.00	0.64		
23.00	MG/L	467.0	622.0						8.70	59910	OWW
	LBS/DAY	233.3	310.8	0.000	0.000	0.000	0.000	0.00	4.35	0.66	DILUTION FACTOR
MG/L DISCHARGE		309.5	412.2	0.000	0.000	0.000	0.000	0.00	5.77		
30.00	MG/L	8.0	2.0						19.00	24260	OWW
	LBS/DAY	1.6	0.4	0.000	0.000	0.000	0.000	0.00	3.84	0.59	DILUTION FACTOR
MG/L DISCHARGE		4.7	1.2	0.000	0.000	0.000	0.000	0.00	11.12		
AVERAGE	MG/L	1774.0	1182.0	0.000	0.000	0.000	0.000	0.00	32.30		
1.00	LBS/DAY	894.5	589.0	0.000	0.000	0.000	0.000	0.00	10.46		
MG/L DISCHARGE		1140.6	772.7	0.000	0.000	0.000	0.000	0.00	19.86		

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-2-85
ANALYSTS: N. Lara

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S-Pengelly	–	NPDES PARAMETER LIMITS							
Date 8-2-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲- 3	+ 407			
TSS	mg/l	–	23	60	▲- 14	+ 256			
F^-	mg/l	–	6	20	▲- 6.0	2.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.001				
Cr^{total}	mg/l	–	0.3	1	▲- 0.002				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 21.2	▲ 22.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034523

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-9-85
ANALYSTS: N. Lee - [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 8-9-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲- 8	+ 602			
TSS	mg/l	–	23	60	▲ 5	+ 176			
F^-	mg/l	–	6	20	▲- 4.1	1.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.001				
Cr^{total}	mg/l	–	0.3	1	▲- 0.003				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.7	▲	
Temperature	°C	–	–	27			▲ 19.8	▲ 24.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034524

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-16-85
ANALYSTS: N. Fao

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 8-16-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲22	+296			
TSS	mg/l	–	23	60	▲12	+126			
F^-	mg/l	–	6	20	▲4.0	1.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.001				
Cr^{total}	mg/l	–	0.3	1	▲0.004				
Phosphates	mg/l	–	2	5			▲<0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.4	▲	
Temperature	°C	–	–	27			▲20.2	▲21.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034525

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-23-85
ANALYSTS: N. Lara / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 8-23-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲22	+467			
TSS	mg/l	-	23	60	▲7	+622			
F^-	mg/l	-	6	20	▲4.6	8.7			
Cr^{6+}	mg/l	-	0.02	0.05	▲<0.001	622			
Cr^{total}	mg/l	-	0.3	1	▲0.004				
Phosphates	mg/l	-	2	5			▲<0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲6.6	▲	
Temperature	°C	-	-	27			▲19.1	▲22.2	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD								
BOD	lbs./ Day		120	240					
TSS	lbs./ Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034526

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-30-85
ANALYSTS: N. Lao / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 8-30-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 2	+ 8			
TSS	mg/l	-	23	60	▲ 7	+ 2			
F^-	mg/l	-	6	20	▲ 4.1	19			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.003				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.5	▲	
Temperature	°C	-	-	27			▲ 20.4	▲ 23.6	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD								
BOD	lbs./Day		120	240					
TSS	lbs./Day		61	160					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Shutdown

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034527

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 8/9/85
1400 HRS, PWW 8/14/85 1120 HRS, OWW 8/14/85 1115 HRS

SAMPLE ANALYZED BY: Elinor Levin DATE 8/14/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.20 PPM TCE ADDED TCE PPM	% RECOVERY
OWW 8/9/85	3.98	Not Determined	
PWW 8/14/85	0.12	0.23	60 %
OWW 8/14/85	0.16	0.40	80 %

COPIES SENT TO: Greg Lam, Murray Tilson
FORM# 107-016

SCOEPA00034528

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P O Box 03180
Portland, OR 97203
7200 N W Front Ave
Portland, OR 97210
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

August 9, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: July 1985 NPDES Monitoring Report

As per NPDES Permit Number 3847-J, we are submitting the enclosed Monthly Monitoring Report for July 1985.

For the month of July, we were well within our interim compliance limits for all measured parameters.

Please call me at 243-2020, extension 301, if you have any questions.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:jm

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
John Pittman
Mal Russ
Jerry Schaeffer

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME Wacker Siltronic Corporation

ADDRESS PO Box 03180
Portland, Oregon 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, Oregon 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 63

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	07	01	TO	85	07	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	148,000	222,000	GPD	-	-	-	-		Continious Totalizing recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Total PO_3 MV3	SAMPLE MEASUREMENT	-	-	-	.1	.13	.2	mg/l		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	2.0	5.0			1/7	Grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	489,000	591,000	GPD	-	-	-			1/1 Totalizing recorder	
	PERMIT REQUIREMENT	-	-		-	-	-				
Outfall Temperature	SAMPLE MEASUREMENT	-	-	-	19.7	20.5	21.8	°C		1/7	Grab
	PERMIT REQUIREMENT	-	-		-	-	29.4			1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	-	-	-	6.0	-	9.0	pH unit	0	Continious recorder	
	PERMIT REQUIREMENT	-	-		6.0	-	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: John Pittman/Dir. Engineering (TYPED OR PRINTED)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 08 | DAY 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

pH was in compliance 100% of the time. Time out of compliance was 0 minutes, or 0% of the time.
No incidents were longer than 1 hour.

SCOEPA00034530

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME Wacker Siltronic Corporation

ADDRESS PO Box 03180
Portland, Oregon 97203

FACILITY 7200 NW Front Ave.

LOCATION Portland, Oregon 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 63

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	07	01	TO	85	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	341,000	434,000	GPD	-	-	-	-		Continious totalizing recorder	
	PERMIT REQUIREMENT	-	-		-	-	-		-		
MV1 BOD	SAMPLE MEASUREMENT	45.5	87.7	#/D	6.0	15.8	27.0	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		-	45	90		0	1/7	24 HC
MV1 TSS	SAMPLE MEASUREMENT	24.5	27.5	#/D	7.0	10.0	16.0	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	61	160		-	23	60		0	1/7	24 HC
MV1 Cr6+	SAMPLE MEASUREMENT	<.003	.003	#/D	<.001	<.001	.001	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.03	.1		-	.02	.05			1/7	24 HC
MV1 Cr Total	SAMPLE MEASUREMENT	.013	.02	#/D	<.005	.005	.007	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	.5	1.0		-	.3	1.0			1/7	24 HC
MV1 Fluoride	SAMPLE MEASUREMENT	10.3	14.6	#/D	2.9	3.9	4.5	mg/l		1/7	24 HC
	PERMIT REQUIREMENT	21.4	42.7		-	8	16			1/7	24 HC
MV1 TTO	SAMPLE MEASUREMENT	-	-		-	-	.11	mg/l		1/30	Grab
	PERMIT REQUIREMENT	-	-		-	-	1.37			1/30	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

John Pittman/Dir Engineering

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years)*

John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

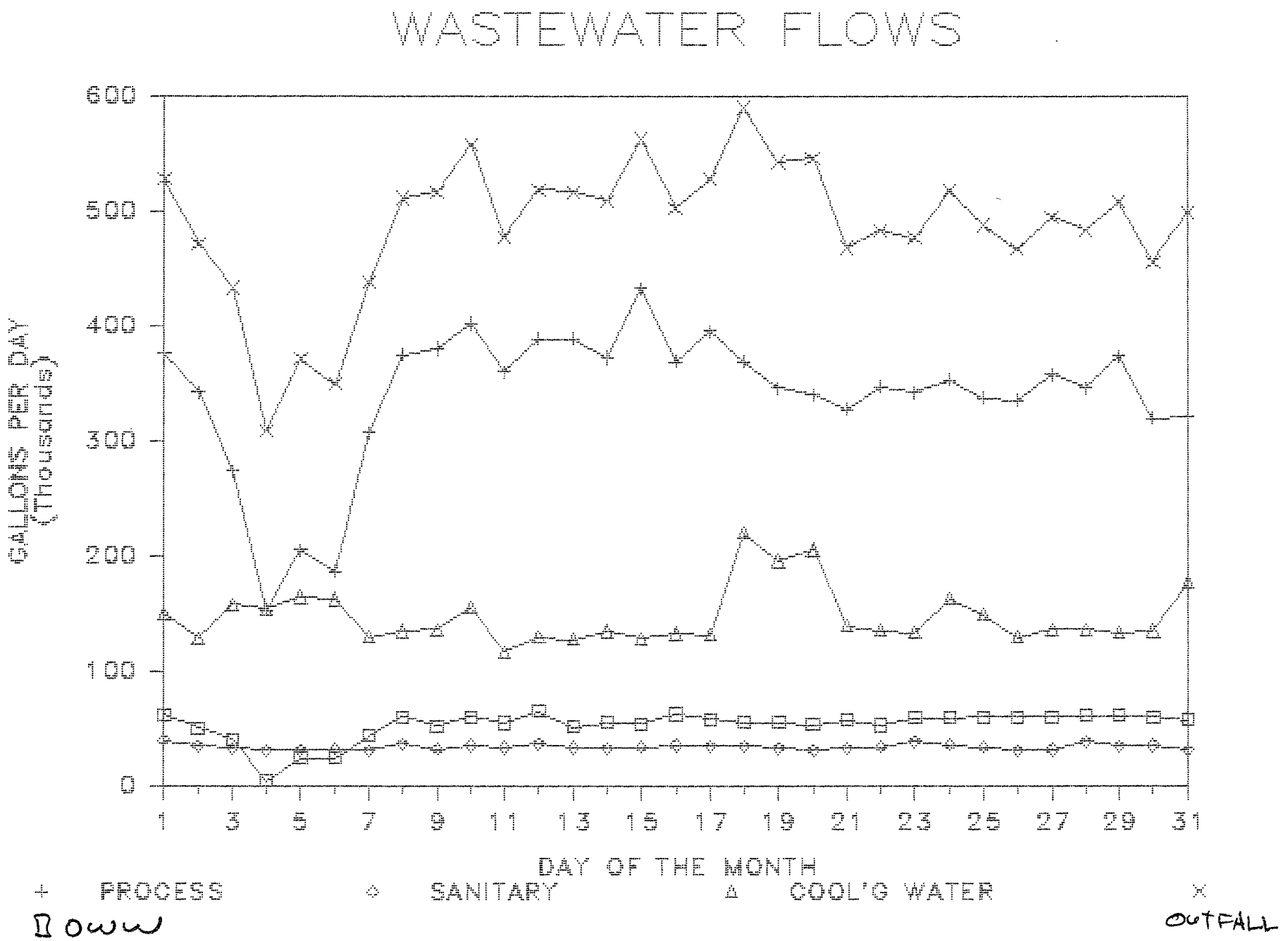
TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 85 MO 08 DAY 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034531

July '85



SCOEPA00034532

dwtp785 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
181.00	6.0 - 9.0	1	418388	729292	1627091	3227357	1	63260	377270	40400	151600	528870
182	*	2	424714	767019	1627495	3228873	2	51000	343020	35500	130000	473020
183	*	3	429814	801321	1627850	3230173	3	41430	274570	33600	159500	434070
184	*	4	433957	828778	1628186	3231768	4	5400	154730	31900	155500	310230
185	*	5	434497	844251	1628505	3233323	5	24620	206200	32000	165600	371800
186	*	6	436959	864871	1628825	3234979	6	24930	187340	32700	163600	350940
187	*	7	439452	883605	1629152	3236615	7	44890	308080	31600	130600	438680
188	*	8	443941	914413	1629468	3237921	8	61170	376320	37700	136300	512620
189	*	9	450058	952045	1629845	3239284	9	53520	381110	33000	137400	518510
190	*	10	455410	990156	1630175	3240658	10	60920	402660	36100	156400	559060
191	*	11	461502	1030422	1630536	3242222	11	55780	361110	33900	117500	478610
192	*	12	467080	1066533	1630875	3243397	12	66240	389380	37800	130300	519680
193	*	13	473704	1105471	1631253	3244700	13	52740	389300	34100	128700	518000
194	*	14	478978	1144401	1631594	3245987	14	56720	373580	33800	136300	509880
195	*	15	484650	1181759	1631932	3247350	15	55140	433580	34300	130000	563580
196	*	16	490164	1225117	1632275	3248650	16	63650	370340	36100	134000	504340
197	*	17	496529	1262151	1632636	3249990	17	59420	396580	35600	132600	529180
198	*	18	502471	1301809	1632992	3251316	18	56220	369780	35400	221500	591280
199	*	19	508093	1338787	1633346	3253531	19	56460	347170	33500	196800	543970
200	*	20	513739	1373504	1633681	3255499	20	54230	341020	31800	206500	547520
201	*	21	519162	1407606	1633999	3257564	21	58230	329020	33600	140400	469420
202	*	22	524985	1440508	1634335	3258968	22	53960	348720	34400	136400	485120
203	*	23	530381	1475380	1634679	3260332	23	60320	343190	39700	134900	478090
204	*	24	536413	1509699	1635076	3261681	24	59940	354500	36300	164500	519000
205	*	25	542407	1545149	1635439	3263326	25	61060	338650	35000	150600	489250
206	*	26	548513	1579014	1635789	3264832	25	60650	337040	31300	131000	468040
207	*	27	554578	1612718	1636102	3266142	25	60650	359030	32500	137200	496230
208	*	28	560643	1648621	1636427	3267514	25	62060	347520	39900	137200	484720
209	*	29	566849	1683373	1636826	3268886	25	61900	374350	35300	134900	509250
210	*	30	573039	1720808	1637179	3270235	25	60650	320900	36200	136300	457200
211	*	31	579104	1752898	1637541	3271598	25	58510	322170	31200	178000	500170
212	*	1	584955	1785115	1637853	3273378	25					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	433580	66240	40400	221500	591280
MINIMUM FLOW GPD	154730	5400	31200	117500	310230
AVERAGE FLOW GPD	340588	53731	34716	148455	489043
MAXIMUM FLOW GPM	301	46	28	154	411
MINIMUM FLOW GPM	107	4	22	82	215
AVERAGE FLOW GPM	237	37	24	103	340
TOTAL FLOW GAL	10236060	1607160	1045000	4424100	14660160

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
5.00	MG/L	6.0	16.0	0.001	0.006	4.1	20.20	.1	206200
	LBS/DAY	10.3	27.5	0.002	0.010	7.1			
12.00	MG/L	27.0	8.0	0.001	0.003	4.5	19.70	.2	389380
	LBS/DAY	87.7	26.0	0.003	0.010	14.6			
19.00	MG/L	17.0	7.0	0.001	0.007	2.9	21.80	.1	347170
	LBS/DAY	49.2	20.3	0.003	0.020	8.4			
26.00	MG/L	13.0	9.0	0.001	0.005	4.2	20.40	.1	322170
	LBS/DAY	34.9	24.2	0.003	0.013	11.3			
5.00	MG/L								206200
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	15.8	10.0	0.001	0.005	3.9			
4.00	LBS/DAY	45.5	24.5	0.003	0.013	10.3		*1.25	

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
5.00	MG/L	743.0	32.0					0.20	1.30	24620 OWW
	LBS/DAY	152.6	6.6	0.000	0.000	0.000	0.000	0.04	0.27	0.43 DILUTION FACTOR
MG/L DISCHARGE		323.1	13.9	0.000	0.000	0.000	0.000	0.09	0.57	
12.00	MG/L	417.0	228.0	0.021	0.001	0.020	0.010	0.12	21.00	66240 OWW
	LBS/DAY	230.4	126.0	0.012	.000	0.011	0.006	0.07	11.60	0.64 DILUTION FACTOR
MG/L DISCHARGE		265.5	145.2	0.013	.000	0.013	0.006	0.08	13.37	
19.00	MG/L	375.0	192.0					0.35	7.20	56460 OWW
	LBS/DAY	176.6	90.4	0.000	0.000	0.000	0.000	0.16	3.39	0.63 DILUTION FACTOR
MG/L DISCHARGE		235.4	120.5	0.000	0.000	0.000	0.000	0.22	4.52	
26.00	MG/L	695.0	256.0					0.38	6.40	58510 OWW
	LBS/DAY	339.1	124.9	0.000	0.000	0.000	0.000	0.19	3.12	0.65 DILUTION FACTOR
MG/L DISCHARGE		453.3	167.0	0.000	0.000	0.000	0.000	0.25	4.17	
5.00	MG/L									24620 OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.43 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
AVERAGE	MG/L	557.5	177.0	0.005	.000	0.005	0.003	0.26	8.98	
4.00	LBS/DAY	224.7	87.0	0.003	.000	0.003	0.001	0.11	4.60	
MG/L DISCHARGE		319.3	111.6	0.003	.000	0.003	0.002	0.16	5.66	

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION: Trace metal analysis of the organic waste water (OWW) for Zn, Cr, Cd, and As.
Zn method: EPA Method No. 289.1 AAS Flame
Cd method: EPA Method No. 213.2 AAS Graphite Furnace
Cr method: EPA Method No. 218.2 AAS Graphite Furnace
As method: EPA Method No. 206.2 AAS Graphite Furnace

To two OWW samples, spikes of 0.025ug/ml and 0.050 ug/ml Cr,Cd, and Zn were added. The same sample preparation was followed for the two spiked samples as well as for a OWW sample and a reagent blank. All three metal analyses were done using standard additions methods with the filtered digested sample solutions. A volume of 200 ml of OWW sample was evaporated and digested with nitric acid. The digested sample was brought to a final volume of 100 ml for analysis. Zinc concentrations in the sample were high enough to permit the use of AAS Flame spectrometry.

For the As determination, a reagent blank, an OWW sample and a spiked OWW sample were digested. The As concentration of each of these three samples was determined by standard additions. The standard additons were added to aliquots of the digested, filtered samples.

SAMPLE COLLECTED BY: Sam Pengelly DATE 7/12/85

SAMPLE ANALYZED BY: Howard Hogle DATE 7/30-31/85

RESULTS:

	[Zn]	[Cd]	[Cr]	[As]
ppm	0.020	<0.0005	0.021	<0.01
S.D.	0.003	-	0.001	-
RSD %	15	-	4.1	-

Recovery on the As spike was 100%.

COPIES SENT TO: Greg, Murray
FORM# 107-016

SCOEPA00034534

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE OWW 7/26/85
10.00 HRS. OWW 8/1/85 0830 HRS

SAMPLE ANALYZED BY: Elinor Levin DATE 8/1/85

RESULTS:

7/2 .20

SAMPLE	TCE PPM	SAMPLE PLUS 0.20 PPM TCE ADDED TCE PPM	% RECOVERY
OWW 7/26/85	0.38	No Results*	
OWW 8/1/85	0.16	0.30	70 %

* Silicon Solids congealed in the pentane layer and centrifugation alone did not result in separation nor did addition of more sodium chloride cause separation. Usually one of these methods work in separating out the solvent extract when there is a problem. Removal of the pentane and silicon solids to a small vial and centrifugation did not result in a sufficient volume of solvent extract for analysis.

COPIES SENT TO: Murray, Greg
FORM# 107-016

SCOEPA00034535

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/5/85
ANALYSTS: N. Lee / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 7-5-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 6	+ 743			
TSS	mg/l	–	23	60	▲ 16	+ 32			
F^-	mg/l	–	6	20	▲ 4.1	1.3			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <.005				
Cr^{total}	mg/l	–	0.3	1	▲ .006				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.5	▲	
Temperature	°C	–	–	27			▲ 20.2	▲ 23.3	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.1547		.1555	.3102	
BOD	lbs./ Day		120	240	7.7				
TSS	lbs./ Day		61	160	20.6				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034536

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/12/85
ANALYSTS: N. Lord / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 7-12-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲- 27	+ 417			
TSS	mg/l	–	23	60	▲- 8	+ 228			
F^-	mg/l	–	6	20	▲- 4.5	21			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <.005				
Cr^{total}	mg/l	–	0.3	1	▲- .003				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 19.7	▲ 24.1	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.3611		.1175	.4786	
BOD	lbs./ Day		120	240	81.3				
TSS	lbs./ Day		61	160	24.1				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034537

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/19/85
ANALYSTS: N. Lee / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 7-19-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲- 17	+ 375			
TSS	mg/l	-	23	60	▲ 7	+ 192			
F^-	mg/l	-	6	20	▲- 2.9	7.2			
Cr^{6+}	mg/l	-	0.02	0.05	▲- <.005				
Cr^{total}	mg/l	-	0.3	1	▲ .007				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.1	▲	
Temperature	°C	-	-	27			▲ 21.8	▲ 23.9	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD				.3698		.2215		
BOD	lbs./ Day		120	240	52.4				
TSS	lbs./ Day		61	160	21.6				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

	BOD	COD
Process W.W.	17	17
Clarifier	4	48
WAD	17	11

SCOEPA00034538

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/28/85
ANALYSTS: N. Evans / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	—	NPDES PARAMETER LIMITS							
Date 7-26-85	—								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	—	45	90	▲13	+695			
TSS	mg/l	—	23	60	▲9	+256			
F^-	mg/l	—	6	20	▲4.2	6.4			
Cr^{6+}	mg/l	—	0.02	0.05	▲<.005				
Cr^{total}	mg/l	—	0.3	1	▲.005				
Phosphates	mg/l	—	2	5			▲0.1		
Free Avail. Chlorine	mg/l	—	0.2	0.5			▲		
pH	pH units	6	—	9			▲6.7	▲	
Temperature	°C	—	—	27			▲20.4	▲24.2	
Turbidity	NTU	—	—	—					
Conductivity	μmho's cm	—	—	—					
Flow	MGD				.3385		.1506	.4891	
BOD	lbs./ Day		120	240	36.7				
TSS	lbs./ Day		61	160	25.4				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

	BOD	COD
Process WW	13	19
Clarifier	15	47
WAD	15	15

SCOEPA00034539

WASTE WATER BOD COD DATA

SAMPLE	DATE	BOD mg/l	COD mg/l	RATIO
COMBINED EFF	7/19/85	17	17	1.0
CLARIFIER	7/19/85	4	48	.083
WAD	7/19/85	17	11	1.5
COMBINED EFF	7/26/85	13	19	.68
CLARIFIER	7/26/85	15	47	.32
WAD	7/26/85	15	15	1.0
COMBINED EFF	8/2/85	3	12	.25
CLARIFIER	8/2/85	5	16	.31
WAD	8/2/85	4	10	.40

Greg Carr

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengell DATE OWW 7/12/85 1050 HRS , PWW 7/17/85 1200 HRS, OWW 7/17/85 1200 HRS

SAMPLE ANALYZED BY: Elmer Levin DATE 7/17/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.20 PPM TCE ADDED TCE PPM	% RECOVERY
OWW 7/12/85	0.12	0.30	90 %
PWW 7/17/85	0.11	0.20	45 %
OWW 7/17/85	0.35	0.48	65 %

COPIES SENT TO: Greg, Murray

FORM# 107-016

SCOEPA00034542

RECEIVED
ENGINEERING
JUL 11 1985

John L. Pittman
Wacker Siltronic

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

July 10, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: June 1985 NPDES Monitoring Report

As per NPDES Permit Number 3847-J we are submitting the enclosed Monthly Monitoring report for June 1985.

For the month of June our discharge was well within compliance for all measured parameters.

Our effluent pH was within compliance for all but 22 minutes during the month. Our BOD discharge easily achieved our interim limits and was slightly above our October 1986 limits. A COD analyzer has been ordered to help us track unwanted chemicals in our drains that flow through our Waste Treatment Plant into the Willamette River. Our TSS discharge was well under the compliance limits.

Please call me at 243-2020, extension 301, if you have any questions.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MMT:jm

Enclosure

cc: Greg Carr
Jim Ellis
Jim Harper
✓John Pittman
Mal Russ

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME Wacker Siltronic Corporation
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

(2-16) PERMIT NUMBER: OR-0003058-7
(17-19) DISCHARGE NUMBER: 62

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	06	01	TO	85	06	30

Form Approved
OMB No. 2040-0004
Expires 2-29-84

2834-J
93450

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	383,000	447,000	GPD	—	—	—	—		continuous totalizing recorder	
	PERMIT REQUIREMENT	—	—		—	—	—				
MV1 BOD	SAMPLE MEASUREMENT	58	104	#/D	7.0	17.5	30	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	120	240		—	45	90			"	"
MV1 TSS	SAMPLE MEASUREMENT	42	70	#/D	7.0	12.8	21	mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		—	23	60			"	"
MV1 Cr 6+	SAMPLE MEASUREMENT	<.007	.007	#/D	<.002	<.002	.002	mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		—	.02	.05			"	"
MV1 Cr Total	SAMPLE MEASUREMENT	.029	.042	#/D	.006	.009	.012	mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		—	.3	1.0			"	"
MV1 Fluoride	SAMPLE MEASUREMENT	13.2	15.6	#/D	3.3	4.0	4.6	mg/l	0	"	"
	PERMIT REQUIREMENT	21.4	42.7		—	8	16			"	"
MV1 TTO	SAMPLE MEASUREMENT	—	—	—	—	—	✓0	mg/l	0	1/30	Comb
	PERMIT REQUIREMENT	—	—		—	—	1.37			"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
JP Hman / Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE 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 SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years*)	John Pittman	503	243-2020			
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

SCOEPA00034544

PERMITTEE NAME/ADDRESS (*Include Facility Name/Location if different*)
NAME Wacker Siltronic Corporation
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (*NPDES*)
DISCHARGE MONITORING REPORT (*DMR*)

Form Approved
OMB No. 2040-0004
Expires 2-29-84

(2-16) PERMIT NUMBER: OR-0030538-7
(17-19) DISCHARGE NUMBER: 62

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	06	01	TO	85	06	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	~~134~~,000	~~159~~,000	GPD	—	—	—	—		Continuous	
	PERMIT REQUIREMENT	—	—		—	—	—			Totalizing recorder	
Total $PO_3^{\equiv}$ MV3	SAMPLE MEASUREMENT	—	—	—	<.1	<.1	<.1		0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	2.0	5.0			1/7	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	514,000	573000	GPD	—	—	—	—		1/1	Totalizing recorder
	PERMIT REQUIREMENT	—	—		—	—	—				
Outfall Temperature	SAMPLE MEASUREMENT	—	—	—	18.1	21.1	24.6	°C	0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	—	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	—	—	—	5.8	—	10.4	pH unit	0	continuous	
	PERMIT REQUIREMENT	—	—		6.0	—	9.0			recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
J Pittman/Dir. Engineering	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE 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. SEE 18 USC § 1001 AND 33 USC § 1319 (*Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.*)	John Pittman	503	243-2020	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER			

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)
pH was in Compliance 99.9 % of the time. Time out of compliance was 22 minutes, or .05 % of the time. No incidents were longer than 1 hour.

SCOEPA00034545

dwtp685 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
151.00	6.0 - 9.0	1	246397	573978	1616010	3188158	1	40140	236000	31200	159000	395000
152	0.00	2	250411	597578	1616322	3189748	2	51280	313850	30900	123900	437750
153	0.00	3	255539	628963	1616631	3190987	3	55670	401620	32500	140700	542320
154	0.00	4	261106	669125	1616956	3192394	4	50170	368010	35100	131600	499610
155	0.00	5	266123	705926	1617307	3193710	5	57130	391170	36400	126200	517370
156	0.00	6	271836	745043	1617671	3194972	6	55760	365350	39300	132300	497650
157	0.00	7	277412	781578	1618064	3196295	7	59560	416180	40200	128100	544280
158	0.00	8	283368	823196	1618466	3197576	8	52560	413110	34300	134800	547910
159	0.00	9	288624	864507	1618809	3198924	9	52730	356310	34700	122200	478510
160	0.00	10	293897	900138	1619156	3200146	10	54170	359800	36500	127200	487000
161	0.00	11	299314	936118	1619521	3201418	11	57260	413300	36900	130100	543400
162	0.00	12	305040	977448	1619890	3202719	12	64060	428330	42600	123800	552130
163	0.00	13	311446	1020281	1620316	3203957	13	60040	406110	39600	126600	532710
164	0.00	14	317450	1060892	1620712	3205223	14	59540	400030	39700	126200	526230
165	0.00	15	323404	1100895	1621109	3206485	15	59440	447010	37700	125800	572810
166	0.00	16	329348	1145596	1621486	3207743	16	59920	440910	37900	124300	565210
167	0.00	17	335340	1189687	1621865	3208986	17	58000	415240	27500	129100	544340
168	0.00	18	341140	1231211	1622140	3210277	18	58610	401930	44500	128600	530530
169	0.00	19	347001	1271404	1622585	3211563	19	55590	366000	36100	126400	492400
170	0.00	20	352560	1308004	1622946	3212827	20	55460	359380	39100	127800	487180
171	0.00	21	358106	1343942	1623337	3214105	21	68790	392500	36900	151500	544000
172	0.00	22	364985	1383192	1623706	3215620	22	59680	368130	35900	146800	514930
173	0.00	23	370953	1420005	1624065	3217088	23	56570	354580	34600	134400	488980
174	0.00	24	376610	1455463	1624411	3218432	24	59050	369370	39700	120600	489970
175	0.00	25	382515	1492400	1624808	3219638	25	67410	400020	41000	136000	536020
176	8.30	26	389256	1532402	1625218	3220998	26	61990	391850	38000	133000	524850
177	21.70	27	395455	1571587	1625598	3222328	27	56330	370440	37500	122600	493040
178	21.70	28	401088	1608631	1625973	3223554	28	55770	379410	35900	126800	506210
179	21.70	29	406665	1646572	1626332	3224822	29	61650	393730	40900	124900	518630
180	21.70	30	412830	1685945	1626741	3226071	30	48660	377450	35000	128600	506050
181	*	1	417696	1723690	1627091	3227357	1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	447010	68790	44500	159000	572810
MINIMUM FLOW GPD	236000	40140	27500	120600	395000
AVERAGE FLOW GPD	383237	57100	36937	130663	513901
MAXIMUM FLOW GPM	310	48	31	110	398
MINIMUM FLOW GPM	164	28	19	84	274
AVERAGE FLOW GPM	266	40	26	91	357
TOTAL FLOW GAL	11497120	1712990	1108100	3919900	15417020

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
7.00	MG/L	30.0	7.0	0.002	0.012	4.5	19.40	0.10	416180
	LBS/DAY	104.1	24.3	0.007	0.042	15.6			
14.00	MG/L	7.0	21.0	0.002	0.006	4.6	18.10	0.10	400030
	LBS/DAY	23.4	70.1	0.007	0.020	15.3			
21.00	MG/L	22.0	7.0	0.002	0.008	3.3	22.10	0.10	392500
	LBS/DAY	72.0	22.9	0.007	0.026	10.8			
27.00	MG/L	11.0	16.0	0.002	0.009	3.6	24.60	0.10	370440
	LBS/DAY	34.0	49.4	0.006	0.028	11.1			
5.00	MG/L								391170
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	17.5	12.8	0.002	0.009	4.0			
4.00	LBS/DAY	58.4	41.7	0.007	0.029	13.2			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS
7.00	MG/L	463.0	138.0					0.16	1.60	59560 OWW
	LBS/DAY	230.0	68.5	0.000	0.000	0.000	0.000	0.08	0.79	0.60 DILUTION FACTOR
MG/L DISCHARGE		276.4	82.4	0.000	0.000	0.000	0.000	0.10	0.96	
14.00	MG/L	563.0	1056.0					0.21	0.20	59540 OWW
	LBS/DAY	279.6	524.4	0.000	0.000	0.000	0.000	0.10	0.10	0.60 DILUTION FACTOR
MG/L DISCHARGE		337.8	633.6	0.000	0.000	0.000	0.000	0.13	0.12	
21.00	MG/L	342.0	306.0	0.003	0.001	0.028	0.010	0.17	0.30	68790 OWW
	LBS/DAY	196.2	175.6	0.002	0.001	0.016	0.006	0.10	0.17	0.65 DILUTION FACTOR
MG/L DISCHARGE		222.6	199.2	0.002	0.001	0.018	0.007	0.11	0.20	
27.00	MG/L	512.0	296.0					0.24	4.10	56330 OWW
	LBS/DAY	240.5	139.1	0.000	0.000	0.000	0.000	0.11	1.93	0.60 DILUTION FACTOR
MG/L DISCHARGE		307.4	177.7	0.000	0.000	0.000	0.000	0.14	2.46	
5.00	MG/L									57130 OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.61 DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	
AVERAGE	MG/L	470.0	449.0	0.001	.000	0.007	0.003	0.15	0.98	
4.00	LBS/DAY	236.6	226.9	.000	.000	0.004	0.001	0.10	0.75	
MG/L DISCHARGE		286.0	273.2	.000	.000	0.005	0.002	0.12	0.93	

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/7/85
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 6-7-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 30	+ 463			
TSS	mg/l	-	23	60	▲ 7	+ 138			
F^-	mg/l	-	6	20	▲ 4.5	1.6			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.012				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.3	▲	
Temperature	°C	-	-	27			▲ 18.2	▲ 19.4	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD				.3657		.1323	.4980	
BOD	lbs./Day		120	240	91.5				
TSS	lbs./Day		61	160	21.3				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034547

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/14/85
ANALYSTS: N. Dan

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6-14-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲- 7	+ 563			
TSS	mg/l	–	23	60	▲- 21	+ 1056			
F^-	mg/l	–	6	20	▲- 4.6	0.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.002				
Cr^{total}	mg/l	–	0.3	1	▲- 0.006				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.1	▲	
Temperature	°C	–	–	27			▲ 17.9	▲ 18.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.4079		.1266	.5345	
BOD	lbs./ Day		120	240	23.8				
TSS	lbs./ Day		61	160	71.4				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034548

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/21/85
ANALYSTS: N. Low / [signature]

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 6-21-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 22	+ 342			
TSS	mg/l	-	23	60	▲ 7	+ 306			
F^-	mg/l	-	6	20	▲ 3.3	0.3			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.008				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.4	▲	
Temperature	°C	-	-	27			▲ 18.6	▲ 22.1	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD				.3618		.1278	.4896	
BOD	lbs./Day		120	240	66				
TSS	lbs./Day		61	160	21				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6/27/85
ANALYSTS: N. Lee / [signature]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 6-27-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 11	+ 512			
TSS	mg/l	-	23	60	▲ 16	+ 296			
F^-	mg/l	-	6	20	▲ 3.6	4.1			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.009				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.7	▲	
Temperature	°C	-	-	27			▲ 19.8	▲ 24.6	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD				.3776		.1330	.5106	
BOD	lbs./Day		120	240	35				
TSS	lbs./Day		61	160	50				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

Greg Carr

TO: John Pittman

FROM: Murray Tilson M.Tils

SUBJECT: Environmental Program Update

DATE: June 12, 1985

The following will serve as an environmental program update for Facilities Operations.

pH Control

1. With the relocation of the read-out instrumentation from the outfall to the Waste Treatment Plant, we are able to achieve compliance.

2. Our pH outage from June 1 to June 12 has been 0.0 minutes. (We are allowed 1% outage or 172.8 minutes so far for the month.)

BOD Control

1. The recent slicing/plate prep diversion has allowed us to achieve compliance with our interim limits of 45 mg/l and final limits of 15 mg/l.

2. A summary of effluent data for May is shown below:

Date	BOD Concentration (mg/l)	TSS Concentration (mg/l)
5/3	1.0	2.0
5/10	26.0	7.0
5/17	6.0	7.0
5/24	4.0	8.0
5/30	1.0	1.0
Monthly Average	7.6	5.0

3. In-Plant Control-at-the-Source program.

   a. Completed a drain survey identifying 120+ drains, noting location, drain type, etc. This is placed on a D-Base III computer program.

   b. We had a meeting with managers on June 11 to review the drain survey and color coded map.

   c. We also had a meeting with Engineering supervisors on June 12 to review the drain survey as requested by Otto Sweep.

TSS Control

1. Effluent data for the month of May averaged 5.0 mg/l, well below our current and proposed permit limits.

2. Presently reviewing a "draft" of a report from CH2M-Hill on the Waste Treatment Plant Study recently completed.

3. We have made some operational changes to the clarifier such as increased alum feed, pH adjustment in the CAD neutralization tank, change in alum feed location, etc. This has resulted in a much higher effluent quality from the clarifier.

TCE Stripper

1. Modifications have been completed and a protective coating has been applied to the containment area.

2. We are presently able to operate the stripper, but still have minor repairs to make. This will be achieved after we complete stripping our present back-log of waste contained in our SOD-T and SOD-C tank and two tank trucks.

MMT:jm

cc: Greg Carr

Greg Carr

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

June 11, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

Subject: Review Meeting of June 11, 1985

I am writing this letter to summarize today's meeting in which we reviewed the status of all outstanding environmental projects at Wacker Siltronic. I requested this meeting as I had just returned from a five week absence and felt a project update was in order.

The general subjects that were discussed are listed below along with the current status of the project:

NPDES Permit

- pH

  The current NPDES Permit required the point of continuous pH monitoring to be relocated from the discharge at the Wastewater Plant itself to the combined outfall near the Willamette River. A new pH meter was installed in October 1984 to comply with the permit, but the feedback for the control remained at the Wastewater Plant discharge.

  During late April, 1985, the installation was revised to provide feedback from the outfall. This revision has helped pH compliance significantly.

  Also, several minor streams from the facilities area were physically diverted from the outfall to the Wastewater Plant for neutralization, just in case some acidity or alkalinity entered the system.

  Action Plan

  pH was well in compliance for May 1985 and is in compliance so far in June. The plan is to continue with evaluation of previous actions.

. TSS

CH2M-Hill was contracted earlier in the year to study the clarifier and other operations so that changes in equipment or procedures could be recommended. Several operational procedure changes were implemented during March and in April which appear to have a beneficial result as TSS concentrations are now in compliance with current limits as well as October 1986 limits. During this evaluation period, however, production rates in the wafer plant have been low, which has contributed somewhat to the improvement.

CH2M-Hill has also run a trial on an ultrafilration system, which has demonstrated encouraging results as a polishing unit for the clarifier should such equipment be necessary.

Action Plan

Since current values for TSS are in compliance, we will continue collecting data to evaluate the future effect of increased production rates on TSS levels. Clarifier flows will be shown on future progress reports.

. BOD

On April 11, 1985, the slicing waste stream of 10 - 15 gpm was diverted to the City sewer in an attempt to decrease BOD levels in the river outfall. To date, it appears that this diversion was effective in reducing the BOD concentration to less than 10 ppm. It is our opinion that increases in production will not raise BOD concentrations as significantly as it will raise TSS levels.

Infrequent spikes in BOD are believed to be caused by waste disposal errors in the process areas. These errors will be corrected by a training program which is being initiated during July for re-training of existing employees and orientation training of new employees.

Drain labeling has been updated as well as the documentation which states chemical disposal by drain type. Other documentation which is required by the training program has also been updated.

Action Plan

We will continue collecting data to evaluate the future effect of more intensive training and increased production rates on BOD levels. We will also continue evaluation of technical solutions for further reduction of BOD.

. TTO

This parameter is in compliance and projected to remain in compliance.

. Underground TCE Byproduct Tanks (Out-of-Service)

The underground TCE Byproduct Tanks were taken out of service several years ago and then cleaned and filled with inert sand. It is Siltronic Management's position that these tanks should be excavated and removed from the plant site. In addition, we propose that a monitoring well be installed in the center of the area after tank removal. Because the tanks are located very close to the aboveground TCE storage tank containment basins and to the plant road, it is anticipated that shoring and partial demolition of the asphalt road will be necessary during the removal process. Repair of the road will have to be completed immediately after soil replacement. A monitoring well will allow for representative sampling of the groundwater at this point.

The above summary is an attempt to document today's conversation. Please call if you have questions or comments. A technical progress report with comprehensive data in regard to the above NPDES projects will be sent to you next week.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis
Acting Facilities Manager

JRE:jm

cc: Greg Carr, Jim Harper, John Pittman, Mal Russ, Murray Tilson, File

Greg Carr

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

June 10, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
Portland, Oregon 97204

Dear Mr. Dulay:

Subject: May 1985 NPDES Monitoring Report

As per NPDES Permit Number 3847-J we are submitting the attached Monthly Montoring report for June, 1985.

Recent modifications to our Waste Treatment System has allowed our facility to be in compliance on all monitoring parameters for the month of May. Our Slicing/Plate Preparation Diversion Project has resulted in the majority of our BOD loading to discharge into the city's system. We are now well below the current effluent limits and should be able to achieve the 15 mg/l concentration limit required by our October 1, 1986 compliance date.

With some operational changes made to our alum feed system, we should be able to achieve our interim TSS limits. We are presently evaluating the recent study conducted by our consultant, CH2M-Hill, to determine our next move in terms of achieving the 15 mg/l concentration level required by October 1, 1986.

Our pH outfall instrumentation relocation from the outfall back to the Waste Treatment Plant has allowed us to become well under the maximum permitted pH outage of 1% of the time. For the month of May, we were only out of compliance for 76.2 minutes or 0.2% of the time.

We have also initiated an in plant Control-at-the-Source program by recently completing a Drain Survey. The Drain Survey identifies all in plant drains, what system they drain into and major chemicals allowed to be disposed of at each drain. Facilities Operation is now actively working with the production areas and the Training Department to implement this program.

Please call me at 243-2020, extension 301, if you have any questions on the above.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MTT:jm

Attachment

cc: Greg Carr
Jim Harper
John Pittman
Mal Russ

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if dif

NAME Wacker Siltronic Corporation

ADDRESS PO Box 03180
Portland, Or 97203

FACILITY 2200 NW Front Ave

LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

For Approved OMB 158-R0073

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 61

2834-J

93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	05	01	TO	85	05	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MU1	SAMPLE MEASUREMENT	278,000	388,000	GPD	—	—	—	—	0	continuous flow rate recorder	
	PERMIT REQUIREMENT	—	—		—	—	—		0		
MU1 BOD	SAMPLE MEASUREMENT	20.8	70.5	#/D	1.0	7.6	26.0	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		—	45	90		0	"	"
MU1 TSS	SAMPLE MEASUREMENT	13.8	245	#/D	1.0	5.0	8.0	mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		—	23	60		0	"	"
MU1 Cr 6+	SAMPLE MEASUREMENT	.003	.006	#/D	<.001	.001	.002	mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		—	.02	.05		0	"	"
MU1 Cr Total	SAMPLE MEASUREMENT	.008	.015	#/D	<.001	.003	.005	mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		—	.3	1.0		0	"	"
MU1 Fluoride	SAMPLE MEASUREMENT	9.7	15.6	#/D	3.3	4.2	5.1	mg/l	0	"	"
	PERMIT REQUIREMENT	21.4	42.7		—	8	16		0	"	"
MU1 TTO	SAMPLE MEASUREMENT	—	—	—	—	—	.11	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	—	—		—	—	1.37		0	"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JP Hamm / Dir. Engineering	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	503	243-2020	85	06	07
TYPED OR PRINTED		AREA CODE	NUMBER	YEAR	MO	DAY

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034559

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME: Weyerhaeuser Company

ADDRESS: PO Box 03180
Portland, OR 97203

FACILITY: 7200 NW Front Ave

LOCATION: Portland, OR 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Approved
No. 158-R0073

(2-16) PERMIT NUMBER: OR-000358-7

(17-19) DISCHARGE NUMBER: 61

2834-J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	05	01	TO	85	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	150,000	220,000	GPD	—	—	—	—		1/1	totalizing recorder
	PERMIT REQUIREMENT	—	—		—	—	—			1/	
Total $PO_3^{\equiv}$ MV3	SAMPLE MEASUREMENT	—	—	—	<0.1	<0.1	<0.1	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	428,000	524,000	GPD	—	—	—	—		totalizing recorder	
	PERMIT REQUIREMENT	—	—		—	—	—				
Outfall Temp	SAMPLE MEASUREMENT	—	—	—	17.9	23.1	25.7	°C	0	1/7	Grab
	PERMIT REQUIREMENT	—	—		—	—	29.4		0	1/7	Grab
Outfall pH	SAMPLE MEASUREMENT	—	—	—	5.0	—	10.3	pH units		continuous recording meter	
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0		
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

J P Hamm / Dir. Eng

TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

John Pattman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 06 | DAY 07

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PH was in compliance 99.8 % of the time. Total Time out of compliance was 76 minutes. No excursions were longer than 1 hour.

SCOEPA00034560

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Mike Pilkington DATE 6/6/85 OWW 0930 hrs PWW 0930 hrs.

SAMPLE ANALYZED BY: Elinor Levin DATE 6/685

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.30 PPM TCE ADDED TCE PPM	% RECOVERY
PWW 6/6/85	0.10	0.44	113 %
OWW 6/6/85	0.16	0.40	80 %

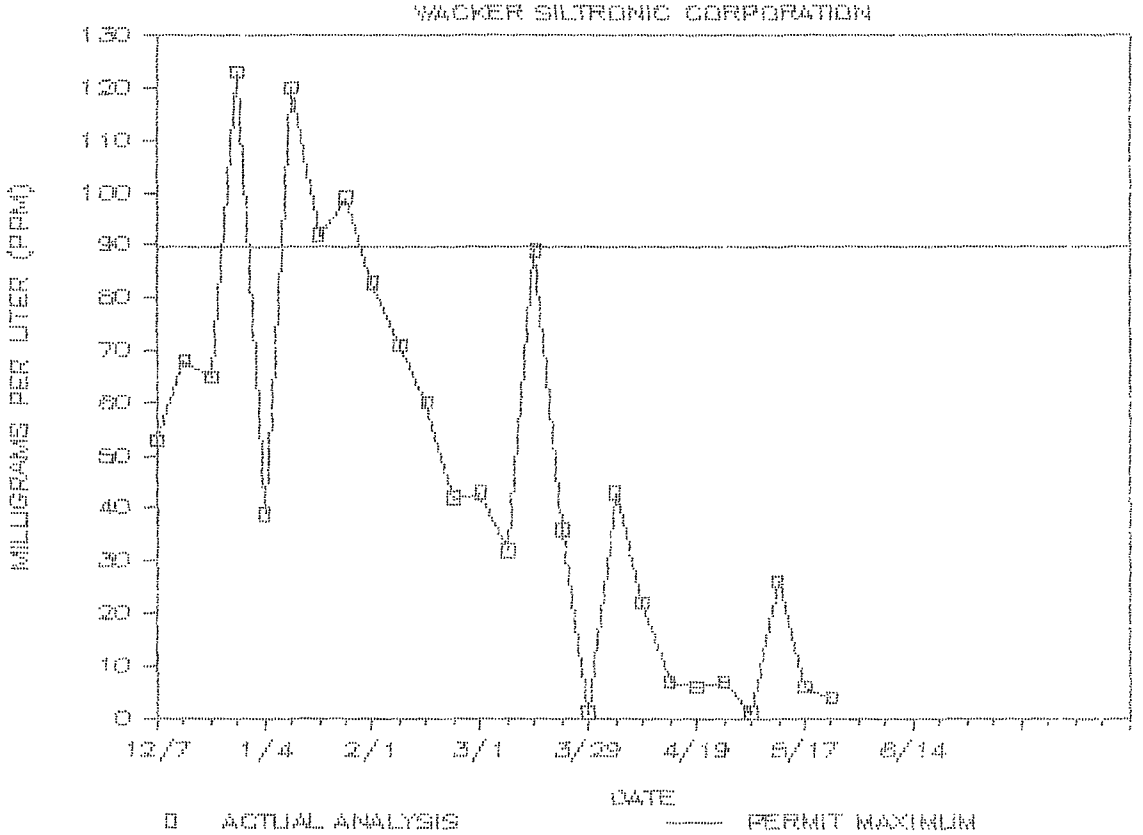
COPIES SENT TO: Greg Murray

FORM# 107-016

SCOEPA00034561

COMBINED EFFLUENT BOD LEVELS

WACKER SILTRONIC CORPORATION



WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/3/85
ANALYSTS: [illegible] / N. Law

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 5-3-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 1	+ —			
TSS	mg/l	-	23	60	▲ 2	+ 6			
F^-	mg/l	-	6	20	▲ 3.7	26			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.001				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 7.1	▲	
Temperature	°C	-	-	27			▲ 28.0	▲ 25.7	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD				.1291		.1875	.3166	
BOD	lbs./ Day		120	240	1				
TSS	lbs./ Day		61	160	2				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034563

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/10/85
ANALYSTS: [illegible] / N. Lee

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5-10-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 26	+ 240			
TSS	mg/l	–	23	60	▲ 7	+ 78			
F^-	mg/l	–	6	20	▲ 3.3	2.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.002				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 19.4	▲ 23.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.3273		.1265	.4538	
BOD	lbs./ Day		120	240	71				
TSS	lbs./ Day		61	160	19				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034564

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/17/85
ANALYSTS: [signature] / N. Lao

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5-17-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲+ 6	+ 332			
TSS	mg/l	–	23	60	▲+ 7	+ 53			
F^-	mg/l	–	6	20	▲+ 3.9	11			
Cr^{6+}	mg/l	–	0.02	0.05	▲+ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲+ 0.005				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.3	▲	
Temperature	°C	–	–	27			▲ 20.0	▲ 24.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.375		.125	.500	
BOD	lbs./ Day		120	240	19				
TSS	lbs./ Day		61	160	22				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034565

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/24/85
ANALYSTS: [illegible] / N. Ford

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 5/24/85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 4	+ 393			
TSS	mg/l	–	23	60	▲ 8	+ 128			
F^-	mg/l	–	6	20	▲ 5.1	1.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.8	▲	
Temperature	°C	–	–	27			▲ 19.7	▲ 23.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.3883		.1207	.5090	
BOD	lbs./ Day		120	240	12.9				
TSS	lbs./ Day		61	160	25.9				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034566

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5/31/85
ANALYSTS: [signature] N. Lee

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 5/30/85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲- 1	+ 85			
TSS	mg/l	-	23	60	▲- 1	+ 10			
F^-	mg/l	-	6	20	▲- 5.0	21			
Cr^{6+}	mg/l	-	0.02	0.05	▲- 0.001				
Cr^{total}	mg/l	-	0.3	1	▲- 0.002				
Phosphates	mg/l	-	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.7	▲	
Temperature	°C	-	-	27			▲ 17.3	▲ 17.9	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD				.1582		.1826		
BOD	lbs./ Day		120	240	1.3				
TSS	lbs./ Day		61	160	1.3				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034567

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION: Trace metals analyses of Anti-Rust 404T by Flame Atomic Absorption Spectrometry for zinc and cadmium. A mass of 115.16g of sample was diluted to 250ml with de-ionized water. The analyses were performed by standard additions methods. Deionized water served as an analytical blank.

SAMPLE COLLECTED BY: Tom Nebert DATE 5/14/85

SAMPLE ANALYZED BY: Howard Hogle DATE 6/6/85

RESULTS:

Element	Linear Correlation	Concentration in Anti-Rust 404T ppm
Zinc	1.000	0.94
Cadmium	.9997	<0.02

COPIES SENT TO: Gregg Carr, J Murray

FORM# 107-016

SCOEPA00034568

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLE FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 5/30/85 0920HRS

SAMPLE ANALYZED BY: Elinor Levin DATE 6/6/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.30 PPM TCE ADDED TCE PPM	% RECOVERY
OWW 5/30/85	0.07	0.36	98 %

COPIES SENT TO: Greg Murray

FORM# 107-016

SCOEPA00034569

dwtp585 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
120.00	6.0 - 9.0	1	106110	713106	1605678	3141712	1	18530	131170	34600	218500	349670
121	0.00	2	107963	726223	1606024	3143897	2	14570	129140	34600	187500	316640
122	2.50	3	109420	739137	1606370	3145772	3	11570	167640	34600	182700	350340
123	2.50	4	110577	755901	1606716	3147599	4	41350	167640	34600	182700	350340
124	2.50	5	114712	772665	1607062	3149426	5	53490	314100	34600	126900	441000
125	2.50	6	120061	804075	1607408	3150695	6	54420	284010	34600	124100	408110
126	2.80	7	125503	832476	1607754	3151936	7	59380	335190	34600	124100	459290
127	2.80	8	131441	865995	1608100	3153177	8	57300	298360	34600	121100	419460
128	2.80	9	137171	895831	1608446	3154388	9	61210	327290	34600	126500	453790
129	2.80	10	143292	928560	1608792	3155653	10	60720	324930	34600	162800	487730
130	8.90	11	149364	961053	1609138	3157281	11	55880	355940	34600	142900	498840
131	8.90	12	154952	996647	1609484	3158710	12	58090	328980	34600	148200	477180
132	8.90	13	160761	1029545	1609830	3160192	13	52740	337580	34600	120800	458380
133	12.20	14	166035	1063303	1610176	3161400	14	44630	351340	34600	149300	500640
134	12.20	15	170498	1098437	1610522	3162893	15	56350	373680	31200	150500	524180
135	33.40	16	176133	1135805	1610834	3164398	16	59390	374890	36000	125000	499890
136	33.40	17	182072	1173294	1611194	3165648	17	54990	364520	34600	121300	485820
137	33.40	18	187571	1209746	1611540	3166861	18	58360	375770	33500	123500	499270
138	33.40	19	193407	1247323	1611875	3168096	19	57650	363280	34500	146500	509780
139	33.40	20	199172	1283651	1612220	3169561	20	52650	320160	34100	99600	419760
140	33.40	21	204437	1315667	1612561	3170557	21	58270	373770	37600	141300	515070
141	33.40	22	210264	1353044	1612937	3171970	22	56310	386410	33400	120900	507310
142	54.80	23	215895	1391685	1613271	3173179	23	54910	388290	34100	110700	498990
143	60.40	24	221386	1430514	1613612	3174286	24	51760	366830	32500	128300	495130
144	67.00	25	226562	1467197	1613937	3175569	25	32620	227010	32500	161500	388510
145	68.70	26	229824	1489898	1614262	3177184	26	23820	155270	21800	180700	335970
146	68.70	27	232206	1505425	1614480	3178991	27	22230	140620	40100	190100	330720
147	68.70	28	234429	1519487	1614881	3180892	28	25710	149260	30100	190700	339960
148	71.60	29	237000	1534413	1615182	3182799	29	33540	158250	27900	182600	340850
149	76.20	30	240354	1550238	1615461	3184625	30	33770	171820	28000	181000	352820
150	76.20	31	243731	1567420	1615741	3186435	31	30180	85000	26900	172300	257300
151	76.20	1	246749	1575920	1616010	3188158	1			32618.75		

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	388290	61210	40100	218500	524180
MINIMUM FLOW GPD	85000	11570	21800	99600	257300
AVERAGE FLOW GPD	278327	45367	33329	149826	428153
MAXIMUM FLOW GPM	270	43	28	152	364
MINIMUM FLOW GPM	59	8	15	69	179
AVERAGE FLOW GPM	193	32	23	104	297
TOTAL FLOW GAL	8543140	1376210	1006300	4472300	13015440

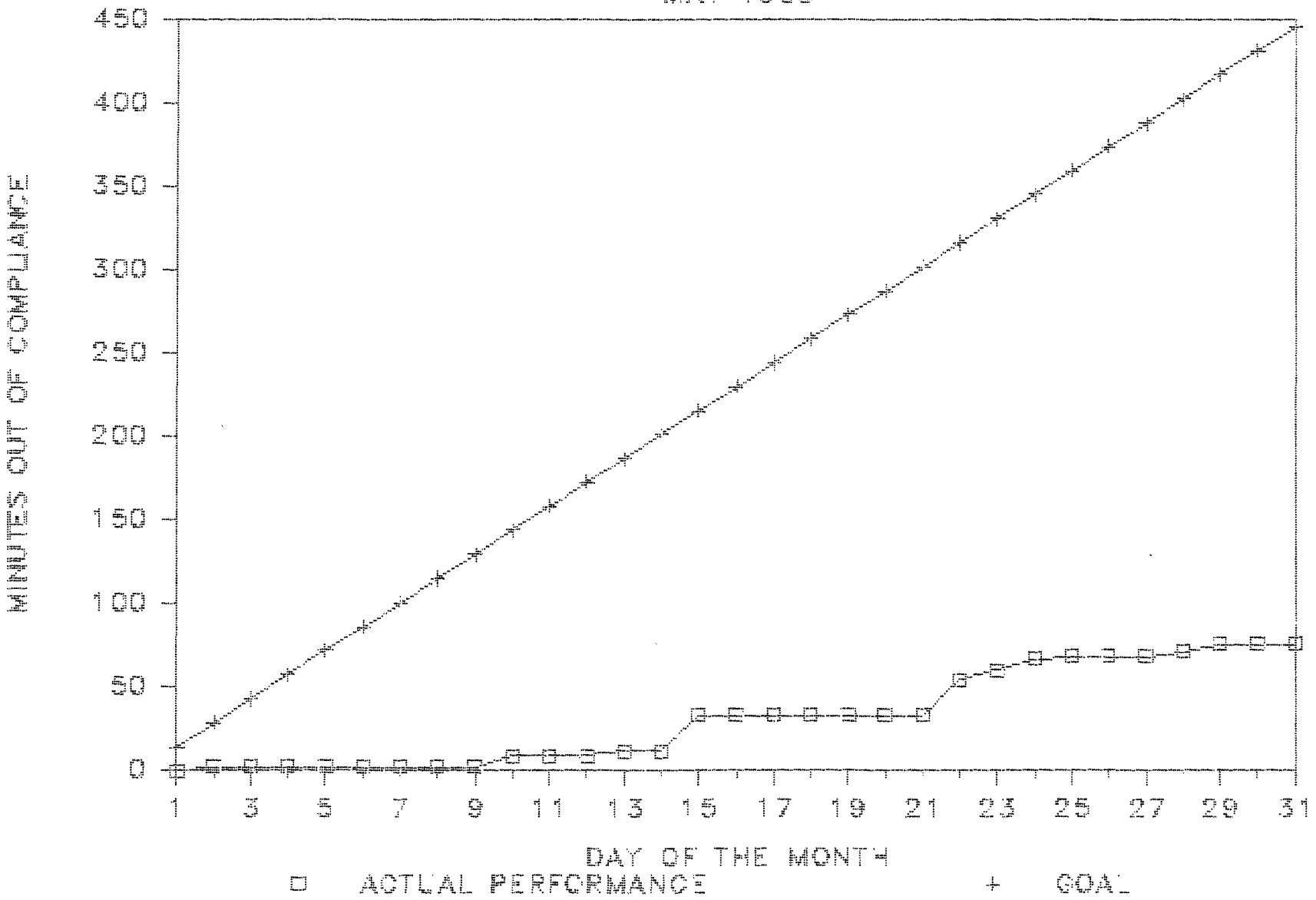
DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
3.00	MG/L	1.0	2.0	0.001	0.001	3.7	25.70		167640
	LBS/DAY	1.4	2.8	0.001	0.001	5.2			
10.00	MG/L	26.0	7.0	0.001	0.002	3.3	23.60		324930
	LBS/DAY	70.5	19.0	0.003	0.005	8.9			
17.00	MG/L	6.0	7.0	0.001	0.005	3.9	24.30		364520
	LBS/DAY	18.2	21.3	0.003	0.015	11.9			
24.00	MG/L	4.0	8.0	0.002	0.005	5.1	23.80		366830
	LBS/DAY	12.2	24.5	0.006	0.015	15.6			
30.00	MG/L	1.0	1.0	0.001	0.002	5.0	17.90		171820
	LBS/DAY	1.4	1.4	0.001	0.003	7.2			
AVERAGE	MG/L CE	7.6	5.0	0.001	0.003	4.2			
5.00	LBS/DAY	20.8	13.8	0.003	0.008	9.7			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL-	SEWER FLOWS	
3.00	MG/L		6.0					0.88	26.00	11570	OWW
	LBS/DAY	0.0	0.6	0.000	0.000	0.000	0.000	0.08	2.51	0.25	DILUTION FACTOR
MG/L DISCHARGE		0.0	1.5	0.000	0.000	0.000	0.000	0.22	6.52		
10.00	MG/L	240.0	78.0					0.19	2.40	60720	OWW
	LBS/DAY	121.5	39.5	0.000	0.000	0.000	0.000	0.10	1.22	0.64	DILUTION FACTOR
MG/L DISCHARGE		152.9	49.7	0.000	0.000	0.000	0.000	0.12	1.53		
17.00	MG/L	332.0	53.0					0.24	11.00	54990	OWW
	LBS/DAY	152.3	24.3	0.000	0.000	0.000	0.000	0.11	5.04	0.61	DILUTION FACTOR
MG/L DISCHARGE		203.8	32.5	0.000	0.000	0.000	0.000	0.15	6.75		
24.00	MG/L	393.0	128.0					0.22	1.10	51760	OWW
	LBS/DAY	169.6	55.3	0.000	0.000	0.000	0.000	0.09	0.47	0.61	DILUTION FACTOR
MG/L DISCHARGE		241.4	78.6	0.000	0.000	0.000	0.000	0.14	0.68		
30.00	MG/L	85.0	10.0					0.20	21.00	33770	OWW
	LBS/DAY	23.9	2.8	0.000	0.000	0.000	0.000	0.06	5.91	0.55	DILUTION FACTOR
MG/L DISCHARGE		46.5	5.5	0.000	0.000	0.000	0.000	0.11	11.48		
AVERAGE	MG/L	210.0	55.0	0.000	0.000	0.000	0.000	0.35	12.30		
5.00	LBS/DAY	93.5	24.5	0.000	0.000	0.000	0.000	0.09	3.03		
MG/L DISCHARGE		128.9	33.6	0.000	0.000	0.000	0.000	0.15	5.39		

SCOEPA00034570

WASTEWATER pH COMPLIANCE

MAY 1985



SCOEPA00034571

TO: Jim Harper, John Pittman, Murray Tilson

FROM: Greg Carr Greg Carr

DATE: May 14, 1985

I talked briefly with Renauto Dulay, our DEQ Representive May 13, 1985, to clarify several points about hazardous wastes:

1) The OWW sludge is a hazardous waste, since it clearly contains TCE, which is a listed (Foo1) waste. It must be handled as a hazardous waste. Note: It contains 8500 ppm TCE (.85%).

2) Wastewaters meeting the pH qualifications for hazardous waste (ie pH less than 2 or greater than 12.5) are hazardous wastes and must be handled as such. Spills of the reportable amount (200 lbs) must be reported and cleaned up.

I informed him of the good results of our slicing diversion to the city sewer, with a written report to follow.

Greg Carr

GC/md

cc: File

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

May 10, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
522 S.W. Fifth Avenue
Portland, Oregon 97204

Dear Mr. Dulay:

Subject: April 1985 NPDES Monitoring Report

As per NPDES Permit Number 3847-J we are submitting the attached Monthly Montoring report for April 1985.

We are well underway to complying with our interim compliance schedule as agreed upon in March 1985. The actions taken to date have allowed us to achieve consistent compliance in BOD discharge as well as pH.

Our only non-compliance condition for the month of April was for pH. We were in compliance for 98.4% of the time; or out of compliance for 0.6% of the time. I am pleased to report that since our outfall pH instrumentation has been relocated in the Waste Treatment Plant, we have been well below the permitted level of 1% excursion.

Our efforts to reduce BOD, TSS and pH non-compliance will be detailed in a forthcoming compliance letter to your agency.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MT:jm

Attachment

cc: Greg Carr
Jim Harper
John Pittman
Mal Russ

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME Wac - Siltronic Corporation
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) OR-003058-7 PERMIT NUMBER
(17-19) 60 DISCHARGE NUMBER

2834 - J
9345-0

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	04	01	TO	85	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	247,000	1,486,000	GPD	—	—	—	—		Continuous totalizing recorder	
	PERMIT REQUIREMENT	—	—		—	—	—				
Total $PO_3^{\equiv}$ MV3	SAMPLE MEASUREMENT	—	—	—	<.1	<.1	<.	mg/l		Y/7	6ra5
	PERMIT REQUIREMENT	—	—		—	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	567,000	1,621,000	GPD	—	—	—	—		continuous totalizing recorder	
	PERMIT REQUIREMENT	—	—		—	—	—				
Outfall Temp	SAMPLE MEASUREMENT	—	—	—	19.4	20.4	21.7	°C		Y/7	Gra5
	PERMIT REQUIREMENT	—	—		—	—	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	—	—	—	4.6	—	12.4	pH units	2	continuous recorder	
	PERMIT REQUIREMENT	—	—		6.0	—	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
J Pittman / Dir Eng
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 85 | MO 05 | DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
pH was in compliance 98.4% of the time. Time out of compliance was 707 minutes, or 1.68% of the time. Two incidents were longer than 1 hr.

SCOEPA00034574

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME: Wafer Silicone Corporation

ADDRESS: PO Box 03180
Portland, Or 97203

FACILITY: 7200 NW Front Ave

LOCATION: Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 60

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	04	01	TO	85	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MV1	SAMPLE MEASUREMENT	320,000	711,000	GPD	—	—	—	—		continuous	
	PERMIT REQUIREMENT	—	—		—	—	—			totalizing recorder	
MV1 BOD	SAMPLE MEASUREMENT	51	104	#/D	6	19.5	43	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		—	45	90		0	"	"
TSS	SAMPLE MEASUREMENT	19.7	35	#/D	3	7.8	15	mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		—	23	60		0	"	"
Cr 6+	SAMPLE MEASUREMENT	<.005	<.005	#/D	<.002	<.002	<.002	mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		—	.02	.05		0	"	"
Cr Total	SAMPLE MEASUREMENT	.014	.026	#/D	.004	.005	.008	mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		—	.3	1.0		0	"	"
Fluoride	SAMPLE MEASUREMENT	12.2	14.3	#/D	3.0	4.6	5.8	mg/l	0	"	"
	PERMIT REQUIREMENT	21.4	42.7		—	8	16		0	"	"
TTO	SAMPLE MEASUREMENT	—	—	—	—	—	.07	mg/l	0	1/30	Grab
	PERMIT REQUIREMENT	—	—		—	—	1.37		0	"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

J.P. Hamm / Dir Eng

TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

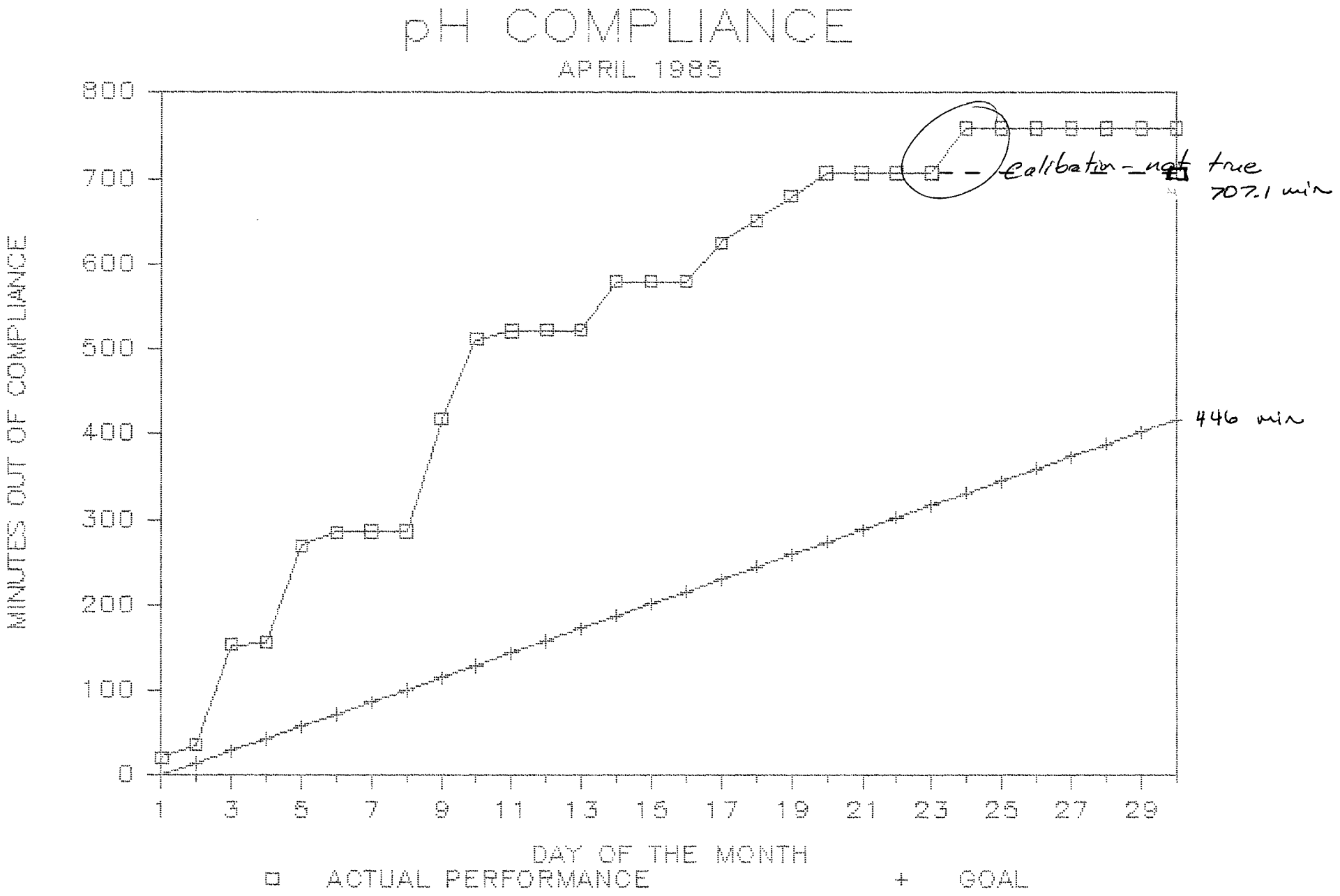
DATE: YEAR 85 MO 05 DAY 10

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED

(REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034575



SCOEPA00034576

REPORT3Q TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY O	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	DATE		OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
87.00	6.0 - 9.0	1	952849	782330	1601137	3068821		1	61470	363390	38600	130700	494090
90	21.20	2	958996	818669	1601523	3070128		2	60970	437510	38900	176100	613610
91	36.40	3	965093	862420	1601912	3071889		3	120820	711350	79600	282300	993650
92	153.70	4	971201	899177	1602313	3073421		4	62730	326870	38900	152200	479070
93	155.90	5	977175	933555	1602708	3074712		5	49350	290800	38800	128400	419200
94	269.00	6	983448	966242	1603097	3076234		6	54910	319700	37500	127500	447200
95	285.70	7	988383	995322	1603485	3077518		7	56270	397060	35800	148700	545760
96	286.10	8	993874	1027292	1603860	3078793		8	44270	337980	35700	103200	441180
97	286.40	9	999501	1066998	1604218	3080280		9	51440	377420	37100	133400	510820
98	417.90	10	1003928	1100796	1604575	3081312		10	50810	355580	38500	111000	466580
99	511.60	11	1009072	1138538	1604946	3082646		11	54510	336180	37900	114700	450880
100	521.20	12	1014153	1174096	1605331	3083756		12	57470	357160	48300	117400	474560
101	521.60	13	1019604	1207714	1605710	3084903		13	59250	312160	29600	118700	430860
102	521.60	14	1025351	1243430	1606193	3086077		14	55010	335540	40700	117100	452640
103	579.40	15	1031276	1274646	1606489	3087264		15	55480	320710	43900	113000	433710
104	579.40	16	1036777	1308200	1606896	3088435		16	56470	322970	38900	119200	442170
105	579.40	17	1042325	1340271	1607335	3089565		17	56470	322970	38900	119200	442170
106	625.10	18	1047972	1372568	1607724	3090757		18	53970	313850	40000	132200	446050
107	651.60	19	1053369	1403953	1608124	3092079		19	52800	384220	38400	127500	511720
108	679.20	20	1058649	1442375	1608508	3093354		20	50610	329960	38100	142400	472360
109	706.80	21	1063710	1475371	1608889	3094778		21	55070	320660	40900	131800	452460
110	707.10	22	1069217	1507437	1609298	3096096		22	50760	306470	36600	168500	474970
111	707.10	23	1074293	1538084	1609664	3097781		23	46910	324020	35800	152300	476320
112	707.10	24	1078984	1570486	1610022	3099304		24	44670	254720	37200	149500	404220
113	759.60	25	1083451	1595958	1610394	3100799		25	55320	284640	7800	136800	421440
114	759.60	26	1088983	1624422	1610472	3102167		26	61150	279800	200	158400	438200
115	759.60	27	1095098	1652402	1610474	3103751		27	42030	193250	0	909700	1102950
116	759.60	28	1099301	1671727	1610474	3112848		28	31290	134530	0	1486000	1620530
117	759.60	29	1102430	1685180	1610474	3127708		29	17160	127890	0	1179900	1307790
118	759.60	30	1104146	1697969	1610474	3139507		30	16760	130370	0	220500	350870
119	759.60	1	1105822	1711006	1610474	3141712		1					

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW GPD	711350	120820	79600	1486000	1620530
MINIMUM FLOW GPD	127890	16760	0	103200	350870
AVERAGE FLOW GPD	320324	52873	32420	246943	567268
MAXIMUM FLOW GPM	494	84	55	1032	1125
MINIMUM FLOW GPM	89	12	0	72	244
AVERAGE FLOW GPM	222	37	23	171	394
TOTAL FLOW GAL	9609730	1586200	972600	7408300	17018030

DATE OF ANALYSIS	COMBINED EFFLUENT ANALYSIS PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE	OUTFALL ANALYSIS TEMP C	METER VAULT THREE PHOSPHATES	EFFLUENT FLOW
5.00	MG/L	43.0	8.0	0.002	0.004	5.8	21.70	0.10	290800
	LBS/DAY	104.3	19.4	0.005	0.010	14.1			
12.00	MG/L	22.0	5.0	0.002	0.004	4.8	19.40	0.10	357160
	LBS/DAY	65.5	14.9	0.006	0.012	14.3			
..00	MG/L	6.0	3.0	0.002	0.008	3.0	20.20	0.30	384220
	LBS/DAY	19.2	9.6	0.006	0.026	9.6			
26.00	MG/L	7.0	15.0	0.002	0.004	4.6	20.30	0.10	279800
	LBS/DAY	16.3	35.0	0.005	0.009	10.7			
5.00	MG/L								290800
	LBS/DAY	0.0	0.0	0.000	0.000	0.0			
AVERAGE	MG/L CE	19.5	7.8	0.002	0.005	4.6			
4.00	LBS/DAY	51.3	19.7	0.005	0.014	12.2			

DATE OF ANALYSIS	OWW ANALYSIS PARAMETERS	BOD	TSS	CR	CD	ZN	AS	TCE	FL	SEWER FLOWS	
5.00	MG/L	488.0	65.0					0.60	3.10	49350	OWW
	LBS/DAY	200.9	26.8	0.000	0.000	0.000	0.000	0.25	1.28	0.56	DILUTION FACTOR
MG/L DISCHARGE		273.2	36.4	0.000	0.000	0.000	0.000	0.34	1.74		
12.00	MG/L	532.0	19.0					0.37	4.40	57470	OWW
	LBS/DAY	255.0	9.1	0.000	0.000	0.000	0.000	0.18	2.11	0.54	DILUTION FACTOR
MG/L DISCHARGE		289.1	10.3	0.000	0.000	0.000	0.000	0.20	2.39		
19.00	MG/L	368.0	188.0					0.25	1.20	52800	OWW
	LBS/DAY	162.0	82.8	0.000	0.000	0.000	0.000	0.11	0.53	0.58	DILUTION FACTOR
MG/L DISCHARGE		213.1	108.8	0.000	0.000	0.000	0.000	0.14	0.69		
26.00	MG/L	780.0	127.0	0.001	0.002	0.025	0.000	0.32	0.80	61150	OWW
	LBS/DAY	397.8	64.8	0.001	0.001	0.013	0.000	0.16	0.41	1.00	DILUTION FACTOR
MG/L DISCHARGE		777.5	126.6	0.001	0.002	0.025	0.000	0.32	0.80		
5.00	MG/L									49350	OWW
	LBS/DAY	0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00	0.56	DILUTION FACTOR
MG/L DISCHARGE		0.0	0.0	0.000	0.000	0.000	0.000	0.00	0.00		
AVERAGE	MG/L	542.0	99.8	.000	0.001	0.006	0.000	0.32	2.15		
4.00	LBS/DAY	253.9	45.9	.000	.000	0.003	0.000	0.17	1.08		
MG/L DISCHARGE		388.2	70.5	.000	.000	0.006	0.000	0.25	1.40		

SCOEPA00034577

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/5/85
ANALYSTS: [illegible] N. Lyon

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-5-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 43	+ 488			
TSS	mg/l	–	23	60	▲ 8	+ 65			
F^-	mg/l	–	6	20	▲ 5.8	3.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 4.0	▲ 7.1	
Temperature	°C	–	–	27			▲ 17.3	▲ 21.7	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.3407		.1291		
BOD	lbs./ Day		120	240	122				
TSS	lbs./ Day		61	160	22.7				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034578

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/12/85
ANALYSTS: Howard Huff / N. Lee

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–		–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4/12/85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 22	+ 532			
TSS	mg/l	–	23	60	▲ 5	+ 19			
F^-	mg/l	–	6	20	▲ 4.8	4.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲	
Temperature	°C	–	–	27			▲ 17.4	▲ 19.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.3651		.1110		
BOD	lbs./ Day		120	240	67				
TSS	lbs./ Day		61	160	15				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 511.6 Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034579

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/19/85
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION		–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-19-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 6	+ 368			
TSS	mg/l	–	23	60	▲ 3	+ 188			
F^-	mg/l	–	6	20	▲ 3.0	1.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ 0.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.5	▲	
Temperature	°C	–	–	27			▲ 17.1	▲ 20.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow	MGD				.3314		.1322	.4636	
BOD	lbs./ Day		120	240	16.6				
TSS	lbs./ Day		61	160	8.3				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 625.1 Minutes

allowed time out of compliance for the month _____ Minutes

SCOEPA00034580

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4/26/85
ANALYSTS: [illegible] / N. Lao

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 4-26-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 7	+ 780			
TSS	mg/l	-	23	60	▲ 15	+ 127			
F^-	mg/l	-	6	20	▲ 4.6	0.8			
Cr^{6+}	mg/l	-	0.02	0.05	▲ <0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.004				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.7	▲	
Temperature	°C	-	-	27			▲ 16.8	▲ 20.3	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD				.2706		.1368	.4074	
BOD	lbs./Day		120	240	15.8				
TSS	lbs./Day		61	160	33.9				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week _____ Minutes

allowed time out of compliance for the month _____ Minutes

OWW metals April 25th

	Reagent	OWW+R	St. OWW	
Zn	.032	.083	.025	
As	.000	.000	<.0004	lower detection Limit
Cr	.0188	.0212	.0012	
Cd	.0029	.0072	.0022	

methods of standard additions.

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE

After liquid/liquid extraction of blanks, standards, samples, and samples with added TCE for recoveries of TCE, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 4/5/85
OWW 15:30 hrs, 4/9/85 PWW 8:45 hrs OWW 8:55 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 4/9/85

RESULTS:

SAMPLE	TCE PPM	SAMPLE PLUS 0.52 PPM TCE ADDED TCE PPM	% RECOVERY
PWW 4/9/85	0.07	0.55	88%
OWW 4/5/85	1.20	1.33	25%
OWW 4/9/85	0.60	1.25	125%

COPIES SENT TO: Greg, Murray Gibson, Jim Ellis
FORM# 107-016

SCOEPA00034583

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION: Trace metal analysis of the waste water from scrubbing of the floor in the Acid-Etch Room. Total chromium was determined using EPA Method No. 218.2. Standard additions analysis by AAS flame spectrometry was used to confirm the results.

SAMPLE COLLECTED BY: Chuck Tilden DATE 4/2/85

SAMPLE ANALYZED BY: Howard Hogle DATE 4/2/85

RESULTS: The sample had to be diluted twice to adjust its concentration to the linear range for AAS-GF. The final dilution was 1/200. These concentrations should be considered as minimum [Cr]; although an acid digestion procedure was used, some of the solids remained undissolved. These solids may contain additional undetected chromium.

Sample	Dilution [Cr] ug/ml	S.D. ug/ml	RSD %	Waste Water [Cr] ppm
Mop Water	0.052	0.004	6.7	9.30

Standard additions analysis was also done using AAS- flame techniques. A reagent blank, a 1/10 dilution of the digested waste water, and standard addition spikes of 1 and 2 ppm were used. The linear correlation of the plot was 0.9996. The [Cr] of the waste water was calculated to be 11.7 ppm.

COPIES SENT TO: Chuck Tilden, Greg Carr, Murray Tilson
John Catanoso
FORM# 107-016

SCOEPA00034584

Greg Carr

Wacker Siltronic Corporation

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

April 10, 1985

Mr. Renato C. Dulay
Field Representative
Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
522 S.W. Fifth Avenue
Portland, Oregon 97204

Dear Mr. Dulay:

Subject: March 1985 NPDES Monitoring Report

Attached is the NPDES Monitoring Report for March 1985.

We violated our pH limit by being in compliance only 98.3% instead of 99.0% of the time as stated in our NPDES Permit. This was due in large part to our March 23 to March 30 plant shutdown. The shutdown required that most process tanks and systems be cleaned prior to shutdown. This resulted in our Waste Treatment System receiving an excess amount of low pH streams in a short period of time. Better coordination and anticipation on these unusual loads will help prevent this occurrence in the future.

Our relocation of the outfall pH instrumentation from the outfall position to the Waste Water Treatment Plant is on schedule and should be completed by April 29th as stated in our March 5, 1985 compliance status letter to your agency. In addition, we plan to wire a separate dedicated pH alarm system and locate it at both the Waste Water Treatment Plant and the Security Council. These projects should greatly improve our ability to achieve compliance.

Our BOD loading to the waste treatment system should be significantly reduced when our current Slicing and Plate Prep streams are diverted to the City's collection system. This is being completed this week and will be followed by a one (1) month evaluation with data given to our consultant, CH2M-Hill, for evaluation. We will contact you as soon as we have information.

CH2M-Hill is also reviewing the feasibility of performing a thorough evaluation of our TSS effluent treatment level. This will commence once the Slicing/Plate Prep diversion project is completed.

Please call me at 243-2020, extension 301, if you have any questions on the above.

Sincerely,

WACKER SILTRONIC CORPORATION

Murray M. Tilson, P.E.
Facilities Operations and
Environmental Supervisor

MT:jm

Attachment

cc: Greg Carr
Jim Harper
John Pittman
Mal Russ

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)
NAME Wacker Siltronic Corporation
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) OR-0030058-7 PERMIT NUMBER
(17-19) 59 DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM				TO			

Form Approved
OMB No. 158-R0073

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Bloudown Flow MV3	SAMPLE MEASUREMENT	214,000	474,000	GPD	–	–	–	–		Continuous Totalizing	
	PERMIT REQUIREMENT	–	–		–	–	–			Recorder	
Total $PO_3^{\equiv}$	SAMPLE MEASUREMENT	–	–	–	<.1	<.1	<.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	2.0	5.0			1/	11
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	484,000	643,000	GPD	–	–	–	–		Continuous totalizing	
	PERMIT REQUIREMENT	–	–		–	–	–			recorder	
Outfall Temp	SAMPLE MEASUREMENT	–	–	–	13.2	19.2	21.2	°C		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	–	29.4			11	11
Outfall pH	SAMPLE MEASUREMENT	–	–	–	4.8	–	11.2	pH units	2	Continuous recorder	
	PERMIT REQUIREMENT	–	–		6.0	–	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
J P. Horan Dir. Eng	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	J. P. Horan	503			
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
pH was in compliance 98.3 % of the time. Total time out of compliance was 760 minutes. 2 excursions were longer than 60 minutes.

SCOEPA00034587

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME Wacker Siltronic Corporation

ADDRESS PO Box 03180
Portland, Or 97203

FACILITY 7200 NW Front Ave

LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-7

(17-19) DISCHARGE NUMBER: 59

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	03	01	TO	85	03	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	QUANTITY OR LOADING (54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	QUALITY OR CONCENTRATION (46-53) AVERAGE	QUALITY OR CONCENTRATION (54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MUI	SAMPLE MEASUREMENT	265,000	336,000	GPD	–	–	–	–		continuous total flow recorder	
	PERMIT REQUIREMENT	–	–		–	–	–				
MUI BOD	SAMPLE MEASUREMENT	97	225	#/D	2.0	40.4	89	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	120	240		–	45	90			"	"
TSS	SAMPLE MEASUREMENT	61	106	#/D	10.0	27	42	mg/l	0	"	"
	PERMIT REQUIREMENT	61	160		–	23	60			"	"
Cr 6+	SAMPLE MEASUREMENT	.005	.01	#/D	<.001	.002	.004	mg/l	0	"	"
	PERMIT REQUIREMENT	.03	.1		–	.02	.05			"	"
Cr Total	SAMPLE MEASUREMENT	<.01	.02	#/D	<.001	.005	.008	mg/l	0	"	"
	PERMIT REQUIREMENT	.5	1.0		–	.3	1.0			"	"
Fluoride	SAMPLE MEASUREMENT	10.0	14.4	#/D	3.8	4.4	5.7	mg/l	0	"	"
	PERMIT REQUIREMENT	21.4	42.7		–	8	16			"	"
TTO	SAMPLE MEASUREMENT	–	–	–	–	–	.12	mg/l	0	1/31	Grab
	PERMIT REQUIREMENT	–	–		–	–	1.37			"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
J Pittman / Dir. Eng	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	503	243-2020	85	04	10
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

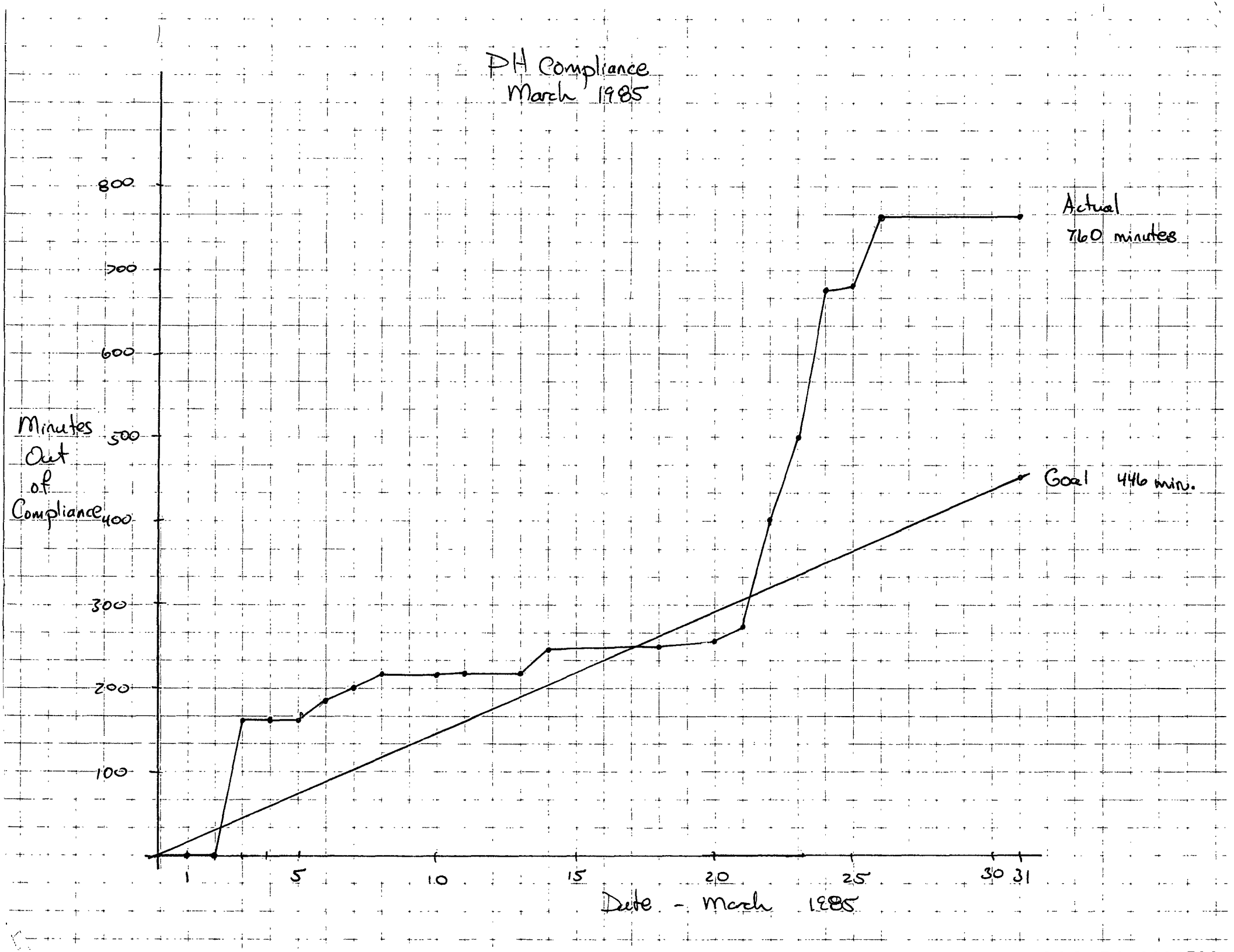
SCOEPA00034588

4/10/85

GREG.

JOHN P. HAS THE COVER LETTERS FOR HIS REVIEW.

Murray



SCOEPA00034590

dwtp385 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIMFOR GRAPH HOLD [ALT] AND [G] AT THE SAME TIME

DY OF YR	TIME OUT OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
59	6.0 - 9.0	1	807769	967479	1589066	3000881	213	1	1081	148	753	1834
60	0	2	813391	996040	1589456	3002871	177	2	933	147	764	1697
61	0	3	818073	1020694	1589844	3004889	242	3	1256	149	707	1963
62	161.4	4	824465	1053889	1590238	3006756	214	4	1084	155	835	1
63	167.8	5	830112	1082536	1590648	3008963	219	5	1006	183	821	1826
64	172.2	6	835909	1109103	1591132	3011131	232	6	1151	180	738	1889
65	187.7	7	842049	1139503	1591607	3013081	218	7	1103	173	764	1867
66	231.1	8	847806	1168640	1592064	3015099	204	8	1136	163	749	1885
67	232.7	9	853184	1198649	1592494	3017077	189	9	1201	153	734	1935
68	236.4	10	858174	1230392	1592897	3019015	193	10	1079	150	752	1831
69	236.4	11	863277	1258910	1593294	3021001	201	11	1119	154	716	1834
70	236.4	12	868587	1288464	1593700	3022892	195	12	1115	151	713	1828
71	238	13	873752	1317928	1594098	3024776	191	13	1163	148	748	1912
72	238	14	878803	1348662	1594490	3026753	193	14	1271	144	713	1984
73	313	15	883903	1382240	1594871	3028636	197	15	1151	140	713	1865
74	313	16	889109	1412661	1595242	3030520	167	16	891	136	756	1647
75	313	17	893516	1436197	1595601	3032518	241	17	1234	135	703	1938
76	*	18	899882	1468807	1595957	3034376	210	18	1095	141	735	1830
77	*	19	905440	1497736	1596329	3036319	226	19	1040	159	703	1743
78	341.3	20	911410	1525201	1596750	3038177	208	20	1066	162	825	1891
79	341.3	21	916909	1553359	1597178	3040356	211	21	910	164	678	1588
80	17.4	22	922473	1577403	1597610	3042146	218	22	944	159	841	1786
81	183.4	23	928234	1602351	1598030	3044369	127	23	546	141	1164	1710
82	319.4	24	931577	1616780	1598403	3047443	92	24	635	154	1798	2434
83	420	25	934010	1633566	1598809	3052194	98	25	819	115	654	1473
84	467.6	26	936593	1655201	1599114	3053923	61	26	613	128	1189	1802
85	467.6	27	938209	1671398	1599452	3057065	56	27	702	128	1115	1817
86	468.7	28	939687	1689955	1599790	3060011	64	28	790	131	1068	1858
87	468.7	29	941369	1710837	1600137	3062832	81	29	585	124	1123	1708
88	468.7	30	943517	1726286	1600464	3065799	187	30	1152	124	601	1
89	481.2	31	948468	1756735	1600792	3067388	207	31	1188	131	542	1730
90	*	1	953925	1788116	1601137	3068821		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1270.93	241.94	183.19	1798.26	2433.61
MINIMUM FLOW M3/DY	546.14	55.94	115.44	542.39	1473.32
AVERAGE FLOW M3/DY	1001.97	178.45	147.38	829.53	1831.50
MAXIMUM FLOW GPM	233.16	44.38	33.61	329.90	446.45
MINIMUM FLOW GPM	100.19	10.26	21.18	99.50	270.28
AVERAGE FLOW GPM	183.82	32.74	27.04	152.18	336.00
TOTAL FLOW GALLONS	8205527.4	1461409.9	1206976.0	6793302.4	14998829.
DAILY FLOW GALLONS	264694.43	47142.256	38934.711	219138.78	483833.22

TOTAL FLOW TO CITY SEWER
2668386 GALLONS

DATE	OWW BOD	OWW TSS	Fluoride	METER VAULT THREE PHOSPHATE	pH	TEMP	COMBINED DISCHARGE pH	TEMP
1	473	235	5.1	0.1	6.2	17.3	7.3	21
8	340	333	4.9	0.1	6.4	18.1	8.2	20.9
15	315	160	4.6	0.1	5.8	16.4	7.8	21.2
22	297	65	5.6	0.1	5.6	17.8	7.8	19.8
28	42	40	4.8	0.1	6	15.3	8.2	13.2
AVERAGE	293.4	166.6	5	0.1	6	16.98	7.86	19.22

DATE	LBS BOD IN OWW	LBS TSS
1	222	110
8	153	149
15	137	70
22	143	31
28	6	6
AVERAGE	132.00888	AVERAGE 73.216534
AVERAGE TOTAL LBS/MO	3579	2032 LBS/MO

OWW TCE

DATE	ppm
3/8	.14
3/15	.24
3/19	.18

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	*	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE
1	MG/L	*	43.00	42.00	0.0010	0.0080	4.20
OUTFALL	MG/L	*	25.34	24.75	0.0006	0.0047	2.48
	KG/DAY	*	46.48	45.40	0.0011	0.0086	4.54
	LBS/DAY		102.48	100.10	0.0024	0.0191	10.01
8	MG/L	*	32.00	23.00	0.0010	0.0060	3.80
OUTFALL	MG/L	*	19.29	13.86	0.0006	0.0036	2.29
	KG/DAY	*	36.35	26.12	0.0011	0.0068	4.32
	LBS/DAY		80.13	57.59	0.0025	0.0150	9.52
15	MG/L	*	89.00	42.00	0.0040	0.0010	5.70
OUTFALL	MG/L	*	54.96	25.94	0.0025	0.0006	3.52
	KG/D	*	102.48	48.36	0.0046	0.0012	6.56
	LBS/DAY		225.92	106.62	0.0102	0.0025	14.47
22	MG/L	*	36.00	18.00	0.0030	0.0080	4.40
OUTFALL	MG/L	*	19.04	9.52	0.0016	0.0042	2.33
	KG/DAY	*	33.99	17.00	0.0028	0.0076	4.15
	LBS/DAY		74.94	37.47	0.0062	0.0167	9.16
28	MG/L	*	2.00	10.00	0.0010	0.0030	3.90
OUTFALL	MG/L	*	0.85	4.25	0.0004	0.0013	1.66
	KG/DAY	*	1.58	1.58	0.0008	0.0024	3.08
	LBS/DAY		3.48	3.48	0.0017	0.0052	6.80
AVERAGE	MG/L COMBINED		40.40	27.00	0.0020	0.0052	4.40
	MG/L OUTFALL		23.90	15.66	0.0011	0.0029	2.45
5	KG/DAY	*	44.18	27.69	0.0021	0.0053	4.53
	LBS/DAY		97.39	61.05	0.0046	0.0117	9.99
MAXIMUM	MG/L COMBINED		89.00	42.00	0.0040	0.0080	5.70
	MG/L OUTFALL		54.96	25.94	0.0025	0.0047	3.52
	KG/D	*	102.48	48.36	0.0046	0.0086	6.56
	LBS/DAY		225.45	106.39	0.0101	0.0190	14.44
MINIMUM	MG/L COMBINED		2.00	10.00	0.0010	0.0010	3.80
	MG/L OUTFALL		0.85	4.25	0.0004	0.0006	1.66
	KG/DAY	*	1.58	1.58	0.0008	0.0012	3.08
	LBS/DAY		3.48	3.48	0.0017	0.0025	6.78

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3-1-85
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 3-1-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲43	+473		26	
TSS	mg/l	-	23	60	▲42*	+235		26	
F^-	mg/l	-	6	20	▲				
Cr^{6+}	mg/l	-	0.02	0.05	▲				
Cr^{total}	mg/l	-	0.3	1	▲				
Phosphates	mg/l	-	2	5			▲		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲6.2	▲	
Temperature	°C	-	-	27			▲17.3	▲21.0	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD				.2549		.1610	.4159	
BOD	lbs./ Day		120	240	91.4			91.4	
TSS	lbs./ Day		61	160	89.3			89.3	

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 0 Minutes

allowed time out of compliance for the month 446 Minutes

* Peroxide addition to Silicon solids sump

SCOEPA00034593

Greg Carr

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF ORGANIC WASTEWATER GRAB SAMPLE FOR TCE.
After liquid/liquid extraction of blanks, standards, and samples, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 3/28/85
17.00 hrs

SAMPLE ANALYZED BY: Elinor Levin DATE 4/2 and 4/9/85

RESULTS:

SAMPLE		TCE PPM	SAMPLE PLUS 0.52 PPM TCE ADDED TCE PPM	% RECOVERY
3/28/85	Organic Wastewater	5.9 PPM	1.03	85%

COPIES SENT TO: Greg, Murray Tilson, Jim Ellis
FORM# 107-016

SCOEPA00034595

Wacker Siltronic Corporation
P.O Box 03180
Portland, OR 97203
7200 N.W. Front Ave
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 20, 1985

Mr. Renato C. Dulay
Field Representative, Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97204
522 S.W. Fifth Avenue
Portland, Oregon 97207

Dear Mr. Dulay:

As mentioned during our meeting of March 19, I am writing this letter to update you on the status of the project to divert one of our waste streams containing organics to the City Sewer.

Murray Tilson and Greg Carr met with the City of Portland on Thursday, March 14 to discuss the feasibility of the diversion. Basically, Harry Edmonds of the Bureau of Environmental Services concurred with the plan for diversion and agreed that the construction can proceed immediately.

For your information, the bids are due back from the contractors for this project by April 2 and physical completion of the construction is now targeted for April 11. The actual diversion to the City will occur during the week of April 15. As mentioned in our March 19 meeting, we feel that at least a one (1) month period is necessary to evaluate the full impact of this project on our TSS and BOD levels to the river.

If you have questions or comments regarding the above, please call.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis
Acting Facilities Manager

JRE:jm

cc: ✓Greg Carr
Jim Harper
John Pittman
Mal Russ
Murray Tilson
File

Wacker Siltronic Corporation

RECEIVED
ENGINEERING

MAR 18 1985

John L. Pittman
Wacker Siltronic

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 14, 1985

Renato C. Dulay
Field Representative, Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
522 S.W. Fifth Avenue
Portland, Oregon 97204

Dear Mr. Dulay:

Attached is the NPDES monitoring report for February 1985. No unusual incidents happened during the month. A test using Hydrogen Peroxide addition to reduce BOD levels in the effluent was started during the month, but the results are not finalized yet.

Several projects to improve our compliance status are now underway. Physical drain modifications are being done that will divert the boiler blowdown and a floordrain in a support area to the WAD system. This will give an active neutralization to these streams. Instrumentation to transmit the outfall pH signal to the wastewater treatment plant is on order. These activities will improve the pH performance of the plant.

In addition, a firm decision by Siltronic to initiate a capital project to experimentally divert the slicing waste to the City Sewer has been made. Discussions concerning this experiment will start on March 14 with the Bureau of Environmental Services. If approved, this diversion will improve the BOD status of our outfall. The target date for project completion is April 8, 1985.

Sincerely,

WACKER SILTRONIC CORPORATION

Greg Carr JRE

Greg Carr
Facilities Engineer

GC:jm

cc: Jim Ellis
Jim Harper
John Pittman
Mal Russ
Murray Tilson
File

Facility Name/ Location if different)

NAME Wacker Siltronic Corp
ADDRESS P.O.Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

DISCHARGE MONITORING REPORT (DMR)

OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 58

2834-J
9345 0

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	02	01	TO	85	02	28

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MVI	SAMPLE MEASUREMENT	269,000	338,600	GPD	—	—	—	—	—	continuous	
	PERMIT REQUIREMENT	—	—		—	—	—		—	totalizing recorder	
MVI BOD	SAMPLE MEASUREMENT	167	205	#/D	42	64	83	mg/l	—	1/7	24HC
	PERMIT REQUIREMENT	120	240		—	45	90		—	"	"
TSS	SAMPLE MEASUREMENT	97	110	#/D	29	37	42	mg/l	-	"	"
	PERMIT REQUIREMENT	61	160		—	23	60		-	"	"
Cr 6+	SAMPLE MEASUREMENT	<.003	<.003	#/D	<.001	<.001	.001	mg/l	-	"	"
	PERMIT REQUIREMENT	.03	.1		—	.02	.05		-	"	"
Cr Total	SAMPLE MEASUREMENT	<.005	.013	#/D	<.001	.002	.005	mg/l	-	"	"
	PERMIT REQUIREMENT	.5	1.0		—	.3	1.0		-	"	"
Fluoride	SAMPLE MEASUREMENT	12	14.7	#/D	3.2	4.6	5.7	mg/l	-	"	"
	PERMIT REQUIREMENT	21.4	42.7		—	8	16		-	"	"
TTO	SAMPLE MEASUREMENT	—	—	—	—	—	.35	mg/l	-	1/28	Grab
	PERMIT REQUIREMENT	—	—		—	—	1.37		-	"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
J Pittman / Dir Eng.	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	AREA CODE 503	NUMBER 243-2020	YEAR 85	MO 03	DAY 11
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PH was in compliance 99.08 of the time. Total time out of compliance was 4/24 minutes.
No excursions were longer than 60 minutes.

SCOEPA00034598

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)
NAME Wacker Siltronic Corp
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-0030581-7
(17-19) DISCHARGE NUMBER: 58

2834-J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	85	02	01	TO	85	02	26
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	QUANTITY OR LOADING (54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	QUALITY OR CONCENTRATION (46-53) AVERAGE	QUALITY OR CONCENTRATION (54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	201,000	257,000	GPD	–	–	–	–		continuous totalizing recorder	
	PERMIT REQUIREMENT	–	–		–	–	–				
Total $PO_3^{\equiv}$	SAMPLE MEASUREMENT	–	–	–	<.1	<.1	.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	470,000	591,000	GPD	–	–	–				
	PERMIT REQUIREMENT	–	–		–	–	–				
Outfall Temperature	SAMPLE MEASUREMENT	–	–	–	19.2	20.0	20.6	°C		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	–	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	–	–	–	3.0	–	11.6	pH units		continuous recorder	
	PERMIT REQUIREMENT	–	–		6.0	–	9.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JPittman / Dir Eng
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

John L Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503, NUMBER 243-2020

DATE: YEAR 85, MO 03, DAY 11

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034599

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

March 14, 1985

Renato C. Dulay
Field Representative, Northwest Region
Department of Environmental Quality
Post Office Box 1760, Portland 97207
522 S.W. Fifth Avenue
Portland, Oregon 97204

Dear Mr. Dulay:

Attached is the NPDES monitoring report for February 1985. No unusual incidents happened during the month. A test using Hydrogen Peroxide addition to reduce BOD levels in the effluent was started during the month, but the results are not finalized yet.

Several projects to improve our compliance status are now underway. Physical drain modifications are being done that will divert the boiler blowdown and a floordrain in a support area to the WAD system. This will give an active neutralization to these streams. Instrumentation to transmit the outfall pH signal to the wastewater treatment plant is on order. These activities will improve the pH performance of the plant.

In addition, a firm decision by Siltronic to initiate a capital project to experimentally divert the slicing waste to the City Sewer has been made. Discussions concerning this experiment will start on March 14 with the Bureau of Environmental Services. If approved, this diversion will improve the BOD status of our outfall. The target date for project completion is April 8, 1985.

Sincerely,

WACKER SILTRONIC CORPORATION

Greg Carr JRE

Greg Carr
Facilities Engineer

GC:jm

cc: Jim Ellis
Jim Harper
John Pittman
Mal Russ
Murray Tilson
File

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME: Wacker Siltronic Corp
ADDRESS: PO Box 03180
Portland, Or 97203
FACILITY: 7200 NW Front Ave
LOCATION: Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-7
(17-19) DISCHARGE NUMBER: 5B

2834-J
9345-0

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	02	01	TO	85	02	28

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MVI	SAMPLE MEASUREMENT	269,000	338,600	GPD	—	—	—	—	—	continuous	
	PERMIT REQUIREMENT	—	—		—	—	—		—	totalizing recorder	
MVI BOD	SAMPLE MEASUREMENT	167	205	#/D	42	64	83	mg/l	—	1/7	24HC
	PERMIT REQUIREMENT	120	240		—	45	90		—	"	"
TSS	SAMPLE MEASUREMENT	97	110	#/D	29	37	42	mg/l	—	"	"
	PERMIT REQUIREMENT	61	160		—	23	60		—	"	"
Cr 6+	SAMPLE MEASUREMENT	<.003	<.003	#/D	<.001	<.001	.001	mg/l	—	"	"
	PERMIT REQUIREMENT	.03	.1		—	.02	.05		—	"	"
Cr Total	SAMPLE MEASUREMENT	<.005	.013	#/D	<.001	.002	.005	mg/l	—	"	"
	PERMIT REQUIREMENT	.5	1.0		—	.3	1.0		—	"	"
Fluoride	SAMPLE MEASUREMENT	12	14.7	#/D	3.2	4.6	5.7	mg/l	—	"	"
	PERMIT REQUIREMENT	21.4	42.7		—	8	16		—	"	"
TTO	SAMPLE MEASUREMENT	—	—	—	—	—	.35	mg/l	—	1/28	Grab
	PERMIT REQUIREMENT	—	—		—	—	1.37		—	"	"

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
J Pittman / Dir Eng.	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	503 (AREA CODE)	243-2020 (NUMBER)	85 (YEAR)	03 (MO)	11 (DAY)
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PH was in compliance 99.08 of the time. Total time out of compliance was 424 minutes.
No excursions were longer than 60 minutes.

SCOEPA00034601

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)
NAME Wacker Siltronic Corp
ADDRESS PO Box 03180
Portland, Or 97203
FACILITY 7200 NW Front Ave
LOCATION Portland, Or 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-0030587
(17-19) DISCHARGE NUMBER: 58

2834-J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	85	02	01	TO	85	02	26

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow MV3	SAMPLE MEASUREMENT	201,000	257,000	GPD	–	–	–	–		continuous totalizing	
	PERMIT REQUIREMENT	–	–		–	–	–			recorder	
Total $PO_3^{\equiv}$	SAMPLE MEASUREMENT	–	–	–	<.1	<.1	.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	2.0	5.0			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	479,000	591,000	GPD	–	–	–				
	PERMIT REQUIREMENT	–	–		–	–	–				
Outfall Temperature	SAMPLE MEASUREMENT	–	–	–	19.2	20.0	20.6	°C		1/7	Grab
	PERMIT REQUIREMENT	–	–		–	–	29.4			"	"
Outfall pH	SAMPLE MEASUREMENT	–	–	–	3.0	–	11.6	pH units		continuous	
	PERMIT REQUIREMENT	–	–		6.0	–	9.0			recorder	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER: JPittman / Dir Eng (TYPED OR PRINTED)

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT: John L Pittman

TELEPHONE: AREA CODE 503, NUMBER 243-2020

DATE: YEAR 85, MO 03, DAY 11

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034602

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved No. 158-R0073

PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM				TO			
	(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		QUANTITY OR LOADING *(3 Card Only) (46-53) (54-61)* AVERAGE	MAXIMUM	UNITS	QUALITY OR CONCENTRATION *(4 Card Only) (38-45) (46-53) (54-61)* MINIMUM	AVERAGE	MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
Flow - discharge	SAMPLE MEASUREMENT	269,000	339,000	GPD	—	—	—	—	—	Continuous	
Flow - Mo. 2	PERMIT REQUIREMENT										
Mo 2 BOD 5	SAMPLE MEASUREMENT	1.7	2.5	#/D	4.2	6.4	9.3	mg/L	—	1/7	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	7.7	11.0	#/D	2.7	3.4	4.7	mg/L	—	1/M	24HC
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	<.003	<.003	#/D	<.001	<.001	<.001	mg/L	—	1/M	GRAB
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	<.005	.013	#/D	<.001	.002	.005	mg/L	—	1/M	GRAB
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	1.2	14.7	#/D	3.2	4.6	5.7	mg/L	—	1/M	"
	PERMIT REQUIREMENT										
TTO	SAMPLE MEASUREMENT	—	—	—	—	—	35	#/L	—	1/2Y	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
[illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[illegible]	AREA CODE 303	NUMBER 293-2025	YEAR 85	MO 12	DAY 11
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

[illegible] Total [illegible] 4/24 [illegible]

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034603

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
No. 158-R0073

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

2834-3

93-150

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM				TO			
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

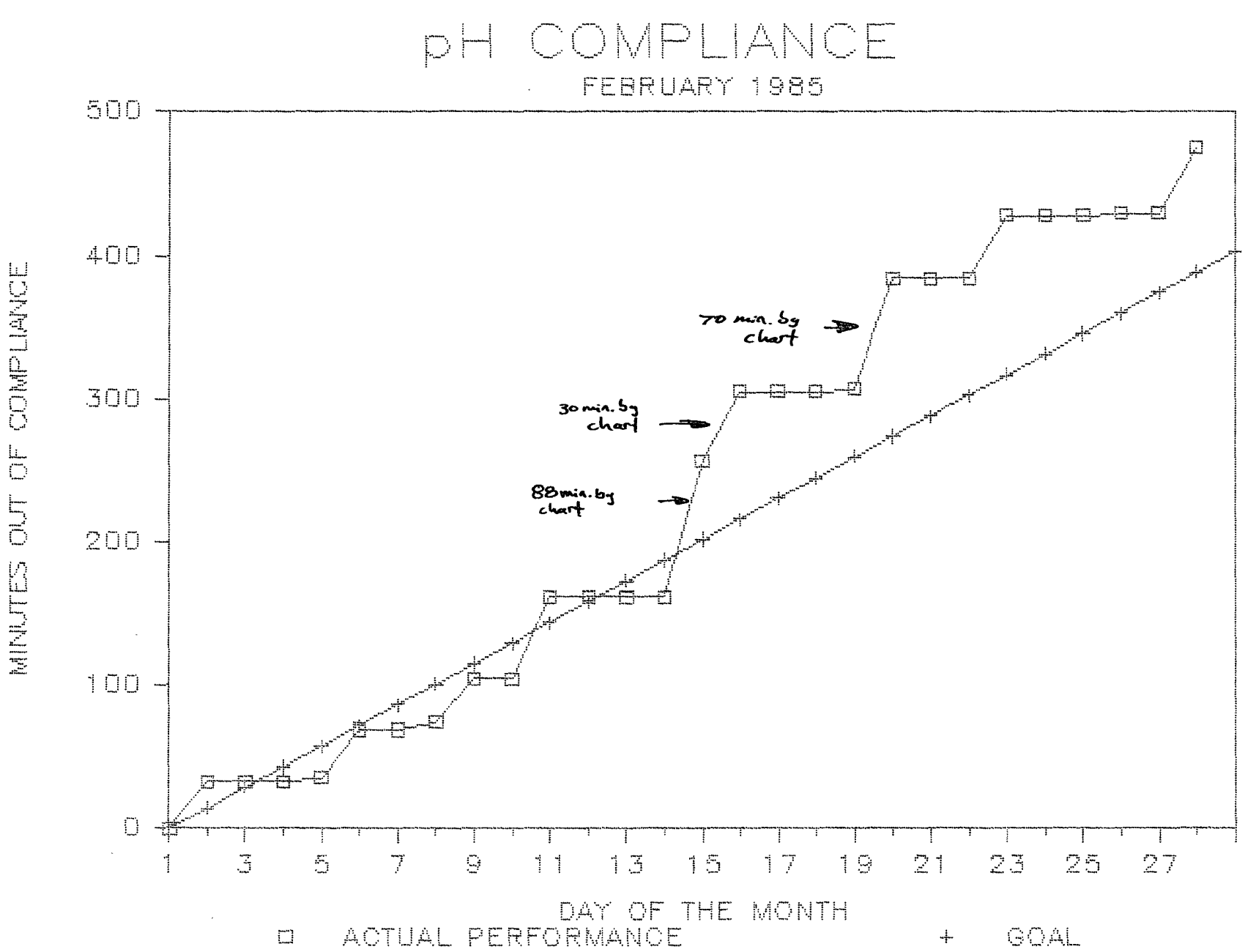
NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT	20,000	257,000	MGD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT									1/7	Grab
	PERMIT REQUIREMENT							S.U			
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT				7.2	20.0	20.6	°C		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT				5.0		11.6	mg/l		Continuous	
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years!)*		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
			803	743-1202	85	12	11

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034604



SCOEPA00034605

dwtp285 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIME. GRAPH IS [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
31.00	6.0 - 9.0	1	656216	132139	1576955	2938631	222	1	1121	181	862	1983
32	33.20	2	662078	161760	1577432	2940908	216	2	1068	182	854	1922
33	33.20	3	667777	189984	1577914	2943164	237	3	1090	186	860	1950
34	33.20	4	674033	218795	1578405	2945436	196	4	1093	157	900	1993
35	35.60	5	679205	247668	1578820	2947813	202	5	1046	174	810	1856
36	69.50	6	684554	275296	1579280	2949953	217	6	1141	160	974	2115
37	70	7	690277	305444	1579703	2952525	195	7	1188	136	741	1929
38	74.70	8	695421	336833	1580062	2954482	223	8	1168	178	841	2010
39	105.00	9	701319	367701	1580531	2956705	225	9	1170	168	837	2007
40	105.00	10	707261	398610	1580974	2958917	208	10	1105	139	924	2029
41	162.10	11	712756	427814	1581340	2961358	225	11	1086	181	787	1873
42	162.10	12	718711	456508	1581817	2963437	236	12	1038	156	928	1966
43	162.10	13	724943	483937	1582228	2965888	220	13	1059	158	796	1855
44	162.10	14	730744	511911	1582646	2967992	200	14	1073	182	847	1920
45	256.90	15	736039	540249	1583126	2970230	211	15	1282	168	847	2129
46	305.40	16	741614	574116	1583570	2972469	189	16	1277	152	961	2239
47	305.40	17	746613	607859	1583972	2975009	200	17	1223	145	702	1925
48	305.40	18	751909	640160	1584356	2976864	204	18	1257	166	942	2200
49	306.60	19	757309	673375	1584794	2979354	203	19	1206	157	875	2081
50	384.00	20	762667	705247	1585210	2981666	197	20	1166	173	885	2051
51	384.00	21	767865	736054	1585666	2984004	202	21	1100	172	822	1922
52	384.00	22	773210	765108	1586121	2986176	165	22	1188	142	822	2010
53	427.90	23	777571	796492	1586495	2988348	165	23	1086	139	860	1946
54	427.90	24	781926	825177	1586863	2990620	187	24	1095	161	833	1929
55	427.90	25	786874	854120	1587288	2992821	208	25	1203	185	834	2037
56	429.50	26	792367	885906	1587778	2995025	184	26	974	204	804	1778
57	429.50	27	797232	911642	1588316	2997148	213	27	1149	149	804	1952
58	475.10	28	802856	941990	1588709	2999271	186	28	965	135	609	1574
ERR	475.10	1	807769	967479	1589066	3000881		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1281.87	236.79	203.63	973.50	2238.57
MINIMUM FLOW M3/DY	964.76	164.84	135.12	609.39	1574.15
AVERAGE FLOW M3/DY	1129.20	204.87	163.72	841.49	1970.69
MAXIMUM FLOW GPM	235.16	43.44	37.36	178.59	410.67
MINIMUM FLOW GPM	176.99	30.24	24.79	111.79	288.78
AVERAGE FLOW GPM	207.16	37.58	30.03	154.37	361.53
TOTAL FLOW GALLONS	8352542	1515374	1210976	6224361	14576903
DAILY FLOW GALLONS	269437	48883	39064	200786	470223

TOTAL FLOW TO CITY SEWER
********** GALLONS

DATE	OWW BOD	OWW TSS	METER VAULT THREE PHOSPHATE	METER VAULT THREE pH	METER VAULT THREE TEMP	COMBINED DISCHARGE pH	COMBINED DISCHARGE TEMP
1.00	227.00		0.10	6.30	16.90	7.20	20.60
8.00	462.00		0.10	6.40	15.90	7.70	19.40
15.00	422.00		0.10	6.70	17.80	8.80	20.90
22.00	547.00	137.00	0.10	6.50	16.40	6.90	19.20
AVERAGE	414.50	34.25	0.10	6.48	16.75	7.65	20.03

DATE	LBS BOD IN OWW		LBS TSS
1.00	111.05		0.00
8.00	227.40		0.00
15.00	196.33		0.00
22.00	199.07		49.86
0.00	0.00		0.00
AVERAGE	146.77	AVERAGE	9.97
AVERAGE TOTAL LBS/MO	5804.02		479.58

LBS/MO

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE
1.00	MG/L	83.00	40.00	0.0010	0.0010	4.60
OUTFALL	MG/L	46.93	22.62	0.0006	0.0006	2.60
	KG/DAY	93.06	44.85	0.0011	0.0011	5.16
	LBS/DAY	205.15	98.87	0.0025	0.0025	11.37
8.00	MG/L	71.00	38.00	0.0010	0.0010	5.70
OUTFALL	MG/L	41.28	22.09	0.0006	0.0006	3.31
	KG/DAY	82.95	44.40	0.0012	0.0012	6.66
	LBS/DAY	182.88	97.88	0.0026	0.0026	14.68
15.00	MG/L	60.00	29.00	0.0010	0.0010	3.20
OUTFALL	MG/L	36.12	17.46	0.0006	0.0006	1.93
	KG/D	76.91	37.17	0.0013	0.0013	4.10
	LBS/DAY	169.56	81.95	0.0028	0.0028	9.04
22.00	MG/L	42.00	42.00	0.0010	0.0050	4.90
OUTFALL	MG/L	24.82	24.82	0.0006	0.0030	2.90
	KG/DAY	49.89	49.89	0.0012	0.0059	5.82
	LBS/DAY	109.99	109.99	0.0026	0.0131	12.83
5.00	MG/L					
OUTFALL	MG/L	0.00	0.00	0.0000	0.0000	0.00
	KG/DAY	0.00	0.00	0.0000	0.0000	0.00
	LBS/DAY	0.00	0.00	0.0000	0.0000	0.00
AVERAGE	MG/L COMBI	64.00	37.25	0.0010	0.0020	4.60
	MG/L OUTFA	37.29	21.75	0.0006	0.0012	2.68
4.00	KG/DAY	75.70	44.08	0.0012	0.0024	5.43
	LBS/DAY	166.90	97.17	0.0026	0.0052	11.98
MAXIMUM	MG/L COMBI	83.00	42.00	0.0010	0.0050	5.70
	MG/L OUTFA	46.93	24.82	0.0006	0.0030	3.31
	KG/D	93.06	49.89	0.0013	0.0059	6.66
	LBS/DAY	205.15	109.99	0.0028	0.0131	14.65
MINIMUM	MG/L COMBI	0.00	0.00	0.0000	0.0000	0.00
	MG/L OUTFA	0.00	0.00	0.0000	0.0000	0.00
	KG/DAY	0.00	0.00	0.0000	0.0000	0.00
	LBS/DAY	0.00	0.00	0.0000	0.0000	0.00

*

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	83.00	93.06	40.00	44.85	.00	.00	.00	.00	4.60	5.16

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/1/85
ANALYSTS: [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 2-1-85	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 83	+ 227		45	
TSS	mg/l	–	23	60	▲ 40	+		22	
F^-	mg/l	–	6	20	▲ 4.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.001				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ ~~6.3~~	▲ ~~7.2~~	
Temperature	°C	–	–	27			▲ ~~16.9~~	▲ 20.6	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.2733		.2312	.5045	
BOD	lbs./ Day		120	240	189			189	
TSS	lbs./ Day		61	160	91			91	

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 0 Minutes

allowed time out of compliance for the month 446 Minutes

SCOEPA00034608

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/8/85
ANALYSTS: [illegible] / [illegible]

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	-	NPDES PARAMETER LIMITS							
Date 2-8-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 71	+ 462		44	
TSS	mg/l	-	23	60	▲ 38	+		23	
F^-	mg/l	-	6	20	▲ 5.7				
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.001				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.4	▲ 7.7	
Temperature	°C	-	-	27			▲ 15.9	▲ 19.4	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					
Flow	MGD				.3139		.1957	.5096	
BOD	lbs./Day		120	240	186				
TSS	lbs./Day		61	160	99				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 74.7 Minutes

allowed time out of compliance for the month 446 Minutes

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2/15/85
ANALYSTS: Efird / M. Ford

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By: S Pengelly	-	NPDES PARAMETER LIMITS						
Date 2-15-85	-							
Time	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	-	45	90	▲ 60	+ 422		33
TSS	mg/l	-	23	60	▲ 29	+		16
F^-	mg/l	-	6	20	▲ 3.2			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001			
Cr^{total}	mg/l	-	0.3	1	▲ 0.001			
Phosphates	mg/l	-	2	5			▲ < 0.1	
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲	
pH	pH units	▲ 6	-	9			▲ 6.7	▲ 8.8
Temperature	°C	-	-	27			▲ 17.8	▲ 20.9
Turbidity	NTU	-	-	-				
Conductivity	μmho's cm	-	-	-				
Flow	MGD				.283		.224	.507
BOD	lbs./ Day		120	240	142			142
TSS	lbs./ Day		61	160	68			68

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 265.9 Minutes
allowed time out of compliance for the month 446 Minutes
Silicon Solids 24 hr. composit BOD 336 mg/l TSS 5170 mg/l
average flow 44 GPM
WAD 24hr. composite BOD 16 mg/l TSS 3 mg/l

SCOEPA00034610

WEEKLY WASTEWATER ANALYSIS

FACILITIES MGR.
FACILITIES OP SUPR
ENVIRONMENTAL ENGR
FILE

TO: DISTRIBUTION
DATE: 2/22/85
ANALYSTS: C. Jones / N. Lord

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 2-22-85	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	45	90	▲ 42 *	+ 547		24	
TSS	mg/l	-	23	60	▲ 42	+ 137		24	
F^-	mg/l	-	6	20	▲ 4.9	0.6			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.005				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.5	▲ 6.9	
Temperature	°C	-	-	27			▲ 16.4	▲ 19.2	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					
Flow	MGD				.2905		.2172	.5077	
BOD	lbs./ Day		120	240	102			102	
TSS	lbs./ Day		61	160	102			102	

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

pH time out of compliance for current week 384 Minutes

allowed time out of compliance for the month 446 Minutes

Grinding Machine grab sample BOD 19 mg/l TSS 1022 mg/l
Slicing Machine grab sample BOD 120 mg/l TSS 3612 mg/l
Ethylene Glycol BOD - approx 14,000 mg/l - more next week
* H_2O_2 addition at Silicon Solids sump

SCOEPA00034611

Chart Review vs totalizer time
February 1985

Date	Minutes Totalizer	Δtime	Comments	
1	ϕ			
2	33.2	33.2	37 min by chart	4.3/11.6
3	33.2			
4	33.2			
5	35.6	2.4	radio?	
6	69.5	33.9	32 min by chart	10.0
7	69.5			
8	74.7	5.2	none by chart	
9	105.0	30.3	30 min by chart	9.5
10	105.0			
11	162.1	57.1	62 min by chart	9.7/3.0
12	162.1			
13	162.1			
14	162.1		+ calibration	
15	265.9	103.8	88 min by chart	9.9
16	305.4	39.5	30 by chart	9.1
17	305.4		+ calibration	
18	305.4			
19	306.6	1.2	0 by chart	
20	384.0	77.4	3 incidents 15+35+20 = 70 min	10.0
21	384.0			
22		43.9	none	
23	427.9		30 min - chart	9.1
24	427.9			
25	427.9			
26	429.5	1.6	calibration	
27		45.6	5 min - chart	10.9
28	475.1		40 min - chart	9.3

424 min by chart = 7 hrs, 4 min

99.0% of the Time in compliance.

Carr

Wacker Siltronic Corporation
P.O. Box 03180
Portland, OR 97203
7200 N.W. Front Ave.
Portland, OR 97229
Phone (503) 243-2020
TWX 910-464-4777
FAX 503 226-0052

January 15, 1985

RECEIVED
JAN 16 1985
WACKER SILTRONIC
ENGINEERING

Mr. Renee Dulay
DEQ - Northwest Region
PO Box 1760
Portland, Oregon 97207

Dear Mr. Dulay:

I am writing to inform you of the specifics of a spill of wastewater containing TCE on our plant on Monday, December 31, 1984.

Between about 11 pm. on New Year's Eve and 1 am. New Year Day, the waste treatment process at Wacker Siltronic spilled between 700 and 900 gallons of liquid which was in the course of processing. Chemical analysis of liquid samples from the site of the spill were collected and analyzed by Emergency Environmental Services -- from the results it is indicated that the solution was 98% water containing about 1.9% trichlorethylene (TCE). This low level of concentration was not considered an emergency.

On observing the spill, the facility operation staff immediately shut off the flow of the liquid. A small amount of effluent had drained across the walkway and along the road toward a storm drain approximately 100 yards from the spill -- the drain was immediately valved off to prevent any further discharge into the storm sewer. Due to the heavy ground frost and due to the fact that most of the area was paved, little adsorption into the ground occurred and it was possible to clean up the surface liquid on January 2. In addition to chemical tests on the surface liquid, analysis of the soil adjacent to the equipment was also carried out on January 2 by Environmental Emergency Services Inc. DEQ was informed of the spill on January 1 and a representative viewed the site the following day -- they were given complete copies of the analyses.

Wacker Siltronic asked the consultant what steps should be taken to be absolutely certain that the soil adjacent to the equipment would meet present and anticipated future environmental standards. It was recommended that two feet of soil be removed directly adjacent to the equipment tapering down to six inches several feet away. This action has already been put into effect. Soil samples will be taken after the soil removal to verify that no significant contamination remains.

Excavation to the levels recommended by EES was started on 1/14/85. In all, 175 cubic yards of soil, weighing 300,00 lbs will be removed.

Two spills of this dilute waste liquid have occurred in the past months. To absolutely prevent any further problems, the company has designed a concrete containment basin which was scheduled for installation before the end of January 1985 -- this will be installed immediately following the soil removal and satisfactory tests.

The cause was an equipment failure related to the forwarding pump on the SOD-T tank. The equipment was restarted following the spill and ran normally. The intermittent failure cannot be explained, but actions are being taken to eliminate this possibility in the future as detailed below.

The following equipment modifications will be done before re-starting the operation. The forwarding tanks will have high-level alarms installed to automatically shut-down the operation if a pump malfunction occurs. The pumps themselves will be replaced with a different type of pump that will be more reliable. The equipment will be modified to allow it to be run as an entirely closed unit to the fullest extent possible.

If you have any comments or questions please feel free to call me.

Thank you.

Sincerely yours,

WACKER SILTRONIC CORPORATION

John Pittman
Director of Engineering

GC/md

cc: Greg Carr
Jim Harper
Don Crane
Mal Russ

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
No. 158-R0073

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

2834-J

9450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	84	01	01	TO	84	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - MGD	SAMPLE MEASUREMENT	283,000	330,000	GPD	—	—	—	—	0	Continuous	
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	217	275	lb/D	2.9	8.8	12.0	mg/l	0	1/2	24 Hr
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	11.2	14.6	lb/D	3.7	4.5	5.8	mg/l	0	1/2	24 Hr
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	<.001	.002	lb/D	<.001	<.002	.001	mg/l	0	1/2	24 Hr
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT	.01	.015	lb/D	.003	.004	.006	mg/l	0	1/2	24 Hr
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT	1.1	2.9	lb/D	3.8	4.7	5.6	mg/l	0	1/2	24 Hr
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	7.1	—	11.1	pH units	1	Continuous	24 Hr
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years)*	TELEPHONE	DATE
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR / MO / DAY
		412-[illegible]	85 / 02 / 15

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

pH - [illegible] Flow - 60 minute [illegible]

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

PAGE 1 OF 2

SCOEPA00034615

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location [illegible]rent)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MO[illegible]RING REPORT (DMR)

F[illegible] Approved
[illegible] No. 158-R0073

(2-16)	(17-19)
[illegible]	57
PERMIT NUMBER	DISCHARGE NUMBER

2834-J
9345-0

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	[illegible]	[illegible]	[illegible]	TO	[illegible]	[illegible]	[illegible]
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TTO-MV1	SAMPLE MEASUREMENT	—	—	—	—	—	0.32	mg/l		1/mo	Grab
	PERMIT REQUIREMENT										
[illegible] Flow [illegible]	SAMPLE MEASUREMENT	215,000	538,000	GPD	—	—	—	—		continuous	
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	—	—	—	<.1	<.1	<.1	mg/l		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	499,000	510,000	GPD	—	—	—	—		continuous	
	PERMIT REQUIREMENT										
[illegible] Temperature	SAMPLE MEASUREMENT	—	—	—	.77	17.8	18.4	°C	0	1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

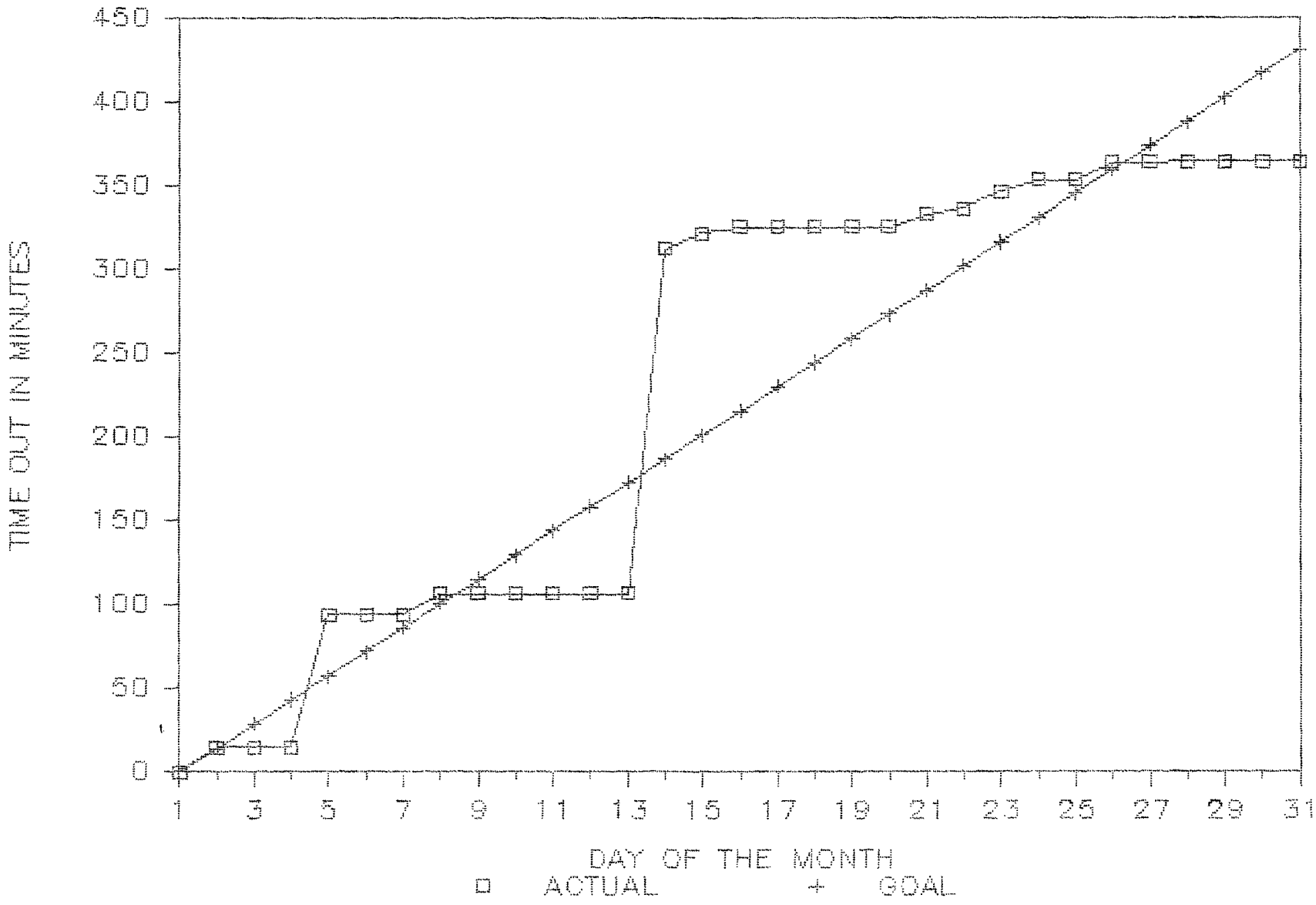
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[illegible]	TELEPHONE		DATE		
[illegible]		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	203	293-1690	85	02	15
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034616

pH COMPLIANCE



SCOEPA00034617

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	*	BOD	TSS	CR 6+	CR TOTAL	FLUORIDE
4	MG/L	*	39.00	58.00	0.0010	0.0060	4.20
OUTFALL	MG/L	*	22.35	33.24	0.0006	0.0034	2.41
	KG/DAY	*	44.68	66.44	0.0011	0.0069	4.81
	LBS/DAY		98.49	146.48	0.0025	0.0152	10.61
11	MG/L	*	120.00	33.00	0.0010	0.0030	5.60
OUTFALL	MG/L	*	67.59	18.59	0.0006	0.0017	3.15
	KG/DAY	*	125.23	34.44	0.0010	0.0031	5.84
	LBS/DAY		276.08	75.92	0.0023	0.0069	12.88
18	MG/L	*	92.00	38.00	0.0010	0.0030	3.80
OUTFALL	MG/L	*	55.58	22.96	0.0006	0.0018	2.30
	KG/D	*	110.25	45.54	0.0012	0.0036	4.55
	LBS/DAY		243.07	100.40	0.0026	0.0079	10.04
25	MG/L	*	99.00	49.00	0.0010	0.0040	5.10
OUTFALL	MG/L	*	58.52	28.96	0.0006	0.0024	3.01
	KG/DAY	*	113.52	56.19	0.0011	0.0046	5.85
	LBS/DAY		250.28	123.87	0.0025	0.0101	12.89
5	MG/L	*					
OUTFALL	MG/L	*	5 MG/L	*			
OUTFALL	MG/L	*	0.00	0.00	0.0000	0.0000	0.00
	KG/DAY	*	0.00	0.00	0.0000	0.0000	0.00
	LBS/DAY		0.00	0.00	0.0000	0.0000	0.00
ERAGE	MG/L COMBINED		87.50	44.50	0.0010	0.0040	4.68
	MG/L OUTFALL		51.01	25.94	0.0006	0.0023	2.72
4	KG/DAY	*	98.42	50.65	0.0011	0.0045	5.26
	LBS/DAY		216.98	111.67	0.0025	0.0100	11.61
MAXIMUM	MG/L COMBINED		120.00	58.00	0.0010	0.0060	5.60
	MG/L OUTFALL		67.59	33.24	0.0006	0.0034	3.15
	KG/D	*	125.23	66.44	0.0012	0.0069	5.85
	LBS/DAY		275.50	146.17	0.0026	0.0151	12.87
MINIMUM	MG/L COMBINED		0.00	0.00	0.0000	0.0000	0.00
	MG/L OUTFALL		0.00	0.00	0.0000	0.0000	0.00
	KG/DAY	*	0.00	0.00	0.0000	0.0000	0.00
	LBS/DAY		0.00	0.00	0.0000	0.0000	0.00

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	39	44.675813	58	66.440953	0.001	0.0011455	0.006	0.0068732	4.2	4.8112414
	120	125.22785	33	34.437660	0.001	0.0010435	0.003	0.0031306	5.6	5.8439666
COMBINED	92	110.25374	38	45.539591	0.001	0.0011984	0.003	0.0035952	3.8	4.5539591
EFFLUENT	99	113.52399	49	56.188644	0.001	0.0011467	0.004	0.0045868	5.1	5.8482059
PARAMETERS	0	0	0	0	0	0	0	0	0	0

OUTFALL	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
PARAMETERS	22.352712	33.242495	0.0005731	0.0034388	2.4072152
	67.588404	18.586811	0.0005632	0.0016897	3.1541255
	55.577043	22.955735	0.0006040	0.0018122	2.2955735
	58.516154	28.962540	0.0005910	0.0023642	3.0144685
	0	0	0	0	0

DWTP185 TIME OUT TO PRINT SHEET PRESS [ALT] AND [P] AT THE SAME TIMFOR GRAPH HOLD [ALT] AND [G] AT THE SAME TIME

DY OF YR	OF pH	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
1	6.0 - 9.0	1	331466	253741	1562589	2871844	370	1	1248	147	753	2001
2	0	2	341250	286724	1562977	2873833	392	2	1163	144	879	2042
3	15.1	3	351594	317453	1563358	2876156	287	3	1089	168	798	1887
4	15.1	4	359179	346228	1563801	2878263	312	4	1146	189	853	1999
5	15.1	5	367410	376493	1564300	2880517	481	5	1178	165	809	1987
6	94.3	6	380107	407628	1564735	2882654	518	6	1102	139	853	1954
7	94.3	7	393796	436730	1565102	2884907	291	7	1089	153	821	1909
8	94.3	8	401490	465494	1565506	2887075	301	8	1035	177	809	1844
9	107.3	9	409437	492832	1565974	2889213	391	9	1110	154	840	1950
10	107.3	10	419767	522163	1566380	2891431	312	10	1099	144	804	1904
11	107.3	11	428005	551207	1566761	2893556	310	11	1044	142	809	1853
12	107.3	12	436194	578778	1567136	2895694	710	12	1046	140	746	1792
13	107.3	13	454959	606412	1567507	2897665	311	13	826	136	902	1728
14	107.3	14	463175	628236	1567867	2900049	296	14	1147	142	743	1890
15	312.7	15	470984	658548	1568242	2902012	324	15	1061	206	888	1949
16	322.1	16	479537	686589	1568786	2904357	378	16	1012	206	798	1811
17	326.5	17	489528	713334	1569331	2906466	288	17	856	207	783	1639
18	326.5	18	497128	735954	1569877	2908534	476	18	1198	163	785	1984
19	326.5	19	509693	767616	1570307	2910609	321	19	1078	164	797	1875
20	326.5	20	518186	796107	1570739	2912714	315	20	1004	178	808	1812
21	326.5	21	526502	822639	1571210	2914848	335	21	1055	243	864	1919
22	333.2	22	535361	850509	1571853	2917130	342	22	963	259	811	1774
23	337.2	23	544388	875948	1572536	2919272	282	23	1036	151	801	1836
24	347.3	24	551848	903308	1572936	2921388	735	24	1074	168	745	1839
25	354.3	25	571279	931687	1573381	2923409	543	25	1147	154	793	1940
26	354.2	26	585638	961983	1573787	2925505	550	26	1147	161	793	1940
27	364.4	27	600172	992279	1574212	2927601	446	27	1134	170	753	1887
28	364.4	28	611945	1022236	1574660	2929591	459	28	1178	162	856	2033
29	365.1	29	624081	1053346	1575087	2931852	357	29	987	243	843	1829
30	365.1	30	633515	1079417	1575730	2934078	486	30	961	246	848	1809
31	365.1	31	646355	1104806	1576380	2936319	373	31	1035	218	875	1910
32	365.1	1	656216	1132139	1576955	2938631		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1248.41	735.47	258.52	902.35	2042.35
MINIMUM FLOW M3/DY	826.04	282.36	136.26	743.00	1638.91
AVERAGE FLOW M3/DY	1072.50	396.51	175.40	815.45	1887.95
MAXIMUM FLOW GPM	229.03	134.92	47.43	165.54	374.68
MINIMUM FLOW GPM	151.54	51.80	25.00	136.31	300.66
AVERAGE FLOW GPM	196.75	72.74	32.18	149.60	346.35
TOTAL FLOW GALLONS	8783078	3247167	1436453	6678014	15461092
DAILY FLOW GALLONS	283325	104747	46337	215420	498745

TOTAL FLOW TO CITY SEWER
4683619 GALLONS

DATE	OWW		METER VAULT THREE			COMBINED DISCHARGE	
	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
4	435		0.1	6.3	15.2	8.4	17.1
11	275		0.1	5.7	14.9	7.8	18.4
18	236		0.1	6	15.6	8.2	17.7
25	462		0.1	5.8	14.4	7.4	18
AVERAGE	1408	0	0.4	23.8	60.1	31.8	71.2

DATE	LBS BOD IN OWW		LBS TSS
4	299		0
11	188		0
18	247		0
25	554		0
0	0		0
AVERAGE	257.56032	AVERAGE	0
AVERAGE TOTAL LBS/MO	38158	0	LBS/MO

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/4/85
ANALYSTS: Glenn Furr

FACILITIES OP. SUPR
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 1-4-84	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲39	+435		23	
TSS	mg/l	–	23	60	▲58	+		33	
F^-	mg/l	–	6	20	▲4.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.001				
Cr^{total}	mg/l	–	0.3	1	▲0.006				
Phosphates	mg/l	–	2	5			▲<0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.3	▲8.4	
Temperature	°C	–	–	27			▲15.2	▲17.1	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow (mgD)					.288		.211	.499	
BOD	lbs/day		120	240.2	93				
TSS	lbs/day		61	160	139				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034620

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION

DATE: 1/11/85

ANALYSTS: Elinor Lerri / [illegible] / Nancy Lara

FACILITIES OP. SUPR.

ENVIRONMENTAL ENGR.

FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 120	+ 275		69	
TSS	mg/l	–	23	60	▲ 33	+		19	
F^-	mg/l	–	6	20	▲ 5.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲ 7.8	
Temperature	°C	–	–	27			▲ 14.9	▲ 18.4	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.290		.212	.502	
BOD	lbs/Day		120	240.2	289				
TSS	lbs/Day		61	160	79				

▲ Marked items are NPDES Parameters.

▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034621

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 1/18/85
ANALYSTS: Glenn Lewis / Howard Hyde / Harvey Lee

FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	45	90	▲ 92	+ 236		51	
TSS	mg/l	–	23	60	▲ 38	+		21	
F^-	mg/l	–	6	20	▲ 3.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.0	▲ 8.2	
Temperature	°C	–	–	27			▲ 15.6	▲ 17.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					
Flow (MGD)					.262		.209	.469	
BOD	lbs/Day		120	240.2	200				
TSS	lbs/Day		61	160	83				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS BODs.
Clarifier 24hr. Comp. 53 mg/l
WAD Grab 56 "

SCOEPA00034622

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION

DATE: 1/25/83

ANALYSTS: Elinor Levin [illegible] Nancy Lao

FACILITIES OP. SUPR.

ENVIRONMENTAL ENGR.

FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–			▲ 99	+ 462		58	
TSS	mg/l	–			▲ 49	+		29	
F^-	mg/l	–	6	20	▲ 5.1				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲ 7.4	
Temperature	°C	–	–	27			▲ 14.4	▲ 18.0	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					
Flow	MGD				.284		.202	.486	
BOD	lbs/Day		120	240.2	233				
TSS	lbs./Day		61	160	115				

▲ Marked items are NPDES Parameters.

▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034623

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE.

After liquid/liquid extraction of blanks, standards, and samples, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 1/4/85,1/8/85

SAMPLE ANALYZED BY: Elinor Levin DATE 1/8/85

RESULTS:

SAMPLE	RESULTS
1/8/85 Process Wastewater	0.32 PPM
1/4/85 Organic Wastewater	1.28 PPM

COPIES SENT TO: Greg Carr

FORM# 107-016

WACKER SILTRONIC CORPORATION

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION AND IDENTIFICATION:

ANALYSIS OF PROCESS WASTEWATER AND ORGANIC WASTEWATER GRAB SAMPLES FOR TCE.

After liquid/liquid extraction of blanks, standards, and samples, the extracts were analyzed by gas liquid chromatography using the electron capture detector.

SAMPLE COLLECTED BY: Sam Pengelly DATE 1/4/85,1/8/85

SAMPLE ANALYZED BY: Elinor Levin DATE 1/8/85

RESULTS:

SAMPLE	RESULTS
1/8/85 Process Wastewater	0.32 PPM
1/4/85 Organic Wastewater	1.28 PPM

?Q

COPIES SENT TO: Greg Carr

FORM# 107-016

SCOEPA00034625

Insp. _____

DISCHARGE MONITORING PORT REVIEW FORMS

DEQ - NORTHWEST REGION

19 85

Exp. Date _____

Permit Number 2834-J

Name of Source Wacker Siltronics

limits til Sept. 86

File Number 93450

PARAMETER and FREQUENCY		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	LIMITS
Process Flow	ave.	283,000	269,000	265,000	320,000	278,000	383,000	341,000	289,000					
	max	330,000	338,000	336,000	711,000	388,000	447,000	434,000	439,000					
BOD #/day	ave.	217	167	97	51	20.8	58	45.5	33					120 #/D
mg/l		88	64	40.4	19.5	7.6	17.5	15.8	11.4					45 mg/l
#/day	max.	275	205	225	104	70.5	104	87.7	60					240.2 #
mg/l		120	83	89	43	26.0	30	27.0	22.0					90
TSS #/day	ave.	112	97	61	19.7	13.8	42	24.5	24					61 #
mg/l		45	37	27	7.8	5.0	12.8	10.0	[illegible]					23
#/day	max.	146	110	106	35	24.5	70	27.5	[illegible]					160 #
mg/l		58	42	42	15	8.0	21	16.0	[illegible]					60
Cr+6 #/day	ave.	<.002	<.003	.005	<.005	.003	<.007	<.003	<.003					0.03 #
mg/l		<.001	<.001	.002	<.002	.001	<.002	<.001	<.001					0.02
#/day	max.	.003	<.003	.01	<.005	.006	.007	.003	<.003					0.1 #
mg/l		.001	.001	.004	<.002	.002	.002	.001	[illegible]					0.05
Cr+ #/day	ave.	.01	<.005	<.01	.014	.008	.029	.013	[illegible]					0.5 #
mg/l		.004	.002	.005	.005	.003	.009	.005	[illegible]					0.3
#/day	max.	.015	.013	.02	.026	.015	.042	.02	[illegible]					1.0 #
mg/l		.006	.005	.008	.003	.005	.012	.007	[illegible]					1.0
F- #/day	ave.	11.6	12	10.0	12.2	9.7	13.2	10.3	[illegible]					21.4 #
mg/l		4.7	4.6	4.4	4.6	4.2	4.0	3.9	4.6					8
#/day	max.	12.9	14.7	14.4	14.3	15.6	15.6	14.6	[illegible]					42.7 #
mg/l		5.6	5.7	5.7	5.8	5.1	4.6	4.5	[illegible]					16
TTO			.35	.12	.07	.11	.10	.11	.12					3.6 #
														1.37
Cooling Flow	ave.			219,000	247,000	150,000	514,000	148,000	[illegible]					
	max.			474,000	1,486,000	220,000	573,000	222,000	[illegible]					
~~PO4~~ + $PO_3^{\equiv}$	ave.	<.1	<.1	<.1	<.1	<.1	<.1	.13	<.1					2.0 mg/l
	max	<.1	.1	<.1	<.1	<.1	<.1	.2	<.1					5.0 mg/l
outfall combined pH	min.	2.1	3.0	4.8	4.6	5.0	5.8	6.9	4.0					6.0
	max.	11.1	11.6	11.2	12.4	10.3	10.4	9.0	<9.0					9.0
Temp.	max.	18.4	20.6	21.2	21.7	25.7	24.6	21.8	24.1					85°F 29.4C
free Cl_2	ave.	17.8	no entry											0.2 mg/l
	max.	17.1												0.5 mg/l

Wacker 85

SCOEPA00034626

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-7-83
ANALYSTS: Elam

FACILITIES MGR. ~
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/7/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day - BOD	mg/l	–	15	30	▲26	+440			
TSS	mg/l	–	15	30	▲58	+59			
F^-	mg/l	–	6	20	▲7.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.004				
Cr^{total}	mg/l	–	0.3	1	▲0.005				
Phosphates	mg/l	–	2	5			▲0.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.5	▲6.3	
Temperature	°C	–	–	27			▲18.7	▲24.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034627

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-14-83
ANALYSTS: Elam

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/14/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day BOD	mg/l	–	15	30	▲ 33	+ 653			
TSS	mg/l	–	15	30	▲ 49	+ 226			
F^-	mg/l	–	6	20	▲ 5.1				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.004				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲ 7.4	
Temperature	°C	–	–	27			▲ 17.6	▲ 20.9	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are N.P.D.E.S. Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034628

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-21-83
ANALYSTS: Elam

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 10/21/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day – BOD	mg/l	–	15	30	▲27	+497			
TSS	mg/l	–	15	30	▲941	+268			
F^-	mg/l	–	6	20	▲7.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.004				
Cr^{total}	mg/l	–	0.3	1	▲0.010				
Phosphates	mg/l	–	2	5			▲0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.1	▲7.7	
Temperature	°C	–	–	27			▲16.4	▲22.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

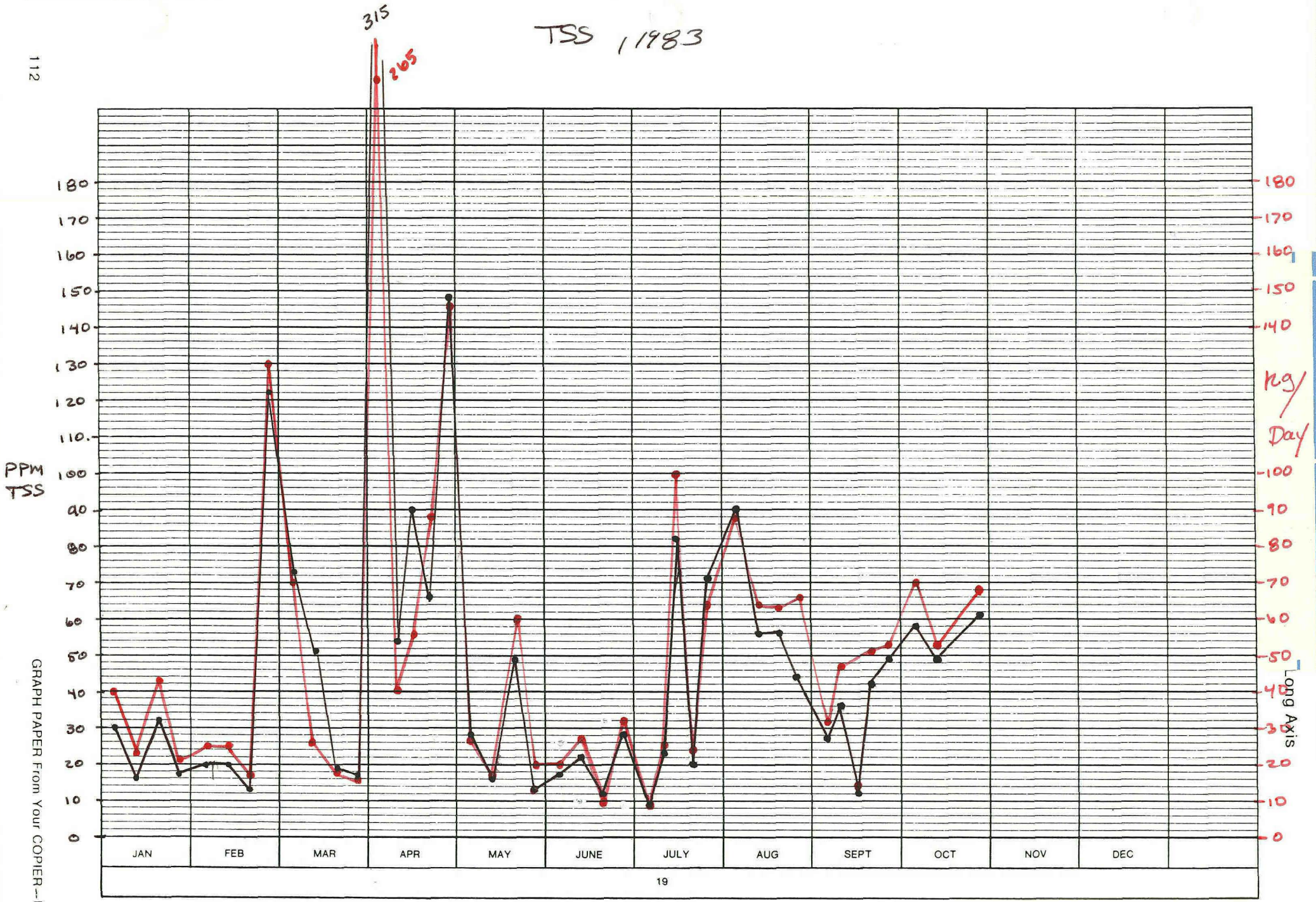
SCOEPA00034629

Greg Carr

10 violations!
20hrs 22 min
2.74% of the time
97.3% on compliance.

PH violations WWTP October 1983

10/2/83	:20	5,5,10 3.8		
	1:15	5.0		✓
10/3/83	:40	10.5		✓
	:10	2.0	Tried ~~[illegible]~~ ? acid pump	
	:05	10.5	short manual line dump WAD	
10/4/83	:05	1.5		
	:20	3.4		✓
	:10	10.6		
10/10	:05	2.4	2nd ~~large~~ acid pump	regeneration ✓
	:10	10.9		
	:07	10.5		
10/13	:10	3.7		✓
	:10	10.0		
10/15	:10	11.3	switch controllers	
10/16	6:45	10.5	Low flow	✓
10/17	:10	4.9		
10/18	1:15	3.0/11.0	~~[illegible]~~ tried large acid pump controls	✓
	:05	3.3	"	
10/20	:10	5.2		
	:10	3.4		
	:10	10.6	oscillation in WAD?	
	:05	10.0		
	:10	10.0		
10/21	1:00	11.0/5.3	?	✓
10/25	2:05	2.5/11.8	Clarifier upset (large!)	✓
10/27	:35	10.1	mad was oscillations? Regeneration?	✓
10/30	:10	5.5		
	3:35	9.3		



112

GRAPH PAPER From Your COPIER—HPBooks

SCOEPA00034633

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Approved
No. 158-R0073

(2-16) PERMIT NUMBER: [illegible]

(17-19) DISCHARGE NUMBER: 001

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	02	08	01	TO	02	08	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow M.U. 1	SAMPLE MEASUREMENT	1168	1657	m^3/d	-	2	-	-		cont.	Total
	PERMIT REQUIREMENT										
Main Unit 1 BOD	SAMPLE MEASUREMENT	49.2	86.6	kg/d	28	41	73	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	29.7	53.5	"	12	33.2	49.0	mg/l	0	"	"
	PERMIT REQUIREMENT										
Cromium 6+	SAMPLE MEASUREMENT	.004	.004	"	.002	.003	.004	mg/l	0	"	"
	PERMIT REQUIREMENT										
Cromium Total	SAMPLE MEASUREMENT	.007	.010	"	.004	.006	.009	mg/l	0	"	"
	PERMIT REQUIREMENT										
Fluoride	SAMPLE MEASUREMENT	8.2	10.9	"	5.8	6.8	9.2	mg/l	0	"	"
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	-	-	-	2.0	-	12.1	pH units	8	continuous	
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
[illegible] / Dir. Eng.	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	803	243 2020	82	10	14
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

[illegible] circulation tanks pump [illegible] system had exceed 14 hours violation out of 24 total hours with compliance on pH 77.4% of the time.

SCOEPA00034634

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if ...nt)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MO...ORING REPORT *(DMR)*

Approved
No. 158-R0073

(2-16) PERMIT NUMBER: OP. M2058-9

(17-19) DISCHARGE NUMBER: 001

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	93	09	01	TO	93	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow thru Flow Mete. Vault 3	SAMPLE MEASUREMENT	775	931	m^3/d	—	—	—	—		1/1	total.
	PERMIT REQUIREMENT										
M.V 2 TP Phosphate	SAMPLE MEASUREMENT	—	—		.2	.4	.5	mg/l	0	1/3	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall pH	SAMPLE MEASUREMENT	—	—		6.2	7.0	8.1	pH units	0	1/7	Grab
	PERMIT REQUIREMENT										
Temp	SAMPLE MEASUREMENT	—	—		22.4	24.0	25.3	°C	0	1/30	Grab
	PERMIT REQUIREMENT										
Flow	SAMPLE MEASUREMENT	1934	2514	m^3/d	—	—	—	—		1/1	total.
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT							mg/l	0	During	
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
VP Prod/Ops Eng	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 803	NUMBER 243 2020	YEAR 93	MO 10	DAY 14
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034635

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-2-83
ANALYSTS: Eliam

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/2/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 42	+ 447			
TSS	mg/l	–	15	30	▲ 27	+ 74			
F^-	mg/l	–	6	20	▲ 5.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲ 6.2	
Temperature	°C	–	–	27			▲ 19.3	▲ 24.7	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034636

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-9-83
ANALYSTS: Eliam

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/9/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 32	+ 447			
TSS	mg/l	–	15	30	▲ 36	+ 87			
F^-	mg/l	–	6	20	▲ 5.9				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.3	▲ 7.1	
Temperature	°C	–	–	27			▲ 18.4	▲ 25.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034637

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-16-83
ANALYSTS: Elam

FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/16/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 73	+ 495			
TSS	mg/l	–	15	30	▲ 12	+ 57			
F^-	mg/l	–	6	20	▲ 9.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.006				
Phosphates	mg/l	–	2	5			▲ 0.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.6	▲ 8.1	
Temperature	°C	–	–	27			▲ 20.1	▲ 23.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034638

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-23-83
ANALYSTS: Elam

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENG.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Prugelly	–	NPDES PARAMETER LIMITS							
Date 9/23/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 30	+ 418			
TSS	mg/l	–	15	30	▲ 42	+ 86			
F^-	mg/l	–	6	20	▲ 7.0				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.009				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 4.9	▲ 6.5	
Temperature	°C	–	–	27			▲ 18.2	▲ 22.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034639

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-30-83
ANALYSTS: Eliam

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 9/30/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 28	+ 462			
TSS	mg/l	–	15	30	▲ 49	+ 154			
F^-	mg/l	–	6	20	▲ 6.1				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.004				
Cr^{total}	mg/l	–	0.3	1	▲ 0.009				
Phosphates	mg/l	–	2	5			▲ 0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.6	▲ 7.1	
Temperature	°C	–	–	27			▲ 18.8	▲ 24.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034640

Greg Carr

RECEIVED

OCT 13 1983

WACKER SILTRONIC
ENGINEERING

NPDES Violations September 1983

Date	Length	max/min	Cause	report?
9/3	:05	11.0	Low Flow Conditions Weekend.	1 Violation 2 hrs 40 minutes
	:05	11.2		
	:10	3.3		
	:10	11.2		
	:10	11.4		
	:50	2.0		
	:10	2.1		
	:10	2.8		
	:05	3.4		
	:10	10.4		
	:20	2.6		
	:05	9.5		
	:05	10.6		
	:05	9.4		
9/6	:10	10.9	Regeneration 2 Beds	1 violation 1 hr 10 min
	:10	9.9		
	:10	~4	(Ins being worked on) acid overcreation	
	:40	11.4		
	:10	10.1	Controller failure? - FF WAD station	no
9/7	1:05	12.1	Working on line system return High clarifier pH	1 violation 2 hrs 30 min
	:25	10.5		
	1:00	10.0		
9/8	:10	11.0	Fooling @ line system	no
9/17	:15	10.0		no
9/18	2:00	10.6	Line system problems	1 violation 10 hrs 50 min
	2:00	10.6	" " "	
	1:35	2.0	" " "	
	5:15	10.4	" " "	
9/19	:05	10.0	" " "	
	:05	5.6	" " "	
	:15	10.1	" " "	
9/20	:15	9.6	" " " afterpath - layering in clarifier	40 minutes 1 violation
9/21	:15	4.8	Regeneration	1 violation
9/24	:10	10.0	?	no
9/25	:15	11.0	?	yes
9/30	:40	12.0	ccw overflow - regeneration	yes

SCOEPA00034642

~~9/30 .40 1.0 CCW overflow reduction~~

Total # violations ≥ 15 minutes 16
violations ≥ 5 minutes 36

Total time out of compliance 19 hrs 45 minutes

out of compliance 2.74% of the time

In compliance 97.3% of the time

Lime System problems 14 hrs 10 minutes

1 Caused by CCW ~~of~~ overflow

SCOEPA00034643

NPDES PA Violations @ September 1983

Date	Length (totals)	max/min	Cause
9/3	2:40	2.0/11.2	Low flow conditions
9/6	1:10	4.0/11.4	2 Regenerations Back to back
9/7	2:30	12.1	Replacing lime System Return - upset clarifier
9/18	10:50	2.0/11.4	Lime system plugged, unable to handle CAD Demand, upset clarifier
9/19	:40	5.6/10.1	Layering in clarifier from 9/18
9/21	:15	4.8	Regeneration
9/25	:15	11.0	?
9/30	:40	12.0	Concentrated Caustic waste tank overflowed - no room in sumps to hold excess.

8 Violations

19 hrs or 2.6% of the time

In compliance 97.4% of the time

Lime systems problems, now resolved, accounted for 14 hours of the 19 hours violations, or 74% of our troubles for the month.

SCOEPA00034644

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	*	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
	2MG/L	*	42	27	.003	.005	5.8
OUTFALL	MG/L	*	25.587332	16.448999	.00182767	.00304611	3.5334887
	KG/DAY	*	50.112263	32.215026	.00357945	.00596575	6.9202650
	9MG/L	*	32	36	.002	.005	5.9
OUTFALL	MG/L	*	19.911408	22.400334	.00124446	.00311116	3.6711658
	KG/DAY	*	41.994852	47.244209	.00262468	.00656170	7.7428009
	16MG/L	*	73	12	.003	.006	9.2
OUTFALL	MG/L	*	44.177697	7.2620872	.00181552	.00363104	5.5676002
	KG/D	*	86.608062	14.236942	.00355924	.00711847	10.914989
	23MG/L	*	30	42	.003	.004	7
OUTFALL	MG/L	*	18.212962	25.498146	.00182130	.00242839	4.2496911
	KG/DAY	*	36.512112	51.116957	.00365121	.00486828	8.5194928
	30MG/L	*	28	49	.004	.009	6.1
OUTFALL	MG/L	*	18.531452	32.430041	.00264735	.00595654	4.0372091
	KG/DAY	*	30.553066	53.467865	.00436472	.00982063	6.6562036
AVERAGE	MG/L COMBINED		41	33.2	.003	.0058	6.8
	MG/L OUTFALL		25.284170	20.807922	.00187126	.00363465	4.2118310
	5KG/DAY	*	49.156071	39.656200	.00355586	.00686696	8.1507502
MAXIMUM	MG/L COMBINED		73	49	.004	.009	9.2
	MG/L OUTFALL		44.177697	32.430041	.00264735	.00595654	5.5676002
	KG/D	*	86.608062	53.467865	.00436472	.00982063	10.914989
MINIMUM	MG/L COMBINED		28	12	.002	.004	5.8
	MG/L OUTFALL		18.212962	7.2620872	.00124446	.00242839	3.5334887
	KG/DAY	*	30.553066	14.236942	.00262468	.00486828	6.6562036

violation

violation

*

DATA SUMMARY FOR PLOTTING.	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
	42	50.112263	27	32.215026	.003	.00357945	.005	.00596575	5.8	6.9202650
	32	41.994852	36	47.244209	.002	.00262468	.005	.00656170	5.9	7.7428009
COMBINED	73	86.608062	12	14.236942	.003	.00355924	.006	.00711847	9.2	10.914989
EFFLUENT	30	36.512112	42	51.116957	.003	.00365121	.004	.00486828	7	8.5194928
PARAMETERS	28	30.553066	49	53.467865	.004	.00436472	.009	.00982063	6.1	6.6562036

OUTFALL PARAMETERS	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
	25.587332	16.448999	.00182767	.00304611	3.5334887
	19.911408	22.400334	.00124446	.00311116	3.6711658
	44.177697	7.2620872	.00181552	.00363104	5.5676002
	18.212962	25.498146	.00182130	.00242839	4.2496911
	18.531452	32.430041	.00264735	.00595654	4.0372091

Under proposed ~~water~~ permit, limitations are as follows

BOD peak 74 kg/d average 38.6 kg/d - 2 violations

TSS peak 152 kg/d average ~~51.2~~ 56.7 kg/d - No violations

pH 19.0 hrs out of compliance (11½ hrs over limit)

1 violation over 1 hr. long

SCOEPA00034645

DWTP983 "^E&k2S PRINT TO M117

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
245	9	1	850670	329814	1179978	1746591	237.93	1	1410.26	35.50	814.91	2225.17
246	9	2	856956	367073	1180916	1748744	180.02	2	1193.15	34.82	765.33	1958.48
247	9	3	861712	398596	1181836	1750766	134.48	3	686.18	34.78	765.71	1451.89
248	9	4	865265	416725	1182755	1752789	74.19	4	578.27	34.75	698.71	1276.99
249	9	5	867225	432003	1183673	1754635	114.19	5	692.51	33.19	640.80	1333.31
250	9	6	870242	450299	1184550	1756328	218.96	6	1352.23	35.28	827.02	2179.26
251	9	7	876027	486025	1185482	1758513	219.83	7	1509.35	34.22	820.59	2329.94
252	9	8	881835	525902	1186386	1760681	225.21	8	1657.19	35.09	856.93	2514.12
253	9	9	887785	569685	1187313	1762945	140.50	9	1312.34	45.04	796.74	2109.09
254	9	10	891497	604357	1188503	1765050	118.47	10	1057.83	34.22	683.19	1741.03
255	9	11	894627	632305	1189407	1766855	132.36	11	828.24	36.00	727.10	1555.34
256	9	12	898124	654187	1190358	1768776	205.53	12	1340.73	33.27	780.85	2121.58
257	9	13	903554	689609	1191237	1770839	196.25	13	1395.42	34.37	853.52	2248.94
258	9	14	908739	726476	1192145	1773094	214.19	14	1476.57	35.92	823.62	2300.19
259	9	15	914398	765487	1193094	1775270	198.03	15	1407.08	34.10	871.31	2278.39
260	9	16	919630	802662	1193995	1777572	164.35	16	1186.41	35.39	774.03	1960.45
261	9	17	923972	834007	1194930	1779617	57.08	17	283.04	40.58	601.82	884.86
262	9	18	925480	841485	1196002	1781207	107.34	18	702.46	25.97	697.58	1400.04
263	9	19	928316	860044	1196688	1783050	208.74	19	1378.54	34.37	822.10	2200.64
264	9	20	933831	896465	1197596	1785222	209.50	20	1461.39	33.61	807.72	2269.12
265	9	21	939366	935075	1198484	1787356	239.59	21	1497.58	34.22	870.55	2368.13
266	9	22	945696	974641	1199388	1789656	230.39	22	1500.49	34.52	845.19	2345.69
267	9	23	951783	1014284	1200300	1791889	179.07	23	1217.07	34.71	787.66	2004.73
268	9	24	956514	1046439	1201217	1793970	93.34	24	566.05	33.69	693.04	1259.09
269	9	25	958980	1061394	1202107	1795801	176.42	25	825.36	33.42	726.72	1552.08
270	9	26	963641	1083200	1202990	1797721	190.42	26	1488.64	34.63	930.73	2419.38
271	9	27	968672	1122530	1203905	1800180	266.09	27	1279.79	35.09	776.68	2056.47
272	9	28	975702	1156342	1204832	1802232	195.91	28	1286.03	33.95	833.46	2119.49
273	9	29	980878	1190319	1205729	1804434	297.73	29	1381.15	34.07	803.56	2184.71
274	9	30	988744	1226809	1206629	1806557	177.74	30	1091.18	52.27	557.53	1648.71
275	10	1	993440	1255638	1208010	1808030		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1657.19	297.73	52.27	930.73	2514.12
MINIMUM FLOW M3/DY	283.04	57.08	25.97	557.53	884.86
AVERAGE FLOW M3/DY	1168.08	180.13	35.37	775.16	1943.24
MAXIMUM FLOW GPM	304.02	54.62	9.59	170.75	461.22
MINIMUM FLOW GPM	51.93	10.47	4.76	102.28	162.33
AVERAGE FLOW GPM	214.29	33.05	6.49	142.21	356.49

DATE	OWW		METER VAULT THREE			COMBINED DISCHARGE	
	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
2	447	74	.4	5.7	19.3	6.2	24.7
9	447	87	.2	5.3	18.4	7.1	25.3
16	495	57	.3	5.6	20.1	8.1	23.4
23	418	86	.4	4.9	18.2	6.5	22.4
30	462	154	.5	5.6	18.8	7.1	24.2
AVERAGE	453.8	91.6	.36	5.42	18.96	7	24

SCOEPA00034646

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if [illegible]ent)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MO[illegible]ORING REPORT (DMR)

Form Approved No. 158-R0073

(2-16)	(17-19)
02 [illegible]	[illegible]
PERMIT NUMBER	DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	03	09	01	TO	03	09	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Waste Water Flow Meter Vault 1	SAMPLE MEASUREMENT	1112	1490	m³/d	—	—	—	—		cont.	
	PERMIT REQUIREMENT										
Meter Vault 1 BOD	SAMPLE MEASUREMENT	38.8	49.2	kg/d	28	32.5	37.0	mg/l	3	1/7	
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	70.2	87.9	"	44	61.5	90	"	4	"	
	PERMIT REQUIREMENT										
Cromium 6+	SAMPLE MEASUREMENT	.004	.011	"	.001	.0035	.01	"	0	"	
	PERMIT REQUIREMENT										
Cromium Total	SAMPLE MEASUREMENT	.024	.059	"	.005	.02	.057	"	0	"	
	PERMIT REQUIREMENT										
Fluoride	SAMPLE MEASUREMENT	8.9	10.8	"	4.7	7.8	10.5	"	0	"	
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—				pH units	13	continuous recorder	
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
J. P. Hauer / Dir. Engineering			03	43 2020	02	09	14
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

pH [illegible] limits 78.0 % of the time. TSS violations due to pH probe failure, lime system [illegible] problems and associated pH control problems.

SCOEPA00034647

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if Different)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved No. 158-R0073

(2-16)	(17-19)
AR 0020509	410
PERMIT NUMBER	DISCHARGE NUMBER

Z834J
93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	08	01	TO	83	10	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow Meter Vault 3	SAMPLE MEASUREMENT	778	946	m3/d	—	—	—	—		1/1	total
	PERMIT REQUIREMENT										
MV 3 Total Phosphate	SAMPLE MEASUREMENT				.5	.5	.5	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
outfall pH	SAMPLE MEASUREMENT				6.2	6.6	7.2	pH units	0	"	"
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT				23.9	24.6	25.5	°C	0	"	"
	PERMIT REQUIREMENT										
Free Chlorination	SAMPLE MEASUREMENT				—	—	—	mg/l		Daily	
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	1890	2398	m3/d	—	—	—	—		1/1	total
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
J Pittman / Dir Engineering	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature] for JLP	803	243 2070	83	09	14
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	*	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
5	MG/L	*	28	90	.001	.005	10.5
OUTFALL	MG/L	*	16.377215	52.641048	5.8490E-4	.00292450	6.1414556
	KG/DAY	*	27.357759	87.935655	9.7706E-4	.00488531	10.259160
12	MG/L	*	37	56	.01	.051	6.5
OUTFALL	MG/L	*	22.362864	33.846497	.00604402	.03082449	3.9286112
	KG/DAY	*	42.535995	64.378804	.01149621	.05863070	7.4725397
19	MG/L	*	32	56	.001	.008	9.6
OUTFALL	MG/L	*	18.578546	32.512456	5.8058E-4	.00464464	5.5735638
	KG/D	*	35.963058	62.935352	.00112385	.00899076	10.788917
25	MG/L	*	33	44	.002	.016	4.7
OUTFALL	MG/L	*	20.505800	27.341067	.00124278	.00994221	2.9205230
	KG/DAY	*	49.178993	65.571991	.00298055	.02384436	7.0042808
5	MG/L	*					
OUTFALL	MG/L	*	0	0	0	0	0
	KG/DAY	*	0	0	0	0	0
AVERAGE	MG/L COMBINED		32.5	61.5	.0035	.02	7.825
	MG/L OUTFALL		19.456106	36.585267	.00211307	.01208396	4.6410384
4	KG/DAY	*	38.758952	70.205450	.00414442	.02408778	8.8812245
MAXIMUM	MG/L COMBINED		37	90	.01	.051	10.5
	MG/L OUTFALL		22.362864	52.641048	.00604402	.03082449	6.1414556
	KG/D	*	49.178993	87.935655	.01149621	.05863070	10.788917
MINIMUM	MG/L COMBINED		0	0	0	0	0
	MG/L OUTFALL		0	0	0	0	0
	KG/DAY	*	0	0	0	0	0

*

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	28	27.357759	90	87.935655	.001	9.7706E-4	.005	.00488531	10.5	10.259160
	37	42.535995	56	64.378804	.01	.01149621	.051	.05863070	6.5	7.4725397
COMBINED	32	35.963058	56	62.935352	.001	.00112385	.008	.00899076	9.6	10.788917
EFFLUENT	33	49.178993	44	65.571991	.002	.00298055	.016	.02384436	4.7	7.0042808
PARAMETERS	0	0	0	0	0	0	0	0	0	0

OUTFALL PARAMETERS	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
	16.377215	52.641048	5.8490E-4	.00292450	6.1414556
	22.362864	33.846497	.00604402	.03082449	3.9286112
	18.578546	32.512456	5.8058E-4	.00464464	5.5735638
	20.505800	27.341067	.00124278	.00994221	2.9205230
	0	0	0	0	0

DWTP883 "^E&k2S PRINT TO M116

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW
214	8	1	718982	418691	1149101	1682908	230.89
215	8	2	725082	451724	1149962	1684928	216.73
216	8	3	730808	487222	1150863	1687012	186.90
217	8	4	735746	521439	1151738	1689512	192.32
218	8	5	740827	553332	1152663	1691183	132.89
219	8	6	744338	579146	1153499	1693015	86.11
220	8	7	746613	588336	1154364	1694699	112.19
221	8	8	749577	602929	1155348	1696518	220.25
222	8	9	755396	636394	1156198	1698659	204.13
223	8	10	760789	670436	1157092	1700655	202.12
224	8	11	766129	706180	1158031	1702741	212.98
225	8	12	771756	739627	1158972	1704870	166.01
226	8	13	776142	770000	1159897	1706858	47.96
227	8	14	777409	789386	1160771	1708646	96.40
228	8	15	779956	807823	1161659	1710433	221.88
229	8	16	785818	840347	1162617	1712618	200.76
230	8	17	791122	873065	1163560	1714716	196.56
231	8	18	796315	908240	1164559	1716917	83.84
232	8	19	798530	942794	1165915	1719331	171.73
233	8	20	803067	972486	1166879	1721476	54.81
234	8	21	804515	983351	1167797	1723200	87.85
235	8	22	806836	1002254	1168721	1725228	202.16
236	8	23	812177	1036601	1169713	1727349	193.04
237	8	24	817277	1074143	1170721	1729448	202.12
238	8	25	822617	1111512	1171815	1731639	231.76
239	8	26	828740	1150885	1173006	1734038	161.01
240	8	27	832994	1184311	1174123	1736301	82.93
241	8	28	835185	1202683	1175134	1738146	84.29
242	8	29	837412	1218918	1176199	1739999	176.04
243	8	30	842063	1256035	1177449	1742183	179.52
244	8	31	846806	1292541	1178817	1744323	146.25
245	9	1	850670	1329814	1179978	1746591	

	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
1	1250.30	32.59	764.57	2014.88
2	1343.60	34.10	788.80	2132.40
3	1295.12	33.12	946.25	2241.37
4	1207.15	35.01	632.48	1839.63
5	977.06	31.64	693.41	1670.48
6	347.84	32.74	637.40	985.24
7	552.35	37.24	688.49	1240.84
8	1266.65	32.17	810.37	2077.02
9	1288.49	33.84	755.49	2043.98
10	1352.91	35.54	789.55	2142.47
11	1265.97	35.62	805.83	2071.80
12	1149.62	35.01	752.46	1902.08
13	733.76	33.08	676.76	1410.52
14	697.84	33.61	676.38	1374.22
15	1231.04	36.26	827.02	2058.06
16	1238.38	35.69	794.10	2032.48
17	1331.38	37.81	833.08	2164.46
18	1307.87	51.32	913.70	2221.57
19	1123.85	36.49	811.88	1935.73
20	411.24	34.75	652.54	1063.78
21	715.48	34.97	767.60	1483.08
22	1300.04	37.55	802.80	2102.84
23	1420.97	38.15	794.47	2215.44
24	1414.42	41.41	829.30	2243.72
25	1490.27	45.08	908.02	2398.30
26	1265.18	42.28	856.55	2121.73
27	695.38	38.27	698.33	1393.72
28	614.50	40.31	701.36	1315.86
29	1404.88	47.31	826.65	2231.53
30	1381.76	51.78	809.99	2191.75
31	1410.79	43.94	858.44	2269.2279
1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1490.27	231.76	51.78	946.25	2398.30
MINIMUM FLOW M3/DY	347.84	47.96	31.64	632.48	985.24
AVERAGE FLOW M3/DY	1112.46	160.79	37.70	777.55	1890.01
MAXIMUM FLOW GPM	273.40	42.52	9.50	173.59	439.98
MINIMUM FLOW GPM	63.81	8.80	5.80	116.03	180.75
AVERAGE FLOW GPM	204.08	29.50	6.92	142.64	346.73

DATE	OWW BOD	OWW TSS	METER VAULT THREE PHOSPHATE	METER VAULT THREE pH	TEMP COMBINED DISCHARGE TEMP	TEMP COMBINED DISCHARGE pH	TEMP COMBINED DISCHARGE TEMP
5	422	1610	.5	5.7	19.1	6.2	25.5
12	518	106	.5	5.2	22.1	6.4	24.5
19	578	358	.5	4.8	23.2	6.7	24.5
25	452	163	.5	5.2	22.6	7.2	23.9
AVERAGE	492.5	559.25	.5	5.225	21.75	6.625	24.6

>7.9 78°F

DATE	LBS BOD IN OWW	LBS TSS
5	123.65	471.73
12	189.60	38.80
19	218.84	135.55
25	230.96	83.29
0	0.00	0.00
AVERAGE	152.61	AVERAGE 145.87
AVERAGE TOTAL LBS/MO	5412.39	6145.94 LBS/MO

Ph Violations August '83

Longer than 15 minutes
ph > 9.5

8/5	:45	10.6	Controller Jump?
8/9	:50	10.9	CAUT pH prose failure
	1:15	10.0	
	:45	10.8	
	:45	10.8	
8/10	:35	10.2	Controller Jump
8/12	:30	10.6	
	1:05	11.5 / 3.3	Regeneration
8/23	:20	3.4	Regeneration spike
8/25	:30	2.4	Regeneration spike
8/29	1:35	11.3	
	:40	10.0	Regeneration
8/30	5:00	10.6	RSP limits prevented WAD from corporation high cleaner pH
	14 hrs	35 min	

13 Incidents 1.96 % of the time

98.0% On-line

SCOEPA00034651

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-5-83
ANALYSTS: Eliam

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pennell	–	NPDES PARAMETER LIMITS							
Date 8/5/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 28	+ 422			
TSS	mg/l	–	15	30	▲- 90	+ 1610			
F^-	mg/l	–	6	20	▲- 10.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲- 0.001				
Cr^{total}	mg/l	–	0.3	1	▲- 0.005				
Phosphates	mg/l	–	2	5			▲ 0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲ 6.2	
Temperature	°C	–	–	27			▲ 19.1	▲ 25.5	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Low clarifier pH ~6 lime system failure

SCOEPA00034652

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-12-83
ANALYSTS: Eliam

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/12/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲37	+518			
TSS	mg/l	–	15	30	▲56	+106			
F^-	mg/l	–	6	20	▲6.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.010				
Cr^{total}	mg/l	–	0.3	1	▲0.051				
Phosphates	mg/l	–	2	5			▲0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.2	▲6.4	
Temperature	°C	–	–	27			▲22.1	▲24.5	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Clarifier pH ~ 6.6

PH offset @ controller – Investigate.

TO: DISTRIBUTION
DATE: 8-19-83
ANALYSTS: Eliam

WEEKLY WASTEWATER ANALYSIS

FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengilly	–	NPDES PARAMETER LIMITS							
Date 8/19/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 32	+ 578			
TSS	mg/l	–	15	30	▲ 156	+ 358			
F^-	mg/l	–	6	20	▲ 9.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ 0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 4.8	▲ 6.7	
Temperature	°C	–	–	27			▲ 23.2	▲ 24.5	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Clarifier pH ~6.5

SCOEPA00034654

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-25-83
ANALYSTS: S Pengelly

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 8/25/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲33	+452			
TSS	mg/l	–	15	30	▲44	+163			
F^-	mg/l	–	6	20	▲4.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.002				
Cr^{total}	mg/l	–	0.3	1	▲0.016				
Phosphates	mg/l	–	2	5			▲0.5		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.2	▲7.2	
Temperature	°C	–	–	27			▲22.6	▲23.9	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Clarifier pH ~6.8

SCOEPA00034655

Greg Carr

RECEIVED
SEP 09 1983
WACKER SILTRONIC
ENGINEERING

Re: N.P.D.E.S. Permit

8/12/83

John -

If proposed permit had been officially in effect for July, the following summary would be valid:

	Permit		Actual, July	
	Max.	Avg.	Max.	Avg.
BOD	30 ppm	—	19.1 ppm	16.5 ppm
TSS	45 ppm	—	*49 ppm	24.3 ppm
F^-	20 ppm	6 ppm	5.9 ppm	4.1 ppm

* This TSS violation is correctable and was caused by a communication failure on stand-by, (as mentioned in July Monthly Report). The pH probe went bad during GY but the condition was allowed to persist until dayshift causing a major upset of the clarifier.

Jim

SCOEPA00034657

pH violations July 1983

Date		length	max/min	cause
8/2		:25	9.3	Regeneration
8/1		.15	10.0	Changing Controllers
7/29	(3)	1:30	10.3	? possible controller problem on FR
7/22		:25	1.5	Acid Spike - Regeneration (NO time addition?)
7/21		1:25	11.5	Caustic Rinse Regeneration
7/19		:45	12.9	CCW overflow during regeneration
7/15		:45	5.7	?
7/14	Multiple	13:00	2.2/12.0	pH probe on CAD failed
7/13		3:00	12.1	Ran out of H_2SO_4 - tank gauge partially plugged.
7/8		:30	9.3	Regeneration?
7/4		:10	10.0	Switching controllers
11		22.2 hrs	1.5/12.1	

3.0%

9.2 hrs (1.2% of the time) Less probe failure

SCOEPA00034658

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if [illegible])*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
No. 158-R0073

(2-16) PERMIT NUMBER: [illegible]

(17-19) DISCHARGE NUMBER: 26

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	02	07	01	TO	22	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process WW. Flow Meter Vault 1	SAMPLE MEASUREMENT	1026	1450	m^3/d	—	—	—	—		cont.	total recorder
	PERMIT REQUIREMENT										
Meter Vault 1 BOD	SAMPLE MEASUREMENT	30	39	kg/d	12	27	34	mg/l	2	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	38	100	kg/d	9	9	82	mg/l	2	"	"
	PERMIT REQUIREMENT										
Cromium 6+	SAMPLE MEASUREMENT	0	0	kg/d	0	0	0	mg/l	—	"	"
	PERMIT REQUIREMENT										
Cromium total	SAMPLE MEASUREMENT	.002	.002	kg/d	.001	.0014	.002	mg/l	—	"	"
	PERMIT REQUIREMENT										
Flouride	SAMPLE MEASUREMENT	7.3	11.2	kg/d	4.7	6.7	9.3	mg/l	—	"	"
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	1.5	—	12.1	pH units	4	cont.	recorde
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
J.P. Howe / Dir. Engineering	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	AREA CODE 503	NUMBER 243 2020	YEAR 63	MO 8	DAY 8
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

pH control with compliance 97% of the time. Major TSS upset was due to failure of a [illegible] which was replaced.

SCOEPA00034659

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if ...)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved No. 158-R0073

2834 J

93450

(2-16)	(17-19)
00-003058-9	29
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	07	01	TO	83	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow meter Vault 3	SAMPLE MEASUREMENT	749	1080	m3/d						1/1	total recorder
	PERMIT REQUIREMENT										
meter Vault 3 Total $PO_3^{\equiv}$	SAMPLE MEASUREMENT				.40	.56	.60	mg/l		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
outfall pH	SAMPLE MEASUREMENT				6.2	6.8	7.6	pH units		"	"
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT				15.3	17.5	20.3	°C		"	"
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT				—	—	—	mg/l		During	
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	1775	2381	m3/day						1/1	total.
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
J. P. Hamm Dir Engineering	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503	643-2020	83	8	8
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034660

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	#	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
1	MG/L	#	12	9	0	.001	4.7
OUTFALL	MG/L	#	7.3460538	5.5095404	0	6.1217E-4	2.8772044
	KG/DAY	#	12.080394	9.0602952	0	.00100670	4.7314875
8	MG/L	#	28	23	0	.002	4.9
OUTFALL	MG/L	#	18.887728	15.514920	0	.00134912	3.3053525
	KG/DAY	#	30.666465	25.190310	0	.00219046	5.3666313
15	MG/L	#	32	82 pH prose failure	0	.001	7.6
OUTFALL	MG/L	#	19.128458	49.016674	0	5.9776E-4	4.5430088
	KG/D	#	38.861469	99.582513	0	.00121442	9.2295988
22	MG/L	#	29	20	0	.002	9.3
OUTFALL	MG/L	#	18.345997	12.652412	0	.00126524	5.8833715
	KG/DAY	#	34.910863	24.076457	0	.00240765	11.195553
29	MG/L	#	34	71	0	.001	6.8
OUTFALL	MG/L	#	18.629124	38.901994	0	5.4792E-4	3.7258248
	KG/DAY	#	30.476457	30.476457	0	8.9637E-4	6.0952914
AVERAGE	MG/L COMBINED		27	41	0	.0014	6.66
	MG/L OUTFALL		16.467472	24.319108	0	8.7444E-4	4.0669524
5	KG/DAY	#	29.399129	37.677207	0	.00154312	7.3237123
MAXIMUM	MG/L COMBINED		34	82	0	.002	9.3
	MG/L OUTFALL		19.128458	49.016674	0	.00134912	5.8833715
	KG/D	#	38.861469	99.582513	0	.00240765	11.195553
MINIMUM	MG/L COMBINED		12	9	0	.001	4.7
	MG/L OUTFALL		7.3460538	5.5095404	0	5.4792E-4	2.8772044
	KG/DAY	#	12.080394	9.0602952	0	8.9637E-4	4.7314875

	#	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.		12	12.080394	9	9.0602952	0	0	.001	.00100670	4.7	4.7314875
		28	30.666465	23	25.190310	0	0	.002	.00219046	4.9	5.3666313
COMBINED		32	38.861469	82	99.582513	0	0	.001	.00121442	7.6	9.2295988
EFFLUENT		29	34.910863	20	24.076457	0	0	.002	.00240765	9.3	11.195553
PARAMETERS		34	30.476457	71	30.476457	0	0	.001	8.9637E-4	6.8	6.0952914

OUTFALL	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
PARAMETERS	7.3460538	5.5095404	0	6.1217E-4	2.8772044
	18.887728	15.514920	0	.00134912	3.3053525
	19.128458	49.016674	0	5.9776E-4	4.5430088
	18.345997	12.652412	0	.00126524	5.8833715
	18.629124	38.901994	0	5.4792E-4	3.7258248

B:DWTP783 "^E&k2S PRINT TO M116

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
182	7	1	594230	578727	20260	21567	145.27	1	1006.70	40.88	637.77	1644.4739
183	7	2	598068	605324	21340	23252	66.24	2	484.52	28.61	637.77	1122.2937
184	7	3	599818	618125	22096	24937	72.79	3	461.73	35.43	563.59	1025.3217
185	7	4	601741	630324	23032	26426	95.72	4	683.31	34.18	708.93	1392.2407
186	7	5	604270	648377	23935	28299	197.88	5	1232.13	37.51	735.43	1967.5625
187	7	6	609498	680930	24926	30242	197.16	6	1439.63	37.81	911.43	2351.0598
188	7	7	614707	718965	25925	32650	207.57	7	1300.68	37.55	1079.86	2380.5450
189	7	8	620191	753329	26917	35503	162.23	8	1095.23	38.38	528.39	1623.6185
190	7	9	624477	782265	27931	36899	89.48	9	730.55	35.35	650.26	1380.8100
191	7	10	626841	801566	28865	38617	130.66	10	890.99	42.39	769.11	1660.1060
192	7	11	630293	825106	29985	40649	187.32	11	1404.35	37.89	672.98	2077.3278
193	7	12	635242	862209	30986	42427	208.18	12	1359.31	36.11	743.75	2103.0659
194	7	13	640742	898122	31940	44392	186.53	13	1134.67	38.53	783.88	1918.5466
195	7	14	645670	928100	32958	46463	182.21	14	1351.59	38.38	751.70	2103.2930
196	7	15	650484	963809	33972	48449	174.56	15	1214.42	33.31	817.18	2031.6048
197	7	16	655096	995894	34852	50608	146.97	16	795.23	34.44	686.98	1482.2104
198	7	17	658979	1016904	35762	52423	123.43	17	610.52	32.02	666.92	1277.4413
199	7	18	662240	1033034	36608	54185	176.46	18	1324.53	33.91	715.75	2040.2725
200	7	19	666902	1068028	37504	56076	210.71	19	1454.58	36.68	817.56	2272.1423
201	7	20	672469	1106458	38473	58236	193.41	20	1185.65	32.40	710.07	1895.7229
202	7	21	677579	1137783	39329	60112	194.06	21	1348.68	35.50	791.82	2140.4996
203	7	22	682706	1173415	40267	62204	169.61	22	1203.82	33.76	699.09	1902.9145
204	7	23	687187	1205220	41159	64051	90.42	23	499.81	32.93	700.23	1200.0379
205	7	24	689576	1218425	42029	65901	115.86	24	699.51	32.40	669.57	1369.0765
206	7	25	692637	1236906	42885	67670	188.76	25	1239.25	32.59	722.56	1961.8092
207	7	26	697624	1269647	43746	69579	163.32	26	1188.34	37.06	751.70	1940.0454
208	7	27	701939	1301043	44725	71565	186.34	27	1246.93	25.32	649.51	1896.4421
209	7	28	706862	1333987	45394	73281	186.00	28	1183.88	39.63	914.84	2098.7131
210	7	29	711776	1365265	46441	75698	119.95	29	896.37	33.19	739.59	1635.9576
211	7	30	714945	1388947	47318	77652	51.36	30	427.90	32.97	1058.29	1486.1847
212	7	31	716302	1400252	48189	80448	101.44	31	697.92	34.52	931.11	1629.0310
213	8	1	718982	1418691	49101	82908		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1454.58	210.71	42.39	1079.86	2380.55
MINIMUM FLOW M3/DY	427.90	51.36	25.32	528.39	1025.32
AVERAGE FLOW M3/DY	1025.57	152.32	35.21	748.96	1774.53
MAXIMUM FLOW GPM	266.85	38.66	7.78	198.10	436.72
MINIMUM FLOW GPM	78.50	9.42	4.65	96.93	188.10
AVERAGE FLOW GPM	188.14	27.94	6.46	137.40	325.54

8392 1245 288 6,116 14,51

DATE	OWW	METER VAULT THREE			COMBINED DISCHARGE	
	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
7/1/83	398	310	.6	5.8	15.3	6.7	23.2
7/8/83	402	195	.6	5.4	16.4	7.1	24.1
7/15/83	487	88	.6	6.1	16.2	7.6	24.8
7/22/83	585	389	.6	5.7	19.1	6.2	25.5
7/29/83	605	132	.4	5.4	20.3	6.3	26.3
AVERAGE	495.4	222.8	.56	5.68	17.46	6.78	24.78

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/1/83
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲12	+398			
TSS	mg/l	–	15	30	▲9	+310			
F^-	mg/l	–	6	20	▲4.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.000				
Cr^{total}	mg/l	–	0.3	1	▲0.021				
Phosphates	mg/l	–	2	5			▲0.6		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.8	▲6.7	
Temperature	°C	–	–	27			▲15.3	▲23.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034663

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/8/83
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	-	NPDES PARAMETER LIMITS							
Date	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 28 none	+ 402			
TSS	mg/l	-	15	30	▲ 23 22	+ 195			
F^-	mg/l	-	6	20	▲ 4.9 4.4				
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.000				
Cr^{total}	mg/l	-	0.3	1	▲ 0.002 <.1				
Phosphates	mg/l	-	2	5			▲ 0.6		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 5.4	▲ 7.1	
Temperature	°C	-	-	27			▲ 16.4	▲ 24.1	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034664

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/15/83
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲32	+487			
TSS	mg/l	–	15	30	▲82	+88			
F^-	mg/l	–	6	20	▲7.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.000				
Cr^{total}	mg/l	–	0.3	1	▲0.001				
Phosphates	mg/l	–	2	5			▲0.6		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.1	▲7.6	
Temperature	°C	–	–	27			▲16.2	▲24.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS CAD - flush mix pH probe failure

SCOEPA00034665

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/22/83
ANALYSTS:

FACILITIES MGR. -
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	-	NPDES PARAMETER LIMITS							
Date	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲29	+585			
TSS	mg/l	-	15	30	▲20	+389			
F^-	mg/l	-	6	20	▲9.3				
Cr^{6+}	mg/l	-	0.02	0.05	▲0,000				
Cr^{total}	mg/l	-	0.3	1	▲0,002				
Phosphates	mg/l	-	2	5			▲0.6		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.7	▲6.2	
Temperature	°C	-	-	27			▲19.1	▲25.5	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034666

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7/24/83
ANALYSTS:

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 34	+ 605			
TSS	mg/l	–	15	30	▲ 71	+ 132			
F^-	mg/l	–	6	20	▲ 6.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0,000				
Cr^{total}	mg/l	–	0.3	1	▲ 0.001				
Phosphates	mg/l	–	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.4	▲ 6.3	
Temperature	°C	–	–	27			▲ 20.3	▲ 26.3	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

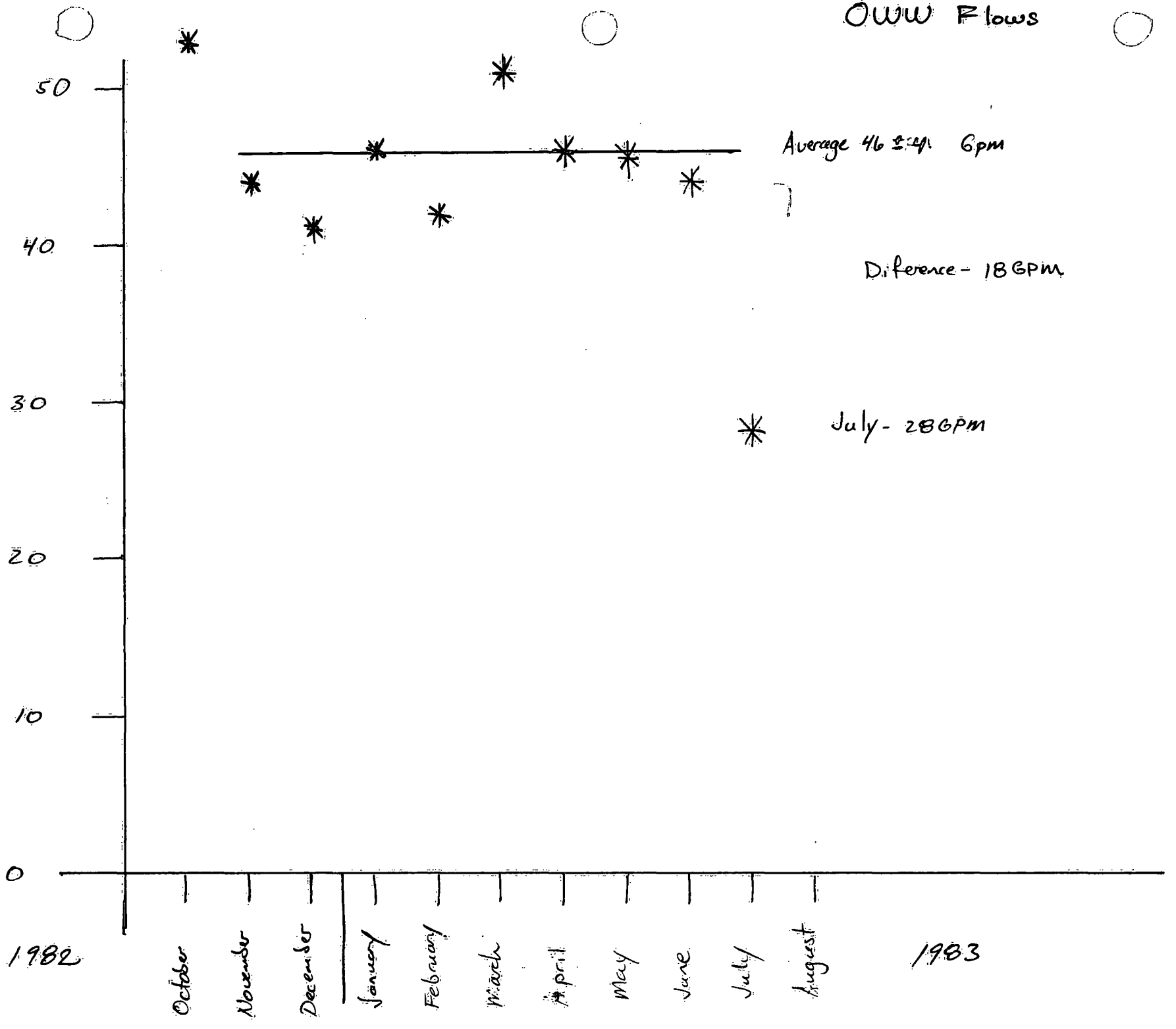
▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Lime System failure

SCOEPA00034667

Greg Carr

OWW Flows



SCOEPA00034669

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if [illegible])

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-9

(17-19) DISCHARGE NUMBER: 30

2834J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	06	01	TO	83	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Blowdown Flow meter Vault 3	SAMPLE MEASUREMENT	744	1244	m3/d						1/1	total recorder
	PERMIT REQUIREMENT										
Meter Vault 3 Total $PO_3^{\equiv}$	SAMPLE MEASUREMENT				.4	.475	.6	mg/l		1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall pH	SAMPLE MEASUREMENT				6.2	6.7	7.3	pH units		1/7	Grab
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT				21	22.4	23.2	°C		1/7	Grab
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT				—	—	—	mg/l		During	
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	1800	2274	m3/d						1/1	total recorder
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
[illegible] / Dir. Engineering			503	243 2026	83	07	12
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034670

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if d[illegible])*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MON[illegible]ORING REPORT *(DMR)*

Form Approved
No. 158-R0073

2834 J
93450

(2-16)	(17-19)
00-[illegible]	20
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	05	01	TO	83	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow meter Vault I	SAMPLE MEASUREMENT	1058	1500	m3/d	—	—	—	—		cont.	total recorder
	PERMIT REQUIREMENT										
Meter Vault 1 BOD	SAMPLE MEASUREMENT	66	78	kg/d	50	59	68	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	22	32	kg/d	12	20	28	mg/l		"	"
	PERMIT REQUIREMENT										
Cromium 6+	SAMPLE MEASUREMENT	.001	.001	kg/d	<.001	.001	.001	mg/l		"	"
	PERMIT REQUIREMENT										
Total Cromium	SAMPLE MEASUREMENT	.002	.003	kg/d	.002	.002	.003	mg/l		"	"
	PERMIT REQUIREMENT										
Flouride	SAMPLE MEASUREMENT	8.5	12.8	kg/d	4.8	7.6	10.8	mg/l		"	"
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	1.3	—	12.0	pH units	13	cont.	recorder
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
[illegible] / Dir. Engineering			503	243 2020	83	07	12
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034671

B:DWTP683 "^E&k2S PRINT TO M116

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
153	6	1	404501	735663	1094051	1562632	331.23	1	1497.09	32.85	767.98	2265.07
154	6	2	413252	775216	1094919	1564661	341.94	2	1413.06	33.27	799.39	2212.45
155	6	3	422286	812549	1095798	1566773	284.14	3	1182.59	32.25	739.97	1922.56
156	6	4	429793	843793	1096650	1568728	69.04	4	273.85	31.15	539.36	813.21
157	6	5	431617	851028	1097473	1570153	136.22	5	456.62	32.70	650.26	1106.89
158	6	6	435216	863092	1098337	1571871	348.86	6	1164.08	32.29	757.38	1921.46
159	6	7	444433	893847	1099190	1573872	360.64	7	1205.07	32.29	769.49	1974.57
160	6	8	453961	925685	1100043	1575905	334.71	8	1260.22	34.03	813.02	2073.24
161	6	9	462804	958980	1100942	1578053	361.58	9	1309.27	33.42	764.95	2074.23
162	6	10	472357	993571	1101825	1580074	271.76	10	1210.60	34.10	734.67	1945.27
163	6	11	479537	1025555	1102726	1582015	91.37	11	496.21	30.96	890.99	1387.21
164	6	12	481951	1038665	1103544	1584369	132.89	12	556.96	31.83	394.78	951.74
165	6	13	485462	1053380	1104385	1585412	250.38	13	1198.11	31.38	704.77	1902.88
166	6	14	492077	1085034	1105214	1587274	299.55	14	1348.22	36.03	855.41	2203.63
167	6	15	499991	1120654	1106166	1589534	324.56	15	1259.20	32.66	781.98	2041.18
168	6	16	508566	1153922	1107029	1591600	380.13	16	1460.83	32.89	813.40	2274.23
169	6	17	518609	1192517	1107898	1593749	154.47	17	845.19	31.95	1244.13	2089.33
170	6	18	522690	1214847	1108742	1597036	167.83	18	430.58	31.23	260.03	690.61
171	6	19	527124	1226223	1109567	1597723	174.56	19	762.23	32.70	766.09	1528.31
172	6	20	531736	1246361	1110431	1599747	347.99	20	1360.26	32.97	789.93	2150.19
173	6	21	540930	1282299	1111302	1601834	308.06	21	1267.98	33.16	789.17	2057.15
174	6	22	549069	1315799	1112178	1603919	303.07	22	1405.68	33.46	810.37	2216.05
175	6	23	557076	1352937	1113062	1606060	265.18	23	1113.93	34.18	739.21	1853.14
176	6	24	564082	1382367	1113965	1608013	150.08	24	1143.22	34.18	697.20	1840.42
177	6	25	568047	1412571	1114868	1609855	74.60	25	563.51	32.78	606.74	1170.25
178	6	26	570018	1427459	1115734	1611458	108.44	26	715.22	32.48	618.85	1334.07
179	6	27	572883	1446355	1116592	1613093	168.21	27	995.50	33.65	794.85	1790.35
180	6	28	577327	1472656	1117481	1615193	229.52	28	1183.46	33.88	781.23	1964.69
181	6	29	583391	1503923	1118376	1617257	219.00	29	1449.05	35.05	800.53	2249.58
182	6	30	589177	1542207	1119302	1619372	162.98	30	1184.90	36.26	830.81	2015.71
183	7	1	593483	1573512	1120260	1621567		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1497.09	380.13	36.26	1244.13	2274.23
MINIMUM FLOW M3/DY	273.85	69.04	30.96	260.03	690.61
AVERAGE FLOW M3/DY	1057.09	238.43	33.07	743.57	1800.66
MAXIMUM FLOW GPM	274.65	69.74	6.65	228.24	417.21
MINIMUM FLOW GPM	50.24	12.67	5.68	47.70	126.70
AVERAGE FLOW GPM	193.93	43.74	6.07	136.41	330.34

DATE	OWW		METER VAULT THREE		COMBINED DISCHARGE		
	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
6/3	358	75	.5	5.2	15.8	6.2	21
6/10	507	265	.6	5.6	15.2	7.3	22.4
6/17	398	79	.4	4.8	15.8	6.7	23.2
6/24	468	86	.4	5.4	15.5	6.5	22.8
AVERAGE	432.75	126.25	.475	5.25	15.575	6.675	22.35
MAX							
MIN							

SCOEPA00034672

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	#	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE	
	3MG/L	#	55	17	.001	.002	10.8	
OUTFALL	MG/L	#	33.831144	10.456899	6.1511E-4	.00123022	6.6432064	
	KG/DAY	#	65.042392	20.104012	.00118259	.00236518	12.771961	
	10MG/L	#	64	22	.001	.002	8.8	
OUTFALL	MG/L	#	39.829065	13.691241	6.2233E-4	.00124466	5.4764964	
	KG/DAY	#	77.478274	26.633157	.00121060	.00242120	10.653263	
	17MG/L	#	50	12	.001	.003	6	
OUTFALL	MG/L	#	20.226440	4.8543455	4.0453E-4	.00121359	2.4271728	
	KG/D	#	42.259652	10.142316	8.4519E-4	.00253558	5.0711582	
	24MG/L	#	68	28	.001	.002	4.8	
OUTFALL	MG/L	#	42.239859	17.392883	6.2117E-4	.00124235	2.9816371	
	KG/DAY	#	77.739288	32.010295	.00114322	.00228645	5.4874792	
	5MG/L	#						
OUTFALL	MG/L	#	0	0	0	0	0	
	KG/DAY	#	0	0	0	0	0	
AVERAGE	MG/L COMBINED		59.25 -?	19.75	.001	.00225	7.6	
	MG/L OUTFALL		34.031627	11.598842	5.6579E-4	.00123270	4.3821281	
	4KG/DAY	#	65.629902	22.222445	.00109540	.00240210	8.4959652	
MAXIMUM	MG/L COMBINED		68	28	.001	.003	10.8	
	MG/L OUTFALL		42.239859	17.392883	6.2233E-4	.00124466	6.6432064	
	KG/D	#	77.739288	32.010295	.00121060	.00253558	12.771961	
M[illegible]M	MG/L COMBINED		50	12	<.001	.002	4.8	Avoid 5th analysis
	MG/L OUTFALL		0	0	0	0	0	
	KG/DAY	#	0	0	0	0	0	

	#	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.		55	65.042392	17	20.104012	.001	.00118259	.002	.00236518	10.8	12.771961
		64	77.478274	22	26.633157	.001	.00121060	.002	.00242120	8.8	10.653263
COMBINED		50	42.259652	12	10.142316	.001	8.4519E-4	.003	.00253558	6	5.0711582
EFFLUENT		68	77.739288	28	32.010295	.001	.00114322	.002	.00228645	4.8	5.4874792
PARAMETERS		0	0	0	0	0	0	0	0	0	0

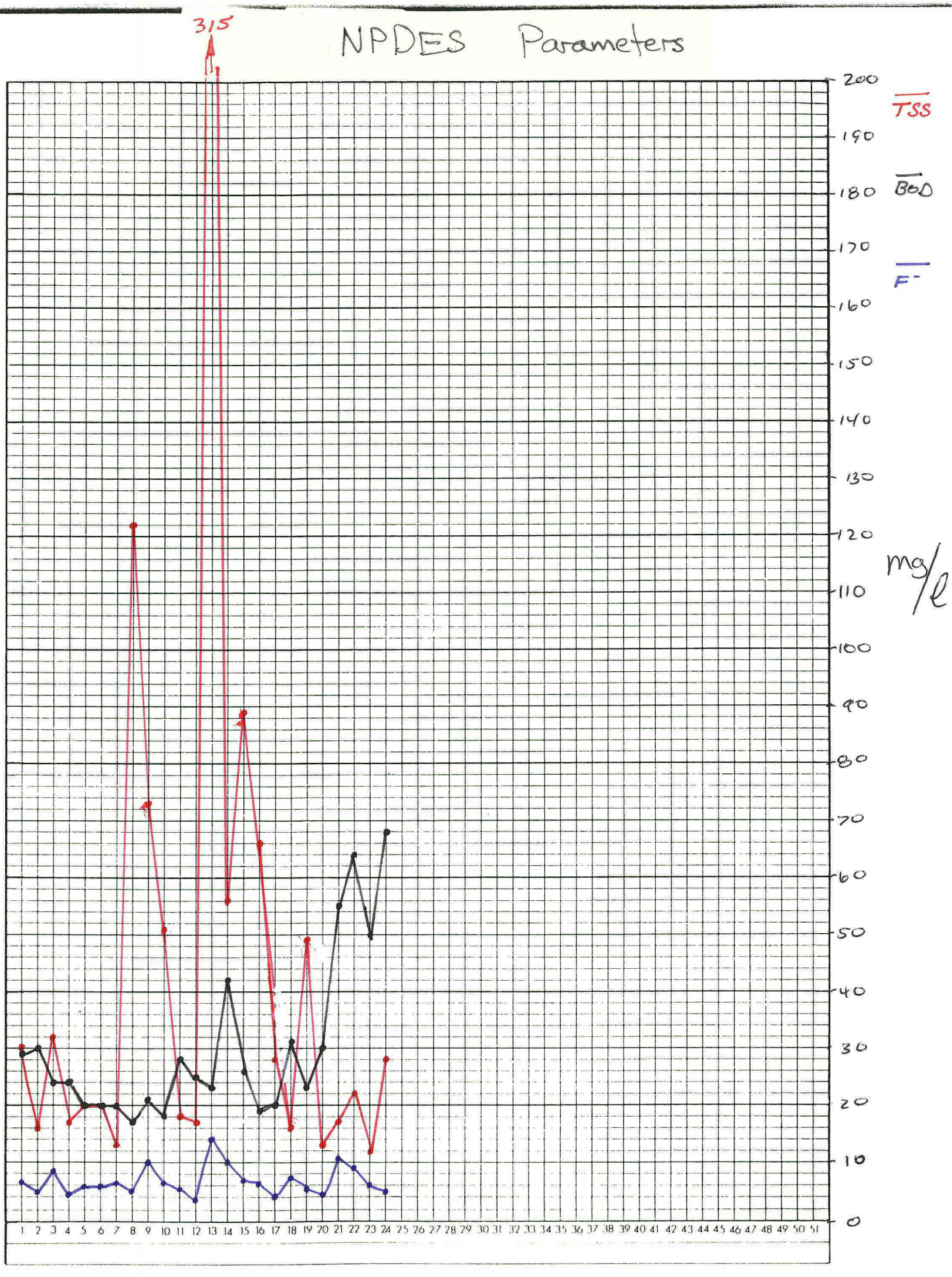
OUTFALL PARAMETERS	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
	33.831144	10.456899	6.1511E-4	.00123022	6.6432064
	39.829065	13.691241	6.2233E-4	.00124466	5.4764964
	20.226440	4.8543455	4.0453E-4	.00121359	2.4271728
	42.239859	17.392883	6.2117E-4	.00124235	2.9816371
	0	0	0	0	0

SCOEPA00034673

PH violations June 1983

Date	Length	min/max	Cause
7/1	:20	10.0	changing to Taylor controller
6/29	1:50	13.4?	Caustic Tank overflowed to WAD
	3:30	4.9	?
6/24	:30	10.1	High pH in Clarifier ?
6/22	:50	11.3	Regeneration ?
6/21	:45	10.0	Regeneration
6/19	10:40	9.7/2.0	Poor controller operation due to low flow conditions
6/18	1:10	10.2	"
6/14	1:15	11.7	Regeneration A Bed
6/13	2:00	9.4/5.4	RSP malfunction on controller
6/8	1:30	12.0	Regeneration ?
6/7	1:15	5.6/10.2	? poss regeneration / caustic spill
6/6	1:45	1.3	Power outage
13	27.3 hrs 3.8% of the time	1.3/12.0	4 regenerations (poss 5) 5 Controller problems 1 Power outage

NPDES Parameters



SCOEPA00034675

BOD in effluent to the River

	Jan	Feb	Mar	April	May	June
Flow GPM	187	166	157	157	193	194
PPM BOD	27	19	23	27	26	59
KG BOD	36	24	22	23	28	66

Δ 38 kg/d
84 #/day

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-3-83
ANALYSTS: Elinam

FACILITIES MGR. ~
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 6/3/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲55	+358			
TSS	mg/l	-	15	30	▲17	+75			
F^-	mg/l	-	6	20	▲10.8				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲0.002				
Phosphates	mg/l	-	2	5			▲0.5		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.2	▲6.2	
Temperature	°C	-	-	27			▲15.8	▲21.0	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034677

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-10-83
ANALYSTS: Elingm

FACILITIES MGR.
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION		-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly		-	NPDES PARAMETER LIMITS						
Date 6/10/83		-							
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲64	+507			
TSS	mg/l	-	15	30	▲22	+265			
F^-	mg/l	-	6	20	▲8.8				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲0.002				
Phosphates	mg/l	-	2	5			▲0.6		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.6	▲7.3	
Temperature	°C	-	-	27			▲15.2	▲22.4	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034678

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-17-83
ANALYSTS: Elinam

FACILITIES MGR. ~
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION		-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly		-	NPDES PARAMETER LIMITS						
Date 6/17/83		-							
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 50	+ 398			
TSS	mg/l	-	15	30	▲ 12	+ 79			
F^-	mg/l	-	6	20	▲ 6.0				
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.003				
Phosphates	mg/l	-	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 4.8	▲ 6.7	
Temperature	°C	-	-	27			▲ 15.8	▲ 23.2	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034679

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-24-83
ANALYSTS: Elinam

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 6/24/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 68	+ 468			
TSS	mg/l	-	15	30	▲ 28	+ 86			
F^-	mg/l	-	6	20	▲ 4.8				
Cr^{6+}	mg/l	-	0.02	0.05	▲ < 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ 0.002				
Phosphates	mg/l	-	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 5.4	▲ 6.5	
Temperature	°C	-	-	27			▲ 15.5	▲ 22.8	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034680

Greg Carr

RECEIVED
JUL 01 1983
WACKER SILTRONIC
ENGINEERING

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if [illegible])*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MO[illegible]ORING REPORT *(DMR)*

Form Approved [illegible] No. 158-R0073

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM				TO			
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034682

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if [illegible])*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MO[illegible]ORING REPORT *(DMR)*

Form Approved
B No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
[illegible]	[illegible]

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	[illegible]	[illegible]	[illegible]	TO	[illegible]	[illegible]	[illegible]
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										
[illegible]	SAMPLE MEASUREMENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE		DATE		
[illegible]		[illegible]	AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034683

177B:DWTP31 "^E&k2S PRINT TO M116

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
151	5	1	202524	884108	66998	1644	238.27	1	705.98	31.49	612.41	1318.3952
152	5	2	208819	902760	67830	3262	382.40	2	918.85	34.60	738.83	1657.6836
153	5	3	218922	927036	68744	5214	340.65	3	1927.82	32.63	792.20	2720.0227
154	5	4	227922	977969	69606	7307	378.43	4	1212.26	33.38	801.67	2013.9288
155	5	5	237920	1009997	70488	9425	356.78	5	1336.79	32.59	812.26	2149.0537
156	5	6	247346	1045315	71349	11571	260.03	6	980.13	33.12	774.79	1754.9205
157	5	7	254216	1071210	72224	13618	44.89	7	364.99	32.06	639.67	1004.6556
158	5	8	255402	1080853	73071	15308	155.49	8	575.55	32.10	708.18	1283.7245
159	5	9	259510	1096059	73919	17179	327.33	9	1923.09	33.12	704.39	2627.4792
160	5	10	268158	1146867	74794	19040	357.42	10	1348.26	38.61	803.56	2151.8168
161	5	11	277601	1182488	75814	21163	310.33	11	1149.47	44.17	772.14	1921.6124
162	5	12	285800	1212857	76981	23203	368.89	12	1282.06	32.25	777.06	2059.1219
163	5	13	295546	1246729	77833	25256	387.66	13	1082.32	32.63	825.51	1907.8350
164	5	14	305788	1275324	78695	27437	211.43	14	430.66	32.21	656.32	1086.9796
165	5	15	311374	1286702	79546	29171	174.30	15	653.26	35.24	756.62	1409.8789
166	5	16	315979	1303961	80477	31170	353.94	16	1350.91	29.75	681.68	2032.5889
167	5	17	325330	1339652	81263	32971	169.80	17	1206.36	32.02	880.02	2086.3740
168	5	18	329816	1371524	82109	35296	2.54	18	1112.87	32.85	800.53	1913.3989
169	5	19	329883	1400926	82977	37411	333.01	19	1310.83	32.85	817.18	2128.0091
170	5	20	338681	1435558	83845	39570	238.83	20	1217.94	33.80	793.72	2011.6578
171	5	21	344991	1467736	84738	41667	76.72	21	453.41	29.45	573.81	1027.2142
172	5	22	347018	1479715	85516	43183	169.57	22	554.35	35.24	652.91	1207.2672
173	5	23	351498	1494361	86447	44908	289.67	23	1316.81	28.16	766.84	2083.6488
174	5	24	359151	1529151	87191	46934	271.88	24	1459.84	32.13	800.53	2260.3709
175	5	25	366334	1567720	88040	49049	323.88	25	1352.35	32.55	827.02	2179.3717
176	5	26	374891	1603449	88900	51234	334.41	26	1218.89	36.03	795.23	2014.1181
177	5	27	383726	1635652	89852	53335	220.21	27	972.86	28.39	738.46	1711.3172
178	5	28	389544	1661355	90602	55286	59.61	28	388.61	32.63	662.00	1050.6056
179	5	29	391119	1671622	91464	57035	79.45	29	531.38	32.17	644.97	1176.3437
180	5	30	393218	1685661	92314	58739	180.51	30	674.03	32.13	680.17	1354.2014
181	5	31	397987	1703469	93163	60536	316.01	31	1516.20	33.61	793.34	2309.5382
182	6	1	406336	1743527	94051	62632		1				

STREAM	COMBINED	OWW	MV2	MV3	OUTFALL
MAXIMUM FLOW M3/DY	1927.82	387.66	44.17	880.02	2720.02
MINIMUM FLOW M3/DY	364.99	2.54	28.16	573.81	1004.66
AVERAGE FLOW M3/DY	1049.33	248.85	33.03	744.65	1793.97
MAXIMUM FLOW GPM	353.67	71.12	8.10	161.44	499.00
MINIMUM FLOW GPM	66.96	0.47	5.17	105.27	184.31
AVERAGE FLOW GPM	192.50	45.65	6.06	136.61	329.11

DATE	OWW		METER VAULT THREE			COMBINED DISCHARGE	
	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
5/6	467	121	1.4	5.1	13.8	6.8	23.1
13	566	151	1.4	4.8	14.2	7.1	22.1
20	592	39	.4	5.1	13.8	6.2	22.4
27	507	61	.3	5.6	14.1	7.8	21.4

533 93

SCOEPA00034684

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	#	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
	6MG/L	#	20	28	.001	.005	4
TFALL	MG/L	#	11.170064	15.638089	5.5850E-4	.00279252	2.2340127
	KG/DAY	#	19.602574	27.443603	9.8013E-4	.00490064	3.9205148
	13MG/L	#	31	16	.001	.005	7.1
OUTFALL	MG/L	#	17.586450	9.0768773	5.6730E-4	.00283652	4.0278643
	KG/DAY	#	33.552044	17.317184	.00108232	.00541162	7.6845004
	20MG/L	#	23	49	.002	.007	5.5
OUTFALL	MG/L	#	13.925152	29.666629	.00121088	.00423809	3.3299277
	KG/D	#	28.012642	59.679107	.00243588	.00852559	6.6986752
	27MG/L	#	30	13	.001	.004	4.5
OUTFALL	MG/L	#	17.054608	7.3903302	5.6849E-4	.00227395	2.5581912
	KG/DAY	#	29.185844	12.647199	9.7286E-4	.00389145	4.3778766
	5MG/L	#					
OUTFALL	MG/L	#	0	0	0	0	0
	KG/DAY	#	0	0	0	0	0
AVERAGE	MG/L COMBINED		26	26.5	.00125	.00525	5.275
	MG/L OUTFALL		14.934068	15.442981	7.2629E-4	.00303527	3.0374990
	4KG/DAY	#	27.588276	29.271773	.00136780	.00568232	5.6703917
MAXIMUM	MG/L COMBINED		31	49	.002	.007	7.1
	MG/L OUTFALL		17.586450	29.666629	.00121088	.00423809	4.0278643
	KG/D	#	33.552044	59.679107	.00243588	.00852559	7.6845004
MINIMUM	MG/L COMBINED		0	0	0	0	0
	MG/L OUTFALL		0	0	0	0	0
	KG/DAY	#	0	0	0	0	0

		BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.		20	19.602574	28	27.443603	.001	9.8013E-4	.005	.00490064	4	3.9205148
		31	33.552044	16	17.317184	.001	.00108232	.005	.00541162	7.1	7.6845004
	COMBINED	23	28.012642	49	59.679107	.002	.00243588	.007	.00852559	5.5	6.6986752
	EFFLUENT	30	29.185844	13	12.647199	.001	9.7286E-4	.004	.00389145	4.5	4.3778766
	PARAMETERS	0	0	0	0	0	0	0	0	0	0

OUTFALL PARAMETERS	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
	11.170064	15.638089	5.5850E-4	.00279252	2.2340127
	17.586450	9.0768773	5.6730E-4	.00283652	4.0278643
	13.925152	29.666629	.00121088	.00423809	3.3299277
	17.054608	7.3903302	5.6849E-4	.00227395	2.5581912
	0	0	0	0	0

pH violations May 1983

Date	Duration	min/max	Reason
5/1 - 5/8	Multiple	2.9/12.8	Manual control of WAD during change-over
5/9	3:05	13.0	Control system changes - WAD
5/14	3:00	11.0	" " " "
5/16	4:20	12.5	Regeneration @ 1 accel pump
5/19	2:05	11.9	Regeneration
5/24	1:45	5.3/11.9	Regeneration
5/25	1:20	11.4	?
5/27	:45	9.5	?
5/29	7:50	2.8/11.4	Low Flow - poor control Operation
5/31	1:30	12.2	Regeneration
	~ 65 hrs	2.4/12.8	

88% of the time

4 Regenerations

3 Poor ~~operation~~ control operation during ~~change-over~~ tuning controllers

5 days manual operation due to change-over

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-6-83
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 5/6/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲20	+467			
TSS	mg/l	-	15	30	▲28	+121			
F^-	mg/l	-	6	20	▲4.0				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲0.005				
Phosphates	mg/l	-	2	5			▲1.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.1	▲6.8	
Temperature	°C	-	-	27			▲13.8	▲23.1	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-13-83
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 5/13/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲31	+566			
TSS	mg/l	-	15	30	▲16	+151			
F^-	mg/l	-	6	20	▲7.1				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲0.005				
Phosphates	mg/l	-	2	5			▲1.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲4.8	▲7.1	
Temperature	°C	-	-	27			▲14.2	▲22.1	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034688

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-20-83
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	-	NPDES PARAMETER LIMITS							
Date 5/20/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲23	+592			
TSS	mg/l	-	15	30	▲49	+39			
F^-	mg/l	-	6	20	▲5.5				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.002				
Cr^{total}	mg/l	-	0.3	1	▲0.007				
Phosphates	mg/l	-	2	5			▲0.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.1	▲6.2	
Temperature	°C	-	-	27			▲13.8	▲22.4	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-27-83
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 5/27	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲30	+507			
TSS	mg/l	–	15	30	▲13	+61			
F^-	mg/l	–	6	20	▲4.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.001				
Cr^{total}	mg/l	–	0.3	1	▲0.004				
Phosphates	mg/l	–	2	5			▲0.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.6	▲7.8	
Temperature	°C	–	–	27			▲14.1	▲21.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034690

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if [illegible]nt)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
No. 158-R0073

(2-16)	(17-19)
OP-003058-9	31
PERMIT NUMBER	DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	04	01	TO	82	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	MAXIMUM (54-61)	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow - meter vault 1	SAMPLE MEASUREMENT	853	1337	m³/day	–	–	–	–		cont	Total [illegible]
	PERMIT REQUIREMENT										
meter Vault 1 BOD	SAMPLE MEASUREMENT	22.9	29.7	kg/d	19	27	42	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	94	265	kg/d	56	135	315	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT										
Cromium 6+	SAMPLE MEASUREMENT	0	0	kg/d	0	0	0	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cromium Total	SAMPLE MEASUREMENT	<.0009	<.0013	kg/d	<.001	<.001	<.001	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Flow [illegible]	SAMPLE MEASUREMENT	7.9	11.8	kg/d	6.3	9.0	14.0	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	–	–	–	2.5	–	11.8	pH units	14	cont	reorder
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
[illegible]			703	243 2020	83	05	11
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034691

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: [illegible]

(17-19) DISCHARGE NUMBER: 1

2834.1
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	22	04	01	TO	22	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Standard Flow Water Unit 3	SAMPLE MEASUREMENT	701	817	m^3/day	—	—	—	—			
	PERMIT REQUIREMENT										
Total $PO_3^{=}$	SAMPLE MEASUREMENT	—	—		.9	2.0	5.4	mg/l	1	1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Outfall pH	SAMPLE MEASUREMENT	—	—		7.4	7.8	8.8	pH units		1/7	Grab
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT	—	—		17.6	18.3	19.2	°C		1/7	Grab
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT	—	—		0	0	0	mg/l		Once	Grab
	PERMIT REQUIREMENT										
Outfall Flow	SAMPLE MEASUREMENT	1554	2081	m^3/day							
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
[illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	803	743 2020	22	05	11
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034692

42B:DWTP483 "^E&k2S PRINT TO M116

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
91	4	1	-2239.2	198835	42767	445746	277.87	1	840.61	33.23	717.26	1557.8728
92	4	2	5102	221044	43645	447641	81.79	2	284.18	31.87	586.68	870.85541
93	4	3	7263	228552	44487	449191	178.69	3	597.50	30.89	619.98	1217.4868
94	4	4	11984	244338	45303	450829	339.63	4	1009.31	1.21	795.23	1804.5420
95	4	5	20957	271004	45335	452930	263.13	5	956.78	28.46	670.33	1627.1007
96	4	6	27909	296282	46087	454701	340.58	6	1015.03	32.63	778.58	1793.6033
97	4	7	36907	323099	46949	456758	340.58	7	989.21	32.97	792.58	1781.7941
98	4	8	45905	349234	47820	458852	207.83	8	708.25	33.12	801.67	1509.9167
99	4	9	51396	367946	48695	460970	71.84	9	501.21	30.66	673.73	1174.9432
100	4	10	53294	381188	49505	462750	117.79	10	561.77	32.06	718.02	1279.7880
101	4	11	56406	396030	50352	464647	311.09	11	1109.73	33.80	727.10	1836.8282
102	4	12	64625	425349	51245	466568	394.02	12	1224.11	31.72	744.13	1968.2438
103	4	13	75035	457690	52083	468534	287.70	13	861.70	32.29	774.03	1635.7305
104	4	14	82636	480456	52936	470579	341.52	14	738.72	31.95	740.73	1479.4474
105	4	15	91659	499973	53780	472536	219.76	15	631.57	36.64	747.16	1378.7282
106	4	16	97465	516659	54748	474510	92.01	16	169.04	25.28	488.27	657.30507
107	4	17	99896	521125	55416	475800	215.82	17	550.38	30.85	650.26	1200.6435
108	4	18	105598	535666	56231	477518	356.51	18	1175.74	25.06	720.29	1896.0257
109	4	19	115017	566729	56893	479421	329.64	19	1165.44	34.29	816.81	1982.2483
110	4	20	123726	597520	57799	481579	347.65	20	1315.33	30.77	712.72	2028.0469
111	4	21	132911	632271	58612	483462	338.61	21	1306.89	32.48	744.51	2051.4005
112	4	22	141857	666799	59470	485429	270.25	22	1335.16	32.32	698.71	2033.8759
113	4	23	148997	702074	60324	487275	65.90	23	502.76	29.98	545.04	1047.8047
114	4	24	150738	715357	61116	488715	236.41	24	315.33	30.96	707.80	1023.1264
115	4	25	156984	723688	61934	490585	383.80	25	883.38	30.81	709.31	1592.6949
116	4	26	167124	747027	62748	492459	324.83	26	1337.70	31.60	743.38	2081.0749
117	4	27	175706	782369	63583	494423	336.15	27	1232.21	33.46	739.97	1972.1802
118	4	28	184587	814924	64467	496378	347.54	28	1125.66	31.57	718.02	1843.6790
119	4	29	193769	844664	65301	498275	259.39	29	984.25	32.55	697.58	1681.8319
120	4	30	200622	870668	66161	500118	71.99	30	508.71	31.68	577.59	1086.2983
121	4	31	202524	884108	66998	501644	71.99	31	508.71	31.68	577.59	1086.2983
122	5	1	204426	897548	67835	503170		1				

\# NOT CORRECT DUE TO 30 DAY MONTH

\#\# TOTAL FLOW THIS MONTH OF OWW 7822.30
TOTAL FLOW THIS MONTH COMBINED 26446.37
TOTAL FLOW THIS MONTH MV 2 948.83
TOTAL FLOW THIS MONTH MV 3 21735.05
TOTAL FLOW THIS MONTH OUTFALL 48181.42
MAXIMUM FLOW THIS MONTH OWW 394.02
MAXIMUM FLOW THIS MONTH COMB. 1337.70
MAXIMUM FLOW THIS MONTH MV2 36.64
MAXIMUM FLOW THIS MONTH MV3 816.81
MAXIMUM FLOW THIS MONTH OUTFL 2081.07
MINIMUM FLOW THIS MONTH OF OWW 65.90
MINIMUM FLOW THIS MONTH COMB. 169.04
MINIMUM FLOW THIS MONTH MV2 1.21
MINIMUM FLOW THIS MONTH MV3 488.27
MINIMUM FLOW THIS MONTH OUTFL 657.31
AVERAGE FLOW THIS MONTH OF OWW 252.33
AVERAGE FLOW THIS MONTH COMB. 853.11
AVERAGE FLOW THIS MONTH MV2 30.61
AVERAGE FLOW THIS MONTH MV3 701.13
AVERAGE FLOW THIS MONTH OUTFL 1554.24

DATE	OWW BOD	METER VAULT THREE TSS	PHOSPHATE	pH	COMBINED DISCHARGE TEMP	pH	TEMP
4/1	550	263	5.4	4.8	11.7	7.6	18.2
4/8	452	63	.9	3.9	12.2	8.4	17.6
4/15	353	146	1.6	4.2	12.1	6.8	18.4
4/22	287	65	1.1	3.9	11.4	8.8	19.2
4/29	335	79	1.2	4.1	11.6	7.2	18.2

2.04 7.8 18.3

DATE OF ANALYSIS	ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW PARAMETERS	#	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
	1MG/L	#	23	315	0	.001	14
OUTFALL	MG/L	#	12.410578	169.97097	0	5.3959E-4	7.5542652
	KG/DAY	#	19.334103	264.79315	0	8.4061E-4	11.768584
	8MG/L	#	42	56	0	.001	10
OUTFALL	MG/L	#	19.700792	26.267723	0	4.6907E-4	4.6906648
	KG/DAY	#	29.746556	39.662074	0	7.0825E-4	7.0825132
	15MG/L	#	26	89	0	.001	6.7
OUTFALL	MG/L	#	11.910064	40.769066	0	4.5808E-4	3.0691319
	KG/D	#	16.420742	56.209463	0	6.3157E-4	4.2314989
	22MG/L	#	19	66	0	.001	6.3
OUTFALL	MG/L	#	12.472783	43.326510	0	6.5646E-4	4.1357123
	KG/DAY	#	25.368092	88.120742	0	.00133516	8.4115254
	29MG/L	#	24	148	0	.001	8.2
OUTFALL	MG/L	#	14.045461	86.613674	0	5.8523E-4	4.7988657
	KG/DAY	#	23.622104	23.622104	0	9.8425E-4	8.0708857
AVERAGE	MG/L COMBINED		26.8	134.8	0	.001	9.04
	MG/L OUTFALL		14.107936	73.389588	0	5.4169E-4	4.8497280
	5KG/DAY	#	22.898319	94.481506	0	8.9997E-4	7.9130015
MAXIMUM	MG/L COMBINED		42	315	0	.001	14
	MG/L OUTFALL		19.700792	169.97097	0	6.5646E-4	7.5542652
	KG/D	#	29.746556	264.79315	0	.00133516	11.768584
MUM	MG/L COMBINED		19	56	0	.001	6.3
	MG/L OUTFALL		11.910064	26.267723	0	4.5808E-4	3.0691319
	KG/DAY	#	16.420742	23.622104	0	6.3157E-4	4.2314989

	#	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.		23	19.334103	315	264.79315	0	0	.001	8.4061E-4	14	11.768584
		42	29.746556	56	39.662074	0	0	.001	7.0825E-4	10	7.0825132
COMBINED		26	16.420742	89	56.209463	0	0	.001	6.3157E-4	6.7	4.2314989
EFFLUENT		19	25.368092	66	88.120742	0	0	.001	.00133516	6.3	8.4115254
PARAMETERS		24	23.622104	148	23.622104	0	0	.001	9.8425E-4	8.2	8.0708857

OUTFALL PARAMETERS	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
	12.410578	169.97097	0	5.3959E-4	7.5542652
	19.700792	26.267723	0	4.6907E-4	4.6906648
	11.910064	40.769066	0	4.5808E-4	3.0691319
	12.472783	43.326510	0	6.5646E-4	4.1357123
	14.045461	86.613674	0	5.8523E-4	4.7988657

SCOEPA00034694

PH violations April 1983

Date	Time	Max/min	Cause
4/30	:50	10.5/4.8	? } instrumentation change over
4/29	:40	10.2	?
	:20	3.7	?
4/27	2:15	11.8/3.7	Regeneration
4/26	2:15	13.4 ?	Regeneration
4/25	2:20	13.3 ?	Regeneration
4/21	1:20	10.7	Regeneration
4/18	1:20	4.0/10.0	Regeneration
4/15	1:55	11.8	Regeneration
4/14	:35	10.0	?
4/13	:50	9.5	?
4/8	5:15	3.6/9.8	Lime Bin problems
4/7	1:40	11.6	Regeneration
4/1	3:20	2.5/11.6	Lime Bin Problems
	24 :55		

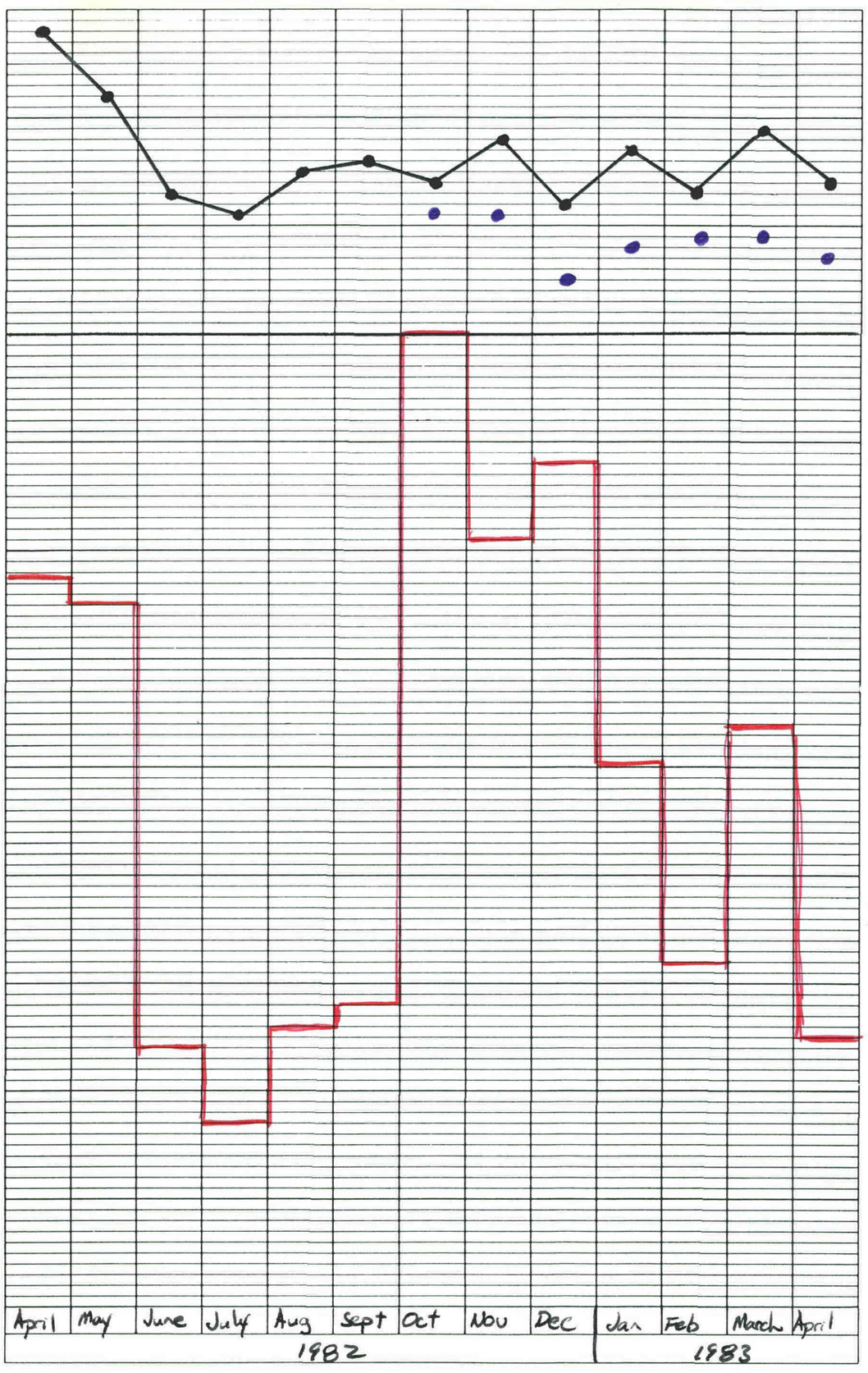
3.4% of the time

7 due to regenerations
2 due to Lime bin problems
3 due to instrumentation change-overs
2 unknown

14 in all

SCOEPA00034695

WACKER SILTRONIC | **COMPANY SECRET**



SCOEPA00034696

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-1-83
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 4/1/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲23	+550			
TSS	mg/l	-	15	30	▲315	+263			
F^-	mg/l	-	6	20	▲14				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.000				
Cr^{total}	mg/l	-	0.3	1	▲< 0.001				
Phosphates	mg/l	-	2	5			▲5.4		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲4.8	▲7.6	
Temperature	°C	-	-	27			▲11.7	▲18.2	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034697

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-5-83
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 4/8/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲42	+452			
TSS	mg/l	–	15	30	▲56	+63			
F^-	mg/l	–	6	20	▲10				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.000				
Cr^{total}	mg/l	–	0.3	1	▲<0.001				
Phosphates	mg/l	–	2	5			▲0.9		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲3.9	▲8.4	
Temperature	°C	–	–	27			▲12.2	▲17.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Lapping Slurry overflow

SCOEPA00034698

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-15-83
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 4/15/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲26	+353			
TSS	mg/l	–	15	30	▲89	+146			
F^-	mg/l	–	6	20	▲6.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.000				
Cr^{total}	mg/l	–	0.3	1	▲< 0.001				
Phosphates	mg/l	–	2	5			▲1.6		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲4.2	▲6.8	
Temperature	°C	–	–	27			▲12.1	▲18.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034699

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-22-83
ANALYSTS: Elgeram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 4/22/83	-								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲19	+287			
TSS	mg/l	-	15	30	▲66	+65			
F^-	mg/l	-	6	20	▲6.3				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.000				
Cr^{total}	mg/l	-	0.3	1	▲<0.001				
Phosphates	mg/l	-	2	5			▲1.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲3.9	▲8.8	
Temperature	°C	-	-	27			▲11.4	▲19.2	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034700

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-29-83
ANALYSTS: Elgavish

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By	–	NPDES PARAMETER LIMITS							
Date 4/29/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 24	+ 335			
TSS	mg/l	–	15	30	▲ 148	+ 79			
F^-	mg/l	–	6	20	▲ 8.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.000				
Cr^{total}	mg/l	–	0.3	1	▲ <0.001				
Phosphates	mg/l		2	5			▲ 1.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 4.1	▲ 7.2	
Temperature	°C	–	–	27			▲ 11.6	▲ 18.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034701

Greg Carr

RECEIVED
MAY 09 1983
WACKER SILTRONIC
ENGINEERING

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	83	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Phosphorus, Elemental	SAMPLE MEASUREMENT	356	1143	lbs/day	—	—	—		—	6/wk	Total Recoverable
	PERMIT REQUIREMENT										
Phosphorus, total	SAMPLE MEASUREMENT	21.7	27.4	lbs/day	18	22.5	28	mg/l	0	1/2	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	36.2	70.3	lbs/day	17	20	72	mg/l	21	1/2	24 HC
	PERMIT REQUIREMENT										
Cadmium	SAMPLE MEASUREMENT	<.003	<.003	lbs/day	<.003	<.003	<.003	mg/l	0	1/2	24 HC
	PERMIT REQUIREMENT										
Cobalt	SAMPLE MEASUREMENT	.006	.011	lbs/day	.004	.006	.011	mg/l	0	1/2	24 HC
	PERMIT REQUIREMENT										
Fluoride	SAMPLE MEASUREMENT	4.5	9.6	lbs/day	3.5	6.2	10	mg/l	4	1/2	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	NA	2.5	5.5	12.1	pH units	19	Cont.	Recorder
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE		DATE		
			AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	508	243-2022	83	04	11

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 1 OF 2

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	83	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Phosphorus, Elemental	SAMPLE MEASUREMENT	767	1823	lbs/day	—	—	—		—		
	PERMIT REQUIREMENT										
Tetra Phos	SAMPLE MEASUREMENT	—	—		—	2.62	6.3	mg/l	1	1/2	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Ortho Phos	SAMPLE MEASUREMENT	—	—		6.2	8.3	8.3	pH		1/2	Grab
	PERMIT REQUIREMENT										
Total Phosphorus	SAMPLE MEASUREMENT	—	—		12	12.5	14.2	°C		1/2	Grab
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT	—	—		0	0	0	mg/l		X	X
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT				* Data Falsification						
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE		DATE		
			AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	508	243-2022	83	04	11

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034703

		PROCESS TO RIVER					OWW TO CITY SEWER		MV3 TO RIVER			COMBINED TO RIVER	
YEAR	DATE	BOD	TSS	FLOURIDE	CR6+	CR TOTAL	BOD	TSS	PO4+	pH	TEMP	pH	TEMP
1983	1/7	29	30	6.4	.005	.012	569	98	.1	3.1	11.2	7.2	18.4
	14	30	16	4.9	.001	.005	534	168	.1	2.8	10.9	6.4	19.2
	21	24	32	8.5	.002	.004	509	96	.1	3.6	11.1	7	18.4
	28	24	17	4.3	.001	.003	430	146	.2	3.2	10.6	6.3	19.6
	2/4	29	12	5.4	.001	.003	1140	164	.1	3.3	10.8	6.1	19.7
	11	20	20	5.9	.001	.003	1050	153	.1	4.2	11.2	7.1	20.3
	18	20	13	6.2	.001	.003	629	224	.1	3.7	10.2	6.4	19.3
	25	17	122	5.4	.001	.003	605	235	.2	4	10.7	6.8	18.4
	3/4	21	73	10	.003	.004	678	138	.3	5.8	10.7	6.2	18.3
	11	18	51	6.4	.003	.005	420	80	.4	3.7	10.9	6.4	19.2
	18	28	18	5.4	.003	.004	340	55	3.3	4.1	11.3	8.3	17.7
	24	25	17	3.5	.003	.011	500	143	6.3	3.4	10.4	7.5	18.6

SCOEPA00034704

pH excursions March 1983

Date	Time Out	max/min	Reason
3/31	8:30	2.6/10.4	Lime Bin ?
3/30	1:00	3.2	Lime ?
3/29	1:20	11.4	Regeneration
	1:00	2.6	Lime ?
3/28	1:40	11.6	Regeneration
3/25	:45	9.7	Regeneration
3/21	3:00	2.5	Lime Failure
3/19	2:15	3.7	" " ?
3/16	3:30	12.1	Regeneration
3/14	2:00	11.2	Regeneration
	:40	10.8	? Caustic spill?
	:25	2.6	Lime Failure
3/13	:35	10.5	Lime Failure ? overcompen-
3/12	1:00	10.7	Regeneration sation
3/11	:50	11.0	Regeneration
	1:10	11.9	Regeneration
3/8	2:00	11.5	Regeneration
3/4-3/5	21:30	2.5/11.8	Lime Failures
3/3	:45	11.1	?
	53:25	2.5/12.1	

7.2% of the time

19 incidents
9 Regenerations
10 Lime System Failures, apparently

B:DWTP383 "^E&k2S PRINT TO M104

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL
60	3	1	580871	497954	1014959	1382756	386.90	1	964.12	33.27	814.53	1778.65
61	3	2	591093	523426	1015838	1384908	327.48	2	1068.85	33.01	838.00	1906.85
62	3	3	599745	551665	1016710	1387122	323.96	3	1142.73	32.32	812.26	1955.00
63	3	4	608304	581856	1017564	1389268	243.94	4	962.30	32.59	800.15	1762.45
64	3	5	614749	607280	1018425	1391382	78.54	5	445.04	32.21	709.69	1154.73
65	3	6	616824	619038	1019276	1393257	174.30	6	610.18	31.57	708.55	1318.74
66	3	7	621429	635159	1020110	1395129	334.75	7	1140.50	32.93	814.91	1955.41
67	3	8	630273	665291	1020980	1397282	292.05	8	1125.66	32.78	761.17	1886.83
68	3	9	637989	695031	1021846	1399293	334.71	9	1057.95	36.34	793.72	1851.67
69	3	10	646832	722982	1022806	1401390	388.68	10	1139.40	31.76	831.95	1971.35
70	3	11	657101	753085	1023645	1403588	156.25	11	775.40	52.54	777.82	1553.22
71	3	12	661229	773571	1025033	1405643	100.83	12	359.50	25.59	809.61	1169.11
72	3	13	663893	783069	1025709	1407782	148.11	13	553.33	32.59	613.55	1166.88
73	3	14	667806	797688	1026570	1409403	376.08	14	1063.17	34.07	762.68	1825.85
74	3	15	677742	825777	1027470	1411418	376.31	15	1071.08	33.04	849.36	1920.44
75	3	16	687684	854075	1028343	1413662	335.47	16	976.61	31.68	809.24	1785.84
76	3	17	696547	879877	1029180	1415800	367.45	17	923.77	32.51	830.05	1753.82
77	3	18	706255	904283	1030039	1417993	271.54	18	978.27	31.76	741.11	1719.38
78	3	19	713429	930129	1030878	1419951	150.61	19	580.20	31.98	758.89	1339.10
79	3	20	717408	945458	1031723	1421956	138.49	20	485.05	31.72	705.90	1190.95
80	3	21	721067	958273	1032561	1423821	330.77	21	905.34	34.48	789.55	1694.89
81	3	22	729806	982192	1033472	1425907	315.78	22	1003.41	44.59	770.25	1773.66
82	3	23	738149	1008702	1034650	1427942	343.53	23	1056.59	22.56	982.59	2039.17
83	3	24	747225	1036617	1035246	1430538	343.94	24	1016.62	32.59	599.55	1616.16
84	3	25	756312	1063476	1036107	1432122	302.35	25	784.82	52.76	791.82	1576.65
85	3	26	764300	1084211	1037501	1434214	84.97	26	221.84	27.29	665.03	886.87
86	3	27	766545	1090072	1038222	1435971	177.06	27	404.58	39.63	597.27	1001.85
87	3	28	771223	1100761	1039269	1437549	350.83	28	1093.49	33.42	799.77	1893.26
88	3	29	780492	1129651	1040152	1439662	343.60	29	818.81	34.07	774.03	1592.85
89	3	30	789570	1151284	1041052	1441707	330.89	30	852.91	32.40	787.28	1640.20
90	3	31	798312	1173818	1041908	1443787	352.31	31	946.90	32.51	741.48	1688.38
91	4	1	807620	1198835	1042767	1445746		1				

TOTAL FLOW THIS MONTH OF OWW	8582.48
TOTAL FLOW THIS MONTH COMBINED	26528.43
TOTAL FLOW THIS MONTH MV 2	1052.54
TOTAL FLOW THIS MONTH MV 3	23841.79
TOTAL FLOW THIS MONTH OUTFALL	50370.21
MAXIMUM FLOW THIS MONTH OWW	388.68282
MAXIMUM FLOW THIS MONTH COMB.	1142.7328
MAXIMUM FLOW THIS MONTH MV2	52.763058
MAXIMUM FLOW THIS MONTH MV3	982.58895
MAXIMUM FLOW THIS MONTH OUTFL	2039.1749
MINIMUM FLOW THIS MONTH OF OWW	78.538986
MINIMUM FLOW THIS MONTH COMB.	221.83952
MINIMUM FLOW THIS MONTH MV2	22.558668
MINIMUM FLOW THIS MONTH MV3	597.27479
MINIMUM FLOW THIS MONTH OUTFL	886.86601
AVERAGE FLOW THIS MONTH OF OWW	276.85405
AVERAGE FLOW THIS MONTH COMB.	855.75566
AVERAGE FLOW THIS MONTH MV2	33.952773
AVERAGE FLOW THIS MONTH MV3	769.08989
AVERAGE FLOW THIS MONTH OUTFL	1624.8455

		OWW	METER VAULT THREE			COMBINED DISCHARGE		
DATE		BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
4		678	138	.3	5.8	10.7	6.2	18.3
11		420	80	.4	3.7	10.9	6.4	19.2
18		340	55	3.3	4.1	11.3	8.3	17.7
24		500	143	6.3	3.4	10.4	7.5	18.6

DATE OF ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW

ANALYSIS	PARAMETERS	BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
	4MG/L	21	73	.003	.004	10
OUTFALL	MG/L	11.466025	39.858088	.00163800	.00218400	5.4600120
	KG/DAY	20.208327	70.247994	.00288690	.00384921	9.6230129
	11MG/L	18	51	.003	.005	6.4
OUTFALL	MG/L	8.9859635	25.460230	.00149766	.00249610	3.1950093
	KG/DAY	13.957154	39.545269	.00232619	.00387699	4.9625435
	18MG/L	28	18	.003	.004	5.4
OUTFALL	MG/L	15.931141	10.241448	.00170691	.00227588	3.0724343
	KG/D	27.391673	17.608933	.00293482	.00391310	0
	24MG/L	25	17	.003	.011	3.5
OUTFALL	MG/L	15.725778	10.693529	.00188709	.00691934	2.2016089
	KG/DAY	25.415405	17.282475	.00304985	.01118278	3.5581567
	5MG/L					
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
AVERAGE	MG/L COMBINED	23	39.75	.003	.006	6.325
	MG/L OUTFALL	13.027227	21.563324	.00168242	.00346883	3.4822661
	4KG/DAY	21.743140	36.171168	.00279944	.00570552	4.5359283
MAXIMUM	MG/L COMBINED	28	73	.003	.011	10
	MG/L OUTFALL	15.931141	39.858088	.00188709	.00691934	5.4600120
	KG/D	27.391673	70.247994	.00304985	.01118278	9.6230129
MINIMUM	MG/L COMBINED	0	0	0	0	0
	MG/L OUTFALL	0	0	0	0	0
	KG/DAY	0	0	0	0	0

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	21	20.208327	73	70.247994	.003	.00288690	.004	.00384921	10	9.6230129
	18	13.957154	51	39.545269	.003	.00232619	.005	.00387699	6.4	4.9625435
COMBINED	28	27.391673	18	17.608933	.003	.00293482	.004	.00391310	5.4	0
EFFLUENT	25	25.415405	17	17.282475	.003	.00304985	.011	.01118278	3.5	3.5581567
PARAMETERS	0	0	0	0	0	0	0	0	0	0

OUTFALL	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L
PARAMETERS	11	4/1025	70	050000	.00177000

SCOEPA00034706

PERMITTEE NAME/AD[illegible]SS (Include Facility Name/ Location if d[illegible]

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCH[illegible]GE ELIMINATION SYSTEM (NPDES)

DISCHARGE MO[illegible]RING REPORT (DMR)

For[illegible] Approved No. 158-R0073

(2-16)	(17-19)
[illegible]	34
PERMIT NUMBER	DISCHARGE NUMBER

2834 J
13450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	02	01	TO	83	02	29
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Cooling water & Boiler Blowdown Flow	SAMPLE MEASUREMENT	684	835	m3/day	—	—	—	—			
	PERMIT REQUIREMENT										
Total PO_4^{3-}	SAMPLE MEASUREMENT	—	—		.1	.1	.2	mg/l	0	1/7	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Co-Fuel Outfall pH	SAMPLE MEASUREMENT	—	—	—	6.1	—	7.1	pH units	0	1/7	Grab
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT	—	—	—	18.4	19.4	19.7	°C	0	1/7	Grab
	PERMIT REQUIREMENT										
Free Chlorine	SAMPLE MEASUREMENT	—	—	—	0	0	0	mg/l	0	*	*
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT				*- During Chlorination						
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
[illegible] Pittman [illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	503	2132020	83	03	13
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

E Wacker Siltronic Corp.
RESS PO Box 03180
Portland, Ore 97203
LITY 7200 NW Front Ave
ATION Portland, Ore 97229

DISCHARGE MONITORING REPORT (DMR)

OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003058-9

(17-19) DISCHARGE NUMBER: 34

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	02	01	TO	83	02	28
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Sample Report, February 1983
Based on computed outfall concentrations as per discussion on 2/25/83

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
utfall Flow	SAMPLE MEASUREMENT	1591	2149	m^3/d	—	—	—	NA	—	cont.	total. recorder.
	PERMIT REQUIREMENT	—	—		—	—	—		—	cont.	total. recorder
BOD	SAMPLE MEASUREMENT	23.6	25.9	kg/d	9.6	11.5	12.3	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT				—	15	30			1/7	24 HC
TSS	SAMPLE MEASUREMENT	49	129	kg/d	7.9	25.3	69.1	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT				—	15	30			1/7	24 HC
Cr 6+	SAMPLE MEASUREMENT	.004	.001	kg/d	<.0006	<.0006	<.0006	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT				—	.02	.05			1/7	24 HC
Cr Total	SAMPLE MEASUREMENT	.004	.004	kg/d	<.002	<.002	<.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT					.30	1.0			1/7	24 HC
F^-	SAMPLE MEASUREMENT	7.2	8.0	kg/d	3.1	3.5	3.8	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT				—	6.0	20			1/7	24 HC
pH	SAMPLE MEASUREMENT				2.1	—	12.0	pH units	13	cont.	
	PERMIT REQUIREMENT				6.0	—	9.0			cont.	

Illustration #3

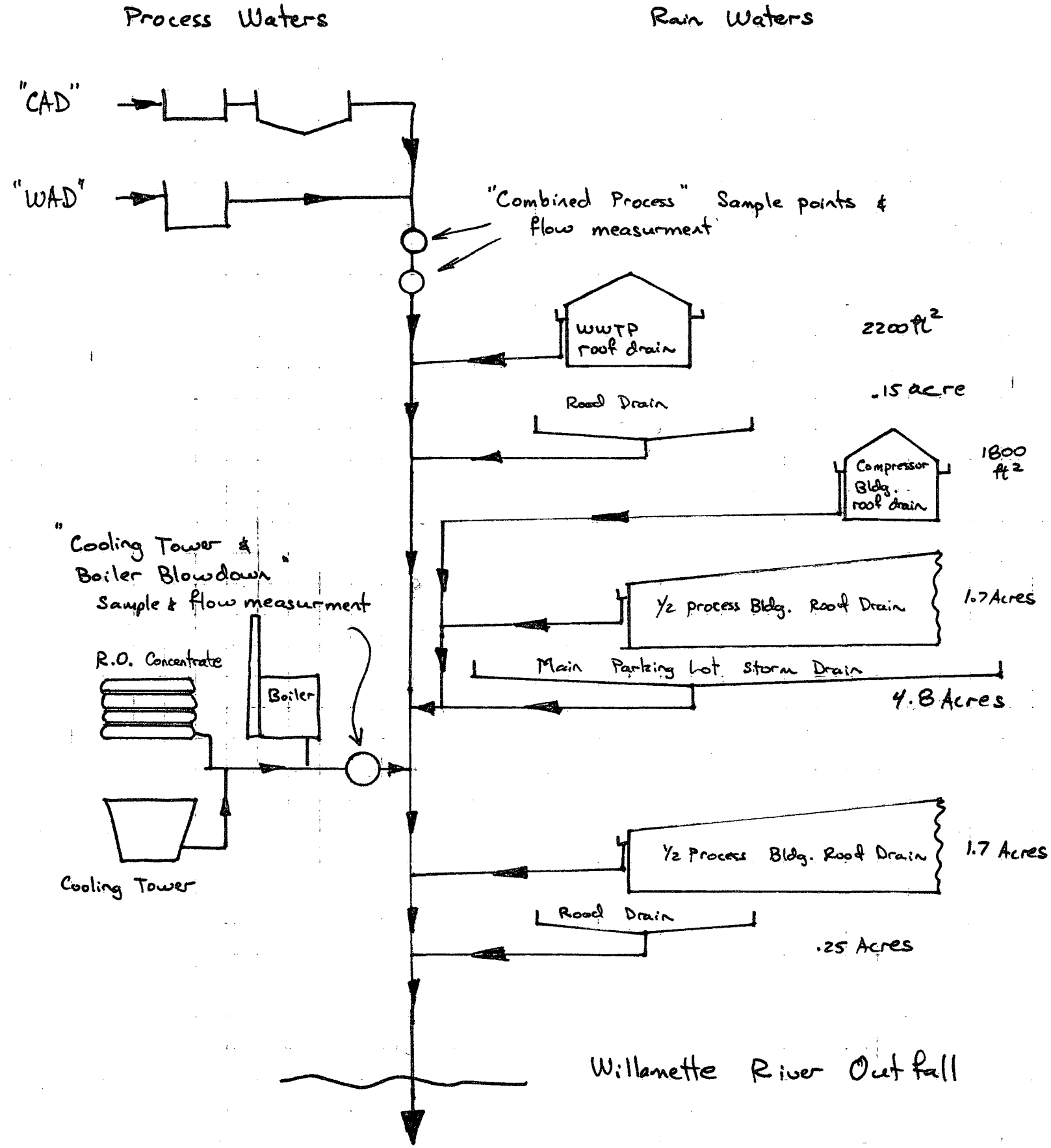
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE		DATE		
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED							

ENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034708

Illustration # 1

Sewers to River Outfall



SCOEPA00034709

TO: DISTRIBUTION
DATE: 3-4-83
ANALYSTS: Elgoram

FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 3/4/83	-								
Time 1210	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲21	+678			
TSS	mg/l	-	15	30	▲73	+138			
F^-	mg/l	-	6	20	▲10.0				
Cr^{6+}	mg/l	-	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	-	0.3	1	▲0.004				
Phosphates	mg/l	-	2	5			▲0.3		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲5.8	▲6.2	
Temperature	°C	-	-	27			▲10.7	▲18.3	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034710

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3-11-83
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 3/11/83	–								
Time 1320 hrs	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 18	+ 420			
TSS	mg/l	–	15	30	▲ 51	+ 80			
F^-	mg/l	–	6	20	▲ 6.4				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 0.4		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 3.7	▲ 6.4	
Temperature	°C	–	–	27			▲ 10.9	▲ 19.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034711

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3-18-83
ANALYSTS: Elgosum

FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 3/18/83	-								
Time 1520 hrs	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲28	+340			
TSS	mg/l	-	15	30	▲18	+55			
F^-	mg/l	-	6	20	▲5.4				
Cr^{6+}	mg/l	-	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	-	0.3	1	▲0.004				
Phosphates	mg/l	-	2	5			▲3.3		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲4.1	▲8.3	
Temperature	°C	-	-	27			▲11.3	▲17.7	
Turbidity	NTU	-	-	-					
Conductivity	µmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034712

TO: DISTRIBUTION
DATE: 3-24-83
ANALYSTS: Elgoram

FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

WEEKLY WASTEWATER ANALYSIS

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 3/24/83	–								
Time 1240	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲25	+500			
TSS	mg/l	–	15	30	▲17	+143			
F^-	mg/l	–	6	20	▲3.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	–	0.3	1	▲0.011				
Phosphates	mg/l	–	2	5			▲6.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲3.4	▲7.5	
Temperature	°C	–	–	27			▲10.4	▲18.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034713

Greg Carr

RECEIVED
APR 04 1983
WACKER SILTRONIC
ENGINEERING

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if [illegible])

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved No. 158-R0073

(2-16)	(17-19)
[illegible]	24
PERMIT NUMBER	DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	02	02	01	TO	02	02	28
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	MAXIMUM (54-61)	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Combined Process Wastewater Flow	SAMPLE MEASUREMENT	907	1344	m3/d	—	—	—	NA	—	cont	total. [illegible]
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	78.6	25.9	kg/d	17	19.3	2.0	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	49	129	kg/d	13	44	122	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT										
Cr 6+	SAMPLE MEASUREMENT	.001	.001	mg/d	<.001	<.001	<.001	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cr Total	SAMPLE MEASUREMENT	.004	.004	kg/d	<.003	<.003	<.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F-	SAMPLE MEASUREMENT	7.2	8.0	kg/d	5.4	5.9	6.2	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	NA	2.1	—	12.0	pH units	13	cont	cont.
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
[illegible]			503	243-2020	83	03	14
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

SCOEPA00034715

B:DWTP283 "^E&k2S PRINT TO M104

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL FLOW
31	1	31	385412	726296	988643	1324585	BLANK				
32	2	1	393508	761803	989535	1326713	306.43452	1 1343.9440	33.762301	805.45042	2149.3944
33	2	2	402003	795426	990388	1328847	321.53671	2 1272.6344	32.286147	807.72142	2080.3558
34	2	3	410437	827778	991251	1331040	319.22786	3 1224.5269	32.664648	830.05299	2054.5799
35	2	4	418927	861022	992191	1333129	321.34746	4 1258.2892	35.579107	790.68887	2048.9780
36	2	5	424329	884408	993029	1334947	204.46631	5 885.16276	31.718395	688.11506	1573.2778
37	2	6	427353	898425	993878	1336540	114.45874	6 530.54504	32.134746	602.95231	1133.4974
38	2	7	431693	917358	994717	1338221	164.26949	7 716.61620	31.756245	636.26041	1352.8766
39	2	8	440793	952182	995676	1340214	344.43603	8 1318.0924	36.298259	754.35276	2072.4451
40	2	9	449387	985501	996813	1342221	325.28388	9 1261.1279	43.035579	759.65178	2020.7797
41	2	10	456160	1019549	997950	1344344	256.35882	10 1288.7207	43.035579	803.55791	2092.2786
42	2	11	464446	1052721	998782	1346528	313.62604	11 1255.5640	31.491294	826.64648	2082.2104
43	2	12	470483	1080661	1000253	1348659	228.50114	12 1057.5322	55.677517	806.58592	1864.1181
44	2	13	472859	1093925	1000564	1350250	89.931870	13 502.04391	11.771385	602.19531	1104.2392
45	2	14	477663	1111353	1001416	1352083	181.83195	14 659.65178	32.248297	693.79258	1353.4444
46	2	15	485833	1145608	1002464	1354269	309.23543	15 1296.5556	39.666919	827.40348	2123.9591
47	2	16	492060	1180136	1003604	1356408	235.69266	16 1306.8887	43.149129	809.61393	2116.5026
48	2	17	500447	1214055	1004591	1358506	317.44890	17 1283.8380	37.358062	794.09538	2077.9334
49	2	18	509196	1248271	1005438	1360688	331.15064	18 1295.0795	32.059046	825.88948	2120.9690
50	2	19	515631	1275374	1006327	1362881	243.56548	19 1025.8516	33.648751	830.05299	1855.9046
51	2	20	518760	1286424	1007197	1364668	118.43301	20 418.24375	32.929599	676.38153	1094.6253
52	2	21	521276	1298229	1008045	1366324	95.230886	21 446.82059	32.096896	626.79788	1073.6185
53	2	22	527039	1317334	1008901	1368273	218.13020	22 723.12642	32.399697	737.69871	1460.8251
54	2	23	536672	1352465	1009816	1370407	364.61014	23 1329.7123	34.632854	807.72142	2137.4338
55	2	24	545781	1382721	1010694	1372613	344.77668	24 1145.1930	33.232400	834.97350	1980.1665
56	2	25	554510	1410801	1011521	1374760	330.39364	25 1062.8312	31.302044	812.64194	1875.4731
57	2	26	561394	1438276	1012391	1376880	260.56018	26 1039.9319	32.929599	802.42241	1842.3543
58	2	27	565298	1453872	1013238	1378632	147.76684	27 590.31037	32.059046	663.13399	1253.4444
59	2	28	571512	1468846	1014086	1380644	235.20061	28 566.76760	32.096896	761.54428	1328.3119
60	2	29	571512	1468846	1014086	1380644	0	29 0	0	0	0
61	2	30	571512	1468846	1014086	1380644	0	30 0	0	0	0
62	2	31	571512	1468846	1014086	1380644	0	31 0	0	0	0

Flow Recorder Readings

TOTAL FLOW THIS MONTH OF OWW 7043.9061
TOTAL FLOW THIS MONTH COMBINED 28105.602
TOTAL FLOW THIS MONTH MV 2 963.02044
TOTAL FLOW THIS MONTH MV 3 21218.395
TOTAL FLOW THIS MONTH OUTFALL 49323.997
MAXIMUM FLOW THIS MONTH OWW 364.61014
MAXIMUM FLOW THIS MONTH COMB. 1343.9440
MAXIMUM FLOW THIS MONTH MV2 55.677517
MAXIMUM FLOW THIS MONTH MV3 834.97350
MAXIMUM FLOW THIS MONTH OUTFL 2149.3944
MINIMUM FLOW THIS MONTH OF OWW 0
MINIMUM FLOW THIS MONTH COMB. 0
MINIMUM FLOW THIS MONTH MV2 0
MINIMUM FLOW THIS MONTH MV3 0
MINIMUM FLOW THIS MONTH OUTFL 0
AVERAGE FLOW THIS MONTH OF OWW 227.22278
AVERAGE FLOW THIS MONTH COMB. 906.63232
AVERAGE FLOW THIS MONTH MV2 31.065175
AVERAGE FLOW THIS MONTH MV3 684.46436
AVERAGE FLOW THIS MONTH OUTFL 1591.0967

Computed Flows

		OWW	METER VAULT THREE				COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
2/4	1140	164	.1	3.3	10.8	6.1	19.7
2/11	1050	153	.1	4.2	11.2	7.1	20.3
2/18	629	224	.1	3.7	10.2	6.4	19.3
2/25	605	235	.2	4	10.7	6.8	18.4

DATE OF ANALYSIS — ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW

PARAMETERS		BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
4MG/L		20	20	.001	.003	5.9
OUTFALL	MG/L	12.282115	12.282115	6.1411E-4	.00184232	3.6232239
	KG/DAY	25.165783	25.165783	.00125829	.00377487	7.4239061
11MG/L		20	20	.001	.003	5.9
OUTFALL	MG/L	12.059914	12.059914	6.0300E-4	.00180899	3.5576747
	KG/DAY	25.111279	25.111279	.00125556	.00376669	7.4078274
18MG/L		20	13	.001	.003	6.2
OUTFALL	MG/L	12.212149	7.9378971	6.1061E-4	.00183182	3.7857663
	KG/D	25.901590	16.836033	.00129508	.00388524	8.0294928
25MG/L		17	122	.001	.003	5.4
OUTFALL	MG/L	9.6339051	69.137437	5.6670E-4	.00170010	3.0601816
	KG/DAY	18.068130	129.66540	.00106283	.00318849	5.7392884
5MG/L		0	0	0	0	0
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
AVERAGE	MG/L COMBINED	19.25	43.75	.001	.003	5.85
	MG/L OUTFALL	11.547021	25.354341	5.9860E-4	.00179581	3.5067116
	KG/DAY	23.561696	49.194625	.00121794	.00365382	7.1501287
MAXIMUM	MG/L COMBINED	20	122	.001	.003	6.2
	MG/L OUTFALL	12.282115	69.137437	6.1411E-4	.00184232	3.7857663
	KG/D	25.901590	129.66540	.00129508	.00388524	8.0294928
MINIMUM	MG/L COMBINED	0	0	0	0	0
	MG/L OUTFALL	0	0	0	0	0
	KG/DAY	0	0	0	0	0

Analysis & Loading

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	20	25.165783	20	25.165783	.001	.00125829	.003	.00377487	5.9	7.4239061
	20	25.111279	20	25.111279	.001	.00125556	.003	.00376669	5.9	7.4078274
COMBINED	20	25.901590	13	16.836033	.001	.00129508	.003	.00388524	6.2	8.0294928
EFFLUENT	17	18.068130	122	129.66540	.001	.00106283	.003	.00318849	5.4	5.7392884
PARAMETERS	0	0	0	0	0	0	0	0	0	0

Manipulation

OUTFALL	BOD MG/L	TSS MG/L	CR6+ MG/L	CR MG/L	F- MG/L

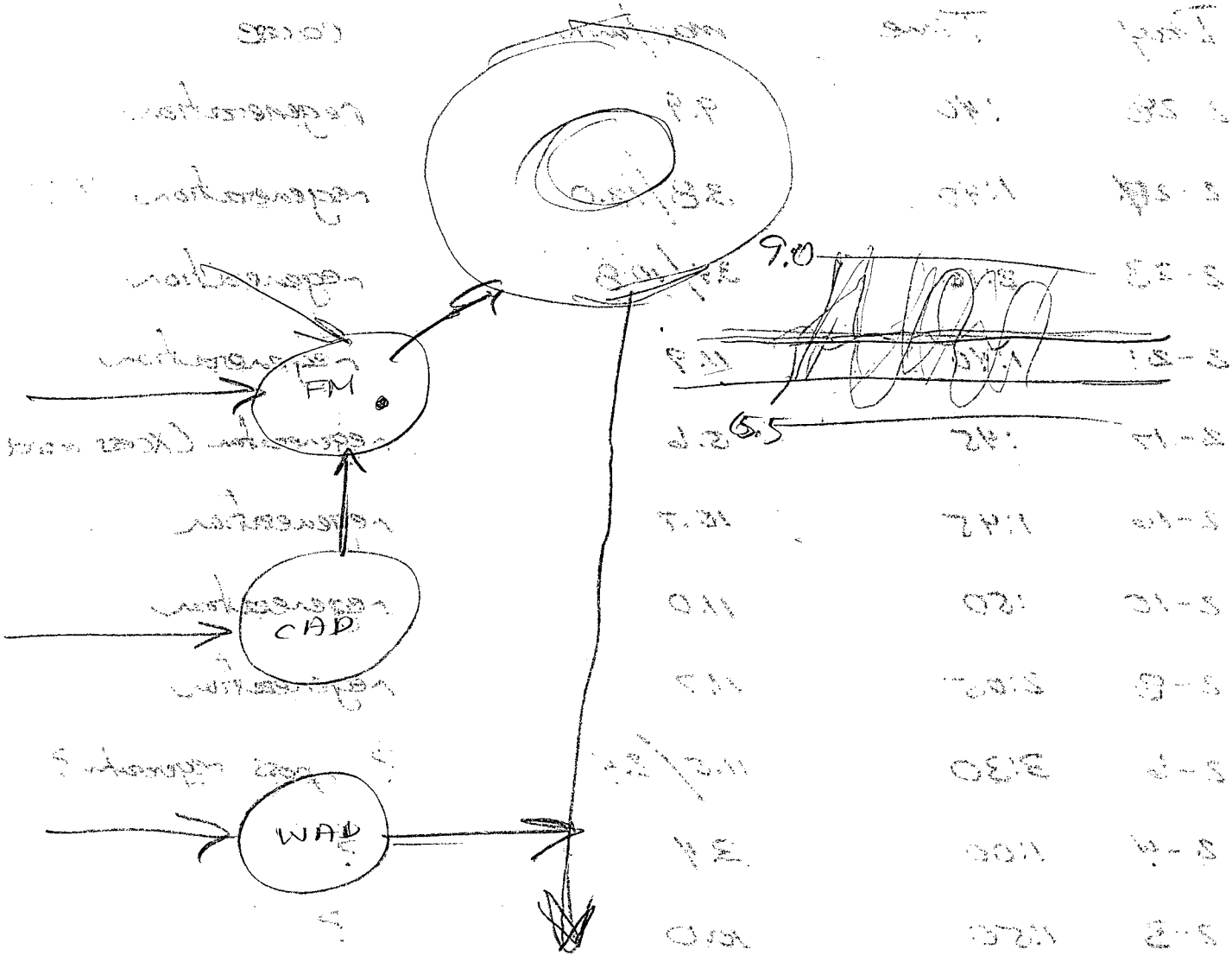
SCOEPA00034716

7.5 - 8.5

NPDES pH Violations February 1983

Day	Time	max/min	cause
2-28	:40	9.9	regeneration
2-28	1:40	3.8/12.0	regeneration WWD
2-23	2:10	3.4/10.8	regeneration
2-21	1:40	11.9	regeneration
2-17	:45	5.6	regeneration (xcess acid)
2-16	1:45	10.7	regeneration
2-10	:50	11.0	regeneration
2-8	2:05	11.7	regeneration
2-6	3:30	11.5/2.4	? poss regeneration?
2-4	1:00	3.4	?
2-3	1:50	10.0	?
2-2	8:00	2.1/11.0	Line failure
2-1	6:35	3.1/11.4	Line failure
13	32 ½ hours (14 hrs on 2 days)	2.1/12.0	9 regenerations 2 line failures 2 unknown

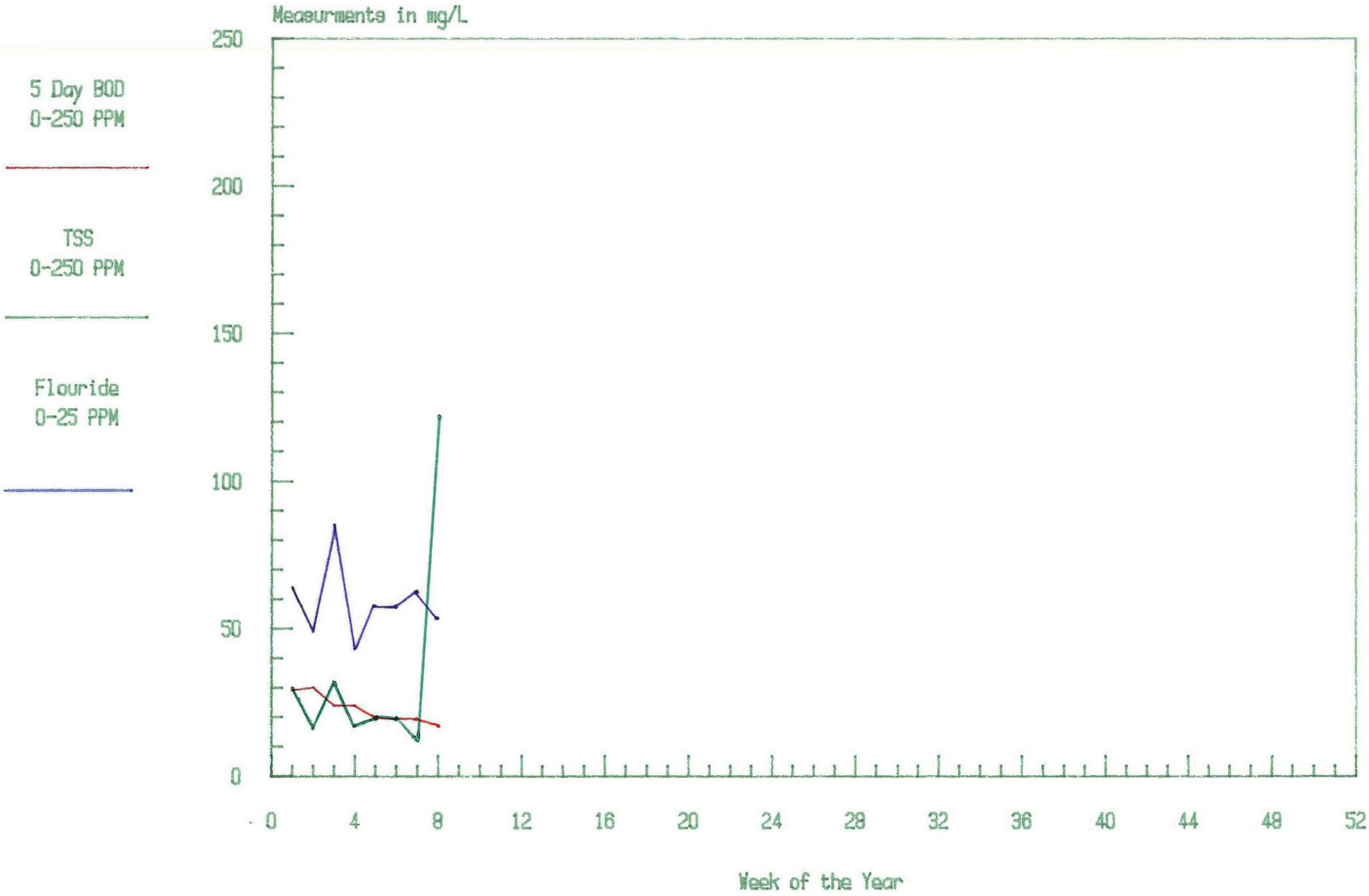
SCOEPA00034717



SCOEPA00034718

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters 1983



WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2-4-83
ANALYSTS: Elgoram

FACILITIES MGR. -
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	-	-	-	-	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengell	-	NPDES PARAMETER LIMITS							
Date 2/4/83	-								
Time 1220 hrs	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲29	+1140			
TSS	mg/l	-	15	30	▲12	+164			
F^-	mg/l	-	6	20	▲5.4				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲<0.003				
Phosphates	mg/l	-	2	5			▲0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲3.3	▲6.1	
Temperature	°C	-	-	27			▲10.8	▲19.7	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034720

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2-11-83
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 2/11/83	-								
Time 1220hrs	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲20	+1050			
TSS	mg/l	-	15	30	▲20	+153			
F^-	mg/l	-	6	20	▲5.9				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲<0.003				
Phosphates	mg/l	-	2	5			▲0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲4.2	▲7.1	
Temperature	°C	-	-	27			▲11.2	▲20.3	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034721

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2-18-83
ANALYSTS: Elgoram

FACILITIES MGR. ~
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 2/18/83	-								
Time 1310	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲20	+629			
TSS	mg/l	-	15	30	▲13	+224			
F^-	mg/l	-	6	20	▲6.2				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.001				
Cr^{total}	mg/l	-	0.3	1	▲<0.003				
Phosphates	mg/l	-	2	5			▲0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲3.7	▲6.4	
Temperature	°C	-	-	27			▲10.2	▲19.3	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034722

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 2-25-83
ANALYSTS: Elgoram

FACILITIES MGR. ~
FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 2/25/83	–								
Time 1340	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲17	+605			
TSS	mg/l	–	15	30	▲122	+235			
F^-	mg/l	–	6	20	▲5.4				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.001				
Cr^{total}	mg/l	–	0.3	1	▲<0.003				
Phosphates	mg/l	–	2	5			▲0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲4.0	▲6.8	
Temperature	°C	–	–	27			▲10.7	▲18.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034723

201
101
001
bb
-86

H 9 J 3 C

Greg Carr

RECEIVED
MAR 10 1983
WACKER SILTRONIC
ENGINEERING

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if d

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Approved No. 158-R0073

2834-J
93450

(2-16)	(17-19)
02 003058-9	32
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	83	01	01	TO	83	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Combined Process Wastewater Flow	SAMPLE MEASUREMENT	1020	1405	m³/d	—	—	—	—		cont	total. rec. ord.
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	35	42	kg/d	24	27	30	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	32	43	kg/d	16	24	32	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT										
Cr 6+	SAMPLE MEASUREMENT	.003	.005	kg/d	.001	.002	.005	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cr Total	SAMPLE MEASUREMENT	.008	.016	kg/d	.003	.006	.012	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F	SAMPLE MEASUREMENT	5.2	8.5	kg/d	4.3	6.0	8.5	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	2.4	—	12.5	pH units	17	cont	cont
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
[illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	503	243 7020	83	02	08
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034725

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if d*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MO RING REPORT *(DMR)*

F Approved No. 158-R0073

2834-J

93450

(2-16) PERMIT NUMBER

(17-19) DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM				TO			
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
		503	243 2020	23	02	08

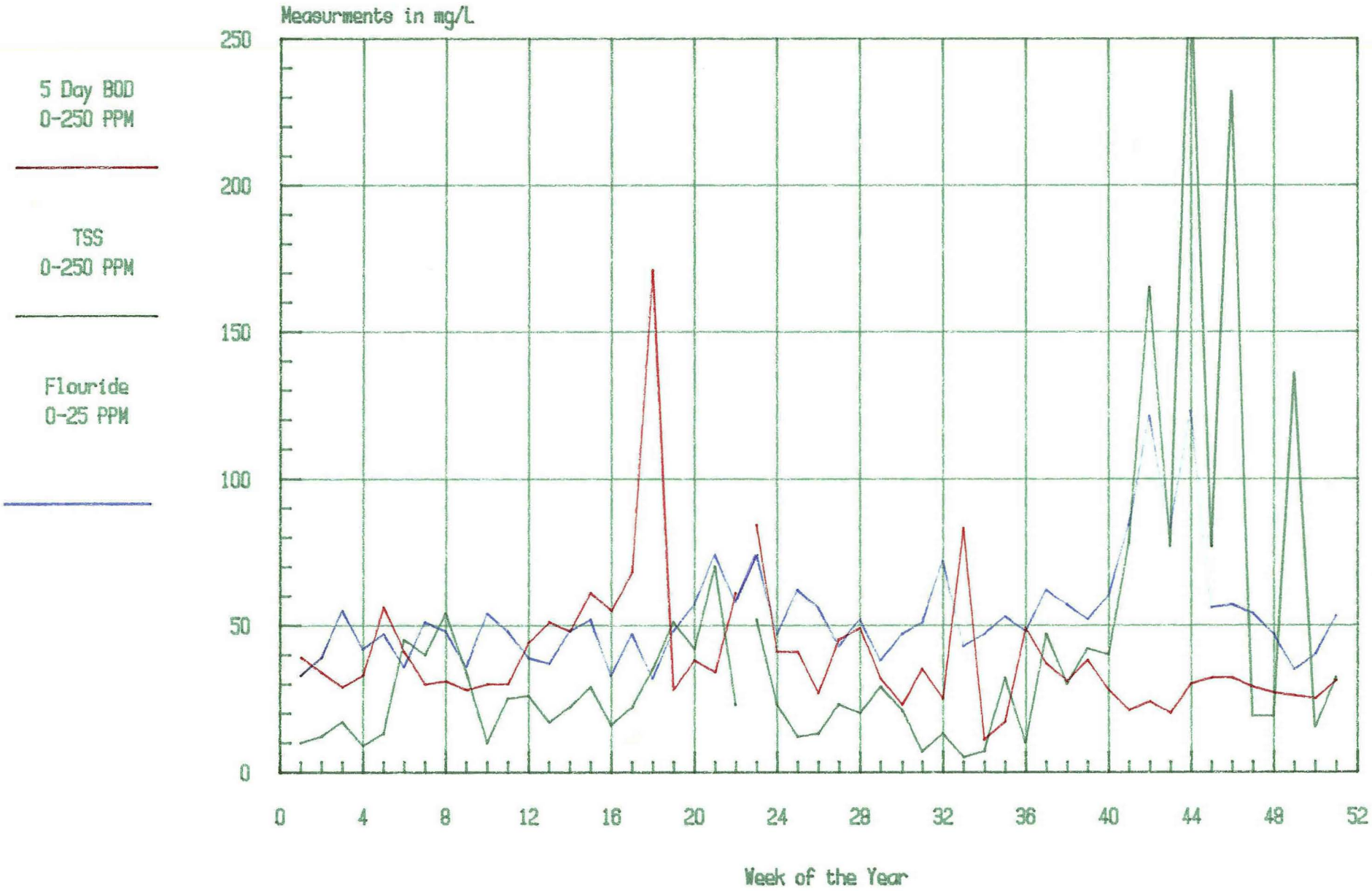
THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years!)*

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034726

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters 1982



PH excursions January 1983

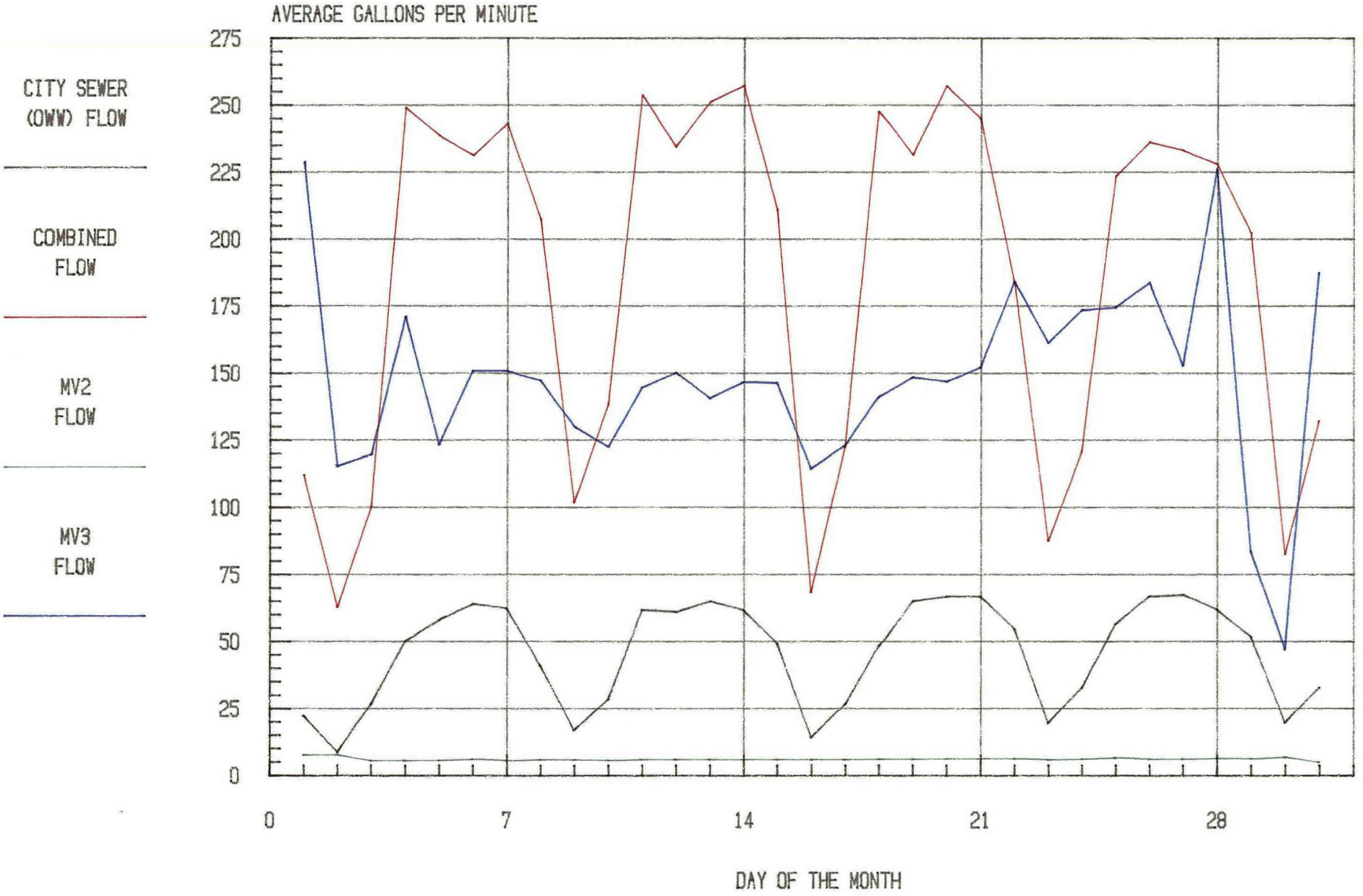
1/3/83	4:10	12.5	Regeneration
1/4/83	:45	11.3	" ?
1/6/83	1:30	2.8	Lime Auger/probe/pump ?
1/7/83	1:45	11.9	Regeneration
1/10/83	1:20	12.0	"
1/13/83	2:15	12.1	"
1/17/83	2:20	12.0	"
1/18	2:00	10.2	Lime timer stuck on
1/19	2:10	11.8	Regeneration
1/21	5:15	10.8	?
1/22	1:15	3.2	Lime Auger ?
1/23	1:00	9.8	Lime timer ?
1/24	1:50	10.1	Ran out of acid.
1/27	2:00	10.0	WAD Lime Timer stuck on
1/28	2:45	11.5	Regeneration
	1:20	2.3	Left acid pump on
1-29	17:00	11.6/2.4	major upsets ?

17 ~~8~~ 12.5/2.4

5 0.66 hours
6.8% of the time
93.2% on-line
8 Regenerations

WASTEWATER FLOWS WASTE TREATMENT PLANT

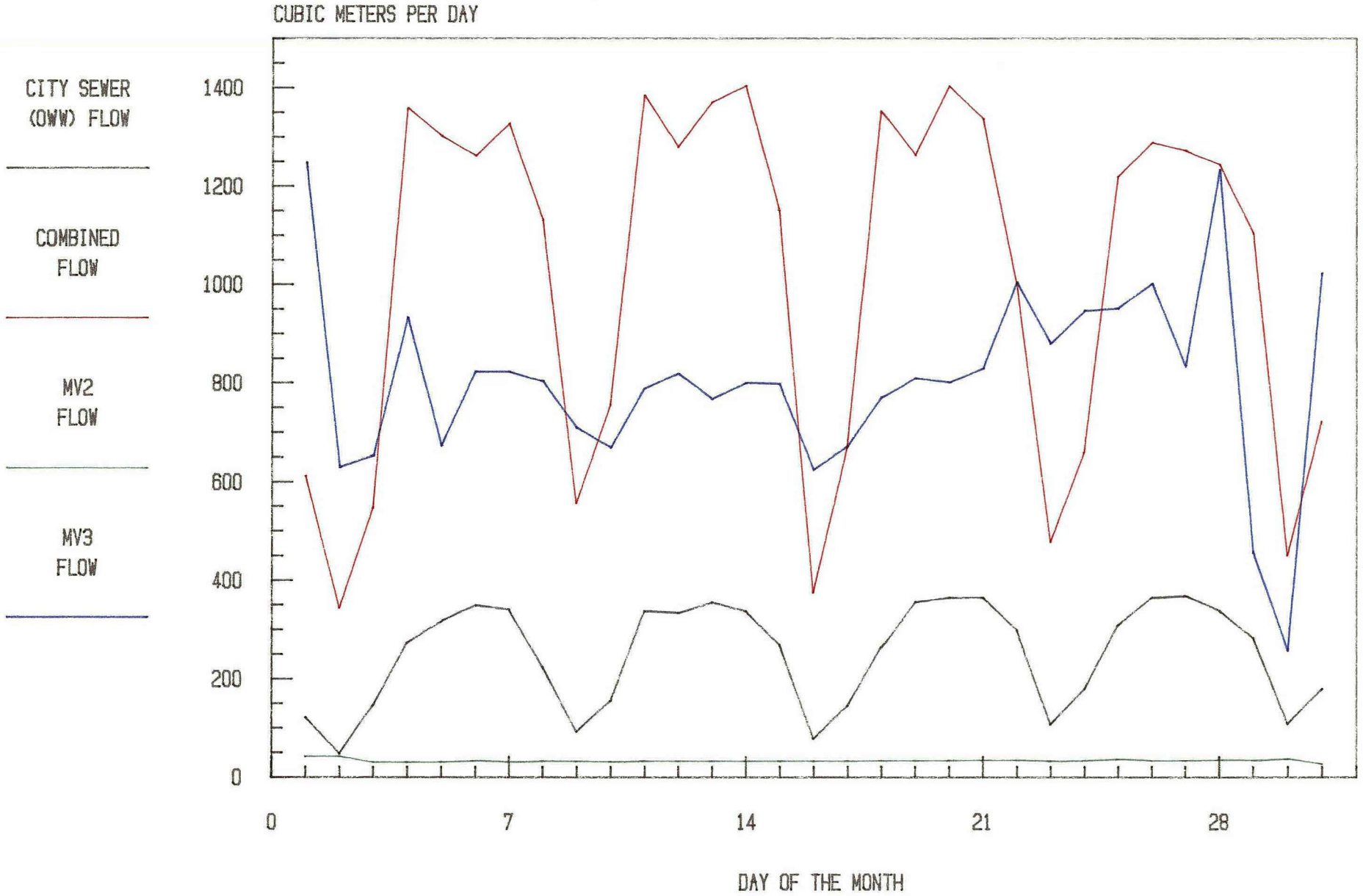
JANUARY 1983



SCOEPA00034729

WASTEWATER FLOWS WASTE TREATMENT PLANT

JANUARY 1983



SCOEPA00034730

TO: DISTRIBUTION
DATE: 1-7-83
ANALYSTS: Elgoram

FACILITIES OP. SUPI
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/7/83	–								
Time 11^45	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 29	+ 569			
TSS	mg/l	–	15	30	▲ 30	+ 98			
F^-	mg/l	–	6	20	▲ 6.4				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.005				
Cr^{total}	mg/l	–	0.3	1	▲ 0.012				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 3.1	▲ 7.2	
Temperature	°C	–	–	27			▲ 11.2	▲ 18.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034731

TO: DISTRIBUTION
DATE: 1-14-83
ANALYSTS: Elgoram

FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/14/83	–								
Time 1520	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 30	+ 534			
TSS	mg/l	–	15	30	▲ 16	+ 168			
F^-	mg/l	–	6	20	▲ 4.9				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 2.8	▲ 6.4	
Temperature	°C	–	–	27			▲ 10.9	▲ 19.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034732

TO: DISTRIBUTION
DATE: 1-21-83
ANALYSTS: S. Pengelly

FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/21/83	–								
Time	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 24	+ 509			
TSS	mg/l	–	15	30	▲ 32	+ 96			
F^-	mg/l	–	6	20	▲ 8.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.004				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 3.6	▲ 7.0	
Temperature	°C	–	–	27			▲ 11.1	▲ 18.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034733

TO: DISTRIBUTION
DATE: 1-28-83
ANALYSTS: Elgeram

FACILITIES OP. SUP
ENVIRONMENTAL EN
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/28/83	–								
Time 1410	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲24	+430			
TSS	mg/l	–	15	30	▲17	+146			
F^-	mg/l	–	6	20	▲4.3				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.001				
Cr^{total}	mg/l	–	0.3	1	▲0.003				
Phosphates	mg/l	–	2	5			▲0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲3.2	▲6.3	
Temperature	°C	–	–	27			▲10.6	▲19.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

AE&K25

SCOEPA00034734

Greg Carr

RECEIVED
FEB 7 1983
WACKER SILTRONIC
ENGINEERING

Totalized flows to the Willamette River

January 1983

MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW	
0	31	179525	890621	961361	1258430	BLANK	BLANK	BLANK	BLANK	BLANK	
1	1	182723	906789	962485	1261726	121.04466	1	611.96064	42.543528	1247.5397	1859.5004 .32909950
1	2	183989	915860	963608	1263392	47.918244	2	343.33838	42.505678	630.58289	973.92127 .35253197
1	3	187836	930323	964406	1265119	145.60939	3	547.42619	30.204391	653.67146	1201.0977 .45577159
1	4	195046	966212	965221	1267583	272.89932	4	1358.4027	30.847843	932.62680	2291.0295 .59292240
1	5	203408	1000629	966046	1269364	316.50265	5	1302.6874	31.226344	674.11052	1976.7979 .65898865
1	6	212622	1033981	966924	1271539	348.75095	6	1262.3770	33.232400	823.23997	2085.6170 .60527749
1	7	221597	1069043	967728	1273714	339.70477	7	1327.1007	30.431491	823.23997	2150.3407 .61715835
1	8	227510	1098960	968581	1275836	223.80772	8	1132.3618	32.286147	803.17941	1935.5413 .58503628
1	9	229957	1113683	969405	1277711	92.619228	9	557.26722	31.188494	709.68963	1266.9569 .43984704
1	10	234045	1133617	970217	1279478	154.73126	10	754.50416	30.734292	668.81151	1423.3157 .53010318
1	11	242923	1170198	971079	1281561	336.03331	11	1384.5950	32.626798	788.41787	2173.0129 .63717754
1	12	251718	1204036	971930	1283727	332.89175	12	1280.7721	32.210447	819.83346	2100.6056 .60971567
1	13	261083	1240251	972778	1285755	354.46631	13	1370.7419	32.096896	767.60030	2138.3422 .64103018
1	14	269962	1277361	973624	1287869	336.07116	14	1404.6177	32.021196	800.15140	2204.7691 .63708155
1	15	277049	1307790	974474	1289977	268.24375	15	1151.7411	32.172597	797.88039	1949.6215 .59075113
1	16	279110	1317705	975330	1291630	78.009084	16	375.28388	32.399697	625.66238	1000.9463 .37492910
1	17	282942	1335363	976175	1293404	145.04164	17	668.35731	31.983346	671.46101	1339.8183 .49884174
1	18	289898	1371048	977063	1295439	263.28539	18	1350.6813	33.610901	770.24981	2120.9311 .63683412
1	19	299263	1404443	977939	1297579	354.46631	19	1264.0045	33.156699	809.99243	2073.9970 .60945342
1	20	308902	1441515	978838	1299696	364.83724	20	1403.1794	34.027252	801.28690	2204.4663 .63651660
1	21	318519	1476849	979745	1301891	364.00454	21	1337.3959	34.330053	830.80999	2168.2059 .61682145
1	22	326397	1503334	980655	1304544	298.18319	22	1002.4603	34.443603	1004.1635	2006.6238 .49957559
1	23	329228	1515971	981510	1306871	107.15367	23	478.31188	32.361847	880.77214	1359.0840 .35193695
1	24	333949	1533385	982404	1309372	178.69039	24	659.12188	33.838002	946.63134	1605.7532 .41047520
1	25	342097	1565600	983360	1311888	308.40273	25	1219.3414	36.184709	952.30886	2171.6503 .56148148
1	26	351732	1599652	984241	1314535	364.68584	26	1288.8721	33.345950	1001.8925	2290.7646 .56263838
1	27	361468	1633281	985141	1316741	368.50871	27	1272.8615	34.065102	834.97350	2107.8350 .60387150
1	28	370383	1666150	986062	1319999	337.43376	28	1244.0954	34.859955	1233.1567	2477.2521 .50220783
1	29	377838	1695334	986951	1321205	282.17260	29	1104.6177	33.648751	456.47237	1561.0901 .70759383
1	30	380691	1707258	987940	1321885	107.98637	30	451.32475	37.433762	257.38077	708.70553 .63682974
1	31	385416	1726296	988643	1324585	178.84179	31	720.59046	26.608630	1021.9531	1742.5435 .41352796

B:J

Total flows to river

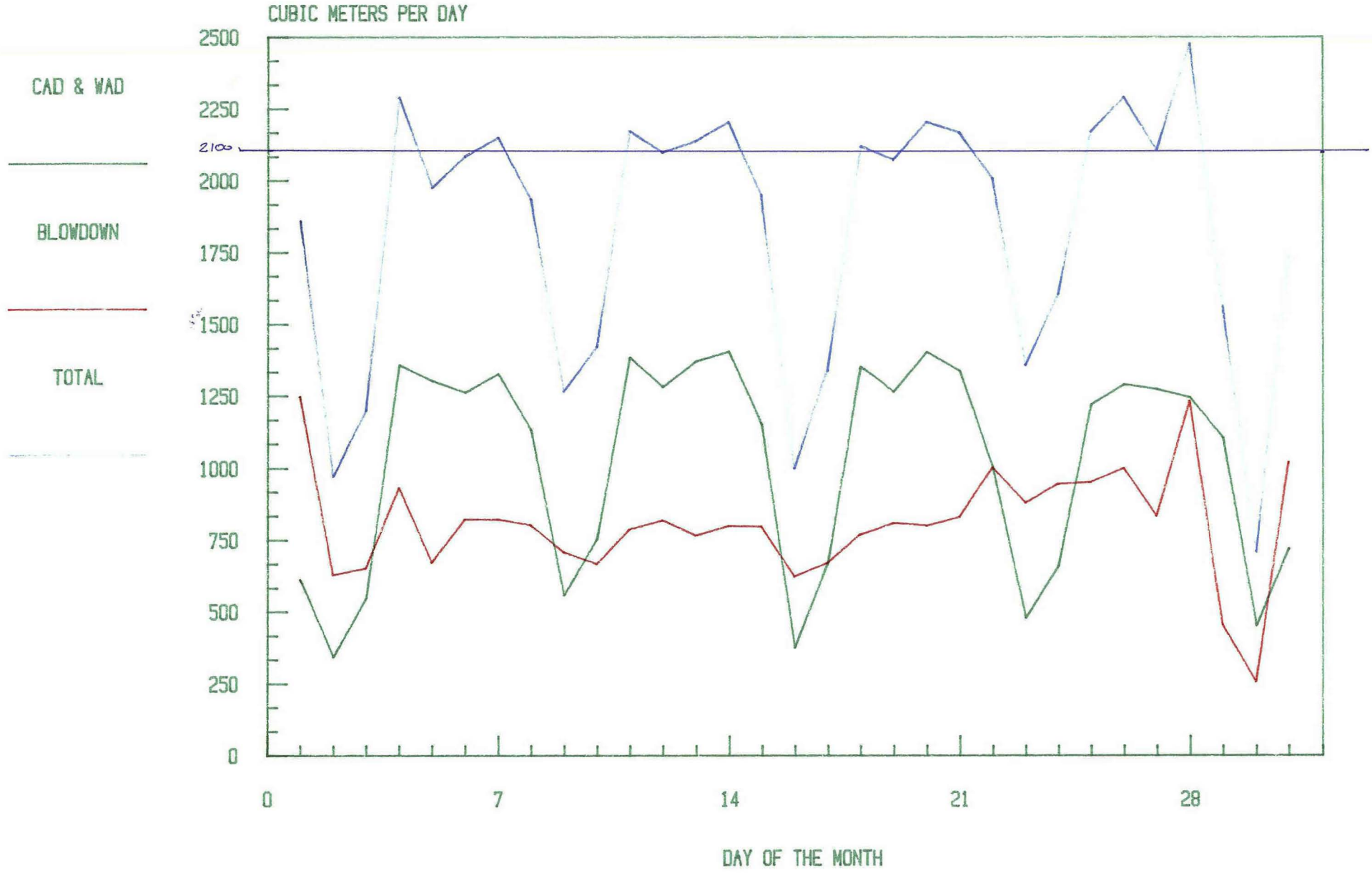
% of total flow that is CADet water

2500 max

SCOEPA00034736

COMBINED, BLOWDOWN AND TOTAL RIVER FLOWS

JANUARY 1983



SCOEPA00034737

B:DWTP183 DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	OWW FLOW	COMB FLOW	MV2 FLOW	MV3 FLOW
"^E&k2S	0	0	31	179525	890621	961361	1258430	BLANK	BLANK	BLANK	BLANK	BLANK
TO STORE	1	1	1	182723	906789	962485	1261726	121.04466	1	611.96064	42.543528	1247.5397
[illegible] DATA	2	1	2	183989	915860	963608	1263392	47.918244	2	343.33838	42.505678	630.58289
CURSER	3	1	3	187836	930323	964406	1265119	145.60939	3	547.42619	30.204391	653.67146
ON B3 AND	4	1	4	195046	966212	965221	1267583	272.89932	4	1358.4027	30.847843	932.62680
PUSH /S#S	5	1	5	203408	1000629	966046	1269364	316.50265	5	1302.6874	31.226344	674.11052
ENTER FILE	6	1	6	212622	1033981	966924	1271539	348.75095	6	1262.3770	33.232400	823.23997
NAME AND	7	1	7	221597	1069043	967728	1273714	339.70477	7	1327.1007	30.431491	823.23997
LOWER LEFT	8	1	8	227510	1098960	968581	1275836	223.80772	8	1132.3618	32.286147	803.17941
CORNER IS	9	1	9	229957	1113683	969405	1277711	92.619228	9	557.26722	31.188494	709.68963
M33. STORE	10	1	10	234045	1133617	970217	1279478	154.73126	10	754.50416	30.734292	668.81151
AS A COLUM	11	1	11	242923	1170198	971079	1281561	336.03331	11	1384.5950	32.626798	788.41787
(C)	12	1	12	251718	1204036	971930	1283727	332.89175	12	1280.7721	32.210447	819.83346
XPAND	13	1	13	261083	1240251	972778	1285755	354.46631	13	1370.7419	32.096896	767.60030
TO 10	14	1	14	269962	1277361	973624	1287869	336.07116	14	1404.6177	32.021196	800.15140
DIGITS	15	1	15	277049	1307790	974474	1289977	268.24375	15	1151.7411	32.172597	797.88039
BEFORE	16	1	16	279110	1317705	975330	1291630	78.009084	16	375.28388	32.399697	625.66238
PRINT.	17	1	17	282942	1335363	976175	1293404	145.04164	17	668.35731	31.983346	671.46101
LOWER LEFT	18	1	18	289898	1371048	977063	1295439	263.28539	18	1350.6813	33.610901	770.24981
COLUMN OF	19	1	19	299263	1404443	977939	1297579	354.46631	19	1264.0045	33.156699	809.99243
WHOLE	20	1	20	308902	1441515	978838	1299696	364.83724	20	1403.1794	34.027252	801.28690
SHEET IS	21	1	21	318519	1476849	979745	1301891	364.00454	21	1337.3959	34.330053	830.80999
N91	22	1	22	326397	1503334	980655	1304544	298.18319	22	1002.4603	34.443603	1004.1635
	23	1	23	329228	1515971	981510	1306871	107.15367	23	478.31188	32.361847	880.77214
SETUP	24	1	24	333949	1533385	982404	1309372	178.69039	24	659.12188	33.838002	946.63134
STRING FOR	25	1	25	342097	1565600	983360	1311888	308.40273	25	1219.3414	36.184709	952.30886
PRINTER IS	26	1	26	351732	1599652	984241	1314535	364.68584	26	1288.8721	33.345950	1001.8925
"^E&k2S	27	1	27	361468	1633281	985141	1316741	368.50871	27	1272.8615	34.065102	834.97350
	28	1	28	370383	1666150	986062	1319999	337.43376	28	1244.0954	34.859955	1233.1567
	29	1	29	377838	1695334	986951	1321205	282.17260	29	1104.6177	33.648751	456.47237
	30	1	30	380691	1707258	987940	1321885	107.98637	30	451.32475	37.433762	257.38077
	31	1	31	385416	1726296	988643	1324585	178.84179	31	720.59046	26.608630	1021.9531

TOTAL FLOW THIS MONTH OF OWW 7792.9977
TOTAL FLOW THIS MONTH COMBINED 31630.394
TOTAL FLOW THIS MONTH MV 2 1032.6268
TOTAL FLOW THIS MONTH MV 3 25039.743
MAXIMUM FLOW THIS MONTH OWW 368.50871
MAXIMUM FLOW THIS MONTH COMB. 1404.6177 ← 1/21
MAXIMUM FLOW THIS MONTH MV2 42.543528 1/28
MAXIMUM FLOW THIS MONTH MV3 1247.5397
MINIMUM FLOW THIS MONTH OF OWW 343.33838
MINIMUM FLOW THIS MONTH COMB. 343.33838
MINIMUM FLOW THIS MONTH MV2 26.608630
MINIMUM FLOW THIS MONTH MV3 257.38077
AVERAGE FLOW THIS MONTH OF OWW 251.38702
AVERAGE FLOW THIS MONTH COMB. 1020.3353 ←
AVERAGE FLOW THIS MONTH MV2 33.310542
AVERAGE FLOW THIS MONTH MV3 807.73363

	OWW	METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP
1/7	569	98	.1	3.1	11.2	7.2	18.4
1/14	534	168	.1	2.8	10.9	6.4	19.2
1/21	509	96	.1	3.6	11.1	7	18.4
1/28	430	146	.2	3.2	10.6	6.3	19.6

COMBINED

DATE OF FLUENT ANALYSIS OW — ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW — EFFL

PARAMETERS		BOD	TSS	CR 6+	CR TOTAL	FLOURIDE	FL
7MG/L		29	30	.005	.012	6.4	1327.1007
	KG/DAY	38.485920	39.813020	.00663550	.01592521	8.4934444	
14MG/L		30	16	.001	.005	4.9	1404.6177
	KG/DAY	42.138531	22.473883	.00140462	.00702309	6.8826268	
21MG/L		24	32	.002	.004	8.5	1337.3959
	KG/D	32.097502	42.796669	.00267479	.00534958	0	
28MG/L		24	17	.001	.003	4.3	1244.0954
	KG/DAY	29.858289	21.149621	.00124410	.00373229	5.3496101	
5MG/L							1302.6874
	KG/DAY	0	0	0	0	0	
AVERAGE	MG/L	26.75	23.75	.00225	.006	6.025	
4KG/DAY		35.645061	31.558299	.00298975	.00800754	5.1814203	
MAXIMUM	MG/L	30	32	.005	.012	8.5	
	KG/D	42.138531	42.796669	.00663550	.01592521	8.4934444	
MINIMUM	MG/L	0	0	0	0	0	
	KG/DAY	0	0	0	0	0	

	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
DATA SUMMARY FOR PLOTTING.	29	38.485920	30	39.813020	.005	.00663550	.012	.01592521	6.4	8.4934444
	30	42.138531	16	22.473883	.001	.00140462	.005	.00702309	4.9	6.8826268
PUT CURSER ON D79 AND PUSH	24	32.097502	32	42.796669	.002	.00267479	.004	.00534958	8.5	0
/S#S AND THE FILE NAME. LOWER	24	29.858289	17	21.149621	.001	.00124410	.003	.00373229	4.3	5.3496101
LEFT CORNER IS L83. STORE AS	0	0	0	0	0	0	0	0	0	0
A COLUMN (C).										

DATA SUMMARY FOR PLOTTING. OWW BOD OWW TSS METER VAULT THREE COMBINED DISCHARGE
CURSER ON D89 AND PUSH PO4 pH TEMP. 'C pH TEMP. 'C
/S#S AND THE FILE NAME. LOWER
LEFT CORNER IS J93. STORE AS A

SCOEPA00034738

JANUARY 1983	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV2 FLOW BLANK	MV3 FLOW BLANK	OUTFALL FLOW	
	121.04	1.00	611.96	42.54	1247.54	1859.50	
	47.92	2.00	343.34	42.51	630.58	973.92	
	145.61	3.00	547.43	30.20	653.67	1201.10	
	272.90	4.00	1358.40	30.85	932.63	2291.03	
	316.50	5.00	1302.69	31.23	674.11	1976.80	
	348.75	6.00	1262.38	33.23	823.24	2085.62	
	339.70	7.00	1327.10	30.43	823.24	2150.34	
	223.81	8.00	1132.36	32.29	803.18	1935.54	—
	92.62	9.00	557.27	31.19	709.69	1266.96	
	154.73	10.00	754.50	30.73	668.81	1423.32	
	336.03	11.00	1384.60	32.63	788.42	2173.01	
	332.89	12.00	1280.77	32.21	819.83	2100.61	
	354.47	13.00	1370.74	32.10	767.60	2138.34	
	336.07	14.00	1404.62	32.02	800.15	2204.77	
	268.24	15.00	1151.74	32.17	797.88	1949.62	—
	78.01	16.00	375.28	32.40	625.66	1000.95	
	145.04	17.00	668.36	31.98	671.46	1339.82	
	263.29	18.00	1350.68	33.61	770.25	2120.93	
	354.47	19.00	1264.00	33.16	809.99	2074.00	
	364.84	20.00	1403.18	34.03	801.29	2204.47	
	364.00	21.00	1337.40	34.33	830.81	2168.21	
	298.18	22.00	1002.46	34.44	1004.16	2006.62	—
	107.15	23.00	478.31	32.36	880.77	1359.08	
	178.69	24.00	659.12	33.84	946.63	1605.75	
	308.40	25.00	1219.34	36.18	952.31	2171.65	
	364.69	26.00	1288.87	33.35	1001.89	2290.76	
	368.51	27.00	1272.86	34.07	834.97	2107.83	
	337.43	28.00	1244.10	34.86	1233.16	2477.25	
	282.17	29.00	1104.62	33.65	456.47	1561.09	—
	107.99	30.00	451.32	37.43	257.38	708.71	
	178.84	31.00	720.59	26.61	1021.95	1742.54	
					AVERAGE	1828.07	
					MAXIMUM	2477.25	
					MINIMUM	708.71	

B:DWTP283 "^E&k2S PRINT TO M102

DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW		COMB FLOW	MV2 FLOW	MV3 FLOW	OUTFALL FLOW
1	1	31	385412	726296	988643	1324585	BLANK					
32	2	1	393508	761803	989535	1326713	306.43452	1	1343.9440	33.762301	805.45042	2149.3944
33	2	2	402003	795426	990388	1328847	321.53671	2	1272.6344	32.286147	807.72142	2080.3558
34	2	3	410437	827778	991251	1331040	319.22786	3	1224.5269	32.664648	830.05299	2054.5799
35	2	4	418927	861022	992191	1333129	321.34746	4	1258.2892	35.579107	790.68887	2048.9780
36	2	5	424329	884408	993029	1334947	204.46631	5	885.16276	31.718395	688.11506	1573.2778
37	2	6	427353	898425	993878	1336540	114.45874	6	530.54504	32.134746	602.95231	1133.4974
38	2	7	431693	917358	994717	1338221	164.26949	7	716.61620	31.756245	636.26041	1352.8766
39	2	8	440793	952182	995676	1340214	344.43603	8	1318.0924	36.298259	754.35276	2072.4451
40	2	9	449387	985501	996813	1342221	325.28388	9	1261.1279	43.035579	759.65178	2020.7797
41	2	10	456160	1019549	997950	1344344	256.35882	10	1288.7207	43.035579	803.55791	2092.2786
42	2	11	464446	1052721	998782	1346528	313.62604	11	1255.5640	31.491294	826.64648	2082.2104
43	2	12	470483	1080661	1000253	1348659	228.50114	12	1057.5322	55.677517	806.58592	1864.1181
44	2	13	472859	1093925	1000564	1350250	89.931870	13	502.04391	11.771385	602.19531	1104.2392
45	2	14	477663	1111353	1001416	1352083	181.83195	14	659.65178	32.248297	693.79258	1353.4444
46	2	15	485833	1145608	1002464	1354269	309.23543	15	1296.5556	39.666919	827.40348	2123.9591
47	2	16	492060	1180136	1003604	1356408	235.69266	16	1306.8887	43.149129	809.61393	2116.5026
48	2	17	500447	1214055	1004591	1358506	317.44890	17	1283.8380	37.358062	794.09538	2077.9334
49	2	18	509196	1248271	1005438	1360688	331.15064	18	1295.0795	32.059046	825.88948	2120.9690
50	2	19	515631	1275374	1006327	1362881	243.56548	19	1025.8516	33.648751	830.05299	1855.9046
51	2	20	518760	1286424	1007197	1364668	118.43301	20	418.24375	32.929599	676.38153	1094.6253
52	2	21	521276	1298229	1008045	1366324	95.230886	21	446.82059	32.096896	626.79788	1073.6185
53	2	22	527039	1317334	1008901	1368273	218.13020	22	723.12642	32.399697	737.69871	1460.8251
54	2	23	536672	1352465	1009816	1370407	364.61014	23	1329.7123	34.632854	807.72142	2137.4338
55	2	24	545781	1382721	1010694	1372613	344.77668	24	1145.1930	33.232400	834.97350	1980.1665
56	2	25	554510	1410801	1011521	1374760	330.39364	25	1062.8312	31.302044	812.64194	1875.4731
57	2	26	561394	1438276	1012391	1376880	260.56018	26	1039.9319	32.929599	802.42241	1842.3543
58	2	27	565298	1453872	1013238	1378632	147.76684	27	590.31037	32.059046	663.13399	1253.4444
59	2	28	571512	1468846	1014086	1380644	235.20061	28	566.76760	32.096896	761.54428	1328.3119
60	2	29	571513	1468847	1014087	1380645	.03785011	29	.03785011	.03785011	.37850114	.41635125
61	2	30	571514	1468848	1014088	1380646	.03785011	30	.03785011	.03785011	.37850114	.41635125
62	2	31	571515	1468849	1014089	1380647	.03785011	31	.03785011	.03785011	.37850114	.41635125

TOTAL FLOW THIS MONTH OF OWW 7044.0197
TOTAL FLOW THIS MONTH COMBINED 28105.715
TOTAL FLOW THIS MONTH MV 2 963.13399
TOTAL FLOW THIS MONTH MV 3 21219.531
TOTAL FLOW THIS MONTH OUTFALL 49325.246
MAXIMUM FLOW THIS MONTH OWW 364.61014
MAXIMUM FLOW THIS MONTH COMB. 1343.9440
MAXIMUM FLOW THIS MONTH MV2 55.677517
MAXIMUM FLOW THIS MONTH MV3 834.97350
MAXIMUM FLOW THIS MONTH OUTFL 2149.3944
MINIMUM FLOW THIS MONTH OF OWW .03785011
MINIMUM FLOW THIS MONTH COMB. .03785011
MINIMUM FLOW THIS MONTH MV2 .03785011
MINIMUM FLOW THIS MONTH MV3 .37850114
MINIMUM FLOW THIS MONTH OUTFL .41635125
AVERAGE FLOW THIS MONTH OF OWW 227.22644
AVERAGE FLOW THIS MONTH COMB. 906.63598
AVERAGE FLOW THIS MONTH MV2 31.068838
AVERAGE FLOW THIS MONTH MV3 684.50099
AVERAGE FLOW THIS MONTH OUTFL 1591.1370

		OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP	

DATE OF ANALYSIS — ENTER WASTEWATER ANALYSIS FOR THIS MONTH HERE BELOW

PARAMETERS		BOD	TSS	CR 6+	CR TOTAL	FLOURIDE
1MG/L						
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
2MG/L						
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
3MG/L						
OUTFALL	MG/L	0	0	0	0	0
	KG/D	0	0	0	0	0
4MG/L						
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
5MG/L						
OUTFALL	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0
AVERAGE	MG/L	0	0	0	0	0
	MG/L OUTFALL	0	0	0	0	0
	1KG/DAY	0	0	0	0	0
MAXIMUM	MG/L	0	0	0	0	0
	KG/D	0	0	0	0	0
MINIMUM	MG/L	0	0	0	0	0
	KG/DAY	0	0	0	0	0

DATA SUMMARY FOR PLOTTING.	BOD MG/L	BOD KG/D	TSS MG/L	TSS KG/D	CR6+ MG/L	CR6+ KG/D	CR MG/L	CR KG/D	F- MG/L	F- KG/D
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
PUT CURSER ON D79 AND PUSH	0	0	0	0	0	0	0	0	0	0
/S#S AND THE FILE NAME. LOWER	0	0	0	0	0	0	0	0	0	0
LEFT CORNER IS L83. STORE AS	0	0	0	0	0	0	0	0	0	0
A COLUMN (C).										

SCOEPA00034740

^E&k2S B:DANAL PROCESS TO RIVER QWW TO CITY SEWER MV3 TO RIVER COMBINED TO RIVER

YEAR	DATE	BOD	TSS	FLOURIDE	CR6+	CR TOTAL	BOD	TSS	PO4+	pH	TEMP	pH	TEMP
1980	4/4	56	160	34	.01	.12							
	9	38	10	11	.01	.01							
	14	42	7.3	2.8	.02	.03							
	16	55	13.5	8.3	.04	.16							
	21	59	10	21	.11	.56							
	25	67	22	7.4	.01	.01							
	5/5	35	35	6.7	.017	.01							
	7	56	56	15	.01	.01							
	13	77	107	27	.04	.03							
	14	63	74	7.7	.01	.01							
	19	22	62	12.2	.04	.03							
	28	24	12.7	10.3	.01	.01							
	6/3	27	29	9.8	.01	.01							
	6	81	59	8.6	.01	.01							
	10	62	26	6.3	.35	.49							
	12	67	33	3.6	.01	.01							
	19	76	17	22	.01	.01							
	23	72	22	9.3	.01	.01							
	24	66	51	12	.01	.01							
	27	64	65	8.6	.01	.01							
	7/2	97	8.2	9.8	.01	.01			.01				
	10	48.5	2.6	9	.01	.01			.01				
	15	85	10	9.8	.01	.01			.05				
	17	58	8.5	6.1	.01	.01							
	23	46.5	3	5.6	.01	.01			.03				
	31	68	7.2	9.6	.01	.01			.03				
	8/5	39	17	7	.001	.004							
	7	68	91	12.3	.003	.02			.04				
	12	5	3	5	.002	.005							
	15	5	6	11	.002	.006							
	20	48	48	9	.004	.02			5				
	27	55	10	12	.005	.02			.5				
	9/3	77	5	15	.001	.01			.4				
	10	17	32	8	.03	.04			.04				
	18	4	35	13	.006	.01			.3				
	24	32	3	11	.007	.02			3.3				

SCOEPA00034741

OCTOBER												
AVG. ONLY	26.2	11.4	4.7	.003	.014							
11/5	5	4	8.8	.002	.004		.7					
12	77	46	11	.002	.02		.6					
19	91.6	46.5	27.9	.001	.001		.5					
26	83	33	18	.006	.019		.4					
12/3	68	4	18.3	.001	.01		.2	6.8	12	6.4	4	
10	93	5.8	10.8	.002	.02		.2	7	14	7.7	19	
17	66	10.6	9.6	.001	3.63		.2	7.3	12	6.3	18	
24	107	18	5.8	.001	.058		.2	6.5	13.2	6.6	13	
31	85	16	10.6	.001	.01		.7	6.5	7	6.3	7.7	
	55.73478	29.48478	11.35435	.0193043	.1206739	ERROR	ERROR .6385714	6.82	11.64	6.66	12.34	
1981												
1/7	96	5.4	18.7	.001	.01		.5	6.8	12.5	6.5	19.5	
15	53	44	8.1	.001	.03		.6	6.8	14	6.6	16	
21	37	23.6	6.4	.001	.01		.5	7.2	13.5	7.1	18	
28	33	22.8	8.3	.001	.001		.2	6.1	12	9	15	
2/4	40	16.9	6.5	.001	.01		.5	6.9	16	7.1	18	
11	26	17.8	8.2	.001	.001		.2	7.1	14	6.8	19	
19	24	10.4	4.7	.001	.001		1.7	7	15	7.1	18	
25	40	21	8.6	.14	.2		1.2	7.1	15	7	19	
3/4	26	18.5	6.3	.001	.008		.3	6.3	12	7.1	16	
11	27	17.8	6.3	.001	.005		1.6	6.7	12	6.9	18	
18	34	20	5.8	.001	.004		1.2	7	13	7.4	17	
25	36	38.1	6.5	.001	.005		1.1	7	14	7.1	19	
4/1	34	32	5.8	.001	.002		2	7.2	13	8.2	16	
8	52	56	9	.001	.007		.8	6.6	11	6.5	15	
15	27	22	4.4	.001	.002		2.4	7.6	15	7.2	18	
22	25	21	4.7	.001	.002		3.2	6.7	15	8.1	18	
29	16	34	4	.002	.005		1.2	5.3	15	6.8	20	
5/6	25	33	4.3	.002	.003		1.6	6.2	13	6.9	18.3	
15	42	20	3.4	.003	.006		.2	5.7	13	7.3	19.4	
22	29	34	3.4	.001	.004		1	8.8	14.5	7.3	21.2	
29	31	25	9.5	.001	.005		2.8	6.5	19.5	6.8	21.6	
6/5	20	29	4.9	.001	.001		1.3	6	15.5	6.7	21.3	
12	32	31	4	.001	.005		.7	6.2	15.2	6.7	21	
16	32	66	3.6	.001	.004		1.6					
19	34	17	4	.001	.006		.6	5.2	16.2	7.6	23.2	
26	26	28	4.5	.001	.009		6.9	7.8	16			
7/2	82	8	3.1	.001	.001		1.8	6.3	16	7.6	22.6	
10	34	10	4	.01	.02		1.2	6.1	18.2	7.1	20.6	
17	47	72	3.2	.02	.02		3	8.7	19.4	7.6	21.5	
24	27	13	3.8	.02	.04		1.3	9.2	16	7.1	24	
31	20	12	4.3	.003	.006		3.4	7.6	22	7.8	24	
8/7	18	18	3.4	.005	.005		.2	6.1	24	7.3	26	
14	33	18	3.6	.006	.007		.4	6.2	25	7.3	26	
21	40	14	3.7	.004	.008		1.6	6.2	23.2	7.1	24.6	
28	41	16	7.3	.02	.04		1.5	8	24.3	8.8	26.4	
9/4	29	23	4.8	.01	.011		.7	7.2	22	6.95	27	
11	39	33	4.5	.002	.006		.4	7.9	24.2	7.4	26.3	
18	28	13	3.8	.001	.001		5.4	7.4	25.1	6.9	26.5	
25	57	8	4.2	.04	.042		1.6	6.3	23.2	7.2	26.5	

SCOEPA00034742

10/2	44	13	4.8	.002	.004			.7	6.3	19.8	6.7	23.6
21	42	9	4.1	.001	.004			.7	6.7	18.6	7.7	21.3
23	29	12	3.6	.001	.005			.2	6.2	19.7	7.2	23.6
30	38	11	3.9	.01	.012			.7	6.2	18.4	7.6	22.7
11/5	37	11	4.2	.001	.004			1.1	6.3	14.5	7.4	20.3
20	40	12	3.9	.027	.022			.5	6.3	17.4	7.7	19.5
25	38	14	4.6	.001	.001			.3	5.2	13.6	7.1	22.4
12/4	27	32	4.3	.022	.023			.4	6.2	17.4	7.4	20.6
11	26	14	3.6	.001	.002			.2	6.7	13.2	7.8	22.3
16	35	10	4.4	.004	.003			.1	5.8	13.2	6.9	18.9
23	28	23	5	.001	.004			.05	6.7	10.8	7.8	17.4
31	21	40	4.3	.001	.004			.03	6.1	12.1	7.2	18.7
	35.23529	22.80980	5.260784	.0075098	.0125686	ERROR	ERROR	1.242745	6.714	16.524	7.274490	20.79184

1982

DATE	PROCESS TO RIVER					OWW TO CITY SEWER		MV3 TO RIVER			COMBINED TO RIVER	
	BOD	TSS	FLOURIDE	CR6+	CR TOTAL	BOD	TSS	PO4+	pH	TEMP	pH	TEMP
1/8	39	10	3.3	.003	.003	319	136	.2	5.8	7.2	7.7	17.3
15	34	12	3.9	.004	.003	497	98	.1	6.4	6.9	7.1	19.4
22	29	17	5.5	.007	.008	389	85	.1	7.1	7.3	7.8	21.5
29	33	9	4.2	.004	.003	349	131	.1	6.2	8.4	7.3	18.2
		12										
2/5	56	13	4.7	.003	.003			2.1	5.8	11.4	6.9	18.2
12	41	45	3.6	.002	.002			.1	6.2	10.2	7.1	17.4
19	30	40	5.1	.002	.001			.4	5.7	12.8	6.8	17.8
26	31	54	4.8	.002	.003			1	6.1	11.7	7.4	17.3
3/5	28	34	3.6	.001	.003	327	104	.1	5.8	11.2	7	18.1
12	30	10	5.4	.001	.003	281	73	.1	6.2	12.3	6.9	16.4
19	30	25	4.8	.007	.018	380	164	.1	5.3	12.4	7.8	18.3
26	44	26	3.9	.001	.016	391	64	.1	3.1	12.6	7.3	17.8
4/2	51	17	3.7	.002	.002	257	48	2.7	6.2	12.2	6.5	15
9	48	22	4.8	.001	.001	250	44	.1	6.1	12.3	7.3	17.4
16	61	29	5.2	.002	.002	351	35	.1	5.9	11.3	7.7	16.4
23	55	16	3.3	.002	.001	330	36	1.3	6.1	10.4	7.2	19.2
30	68	22	4.7	.001	.001	295	52	.1	5.2	18	7.5	16
5/7	171	35	3.2	.001	.001	342	16	.5	6.7	12.1	8.2	19.4
14	28	51	4.8	.001	.002	436	110	.7	6.2	11.3	7.5	18.2
21	38	42	5.7	.001	.009	491	82	.2	5.7	12.2	6.8	17.4
28	34	70	7.4	.001	.001	474	54	.1	5.8	11.2	6.9	20.3
6/9	61	23	5.8	.001	.001	430	192	.1	5.8	10.2	7.3	19.6
11	84	52	7.4	.001	.002	510	131	.2	5.7	11.7	7.2	20.3
18	41	23	4.7	.001	.001	345	192	1.3	6.1	10.5	7.3	17.3
24	41	12	6.2	.001	.005	348	60	1.4	5.8	11.4	7.2	18.2
7/2	27	13	5.6	0	.001	472	73	.7	6.2	16.3	7.3	21.4
9	45	23	4.3	0	0	407	20	1.6	6.3	17.2	8.4	23.4
16	49	20	5.2	0	0	395	112	.3	5.8	17.3	7.6	25.4
23	32	29	3.8	.006	.026	384	36	.1	6.2	16.4	7.5	22.3
30	23	21	4.7	.001	.001	293	74	.1	6.1	16.2	8.4	21.4
8/6	35	7	5.1	.001	.003	306	52	.1	6.2	17.6	7.3	25.3
13	25	12	7.2	.001	.001	322	85	2.5	5.8	18.3	8.2	24.2
20	83	5	4.3	.002	.003	274	39	.2	6	18.2	7.7	22.4
27	11	7	4.7	.001	.002	314	65	.2	5.7	18.1	7.2	26.1
9/3	17	32	5.3	.01	.01	357	44	.3	5.8	12.3	7.2	18.9
10	49	10	4.8	.01	.01	333	62	.3	6.1	11.9	8.2	19.2
17	37	47	6.2	.01	.009	372	68	.4	6.3	12.4	7.8	18.4
24	31	30	5.7	.008	.006	652	125	.3	5.7	11.2	7.4	20.6

SCOEPA00034743

10/1	38	42	5.2	.004	.003	370	82	.9	6.8	13.4	7.2	18.3
8	28	40	6	.003	.003	368	103	1	5.6	12.8	7.4	19.2
15	21	78	8.4	.002	.003	506	101	6.4	6.1	13.6	6.5	17.1
22	24	165	12.1	.002	.003	280	270	.7	5.8	13.8	7.8	20.2
29	20	77	8.3	.002	.003	364	98	.2	6.2	13.6	8.2	17.1
11/5	30	275	12.3	.003	.02	402	148	.1	5.8	11.4	7.4	16.3
12	32	77	5.6	.003	.008	640	65	.2	6.2	10.4	8.3	17.3
19	32	232	5.7	.003	.006	575	69	.2	5.7	11.1	7.3	18.4
22	29	19	5.4	.003	.002	322	83	.2	6.1	10.4	8.2	17.3
12/3	27	19	4.7	.003	.002	444	74	.2	5.4	12.2	7.2	18.4
10	26	136	3.5	.003	.012	358	122	.3	4.6	14.3	8.7	17.8
17	25	15	4	.004	.01	450	101	.3	3	17.2	11.3	17.7
22	31	32	5.3	.003	.013	456	76	.1	3.1	17.4	7.8	18.2
	39.86275	42.58824	5.354902	.0027647	.005	387.4043	88.38298	.6058824	5.796078	12.82745	7.549020	19.11176

		PROCESS TO RIVER					DWW TO CITY SEWER		MV3 TO RIVER			COMBINED TO RIVER	
YEAR	DATE	BOD	TSS	FLOURIDE	CR6+	CR TOTAL	BOD	TSS	PO4+	pH	TEMP	pH	TEMP
1983	1/7	29	30	6.4	.005	.012	569	98	.1	3.1	11.2	7.2	18.4
	14	30	16	4.9	.001	.005	534	168	.1	2.8	10.9	6.4	19.2
	21	24	32	8.5	.002	.004	509	96	.1	3.6	11.1	7	18.4
	28	24	17	4.3	.001	.003	430	146	.2	3.2	10.6	6.3	19.6

B:DANALA

12 DATE	PROCESS TO RIVER					flow	Process flow	mv3 flow	total BOD	corrected values TSS	FLOURIDE
	BOD	TSS	FLOURIDE	CR6+	CR TOTAL						
1/8	39	10	3.3	.003	.003	691	588	1279	21.07037	5.402658	1.782877
15	34	12	3.9	.004	.003	705	756	1461	16.40657	5.790554	1.881930
22	29	17	5.5	.007	.008	951	620	1571	17.55506	10.29090	3.329408
29	33	9	4.2	.004	.003	962	636	1598	19.86608	5.418023	2.528411
2/5	56	13	4.7	.003	.003	823	645	1468	31.39510	7.288147	2.634946
12	41	45	3.6	.002	.002	773	666	1439	22.02432	24.17304	1.933843
19	30	40	5.1	.002	.001	969	630	1599	18.18011	24.24015	3.090619
26	31	54	4.8	.002	.003	979	686	1665	18.22763	31.75135	2.822342
3/5	28	34	3.6	.001	.003	952	650	1602	16.63920	20.20474	2.139326
12	30	10	5.4	.001	.003	971	772	1743	16.71256	5.570855	3.008262
19	30	25	4.8	.007	.018	803	692	1495	16.11371	13.42809	2.578194
26	44	26	3.9	.001	.016	1017	697	1714	26.10735	15.42707	2.314061
4/2	51	17	3.7	.002	.002	857	810	1667	26.21896	8.739652	1.902160
9	48	22	4.8	.001	.001	930	576	1506	29.64143	13.58566	2.964143
16	61	29	5.2	.002	.002	1287	711	1998	39.29279	18.68018	3.349550
23	55	16	3.3	.002	.001	992	665	1657	32.92698	9.578757	1.975619
30	68	22	4.7	.001	.001	899	609	1508	40.53846	13.11538	2.801923
5/7	171	35	3.2	.001	.001	933	609	1542	103.4650	21.17704	1.936187
14	28	51	4.8	.001	.002	654	658	1312	13.95732	25.42226	2.392683
21	38	42	5.7	.001	.009	892	625	1517	22.34410	24.69611	3.351615
28	34	70	7.4	.001	.001	861	608	1469	19.92784	41.02791	4.337236
6/9	61	23	5.8	.001	.001	1101	715	1816	36.98293	13.94438	3.516410
11	84	52	7.4	.001	.002	649	639	1288	42.32609	26.20186	3.728727
18	41	23	4.7	.001	.001	707	687	1394	20.79412	11.66499	2.383716
24	41	12	6.2	.001	.005	839	693	1532	22.45366	6.571802	3.395431
7/2	27	13	5.6	0	.001	782	840	1622	13.01726	6.267571	2.699877
9	45	23	4.3	0	0	713	700	1413	22.70701	11.60580	2.169781
16	49	20	5.2	0	0	762	710	1472	25.36549	10.35326	2.691848
23	32	29	3.8	.006	.026	1004	712	1716	18.72261	16.96737	2.223310
30	23	21	4.7	.001	.001	953	827	1780	12.31404	11.24326	2.516348
8/6	35	7	5.1	.001	.003	750	713	1463	17.94258	3.588517	2.614491
13	25	12	7.2	.001	.001	757	755	1512	12.51653	6.007937	3.604762
20	83	5	4.3	.002	.003	607	312	919	54.82155	3.302503	2.840152
27	11	7	4.7	.001	.002	904	798	1702	5.842538	3.717979	2.496357
9/3	17	32	5.3	.01	.01	789	735	1524	8.801181	16.56693	2.743898
10	49	10	4.8	.01	.01	928	833	1761	25.82169	5.269733	2.529472
17	37	47	6.2	.01	.009	916	656	1572	21.55980	27.38677	3.612723
24	31	30	5.7	.008	.006	1033	630	1663	19.25616	18.63500	3.540649
10/1	38	42	5.2	.004	.003	1260	807	2067	23.16401	25.60232	3.169811
8	28	40	6	.003	.003	1417	628	2045	19.40147	27.71638	4.157457
15	21	78	8.4	.002	.003	1313	699	2012	13.70427	50.90159	5.481710
22	24	165	12.1	.002	.003	1068	701	1769	14.48954	99.61560	7.305144
29	20	77	8.3	.002	.003	902	787	1689	10.68088	41.12137	4.432564
11/5	30	275	12.3	.003	.02	930	715	1645	16.96049	155.4711	6.953799
12	32	77	5.6	.003	.008	1310	732	2042	20.52889	49.39765	3.592556
19	32	232	5.7	.003	.006	827	712	1539	17.19558	124.6680	3.062963
22	29	19	5.4	.003	.002	378	696	1074	10.20670	6.687151	1.900559
12/3	27	19	4.7	.003	.002	1339	792	2131	16.96527	11.93853	2.953214
10	26	136	3.5	.003	.012	1338	663	2001	17.38531	90.93853	2.340330
17	25	15	4	.004	.01	1040	811	1851	14.04646	8.427877	2.247434
22	31	32	5.3	.003	.013	1389	754	2143	20.09286	20.74102	3.435231
39.86275	42.58824	5.354902	.0027647		.005	933.4510	693.3529	1626.804	22.83682	24.65748	3.046981

273 m³ @ 18°C

Less upsets 18.2 18.5

WACKER

ANALYST(S) G Bratton

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION:

A sample was received from Facilities for total Chromium analysis due to acid spill

Analysis by flame AAS

RESULTS:

Sample $Cr_{(tot)}$ = 2.02 ppm

COPIES SENT TO Greg Carr, Gary Pendleton

SCOEPA00034746

Greg Carr

RECEIVED
DEC 2 6 1983
WACKER SILTRONIC
ENGINEERING

WACKER

ANALYST(S) G Bratten

SPECIAL TEST REPORT: INCOMING INSPECTION

TEST METHOD DESCRIPTION:

Two samples were received from Facilities for chromium analysis due to suspected acid spill.

Analysis by flame AAS.

RESULTS:

Sample 1; Weak Acid Neutralization Tank = 1.48 ppm

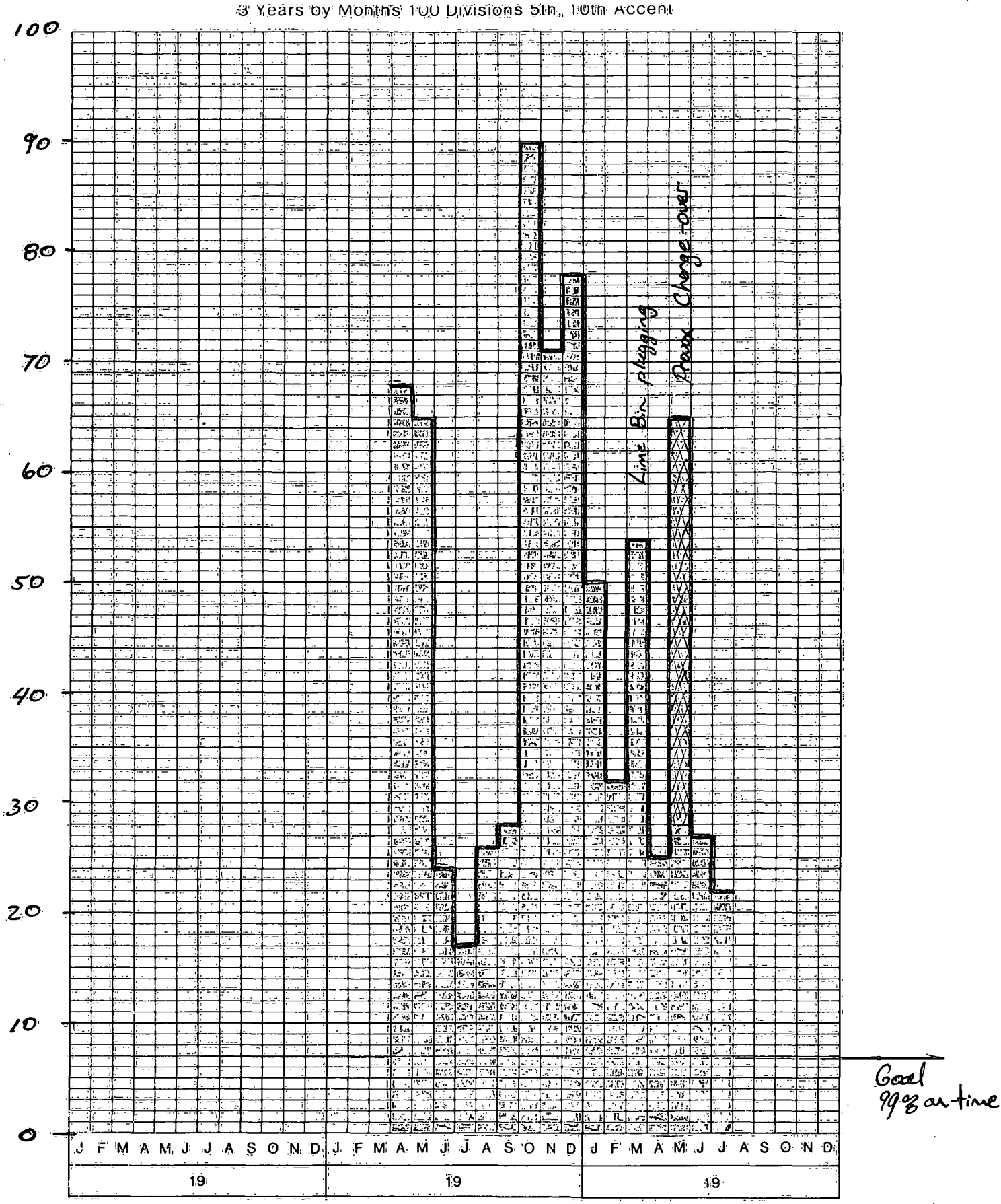
Sample 2: Weak Acid Storage Tank = 1.08 ppm

Area Carr, Gary Pendleton

Greg Carr

RECEIVED
DEC 27 1983
WACKER SILTRONIC
ENGINEERING

3 Years by Months 100 Divisions 5th, 10th Accent



SCOEPA00034750

TO: DISTRIBUTION
DATE: 11-5-82
ANALYSTS: Elgoram

FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 11/5/82	–								
Time 14[10]	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 30	+ 402			
TSS	mg/l	–	15	30	▲ 275	+ 148			
F^-	mg/l	–	6	20	▲ 12.3				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.020				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲ 7.4	
Temperature	°C	–	–	27			▲ 11.4	▲ 16.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS
Low clarifier pH (3.5) due to lime system failure

SCOEPA00034751

TO: DISTRIBUTION
DATE: 11-12-82
ANALYSTS: Elgoram

FACILITIES OP. SUPR.
ENVIRONMENTAL ENG.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 11/12/82	–								
Time 1310	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 32	+ 640			
TSS	mg/l	–	15	30	▲ 77	+ 65			
F^-	mg/l	–	6	20	▲ 5.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲ 8.3	
Temperature	°C	–	–	27			▲ 10.4	▲ 17.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

#4/5

SCOEPA00034752

TO: DISTRIBUTION
DATE: 11-19-82
ANALYSTS: Elgoram

FACILITIES OP. SUPP
ENVIRONMENTAL ENG
FILE

SAMPLE OCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengilly	–	NPDES PARAMETER LIMITS							
Date 11/19/82	–								
Time 1420	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲32	+575			
TSS	mg/l	–	15	30	▲232	+69			
F^-	mg/l	–	6	20	▲5.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.003				
Cr^{total}	mg/l	–	0.3	1	▲0.006				
Phosphates	mg/l	–	2	5			▲0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.7	▲7.3	
Temperature	°C	–	–	27			▲11.1	▲18.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chiorination).

COMMENTS

#40

SCOEPA00034753

TO: DISTRIBUTION
DATE: 11-22-82
ANALYSTS: Elgoram

FACILITIES OP. SUPP
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By	–	NPDES PARAMETER LIMITS						
Date 11/22/82	–							
Time 1450	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	–	15	30	▲- 29	+ 322		
TSS	mg/l	–	15	30	▲ 19	+ 83		
F^-	mg/l	–	6	20	▲- 5.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲- <0.003			
Cr^{total}	mg/l	–	0.3	1	▲ 0.002			
Phosphates	mg/l	–	2	5			▲ 0.2	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.1	▲ 8.2
Temperature	°C	–	–	27			▲ 10.4	▲ 17.3
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034754

WWTP Flows November 82

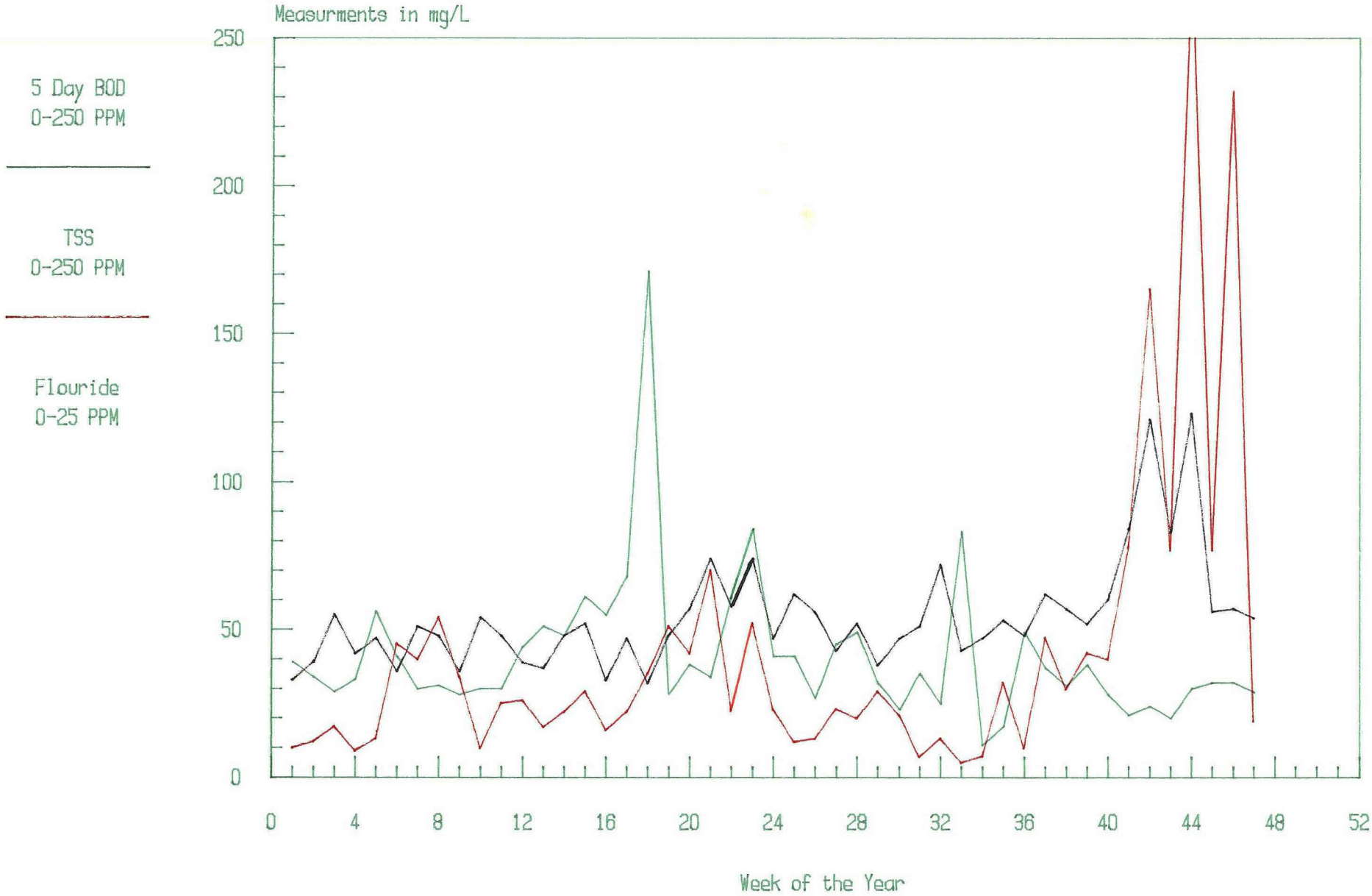
1 m³ = 264.2 gal

Date	OWW	MU #1 X 10	MU #2	MU #3 X100
10-31	812355	597302	91256	1144985
11-1	18623	613125	13282	146710
2	28097	628632	14146	148778
3	38070	661742	14954	150951
4	46251	693444	15743	152725
5	54337	726353	16593	154775
6	60779	750927	17456	156662
7	64898	761522	18193	158372
8	70926	777390	18955	160172
9	79420	806438	—	—
10	87403	839240	20645	164118
11	894906	873203	21481	165944
12	903407	907801	22302	167879
13	10207	934413	23140	169910
14	12850	944566	23949	171561
15	17092	960443	24724	173179
16	25129	994582	25579	175249
17	3309510	027607	26403	177245
18	41284	599500	27264	179255
19	50457	938228	—	181257
20	56232	115674	28934	183138
21	59798	128258	29750	184752
22	63166	144120	30529	186361
23	71102	154097	31365	188200
24	75585	166213	32191	190039
25	78973	171950	32944	191478
26	81172	181290	33719	192841
27	83701	190833	34568	194321
28	85752	201538	35287	195838
29	9913 51	219201	36108	197467
30	1003377	259298	36996	199472
12-1	1008191	288643	37767	1201436

SCOEPA00034755

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters



PH violations 11-82

Date	Duration	Max/min	Cause
11-29	4:10	12.2	Regeneration & Bad
11-27	8:40	12.1	Regeneration (2?)
11-25	2:10	10.2	?
11-21	:45	10.0/2.9	Oscillation due to low flow
11-21	1:15	10.2/4.8	" "
11-19	3:20	12.6	Regeneration
11-18	5:40	12.6	Regeneration
11-15	2:50	12.4	"
11-12	4:20	12.6	"
11-11	4:30	12.8	"
11-8	:40	3.2	Maintence Work
11-6	6:10	3.2	Line problems
11-5	2:10	12.1	Regeneration
11-4 to 11-5	6:15	3.2	Line problems
11-4	3:30	12.8	Regeneration
11-3	5:00	10.0	?
11-2	6:00	12.0	Regeneration
11-1	3:55	11.6	Regeneration

---

18 violations 70 hrs 45 min → 9.8% of the time

11 from Regenerations ~~70:45~~ 46½ hrs → 6.7% of the time

MONTH: November '82

YEAR : _____

NPDES WASTEWATER REPORT

	PROCESS FLOW	BOD		TSS		Cr^{6+}		Cr^{total}		F^-		MV3 FLOW	$PO_4^{\equiv}$	CD PH/T	MV3 PH/T
	m^3/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	m^3/d	mg/l	PH/°C	PH/°C
1	587											783			
2	1253											822			
3	1200											671			
4	1246											776		7.4	5.8
5	930	30	28	275	256	<.003	.003	.020	.019	12.3	11.4	715	.1	16.3	11.4
6	401											647			
7	601											681			
8	1099											747			
9	1242											747			
10	1286											691		8.3	6.2
11	1310	32	42	77	101	<.003	.004	.008	.010	5.6	7.3	732	.2	17.3	10.4
12	1007											769			
13	384											625			
14	601											612			
15	1292											783			
	1250											755			
17	1224											761			
18	1282											758		7.3	5.7
19	827	32	26	232	192	<.003	.002	.006	.005	5.7	4.7	712	.2	18.4	11.1
20	476											611			
21	600											609		8.2	6.1
22	378	29	11	19	7.2	<.003	.001	.002	.001	5.4	2.0	696	.2	17.3	10.4
23	459											696			
24	217											545			
25	354											516			
26	361											560			
27	405											574			
28	669											617			
29	1518											759			
30	1111											743			
31															
AVE	852	31	26.8	151	139	<.003	.0025	.009	.009	7.3	6.4	690	.2	7.8 / 17.3	6.0 / 10.8
	217	29	11	19	7.2	<.003	.001	.002	.001	5.4	2.0	516	.1	7.3 / 16.3	5.7 / 10.4
MAX	1518	32	42	275	256	<.003	.004	.020	.019	12.3	11.4	822	.2	8.3 / 18.4	6.2 / 11.4

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

November 12, 1982

Department of Environmental Quality
NW Region - Water Quality Division
PO Box 1760
Portland, Oregon 97207

Attention: Chuck Clinton

Ref: NPDES Permit # OR-003058-9

Dear Chuck:

The total suspended solids analysis this month were very high due to operational problems in the clarifier. As of 11-5 these problems have been eliminated and should not recur. At the beginning of the month a contract waste hauler removed the settled solids from the silicon solids settling sump which is upstream of our clarifier operation. During this process large quantities of waterlogged wood chips from the contract hauler's truck were introduced into our clarifier system. These plugged the clarifier underdrains making it impossible at times to remove the accumulated settled solids. As the clarifier had to be pumped out twice to clear out the underdrains, its operation was upset considerably and it performed poorly.

This month we will be installing on an experimental basis some sophisticated pH controllers as part of our neutralization system improvement project. This should begin to improve our pH control performance.

Sincerely,

WACKER SILTRONIC CORPORATION

John Pittman

John Pittman

JP/kk

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030562-9

(17-19) DISCHARGE NUMBER: 21

2834-J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	10	01	TO	82	10	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	484	2400	m3/d	—	—	—	—	2	CONT	Total Recov
	PERMIT REQUIREMENT										
BOD 11	SAMPLE MEASUREMENT	132	48	kg/d	21	26	38	mg/l	1	1/7	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	92	126	kg/d	40	80	165	mg/l	5	1/7	24HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	.003	.005	kg/d	.002	.003	.004	mg/l	0	1/M	24 HC
	PERMIT REQUIREMENT										
Cr total	SAMPLE MEASUREMENT	.003	.004	kg/d	.003	.003	.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	9.3	12.9	kg/d	7.2	8.0	12.1	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	pH units	2.6	—	12.0	pH units	24	CONT	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
[illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[illegible]	503	243-7020	82	11	09
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034760

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16)	(17-19)
[illegible]	[illegible]
PERMIT NUMBER	DISCHARGE NUMBER

2834-J
93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	[illegible]	10	[illegible]	TO	[illegible]	10	[illegible]
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER & BOILER BLOW DOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	–	–	N/A	.2	1.8	6.4	mg/l	1	1/7	Grab
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	204	966	mg/l	–	–	–	N/A	–	Daily	Recorder
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	–	–	N/A	6.5	7.4	8.2	pH units	0	1/7	Grab
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	–	–	N/A	7.1	18.4	20.2	°C	0	1/7	Grab
	PERMIT REQUIREMENT										
FREE CHLORINE	SAMPLE MEASUREMENT	–	–	N/A	0	0	0	mg/l	0	During chlor	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN [illegible]	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	503	243 2070	82	11	09
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034761

NPDES pH violations

Date	Time	Duration	Excursion	
10-28-82	10:00AM	9:15	11.2	
10-27-82	9:30AM	10:15	12.0	
10-26-82	10:00AM	4:15	12.0	Regeneration
10-25-82	1:00PM	4:15	3.7/10.8	Regeneration + lost lime pump
10-19 82	3:45 PM	:45	9.3	?
10-13 ·82	2:00 PM	11:45	multiple low excursions	3.2 min.
10-12-82	1:45pm	1:45	lime probe failed	3.5
	9:00pm	1:00	" "	3.6
10-11-82	12:00Noon	1:40	Regeneration	11.1
10-8-82	8:15pm	1:15	lime problems?	3.4
10-5 to 10-6	14:50			
	6:00PM to 8:50AM		Acid dump	2.6 ← Reported to DEQ
10-4	11:00AM	2:10	Regeneration	10.9
10-2	7:45AM - 16:15		? Ran out of acid?	10.2
9-30	3:15 - 10:30		Regeneration + lime problems	10.8/3.2

Total 14 excursions 90 hours - 12 % of the time
On-stream 88 % of the time -
very poor!

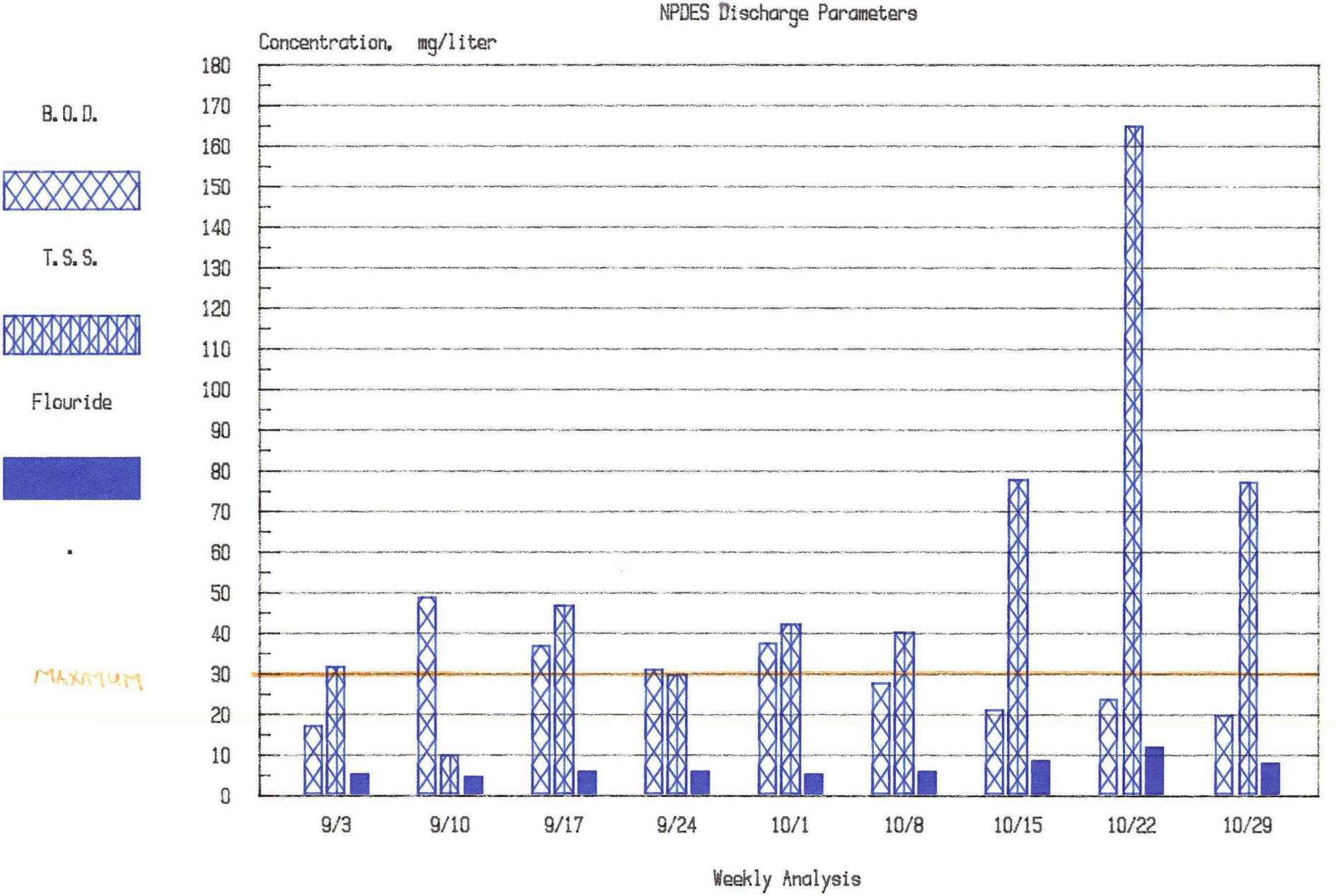
FORM P-567 (GREEN) P-567-B (BUFF)
Post-Rite SYSTEMS CELINA, O.-ELMWOOD PARK, N.J.-GREENSBORO, N.C.-DALLAS-TULARE, CALIF. LITHO IN U.S.A.

	OWW	Combined MW #1 X10	MW #2	MW #3 X100
9-30	573045	806636	885744	1087312
10-1	582214	839947	86588	89444
	589308	866397	87434	91355
	592905	878661	88240	92851
	598081	898147	8095 8(?)	94701
5	606825	934209	89960	96806
	616888	953994	90809	98866
	623932	981762	91596	1101259
	634145	019200	92447	102919
	640057	038726	93451	104714
10	644743	047994	94016	106273
	650472	061700	94991	107987
	662108	089864	95937	109904
	674236	113828	96959	111804
	684157	145006	97820	113744
15	693159	179686	98769	115592
	700753	207056	89948 3	117333
	705134	214678	90061 0	118836
	711471	228734	16 21	120463
	721061	264347	2462	122452
20	730120	301990	3282	124415
	739557	336767	4114	126398
	750985	365406	NR	NR
	757173	393614	5888	130199
	761254	409959	6690	131768
25	767300	429889	7478	133467
	774813	463732	8316	135380
	783251	498030	9138	137356
	792125	531049	9965	139321
	801141	561673	10797	141399
30	808079	585517	11625	143322
31	812355	593307	12456	144985
11-1	818623	613125	13282	146710

FORM P-567 (GREEN) P-567-B (BUFF)
Burt-Rite SYSTEMS CELINA, O.-ELMWOOD PARK, N.J.-GREENSBORO, N.C.-DALLAS-TULARE, CALIF. LITHO IN U.S.A.

SCOEPA00034763

WACKER SILTRONIC CORPORATION



MONTH: October
YEAR: 1982

NPDES WASTEWATER REPORT

DAY	PROCESS FLOW	BOD		TSS		Cr^{6+}		Cr^{total}		F^-		MV 3 FLOW	$PO_4^{\equiv}$	CD pH/T	MV 3 pH/T
	m^3/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	mg/l	kg/d	m^3/d	mg/l	pH/°C	pH/°C
1	1260	38	48	42	53	.004	.005	.003	.004	5.2	6.6	807	.9	7.2/18.3	6.8/13.4
2	1001											723			
3	464											566			
4	738											700			
5	1365											797			
6	878											780			
7	922											906			
8	1417	28	40	40	57	.003	.004	.003	.004	6.0	8.5	628	1.0	7.4/19.2	5.6/12.8
9	739											679			
10	351											590			
11	519											649			
12	1066											726			
13	907											719			
14	1180											734			
15	1313	21	28	78	102	.002	.003	.003	.004	8.4	11.0	699	6.4	6.5/12.1	6.1/13.6
16	1036											659			
17	288											569			
18	532											616			
19	1348											753			
20	1425											743			
21	2400											751			
22	1068	24	26	165	176	.002	.002	.003	.003	12.1	12.9	701	.7	7.8/20.2	5.8/13.8
23	619											737			
24	754											594			
25	1281											643			
26	1298											724			
27	1250											748			
28	1159											744			
29	902	20	18	77	69.5	.002	.002	.003	.003	8.3	7.5	787	.2	8.2/12.1	6.2/13.6
30	446											728			
31															
AVG	984	26.2	32	80.4	92	.003	.003	.003	.003	8.0	9.3	708	1.9	7.4/18.4	6.1/13.4
MIN	288	21	18	40	53	.002	.002	.003	.003	5.2	6.6	566	.2	6.5/12.1	5.6/12.8
MAX	2400	38	48	165	176	.004	.005	.003	.004	12.1	12.9	906	6.4	8.2/20.2	6.8/13.8

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-1-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pemgelly	–	NPDES PARAMETER LIMITS						
Date 10/1/82	10-1-82							
Time 1420	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	–	15	30	▲ 38	+ 370		
TSS	mg/l	–	15	30	▲ 42	+ 82		
F^-	mg/l	–	6	20	▲ 5.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.004			
Cr^{total}	mg/l	–	0.3	1	▲ <0.003			
Phosphates	mg/l	–	2	5			▲ 0.9	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.8	▲ 7.2
Temperature	°C	–	–	27			▲ 13.4	▲ 18.3
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034766

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-8-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 10/8/82	–							
Time 1530	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	–	15	30	▲- 28	+ 368		
TSS	mg/l	–	15	30	▲- 40	+ 103		
F^-	mg/l	–	6	20	▲- 6.0			
Cr^{6+}	mg/l	–	0.02	0.05	▲- 0.003			
Cr^{total}	mg/l	–	0.3	1	▲ <0.003			
Phosphates	mg/l	–	2	5			▲ 1.0	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 5.6	▲ 7.4
Temperature	°C	–	–	27			▲ 12.8	▲ 19.2
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034767

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-15-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 10/15/82	–							
Time 1530	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	–	15	30	▲ 21	+ 506		
TSS	mg/l	–	15	30	▲ 78	+ 101		
F^-	mg/l	–	6	20	▲ 8.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002			
Cr^{total}	mg/l	–	0.3	1	▲ <0.003			
Phosphates	mg/l	–	2	5			▲ 6.4	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.1	▲ 6.5
Temperature	°C	–	–	27			▲ 13.6	▲ 17.1
Turbidity	NTU	–	–	–				
Conductivity	µmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034768

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-22-82
ANALYSTS: Elgaram

FACILITIES MGR
FACILITIES OP SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 10/22/82	–							
Time 1320	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	–	15	30	▲ 24	+ 280		
TSS	mg/l	–	15	30	▲ 165	+ 270		
F^-	mg/l	–	6	20	▲ 12.1			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002			
Cr^{total}	mg/l	–	0.3	1	▲ 0.003			
Phosphates	mg/l	–	2	5			▲ 0.7	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 5.8	▲ 7.8
Temperature	°C	–	–	27			▲ 13.8	▲ 20.2
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034769

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 10-29-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	-	NPDES PARAMETER LIMITS						
Date 10/29/82	-							
Time 14^00 hrs	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	-	15	30	▲- 20	+ 364		
TSS	mg/l	-	15	30	▲- 77	+ 98		
F^-	mg/l	-	6	20	▲- 8.3			
Cr^{6+}	mg/l	-	0.02	0.05	▲- 0,002			
Cr^{total}	mg/l	-	0.3	1	▲ 0,003			
Phosphates	mg/l	-	2	5			▲ 0.2	
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲	
pH	pH units	6	-	9			▲ 6.2	▲ 8.2
Temperature	°C	-	-	27			▲ 13.6	▲ 17.1
Turbidity	NTU	-	-	-				
Conductivity	μmho's cm	-	-	-				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034770

Greg Carr

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Approved... No. 158-R0073

(2-16) SC 0030538-9 — PERMIT NUMBER

(17-19) 30 — DISCHARGE NUMBER

28341

93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	05	01	TO	82	05	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX. (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	925.7	1338.6	MG/d	—	—	—	—		CONT	Total Record
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	31.2	45.5	kg/d	17	33.5	49	mg/l		1/wk	24H C
	PERMIT REQUIREMENT		220								
TSS	SAMPLE MEASUREMENT	9.3	43.1	kg/d	10	30	47	mg/l		1/wk	24H C
	PERMIT REQUIREMENT										
Cr 6+	SAMPLE MEASUREMENT	.008	.009	kg/d	.008	.01	.01	mg/l		1/wk	24H C
	PERMIT REQUIREMENT										
Cr Total	SAMPLE MEASUREMENT	.008	.009	kg/d	.006	.009	.01	mg/l		1/wk	24H C
	PERMIT REQUIREMENT										
Zn	SAMPLE MEASUREMENT	5.1	5.9	kg/d	4.8	5.5	6.2	mg/l		1/wk	24H C
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	N/A	2.7		11.0	—	16	CONT	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
JOHN WITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years!)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED			803	243-2020	82	10	11

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Note: The flow meter on this flow was changed this month. Readings were not taken for 6 days. New meter is apparently reading higher than old meter.

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE OF

SCOEPA00034772

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: NC 0030058-9

(17-19) DISCHARGE NUMBER: 20

2834 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	09	01	TO	82	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER & BOILER BLOWDOWN TOTAL PO4	SAMPLE MEASUREMENT	—	—	N/A	.1	.25	.30	mg/l	0	1/wk	Grab
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	730.4	842.2	m3/d	—	—	—	N/A	0	Daily	Recorder
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
COMBINED OUTFALL # 4	SAMPLE MEASUREMENT	—	—	N/A	7.2	7.6	8.2	N/A	0	1/wk	Grab
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	N/A	18.4	19.3	20.6	°C	0	1/wk	Grab
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	N/A	0	0	0	mg/l	0	During Chlor.	Grab
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN Director of Eng.	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 803	NUMBER 243 2020	YEAR 82	MO 10	DAY 11
TYPED OR PRINTED							

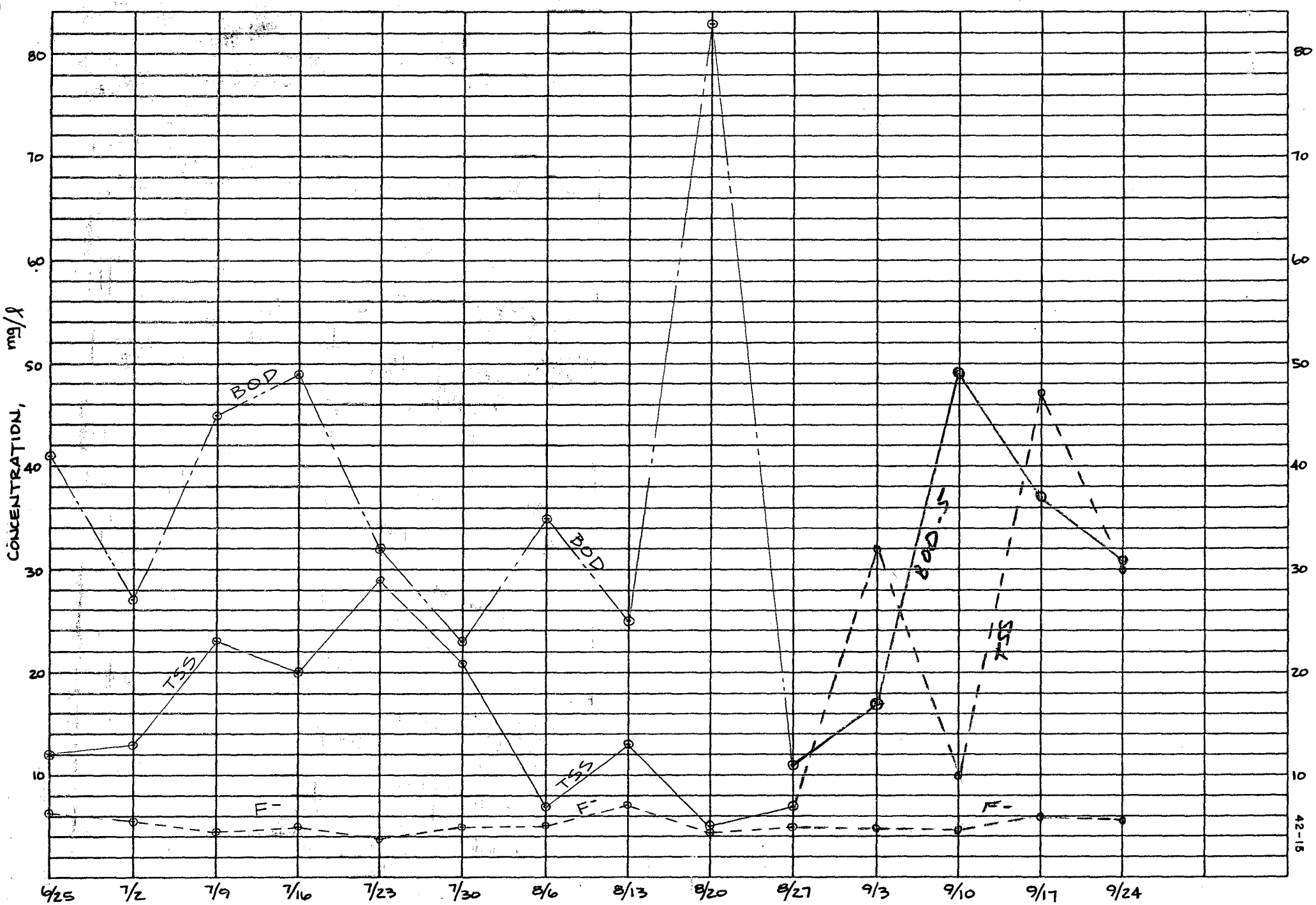
COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034773

FIGURE No. 1

WACKER SILTRONIC COR( ) - NPDES DISCHARGE PARAMETERS

THIRD QUARTER, 1982



NPDES Violations — September '82

Date	Duration	pH min / max		Cause
9-1	1:05	9.9		Caustic kill A Bed
9-8	1:45	10.8		Regeneration
9-9	1:55	10.7		Regeneration
9-10	1:30	10.0		Regeneration
9-10	:45	2.6		No lime in hopper
9-16	2:15	10.9		Regeneration "B" bed
9-17	1:45	10.6		Regeneration
9-20	4:45	10.6		Double regeneration
21	1:40	10.5		Regeneration
24	1:30	3.0		Line problems (4 excursions)
9-27	:30	10.4		Caustic kill
	1:20	10.4		Regenerations
	2:00	10.7		
9-28	2:15	11.0		Regeneration
	2:30	2.7	3	Probe failed on line tests
	:30	10.4/3.8	5	Ran out of lime.
Total	16 excursions			

SCOEPA00034775

MONTH: September
YEAR : 1982

NPDES WASTEWATER REPORT

DAY	PROCESS FLOW m³/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr^{total} mg/l	Cr^{total} kg/d	F^- mg/l	F^- kg/d	MV3 FLOW m³/d	$PO_4^{\equiv}$ mg/l	CD pH/T pH/°C	MV3 pH/T pH/°C
1	1082.3											827			
2	1036.0											842.2			
3	788.9	17	13.4	32	25.2	.01	.008	.01	.008	5.3	4.2	735	.3	7.2/18.9	5.8/12.3
4	339.9											676			
5	3439											693			
6	544.5											689			
7	1225.1											797			
8	1227.5											781			
9	1061.9											690			
10	928.2	49	45.5	10	9.3	.01	.009	.01	.009	4.8	4.5	833	.3	8.2/19.2	6.4/11.9
11	596.7											578.3			
12	532.7											645			
13	1059.3											728			
14	1016.3											740			
15	979.6											777			
16	689.2											723			
17	Assm916	37	33.9	47	43.1	.01	.009	.009	.008	6.2	5.7	656	.1	7.6/18.4	6.3/12.4
18												704			
19	Meter inoperative											704			
20												805			
21												789			
22												780			
23	1116.1											747			
24	10334	31	32	30	31	.008	.008	.006	.006	5.7	5.9	630	.3	7.4/20.6	5.7/11.2
25	945.7											604			
26	536.8											632			
27	1310.6											807			
28	1219.7											743			
29	1338.6											769			
30	1260.8											807			
31															
AVG	925.7	33.5	31.2	20	27.2	.01	.0085	.009	.008	5.5	5.1	730.4	.25	7.6	6.9
MIN	339.9	17	13.4	10	9.3	.008	.008	.006	.006	4.8	4.2	578.3	.1	7.2	6.8
MAX	1338.6	49	45.5	47	43.1	.01	.009	.01	.009	6.2	5.9	842.2	.3	8.2	6.3

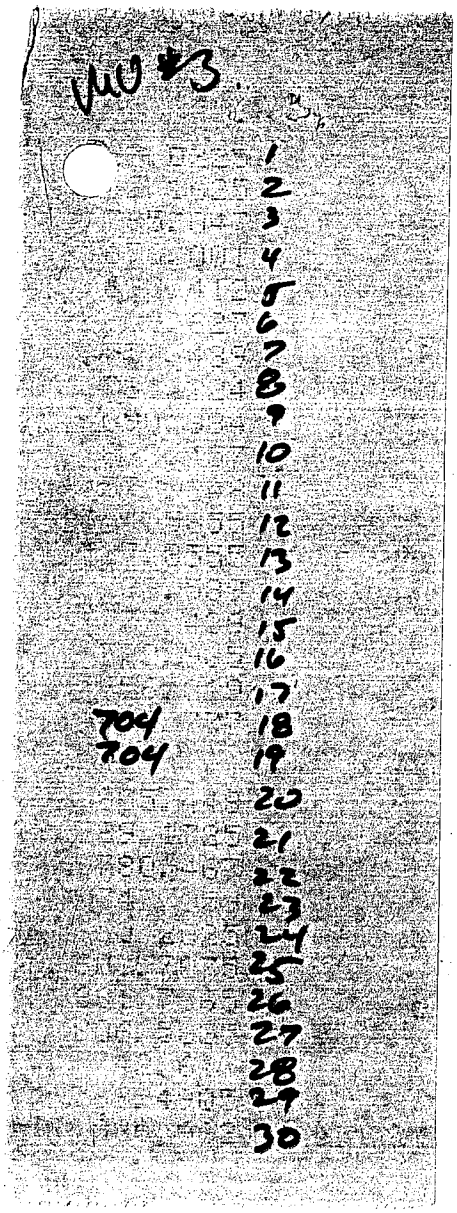
min	18.4	11.2
max	20.6	12.4
Avg	19.3	12.0

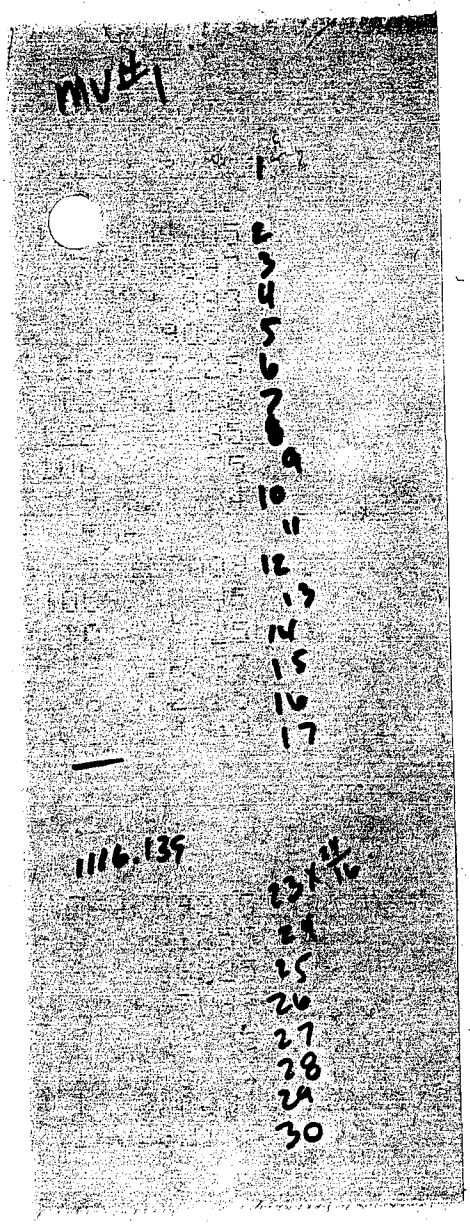
Date	OWWO	Combined MU#1 x10	MU#2	MU#3 x10²	
	292745	2531888	3881306	1031544	
2	304599	2817822	3882288	1033729	
3	317907	3091555	388323	359544	
4	327723	3299977	418	378966	
5	333395	3389777	418	396822	
6	338147	3480633	418	415144	
7	345054	3624488	418	433366	
8	357247	3948166	—	453900	
9	368045	4272477	—	474544	
10	379244	4555302	—	492788	
11	388397	4798266	—	5148 0*	
12	396416	4955922	—	530088	
13	404425	5096666	—	547111	
14	415730	5376533	871918	566344	
15	426650	5645033	872752	585888	
16	439480	5903855	73575	606422	
17	450825	6085955	74397	623522	
18	452734	6133309	75237	642866	
19	452734	6133309	76408	wow! → 642866	
20	—	—	77160	680088	
21	—	—	78020	701366	
22	—	—	78868	722221	
23	455840*	6182900*	79727	742833	
24	471683	6379499	80608	762577	
25	492176	6652552	81432	779222	
26	520009	6902377	82327	795177	
27	544142	7044199	83148	811886	
28	556755	7390466	84142	833177	
29	565079	7712700	84905	852799	
30	573045	8066366	85744	873122	
10/1	582214	8399477	86588	894444	

* - 1600 Readings

1 m^3 = 264.2 gallons

SCOEPA00034777


MW #3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
704
704


MW-1
1116.135

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-3-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By G. Pengelly	-	NPDES PARAMETER LIMITS						
Date 9/3/82	-							
Time 16:20	UNITS	MIN	NOM	MAX				
5 day - BOD	mg/l	-	15	30	▲ 17	+ 357		
TSS	mg/l	-	15	30	▲ 32	+ 44		
F^-	mg/l	-	6	20	▲ 5.3			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.010			
Cr^{total}	mg/l	-	0.3	1	▲ 0.010			
Phosphates	mg/l	-	2	5			▲ 0.3	
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲	
pH	pH units	6	-	9			▲ 5.8	▲ 7.2
Temperature	°C	-	-	27			▲ 12.3	▲ 18.9
Turbidity	NTU	-	-	-				
Conductivity	μmho's cm	-	-	-				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS WANT Grab BOD = 33 mg/L
Clarifier " " = 19 "

SCOEPA00034780

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-10-82
ANALYSTS: Elgorsm

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 9/10/82	–							
Time 1430	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	–	15	30	▲ 49	+ 333		
TSS	mg/l	–	15	30	▲ 10	+ 62		
F^-	mg/l	–	6	20	▲ 4.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.010			
Cr^{total}	mg/l	–	0.3	1	▲ 0.010			
Phosphates	mg/l	–	2	5			▲ 0.3	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.1	▲ 8.2
Temperature	°C	–	–	27			▲ 11.9	▲ 19.2
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS WANT Grab BOD = 29 mg/L
Clarifier " " = 74 "

SCOEPA00034781

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 9-17-82
ANALYSTS: Elgorriaga

FACILITIES MGR
FACILITIES OP SU
ENVIRONMENTAL E
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 9/17/82	–							
Time 14/0	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	–	15	30	▲- 37	+ 372		
TSS	mg/l	–	15	30	▲- 47	+ 68		
F^-	mg/l	–	6	20	▲- 6.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲- 0.010			
Cr^{total}	mg/l	–	0.3	1	▲- 0.009			
Phosphates	mg/l	–	2	5			▲ 0.1	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.3	▲ 7.6
Temperature	°C	–	–	27			▲ 12.4	▲ 18.4
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

WANT Grab BOD 33 mg/L
Clarifier " " 32 "

SCOEPA00034782

WEEKLY WASTEWATER ANALYSIS

FOR DISTRIBUTION
DATE: 9-24
ANALYSIS: Elgaram

FACILITIES OR SURF
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By: S Pengelly	–	NPDES PARAMETER LIMITS						
Date: 9/24	–							
Time: 1420	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	–	15	30	▲+ 31	+ 652		
TSS	mg/l	–	15	30	▲+ 30	+ 125		
F^-	mg/l	–	6	20	▲+ 5.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲+ 0,008			
Cr total	mg/l	–	0.3	1	▲+ 0,006			
Phosphates	mg/l	–	2	5			▲ 0.3	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 5.7	▲ 7.4
Temperature	°C	–	–	27			▲ 11.2	▲ 20.6
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034783

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME [redacted]

ADDRESS [redacted]

FACILITY [redacted]

LOCATION [redacted]

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) OR 0030[illegible]-9 — PERMIT NUMBER

(17-19) 029 — DISCHARGE NUMBER

2834 J / 93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	08	01	TO	82	08	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	748.1	1,162.9	m^3/d	—	—	—	—	—	CONT.	TOTAL, RECORD.
	PERMIT REQUIREMENT	—	—		—	—	—		—	CONT.	TOTAL, RECORD.
BOD	SAMPLE MEASUREMENT	26.4	50.4	kg/d	11	38.5	183	mg/l	3	1/7	24 HC
	PERMIT REQUIREMENT	[illegible]	[illegible]		[illegible]	45	90		0	1/7	24 HC
TSS	SAMPLE MEASUREMENT	6.1	9.8	kg/d	5	8.0	13	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	[illegible]	[illegible]		[illegible]	45	90		0	1/7	24 HC
Cr^{6+}	SAMPLE MEASUREMENT	<0.001	0.001	kg/d	<0.001	0.001	0.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	[illegible]	[illegible]		—	[illegible]	[illegible]		0	1/7	24 HC
Cr total	SAMPLE MEASUREMENT	0.002	0.002	kg/d	0.001	0.002	0.003	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	[illegible]	[illegible]		—	[illegible]	[illegible]		0	1/7	24 HC
F^-	SAMPLE MEASUREMENT	4.0	5.4	kg/d	4.3	5.3	7.2	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	[illegible]	[illegible]		—	[illegible]	[illegible]		0	1/7	24 HC
pH	SAMPLE MEASUREMENT	—	—	—	3.2	—	11.5	pH UNITS	15	CONT.	CONT.
	PERMIT REQUIREMENT	—	—		—	—	[illegible]		0	CONT.	CONT.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	82 YEAR	08 MO.	09 DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034784

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030[illegible]-9

(17-19) DISCHARGE NUMBER: 029

2834 J

93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	08	01	TO	82	08	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOW DOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.8	2.5	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	729.2	1,072.7	m^3/d	—	—	—	—	—	DAILY	RECORDER
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORDER
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.2	—	8.2	pH	0	1/7	GRAB
	PERMIT REQUIREMENT							UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	22.4	24.5	26.1	°C	0	1/7	GRAB
	PERMIT REQUIREMENT								0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	∅	∅	∅	mg/l	0	DURING CHLOR.	GRAB
	PERMIT REQUIREMENT					0.5	0.5		0	DURING CHLOR.	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

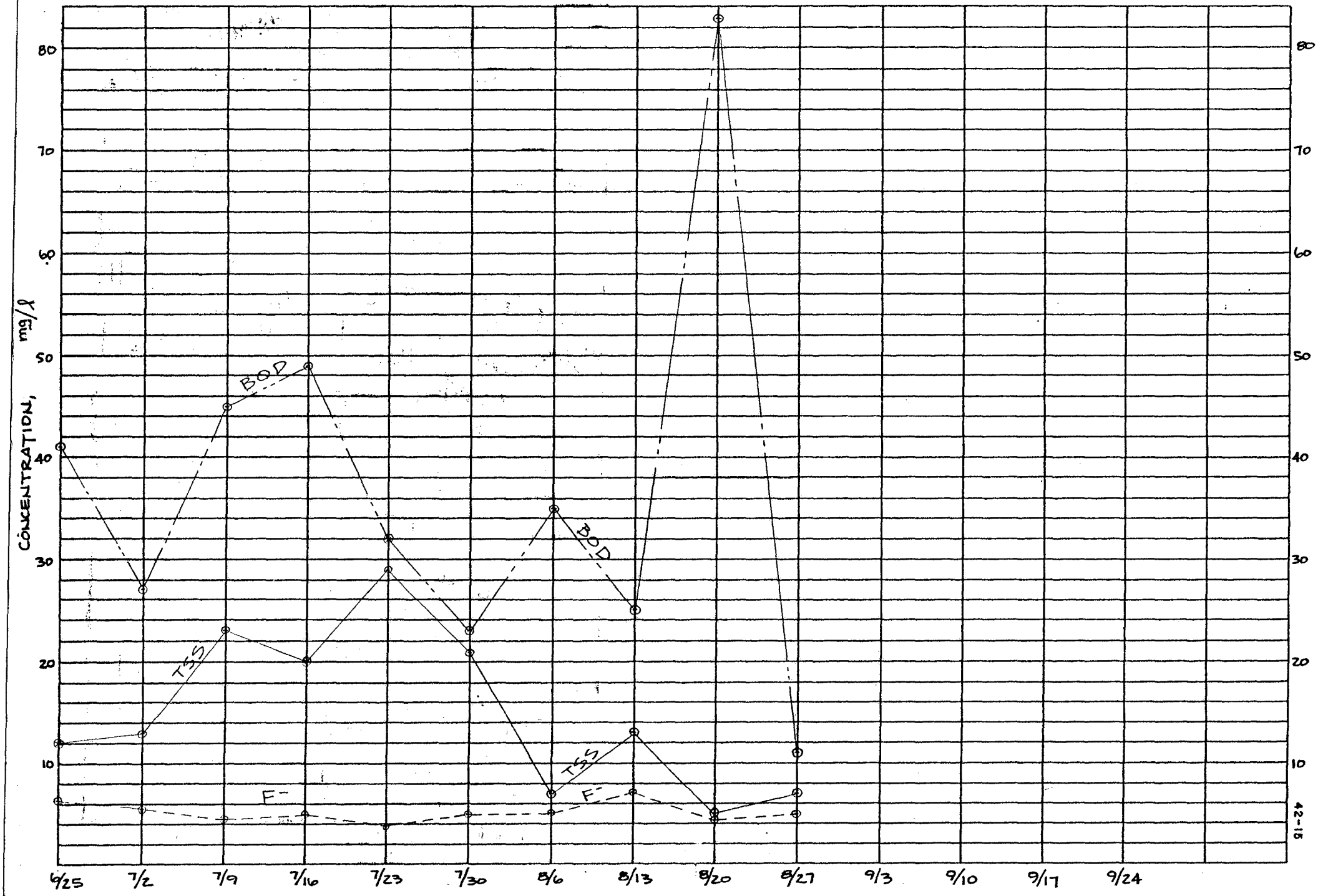
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	AREA CODE: 503	NUMBER: 243-2020	YEAR: 82	MO: 08	DAY: 09
DIRECTOR OF ENGINEERING		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034785

FIGURE NO. 1

WACKER SILTRONIC COR( ) - NPDES DISCHARGE PARAMETERS
THIRD ( )UARTER, 1982



SCOEPA00034786

MONTH: AUGUST
YEAR : 1982

NPDES WASTEWATER REPORT

	DAY	PROCESS FLOW m^3/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr^{total} mg/l	Cr^{total} kg/d	F^- mg/l	F^- kg/d	MV3 FLOW m^3/d	$PO_4^{\equiv}$ mg/l	CD PH/T pH/°C	MV3 PH/T pH/°C
	1	647.1											718.0			
	2	962.4											698.3			
	3	1,143.0											730.1			
	4	871.1											696.4			
	5	1,040.9											713.5			
*	6	749.6	35	26.2	7	5.2	<0.001	<0.001	0.003	0.002	5.1	3.8	712.7	0.1	7.3/25.3	6.2/17.6
	7	301.9											670.3			
	8	453.8											797.5			
	9	1,144.8											623.4			
	10	1,024.0											840.6			
	11	1,057.0											865.3			
	12	824.1											738.5			
*	13	756.7	25	18.9	13	9.8	<0.001	<0.001	0.001	0.001	7.2	5.4	754.7	2.5	8.2/24.2	5.8/18.3
	14	467.1											711.2			
	15	677.0											635.9			
	16	1,162.9											714.2			
	17	641.3											843.3			
	18	390.5											597.3			
	19	508.0											1,072.7			
*	20	606.8	83	50.4	5	3.0	0.002	0.001	0.003	0.002	4.3	2.6	311.5	0.2	7.7/22.4	6.0/18.2
	21	308.3											587.1			
	22	321.5											589.7			
	23	572.5											731.3			
	24	411.7											735.8			
	25	733.4											718.4			
	26	950.7											723.3			
*	27	904.4	11	9.9	7	6.3	0,001	0.001	0,002	0.002	4.7	4.3	798.3	0.2	7.2/26.1	5.7/18.1
	28	723.5											998.1			
	29	702.3											786.9			
	30	1,033.4											755.1			
	31	1,099.9											735.4			
	AVE	748.1	38.5	26.4	8.0	6.1	0.001	<0.001	0.002	0.002	5.3	4.0	729.2	0.8	/24.5	/18.1
	MIN	301.9	11	9.9	5	3.0	<0.001	<0.001	0.001	0.001	4.3	2.6	311.5	0.1	7.2/22.4	5.7/17.6
	MAX	1,162.9	83	50.4	13	9.8	0.002	0.001	0,003	0.002	7.2	5.4	1,072.7	2.5	8.2/26.1	6.2/18.3

NPDES PERMIT pH VIOLATIONS
AUGUST, 1982

DATE	TIME	DURATION	pH MIN.	pH MAX.	COMMENTS 8-30		
2	1330	1:00	–	9.6			
3	0915	2:15	3.8	10.0			
7	0040	1:00	–	9.8			
	1210	2:15	–	11.1	CAUSTIC DUMP		
8	0900	2:45	3.6	9.5			
9	0420	1:15	–	10.8	REGEN.		
	1035	1:45	–	11.5	REGEN.		
13	0855	1:35	–	11.0	REGENERATE "B" BED		
15	1210	2:50	–	10.1			
16	0850	1:30	–	10.8			
17	1725	1:00	–	11.1	NOX TANK DUMP		
18	0910	2:30	–	10.5			
20	1900	2:15	3.2	9.9			
21	0325	1:00	3.6	9.6			
27	1240	1:20	–	10.2			

SCOEPA00034788

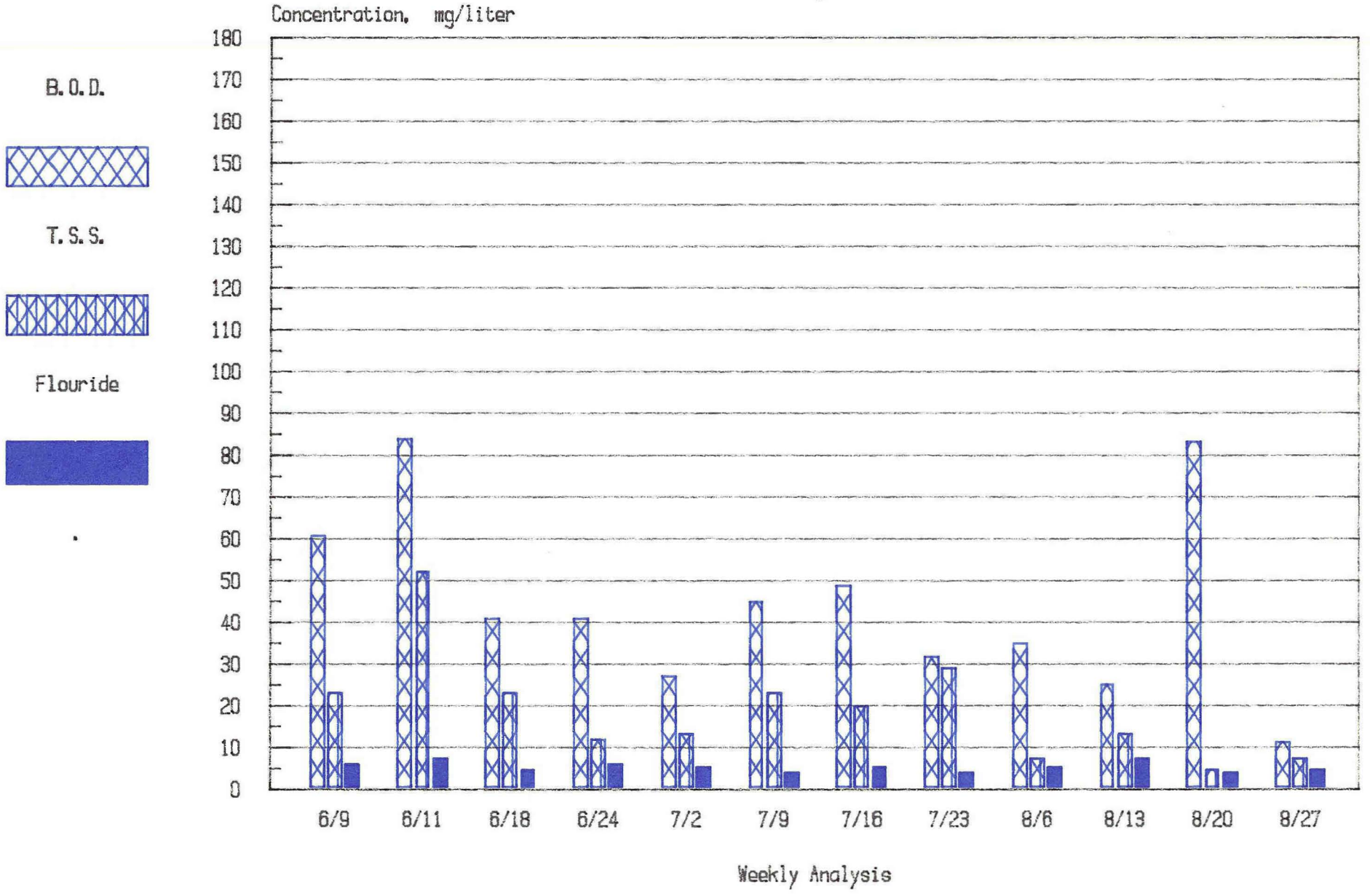
AUGUST 1982

CODE	OWW	COMB X10	MV #2	MV #3 X10²
		MV #1		
7/31/82	950867	628952	377200	969603
1	957021	640460	377773	971822
2	966704	657557	378449	~~973319~~ 973719 ?
3	977976	682984	379253	975564
4	991490	713183	379978	977493
5	003998	736198	380692	979333
6	017352	763698	381408	981218
7	028907	783502	382134	983101
8	035875	791478	382831	984872
9	042368	803468	? 986979 ←	~~983690~~ 986979 ?
10	055516	833715	? 988626 ←	~~984299~~ 988626 ?
11	069080	860768	385025	990847
12	079697	888694	385806	993133
13	091872	910468	386504	995084
14	103672	930461	387218	997078
	109689	942801	387947	998957
16	117509	960688	388128	1000637
17	127930	991411	388129	1002524 ?
18	139746	008355	388129	1004752
19	153279	018672	388128	1006330
20	167351	032093	388129	1009164
21	178541	048125	388129	1009987
22	186127	056270	388129	1011538
23	194425	064764	388129	1013096
24	205100	079890	388130	1015028
25	217806	090766	388130	1016972
26	229324	110143	388130	1018870
27	241871	135261	388130	1020781
28	252238	159155	388130	1022890
29	260502	178271	388130	1025527
30	268914	196825	388130	1027606
8/31/82	279794	224128	388130	1029601
9/ /82	292745	253188	? 1031544 ←	~~388130~~ 1031544 ?
		23,191.6		22,604.8

SCOEPA00034789

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters



WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-6-82
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPT
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/6	–								
Time 1320	UNITS	MIN	NOM	MAX					
5 day - BOD	mg/l	–	15	30	▲ 35	+ 306			
TSS	mg/l	–	15	30	▲ 7	+ 52			
F^-	mg/l	–	6	20	▲ 5.1				
Cr^{6+}	mg/l	–	0.02	0.05	▲ < 0.001				
Cr total	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲ 7.3	
Temperature	°C	–	–	27			▲ 17.6	▲ 25.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034791

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-13-82
ANALYSTS: Elgeram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By G. Stevens	–	NPDES PARAMETER LIMITS							
Date 8/13	–								
Time 1420	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 25	+ 322			
TSS	mg/l	–	15	30	▲ 13	+ 85			
F^-	mg/l	–	6	20	▲ 7.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲ <0,001				
Cr total	mg/l	–	0.3	1	▲ 0,001				
Phosphates	mg/l	–	2	5			▲ 2.5		
e Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲ 8.2	
Temperature	°C	–	–	27			▲ 18.3	▲ 24.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034792

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-20-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/20	–								
Time 1030	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲83	+274			
TSS	mg/l	–	15	30	▲5	+39			
F^-	mg/l	–	6	20	▲4.3				
Cr^{6+}	mg/l	–	0.02	0.05	▲0.002				
Cr^{total}	mg/l	–	0.3	1	▲0.003				
Phosphates	mg/l	–	2	5			▲0.2		
e Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲6.0	▲7.7	
Temperature	°C	–	–	27			▲18.2	▲22.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS * Lapping waste overflow
WAD grab BOD - 61
Clarifier " " >83

SCOEPA00034793

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 8-27-82
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG.
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 8/27	–								
Time 1310	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 11	+314			
TSS	mg/l	–	15	30	▲ 7	+65			
F^-	mg/l	–	6	20	▲ 4.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0,001				
Cr total	mg/l	–	0.3	1	▲ 0,002				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.7	▲ 7.2	
Temperature	°C	–	–	27			▲ 18.1	▲ 26.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS WAD grab BOD – 15
Clarifier " " – 23

SCOEPA00034794

Steve Beiswenger

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030058-9

(17-19) DISCHARGE NUMBER: 028

2834 J / 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	07	01	TO	82	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	631.0	1,142.7	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD.
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	28.9	37.3	Kg/d	23	35.2	49	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	18.2	29.1	Kg/d	13	21.2	29	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	0.001	0.006	Kg/d	<0.001	0.001	0.006	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cr total	SAMPLE MEASUREMENT	0.006	0.026	Kg/d	<0.001	0.006	0.026	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	4.0	4.5	Kg/d	3.8	4.7	5.6	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	4.0	—	11.2	pH UNITS	11	GRAB	CONT.
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	AREA CODE: 503	NUMBER: 243-2520	YEAR: 82	MO: 07	DAY: 31
DIRECTOR OF ENGINEERING		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034796

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
OR 0030588-9	028

2834 J / 93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	07	01	TO	82	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.6	1.6	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT					2.0	5.0				
FLOW	SAMPLE MEASUREMENT	679.4	839.9	m^3/d	—	—		—	0	DAILY	RECORDER
	PERMIT REQUIREMENT								0	DAILY	RECORDER
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.3	—	8.4	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT				6.0	—	9.0		0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	21.4	22.8	25.4	°C	0	1/7	GRAB
	PERMIT REQUIREMENT						2		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR	GRAB
	PERMIT REQUIREMENT				—	0.2	0.5		0	DURING CHLOR	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
JOHN RITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	503 243-2020	82 07
DIRECTOR OF ENGINEERING	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE NUMBER	YEAR MO DAY
TYPED OR PRINTED			

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034797

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME: WACKER SILTRONIC CORP.
ADDRESS: P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY: HYPER-PURE SILICON PLANT
7200 N.W. FRONT
LOCATION: PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030856-9

(17-19) DISCHARGE NUMBER: 028

2334 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	07	01	TO	82	07	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	QUANTITY OR LOADING (54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	QUALITY OR CONCENTRATION (46-53) AVERAGE	QUALITY OR CONCENTRATION (54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER — 1 FLOW	SAMPLE MEASUREMENT	631.0	1,142.7	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		—	CONT.	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	28.9	37.3	kg/d	23	35.2	49	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
TSS	SAMPLE MEASUREMENT	18.2	29.1	kg/d	13	21.2	29	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
Cr 6+	SAMPLE MEASUREMENT	0.001	0.006	kg/d	<0.001	0.001	0.006	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24 HC
Cr total	SAMPLE MEASUREMENT	0.006	0.026	kg/d	<0.001	0.006	0.026	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.5	1.0		0	1/7	24 HC
F-	SAMPLE MEASUREMENT	4.0	4.5	kg/d	3.8	4.7	5.6	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24 HC
PH	SAMPLE MEASUREMENT	—	—	—	4.0	—	11.2	PH UNITS	11	CONT.	CONT.
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	CONT.	CONT.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	AREA CODE: 503	NUMBER: 243-2020	YEAR: 82	MO: 07	DAY:
DIRECTOR OF ENGINEERING	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					
TYPED OR PRINTED						

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034798

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
LOCATION 7200 N.W. FRONT
PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030589
(17-19) DISCHARGE NUMBER: 028

2834 J
93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	07	01	TO	82	07	31

NOTE: Read instructions before completing this form.

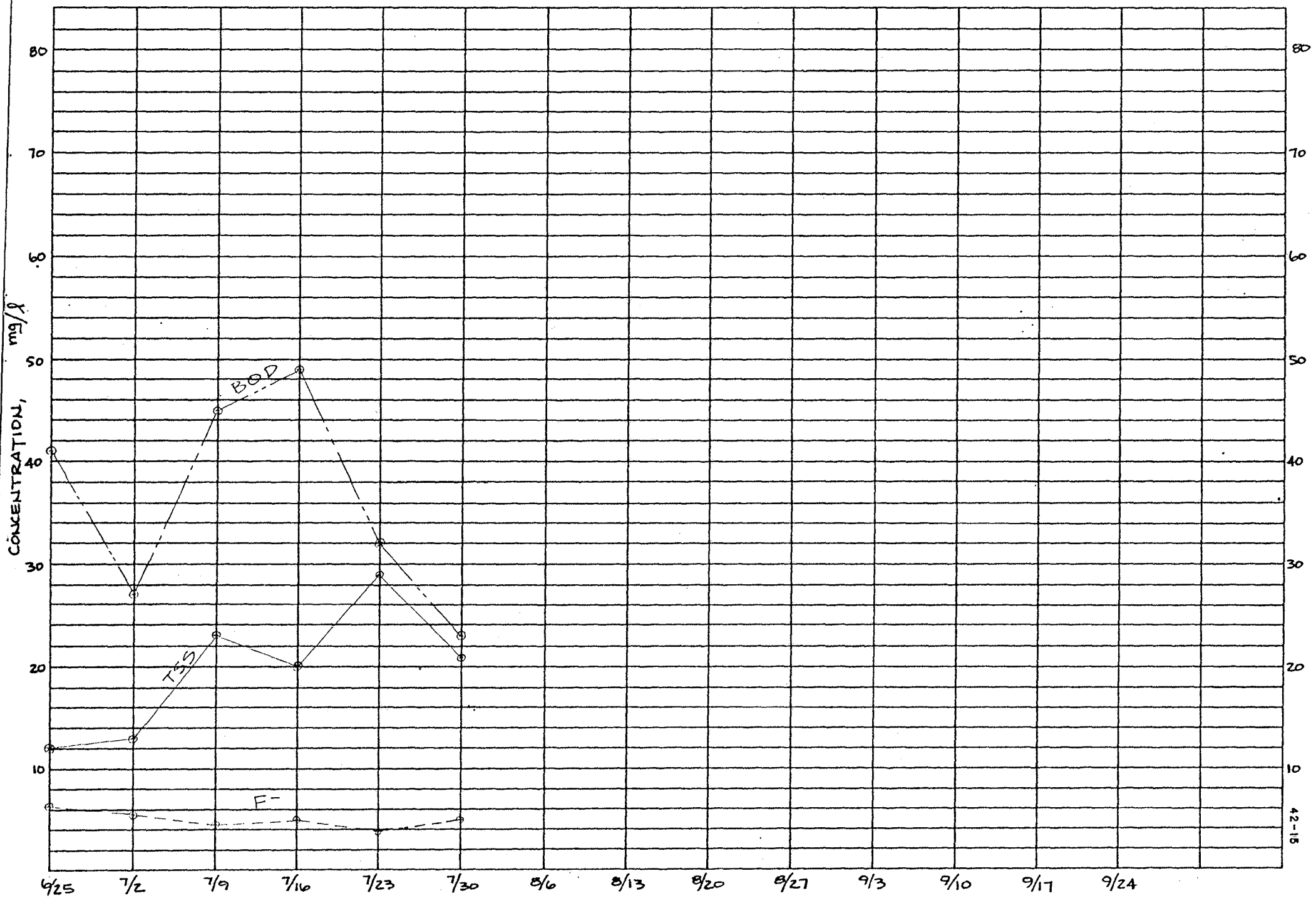
PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.6	1.6	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	679.4	839.9	MGD	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORDER
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.3	—	8.4	pH	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	21.4	22.8	25.4	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	DURING CHLOR	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	AREA CODE: 503	NUMBER: 243-2020	YEAR: 82	MO: 07	DAY:
DIRECTOR OF ENGINEERING	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					
TYPED OR PRINTED						

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034799

FIGURE No. 1
WACKER SILTRONIC COR( ) - NPDES DISCHARGE PARAMETERS
THIRD QUARTER, 1982



42-15

SCOEPA00034800

	OWW	COMB.	MV #2	MV #3
6/30	614911	106748	352135	914508
7/1	627412	/ 135787	352850	/ 3916178
2	639855	/ 163098	353609	/ 3917972
3	648424	/ 183747	354506	/ 920190
4	653531	/ 191961	355041	/ 921410
5	658707	/ 199987	355720	/ 922917
6	665193	/ 213982	356385	/ 924416
7	678410	/ 236965	357104	/ 926222
8	691173	/ 260269	357823	/ 928045
9	704191	/ 287395	358545	/ 929886
10	714183	/ 306237	359262	/ 931736
11	719831	/ 314710	359963	/ 933235
12	728324	/ 323802	360695	/ 934864
13	740811	/ 337236	361387	/ 936652
14	753573	/ 349030	362149	/ 938497
15	766512	/ 366675	362848	/ 940210
16	780063	/ 391282	363579	/ 942121
17	792002	/ 411410	364307	/ 943994
18	798587	/ 420088	365021	/ 945727
19	806496	/ 425921	365721	/ 947432
20	819260	/ 433056	366436	/ 949200
21	832284	/ 444161	367164	/ 951049
22	845123	/ 459060	367938	/ 953001
23	857783	/ 463619	368602	/ 954775
24	868335	/ 490143	369324	/ 956655
25	874360	/ 497209	370353	/ 958606
26	883118	/ 508955	371446	/ 959926
27	897481	/ 530200	373460	/ 962008
28	911397	/ 544296	374904	/ 963615
29	925600	/ 574485	—	/ (965-516)
30	939727	/ 603771	376374 ?	/ 967417 ?
31	950867	/ 628952	377200	/ 969603
8/1	957021	640460	377773	971822
		19,101.9		21,061.3
		616.2		679.4

NPDES PERMIT PH VIOLATIONS JULY, 1982

DATE	TIME	DURATION	PH MIN	PH MAX		COMMENTS 8-30	
7	0630	1:30	–	10.6			
8	1640	1:45	–	10:8			
11	2210	1:05	5.6	–			
15	0935	1:45	–	10.7			
19	0935	0:25	4.0	–			
20	1020	1:15	–	10.1			
	1320	1:30	–	10.9			
21	0920	1:40	–	11.2			
28	0855	1:45	–	11.0			
29	0800	1:45	–	10.8			
30	0115	2:30	–	10.2			

SCOEPA00034802

MONTH: JULY
YEAR: 1982

NPDES WASTEWATER REPORT

seb

DAY	PROCESS FLOW m^3/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr^{total} mg/l	Cr^{total} kg/d	F^- mg/l	F^- kg/d	MV3 FLOW m^3/d	$PO_4^{\equiv}$ mg/l	CD PH/T PH/°C	MV3 PH/T PH/°C
1	1,033.7											679.0			
* 2	781.6	27	21.1	13	10.2	<0.001	<0.001	0.001	0.001	5.6	4.4	839.5	0.7	7.3/21.4	6.2/16.3
3	310.9											461.8			
4	303.8											570.4			
5	529.7											567.4			
6	869.9											683.6			
7	882.1											690.0			
8	1,026.7											696.8			
* 9	713.2	45	32.1	23	16.4	<0.001	<0.001	<0.001	<0.001	4.3	3.1	700.2	1.6	8.4/23.4	6.3/17.2
10	320.7											567.4			
11	344.1											616.6			
12	508.5											676.8			
13	446.4											698.3			
14	667.9											648.4			
15	931.4											723.3			
* 16	761.8	49	37.3	20	15.2	<0.001	<0.001	<0.001	<0.001	5.2	4.0	708.9	0.3	7.6/25.4	5.8/17.3
17	328.5											655.9			
18	220.8											645.3			
19	270.1											669.2			
20	420.3											699.8			
21	563.9											738.8			
22	~~172.6~~	MAG METER REPAIR										671.5			
* 23	1,003.9	32	32.1	29	29.1	0.006	0.006	0.026	0.026	3.8	3.8	711.6	0.1	7.5/22.3	6.2/16.4
24	267.4											738.5			
25	444.6											499.6			
26	804.1											788.0			
27	533.5											608.3			
28	1,142.7											(719.5)			
29	1,108.5											(719.5)			
* 30	953.1	23	21.9	21	20.0	0.001	0.001	0.001	0.001	4.7	4.5	827.4	0.1	8.4/21.4	6.1/16.2
31	435.6											839.9			
AVE	631.0	35.2	28.9	21.2	18.2	0.001	0.001	0.006	0.006	4.7	4.0	679.4	0.6	-/22.8	-/16.7
	220.8	23	21.1	13	10.2	<0.001	<0.001	<0.001	<0.001	3.8	3.1	461.8	0.1	7.3/21.4	5.8/16.2
MAX	1,142.7	49	37.3	29	29.1	0.006	0.006	0.026	0.026	5.6	4.5	839.9	1.6	8.4/25.4	6.3/17.3

* GAL × 0.003785 = M^3

SCOEPA00034803

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7-2-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENGR
FILE

APLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River
Collected By S Pengelly	-	NPDES PARAMETER LIMITS						
Date 7/2/82	-							
Time 1257	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	-	15	30	▲ 27	+ 472		
TSS	mg/l	-	15	30	▲ 13	+ 73		
F^-	mg/l	-	6	20	▲ 5.6			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.000			
Cr total	mg/l	-	0.3	1	▲ 0.001			
Phosphates	mg/l	-	2	5			▲ 0.7	
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲	
pH	pH units	6	-	9			▲ 6.2	▲ 7.3
Temperature	°C	-	-	27			▲ 16.3	▲ 21.4
Turbidity	NTU	-	-	-				
Conductivity	μmho's cm	-	-	-				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS
WAD eff grab BOD 22 mg/l
Clarifier " " " 36 "

SCOEPA00034804

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7-9-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	-	NPDES PARAMETER LIMITS						
Date 7/9/82	-							
Time 1330	UNITS	MIN	NOM	MAX				
5 day-BOD	mg/l	-	15	30	▲ 45	+ 407		
TSS	mg/l	-	15	30	▲ 23	+ 20		
F^-	mg/l	-	6	20	▲ 4.3			
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.000			
Cr^{total}	mg/l	-	0.3	1	▲ 0.000			
Phosphates	mg/l	-	2	5			▲ 1.6	
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲	
pH	pH units	6	-	9			▲ 6.3	▲ 8.4
Temperature	°C	-	-	27			▲ 17.2	▲ 23.4
Turbidity	NTU	-	-	-				
Conductivity	μmho's cm	-	-	-				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034805

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7-16-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

MPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS						
Date 7/16/82	–							
Time 1320	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	–	15	30	▲ 49	+ 395		
TSS	mg/l	–	15	30	▲ 20	+ 112		
F^-	mg/l	–	6	20	▲ 5.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.000			
Cr total	mg/l	–	0.3	1	▲ 0.000			
Phosphates	mg/l	–	2	5			▲ 0.3	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 5.8	▲ 7.6
Temperature	°C	–	–	27			▲ 17.3	▲ 25.4
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034806

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7-23-82
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

APLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 7/23/82	–								
Time 13:17	UNITS	MIN	NOM	MAX					
5 day BOD	mg/l	–	15	30	▲ 32	+ 384			
TSS	mg/l	–	15	30	▲ 29	+ 36			
F^-	mg/l	–	6	20	▲ 3.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.006				
Cr total	mg/l	–	0.3	1	▲ 0.026				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲ 7.5	
Temperature	°C	–	–	27			▲ 16.4	▲ 22.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034807

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 7-30-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By Spencer	–	NPDES PARAMETER LIMITS						
Date 7/30/82	–							
Time 9^00 hrs	UNITS	MIN	NOM	MAX				
5 day BOD	mg/l	–	15	30	▲ 23	+ 293		
TSS	mg/l	–	15	30	▲ 21	+ 74		
F^-	mg/l	–	6	20	▲ 4.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001			
Cr total	mg/l	–	0.3	1	▲ 0.001			
Phosphates	mg/l	–	2	5			▲ 0.1	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.6	▲ 8.4
Temperature	°C	–	–	27			▲ 16.2	▲ 21.4
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS Hand Soap BOD-5-150,000

SCOEPA00034808

Steve Beiswenger

RECEIVED
AUG 06 1982
WACKER SILTRONIC
ENGINEERING

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) NR 003053-9 — PERMIT NUMBER

(17-19) 027 — DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	06	01	TO	87	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	844.3	1099.1	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—				
BOD	SAMPLE MEASUREMENT	44.9	61.7	kg/d	41	56.3	84	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT	—	—		—	—	—				
TSS	SAMPLE MEASUREMENT	20.9	33.8	kg/d	12	27.5	52	mg/l	3	1/7	24 HC
	PERMIT REQUIREMENT	—	—		—	—	—				
Cr^{+6}	SAMPLE MEASUREMENT	0.001	0.001	kg/d	0.001	0.001	0.001	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	—	—		—	—	—				
Cr total	SAMPLE MEASUREMENT	0.002	0.004	kg/d	0.001	0.002	0.005	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	—	—		—	—	—				
F^-	SAMPLE MEASUREMENT	4.8	5.9	kg/d	4.7	6.0	7.4	mg/l	1	1/7	24 HC
	PERMIT REQUIREMENT	—	—		—	—	—				
pH	SAMPLE MEASUREMENT	—	—	—	2.1	—	11.2	pH UNITS	13	CONT.	CONT.
	PERMIT REQUIREMENT	—	—		—	—	—				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	82 YEAR	07 MO	DAY
TYPED OR PRINTED						

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034810

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) OR 0030058-9 — PERMIT NUMBER

(17-19) 027 — DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	06	01	TO	82	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.8	1.4	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	653.8	789.9	m^3/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.2	—	7.3	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	17.3	18.8	20.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
JOHN TITMAS DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		AREA CODE 503	NUMBER 243-2020	YEAR 82	MO 07	DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034811

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

July 12, 1982

Department of Environmental Quality
N.W. Region - Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Attention: Chuck Clinton

Ref: NPDES Permit #OR003058-9

Dear Sir:

There were no significant changes in activities related to the N.P.D.E.S. parameters in June, 1982.

Efforts in the future will be directed toward implementation of a two-stage neutralization system for our effluent to the river, and a preventative maintenance program to preclude overflowing the lapping liquids waste into the river effluent piping system causing unusually high BOD loading.

Sincerely,

WACKER SILTRONIC CORPORATION

John Pittman

JP/kk

cc: S. Beiswenger
J. Ellis
Dr. M. Russ
File

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME W[illamette] SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

PERMIT NUMBER: OR00[illegible]58-9 (17-19)
DISCHARGE NUMBER: 027

2834 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	06	01	TO	82	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTE WATER FLOW	SAMPLE MEASUREMENT	844.3	1099.1	m^3/d	—	—	—	—	—	CONT.	TOTAL RECOR
	PERMIT REQUIREMENT	—	—		—	—	—		—	CONT.	TOTAL RECOR
BOD	SAMPLE MEASUREMENT	44.9	61.7	kg/d	41	56.8	84	mg/l	4	1/7	24 H
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 H
TSS	SAMPLE MEASUREMENT	20.9	33.8	kg/d	12	27.5	52	mg/l	3	1/7	24 H
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 H
Cr^{6+}	SAMPLE MEASUREMENT	0.001	0.001	kg/d	0.001	0.001	0.001	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24 H
Cr total	SAMPLE MEASUREMENT	0.002	0.004	kg/d	0.001	0.002	0.005	mg/l	0	1/7	24 H
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24 H
F^-	SAMPLE MEASUREMENT	4.8	5.9	kg/d	4.7	6.0	7.4	mg/l	1	1/7	24 H
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24 H
pH	SAMPLE MEASUREMENT	—	—	—	2.1	—	11.2	pH UNITS	13	CONT.	CONT
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	CONT.	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGINEERING
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 07 | DA

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034813

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME W[illegible]KER SILTRONIC CORP.
ADDRESS P.[illegible] BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
LOCATION 7200 N.W. FRONT AVE.
PORTLAND, OREGON

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-[illegible]) OR 00[illegible]58-9 — PERMIT NUMBER
(17-19) 027 — DISCHARGE NUMBER

2834 J
93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	06	01	TO	82	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.8	1.4	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	653.8	789.9	m^3/d	—	—	—	—	0	DAILY	RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORD
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.2	—	7.3	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	17.3	18.8	20.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	DURING CHLOR	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGINEERING
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

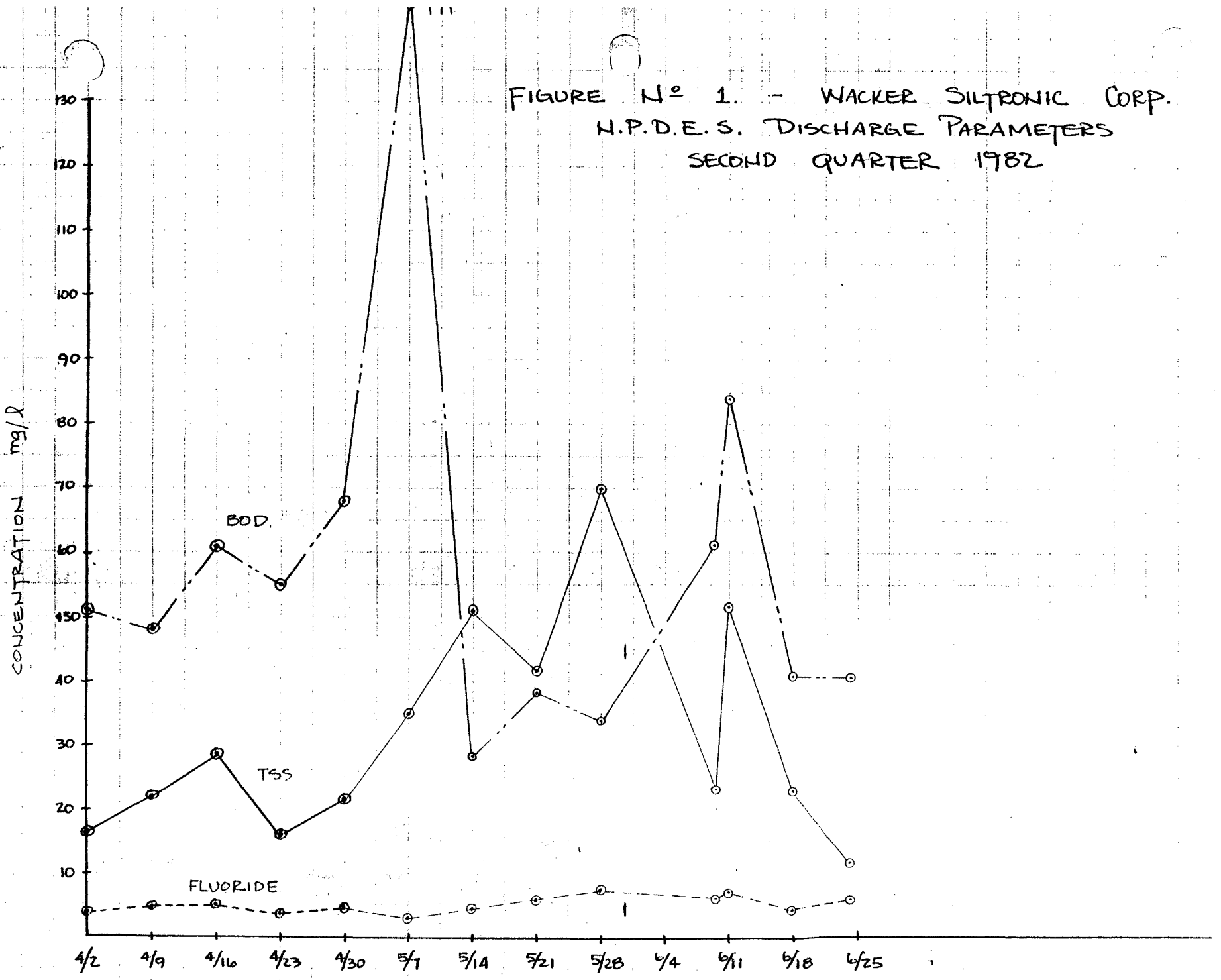
TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 07 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034814

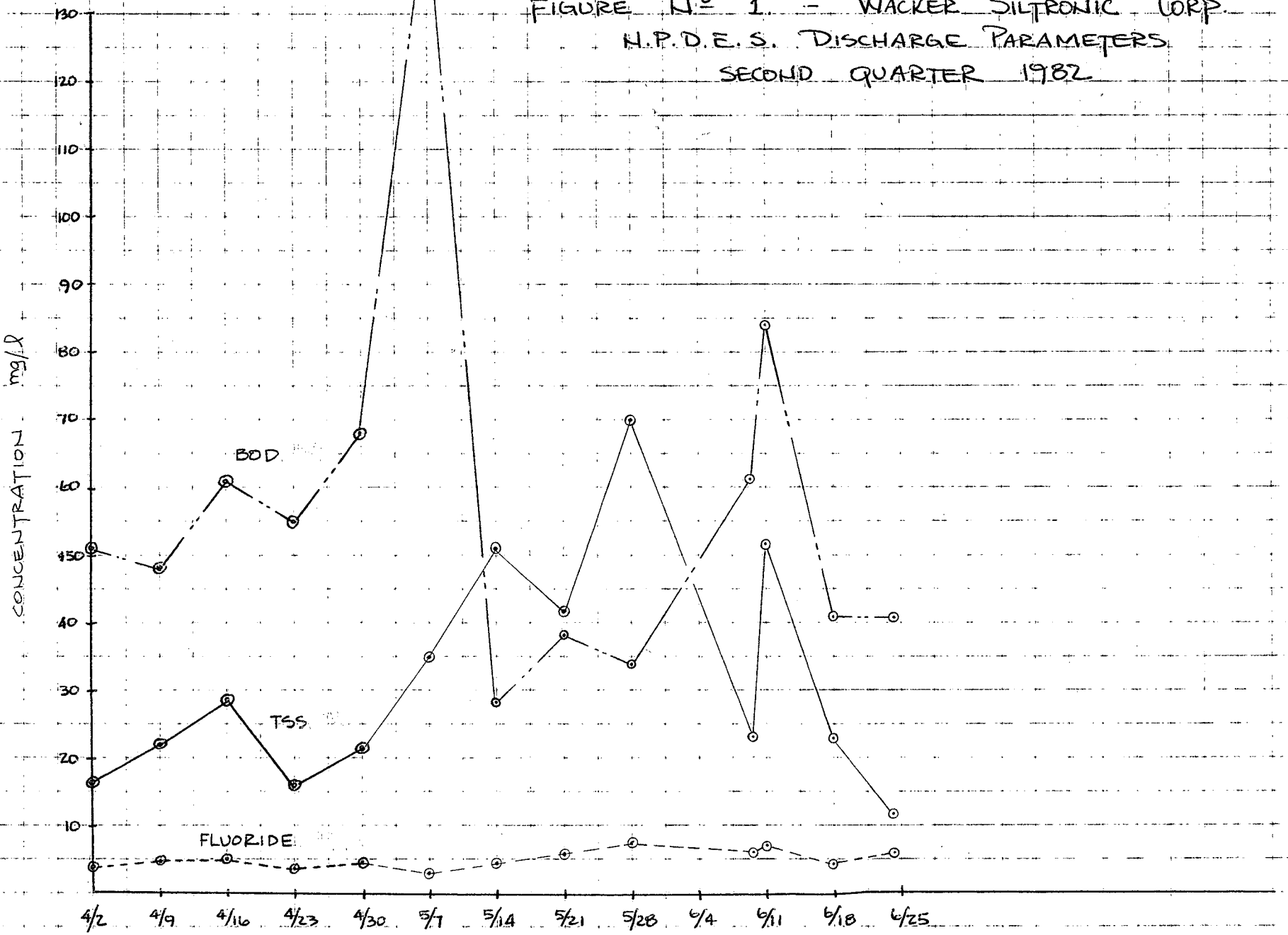
FIGURE Nº 1. - WACKER SILTRONIC CORP.
N.P.D.E.S. DISCHARGE PARAMETERS
SECOND QUARTER 1982



SCOEPA00034815

171

FIGURE No. 1 - WACKER SILTRONIC CORP.
N.P.D.E.S. DISCHARGE PARAMETERS
SECOND QUARTER 1982



SCOEPA00034816

MONTH: JUNE

YEAR: 1982

NPDES WASTEWATER REPORT

seb

DAY	PROCESS FLOW m^3/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr^{total} mg/l	Cr^{total} kg/d	F^- mg/l	F^- kg/d	MV 3 FLOW m^3/d	$PO_4^{\equiv}$ mg/l	CD PH/T pH/°C	MV 3 PH/T pH/°C
1	956.7											650.6			
2	953.1											646.1			
3	1064.7											660.1			
4	938.3											670.3			
5	591.9											599.2			
6	595.5											557.2			
7	1051.2											685.8			
8	1058.6											690.4			
* 9	1011.4	61	61.7	23	23.3	0.001	0.001	0.001	0.001	5.8	5.9	714.6	0.1	7.3/19.6	5.8/10.2
10	825.5											680.9			
* 11	649.2	84	54.5	52	33.8	0.001	0.001	0.002	0.001	7.4	4.8	638.5	0.2	7.2/20.3	5.7/11.7
12	429.7											522.0			
13	585.5											570.8			
14	989.6											700.2			
15	1024.4											681.3			
16	951.1											698.3			
17	1083.3											735.0			
* 18	707.0	41	29.0	23	16.3	0.001	0.001	0.001	0.001	4.7	3.3	686.6	1.3	7.3/17.3	6.1/10.5
19	265.6											598.4			
20	629.1											615.1			
21	785.0											634.0			
22	884.8											651.8			
23	893.4											696.4			
* 24	838.5	41	34.4	12	10.1	0.001	.001	0.005	0.004	6.2	5.2	693.0	1.4	7.2/18.2	5.8/11.4
25	744.0	(38)		(10)			pH (7.9)			(6.8)		666.9			
26	811.7				DEQ							638.2			
27	788.2											623.4			
28	1084.8											789.9			
29	1036.8											587.4			
30	1099.1											632.1			
31															
AVE	844.3	56.8	44.9	27.5	20.9	0.001	0.001	0.002	0.002	6.0	4.8	653.8	0.8	/18.8	/11.0
MIN	265.6	41	29.0	12	10.1	0.001	0.001	0.001	0.001	4.7	3.3	522.0	0.1	7.2/17.3	5.7/10.2
MAX	1099.1	84	61.7	52	33.8	0.001	0.001	0.005	0.004	7.4	5.9	789.9	1.4	7.3/20.3	6.1/11.7

* GAL × 0.003785 = M^3

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-9-82
ANALYSTS: Elgeram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

APLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By SPengelly	–	NPDES PARAMETER LIMITS							
Date 6/9/82	–								
Time 1220	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲- 61	+ 430			
TSS	mg/l	–	15	30	▲- 23	+ 192			
F^-	mg/l	–	6	20	▲- 5.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲- 0.001				
Cr^{total}	mg/l	–	0.3	1	▲- 0.001				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲-		
pH	pH units	6	–	9	7.5	8.1	▲ 5.8	▲ 7.3	
Temperature	°C	–	–	27	12.2	11.8	▲ 10.2	▲ 19.6	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
⊥,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034818

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-11-82
ANALYSTS: Elgeram

FACILITIES MGR.
FACILITIES OP. SUPT.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S. Pengelly	–	NPDES PARAMETER LIMITS							
Date 6/11/82	–								
Time 1430	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 84	+ 510			
TSS	mg/l	–	15	30	▲ 52	+ 131			
F^-	mg/l	–	6	20	▲ 7.4				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.002				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.5	7.9	▲ 5.7	▲ 7.2	
Temperature	°C	–	–	27	9.5	9.2	▲ 11.7	▲ 20.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034819

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-18-82
ANALYSTS: Elgaram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 6/18/82	–								
Time 1440	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 41	+ 345			
TSS	mg/l	–	15	30	▲ 23	+ 192			
F^-	mg/l	–	6	20	▲ 4.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.001				
Phosphates	mg/l	–	2	5			▲ 1.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.4	8.2	▲ 6.1	▲ 7.3	
Temperature	°C	–	–	27	13.4	12.7	▲ 10.5	▲ 17.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034820

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 6-24-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGI
FILE

MPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 6/24/82	–								
Time 1347	UNITS	MIN	NOM	MAX	0945	1340	1340	1345	
5 day-BOD	mg/l	–	15	30	▲ 41	+ 348			
TSS	mg/l	–	15	30	▲ 12	+ 60			
F^-	mg/l	–	6	20	▲ 6.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.005				
Phosphates	mg/l	–	2	5			▲ 1.4		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.8	7.3	▲ 5.8	▲ 7.2	
Temperature	°C	–	–	27	12.1	10.3	▲ 11.4	▲ 18.2	
Turbidity	NTU	–	–	–					
Conductivity	µmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034821

Steve Beiswenger

RECEIVED
JUL 01 1982
WACKER SILTRONIC
ENGINEERING

seb

JUNE

NPDES pH VIOLATIONS

No.	DATE	TIME	DURATION	pH MIN.	pH MAX	REMARKS
1.	6/3	0330	2:10	–	9.9	regeneration
[redacted]	6/3	1135	3:55	–	11.2	regeneration
[redacted]2.	6/4	1000	1:30	–	9.7	
	6/4	1350	1:15	2.1	–	
	6/4	[redacted]1745	3:15	–	10.8	
3.	6/5	1600	2:00	–	10.2	
4.	6/6	1145	1:05	2.4	–	
5.	6/7	0525	3:35	–	11.0	
	6/7	1050	1:25	–	10.4	
6.	6/15	1120	1:00	–	10.6	
7.	6/19	1940	1:20	–	10.2	
8.	6/21	1345	0:25	3.3	–	
9.	6/27	2135	1:15	–	9.4	

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0072

(2-16) OR 0030058-9 — PERMIT NUMBER
(17-19) 026 — DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	05	01	TO	82	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	780.2	1227.3	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—	—	—	CONT.	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	60.3	159.6	kg/d	28	67.8	171	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
TSS	SAMPLE MEASUREMENT	40.9	60.2	kg/d	35	49.5	70	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
Cr^{6+}	SAMPLE MEASUREMENT	0.005	0.019	kg/d	<0.001	0.006	0.021	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24 HC
Cr total	SAMPLE MEASUREMENT	0.002	0.008	kg/d	0.001	0.003	0.009	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24 HC
F^-	SAMPLE MEASUREMENT	4.4	6.4	kg/d	3.2	5.3	7.4	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24 HC
pH	SAMPLE MEASUREMENT	—	—	—	2.1	—	11.6	pH UNITS	22	CONT.	CONT.
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	CONT.	CONT.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGINEERING
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 06 | DAY 14

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034824

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME WACKER SILTRONIC CORP,
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) OR 0030[illegible]8-9 — PERMIT NUMBER
(17-19) 026 — DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	05	01	TO	82	05	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.4	0.7	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	623.4	854.7	m^3/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORDER
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.8	—	8.2	pH	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	20.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR.	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	DURING CHLOR.	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGINEERING
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. §1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 — NUMBER 243-2020

DATE: YEAR 82 — MO 06 — DAY 14

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034825

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
OR 0030558-9	026

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	05	01	TO	82	05	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	780.2	1227.3	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	60.3	159.6	kg/d	28	67.8	171	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	40.9	60.2	kg/d	35	49.5	70	mg/l	4	1/7	24 HC
	PERMIT REQUIREMENT										
Cr 6+	SAMPLE MEASUREMENT	0.005	0.019	kg/d	<0.001	0.006	0.021	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cr total	SAMPLE MEASUREMENT	0.002	0.008	kg/d	0.001	0.003	0.009	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	4.4	6.4	kg/d	3.2	5.3	7.4	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	2.1	—	11.6	pH UNITS	22	CONT.	CONT.
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 503	NUMBER 243-2020	YEAR 82	MO 06	DAY 14
DIRECTOR OF ENGINEERING							
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 1 OF 2

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
OR 0030558-9	026

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	05	01	TO	82	05	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.1	0.4	0.7	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	623.4	854.7	m^3/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.8	—	8.2	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	20.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	DURING CHLOR.	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 503	NUMBER 243-2020	YEAR 82	MO 06	DAY 14
DIRECTOR OF ENGINEERING							
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034826

MONTH: MAY

YEAR: 1982

seb

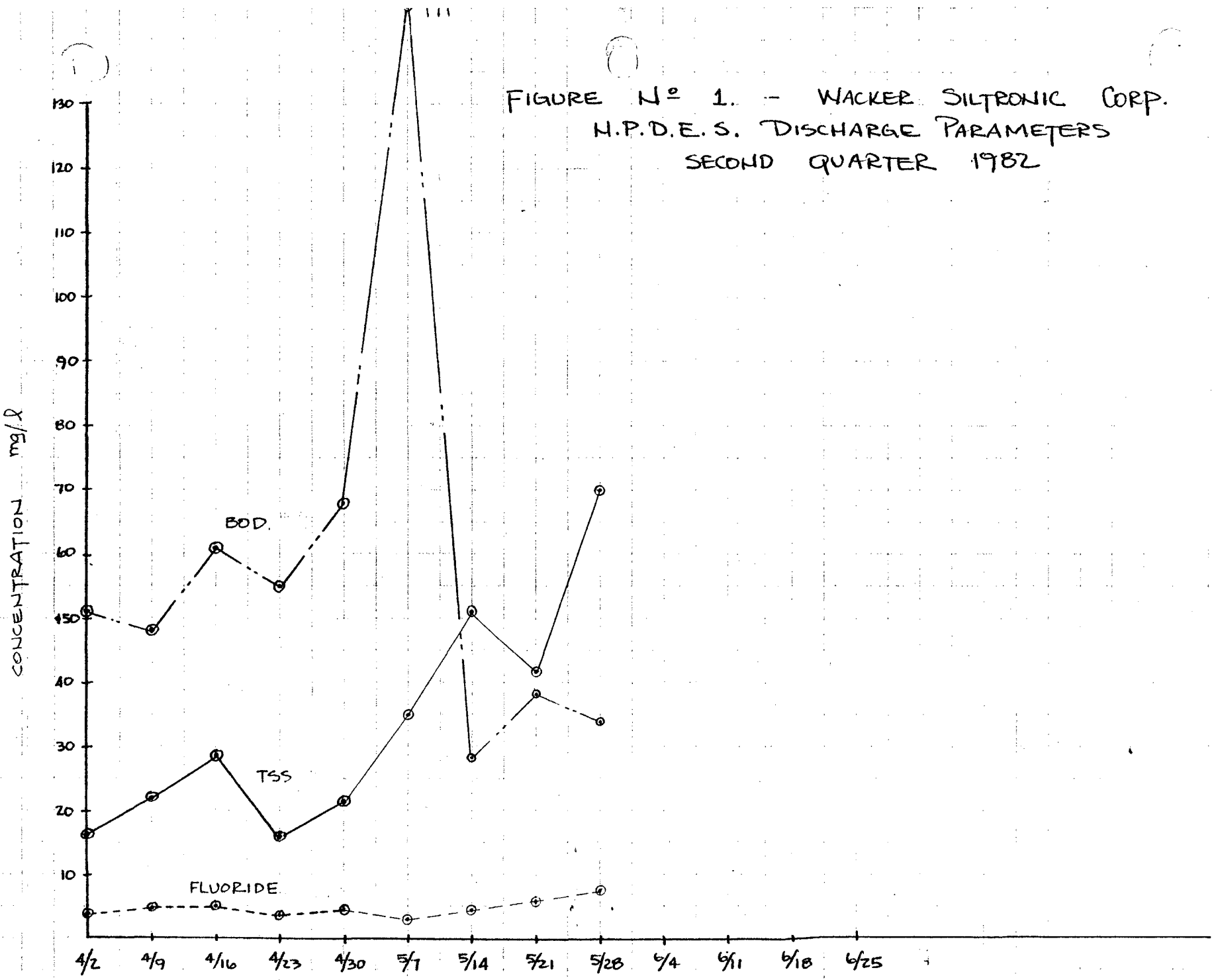
NPDES WASTEWATER REPORT

	DAY	PROCESS FLOW m³/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr^{total} mg/l	Cr^{total} kg/d	F^- mg/l	F^- kg/d	MV 3 FLOW m³/d	$PO_4^{\equiv}$ mg/l	CD pH/T pH/°C	MV 3 pH/T pH/°C
	1	425.8											(539.0)			
	2	655.9											(539.0)			
	3	975.7											714.6			
	4	1120.4											685.8			
	5	1227.3											610.1			
	6	1024.2											699.5			
*	7	933.1	171	159.6	35	32.7	<0.001	<0.001	0.001	<0.001	3.2	3.0	608.6	0.5	8.2/19.4	6.7/12.1
	8	345.0											854.7			
	9	465.2											261.9			
	10	1001.9											637.8			
	11	1005.1											662.0			
	12	953.1											709.3			
	13	1069.5											653.3			
*	14	653.5	28	18.3	51	33.3	0.001	<0.001	0.002	0.001	4.8	3.1	658.2	0.7	7.5/18.2	6.2/11.3
	15	606.3											570.4			
	16	1640.5											590.8			
	17	1004.5											663.5			
	18	857.7											638.9			
	19	1081.8											710.4			
	20	1035.7											645.0			
*	21	(891.5)	38	33.9	42	37.4	0.021	0.019	0.009	0.008	5.7	5.1	(624.9)	0.2	6.8/17.4	5.7/12.2
	22	(464.8)											(539.4)			
	23	529.1											594.2			
	24	714.6											693.0			
	25	714.2											665.0			
	26	846.2											636.3			
	27	937.8											657.5			
*	28	860.6	34	29.3	70	60.2	0.001	<0.001	0.001	<0.001	7.4	6.4	607.9	0.1	6.9/20.3	5.8/11.2
	29	323.9											543.1			
	30	326.2											514.8			
	31	493.9											598.0			
	AVE	780.2	67.8	60.3	49.5	40.9	0.006	0.005	0.003	0.002	5.3	4.4	623.4	0.4	/18.8	/11.7
	MIN	323.9	28	18.3	35	32.7	<0.001	<0.001	0.001	<0.001	3.2	3.0	261.9	0.1	6.8/17.4	5.7/11.2
	MAX	1227.3	171	159.6	70	60.2	0.021	0.019	0.009	0.008	7.4	6.4	854.7	0.7	8.2/20.3	6.7/12.2

AVERAGE PROCESS FLOW ON SAMPLE DAYS: 834.7 m³/d

SCOEPA00034827

FIGURE Nº 1. - WACKER SILTRONIC CORP.
N.P.D.E.S. DISCHARGE PARAMETERS
SECOND QUARTER 1982



SCOEPA00034828

Clarifier Grab Samples

		FLOW	pH	TDS	TURB.	TEMP
5-7	DD	85	7.4	950	29	17
		70	9.6	1150	34	19
-14		110	8.7	900	28	19
		90	6.9	1390	84	21
-21		100	6.7	1150	52	21
		100	7.7	1350	58	19
-28		65	7.6	1150	54	20°

diluting SWW { eductor ing grinding to clean catch pan.
reference cutting sink used to
flush trough

- Sludge level
- amount of recirculation to flash mix.

NPDES PERMIT pH VIOLATIONS

5/82

DA	TIME	DURATION	pH MIN.	pH MAX	COMMENTS
1	5:20 pm	1:45	–	11.2	POSSIBLE REGENERATION
2	6:20 am	0:50	2.1	–	? acid dump shift change
4	11:00 pm	0:45	3.0	–	? " " " "
5	5:00 pm	0:45	–	10.2	?
*7	5:45 am	2:15	–	10.0	? sample 1220 12:20 pm
9	5:30 pm	0:45	5.4	–	
12	4:45 pm	1:00	5.4	9.7	
*14	4:40 am	1:45	–	11.2	sample 1340 1:40 pm
	8:45 am	5:00	–	11.5	NOx REPAIR
15	2:35 pm	2:25	4.3	–	
	10:05 pm	1:00	3.2	–	
19	7:30 am	0:30	–	11.0	
20	7:45 am	0:45	–	9.8	
*21	8:45 am	10:30	3.0	10.7	sample 1250 12:50 pm
22	6:00 am	1:00	3.4	–	
23	5:30 pm	7:00	–	11.6	
24	11:15 am	3:45	–	11.2	
25	7:00 am	3:00	–	10.4	
	7:15 pm	2:30	–	10.3	
26	4:45 pm	2:00	–	9.9	
27	1:00 pm	8:00	–	11.2	
*28	1:00 am	9:00	–	10.2	sample 1320 1:20 pm

SCOEPA00034830

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-7-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP. SUPP
ENVIRONMENTAL ENG
FILE

MPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 5/7/82	5-7-82							
Time	UNITS	MIN	NOM	MAX	12[illegible]	[illegible]20	[illegible]	–
5 day-BOD	mg/l	–	15	30	▲ 171	+ 342		
TSS	mg/l	–	15	30	▲ 35	+ 16		
F^-	mg/l	–	6	20	▲ 3.2			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.000			
Cr^{total}	mg/l	–	0.3	1	▲ 0.001			
Phosphates	mg/l	–	2	5			▲ 0.5	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.7	▲ 8.2
Temperature	°C	–	–	27			▲ 12.1	▲ 19.4
Turbidity	NTU	–	–	–				
Conductivity	µmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS
Lapping waste overflowing into siberia [illegible] due to plugged line

SCOEPA00034831

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-14-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP SUPR.
ENVIRONMENTAL ENGR
FILE

MPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Water Vault Wash To River	Combined Discharge To Sewer
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 5/14/82	5-14 82							
Time	UNITS	MIN	NOM	MAX	[illegible]			
5 day-BOD	mg/l	–	15	30	▲ 28	436		
TSS	mg/l	–	15	30	▲ 51	+ 110		
F^-	mg/l	–	6	20	▲ 4.8			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001			
Cr^{total}	mg/l	–	0.3	1	▲ 0.002			
Phosphates	mg/l	–	2	5			▲ 0.7	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 6.2	▲ 7.5
Temperature	°C	–	–	27			▲ 11.3	▲ 18.2
Turbidity	NTU	–	–	–				
Conductivity	µmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034832

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-21-92
ANALYST: Elgarum

FACILITIES MGR
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Haz. Waste Vault No. 2 To River	Combined Discharge To River
Collected By: S Pengelly	–	NPDES PARAMETER LIMITS						
Date: 5/21/92	–							
Time	UNITS	MIN	NOM	MAX	1255	1250		
5 day-BOD	mg/l	–	15	30	▲38	+491		
TSS	mg/l	–	15	30	▲42	+82		
F^-	mg/l	–	6	20	▲5.7			
Cr^{6+}	mg/l	–	0.02	0.05	▲0.021			
Cr^{total}	mg/l	–	0.3	1	▲0.009			
Phosphates	mg/l	–	2	5			▲0.2	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲5.7	▲6.8
Temperature	°C	–	–	27			▲12.2	▲17.4
Turbidity	NTU	–	–	–				
Conductivity	μmho's cm	–	–	–				

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail chlorine only during chlorination).

COMMENTS

SCOEPA00034833

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 5-28-82
ANALYSTS: Elgoram

FACILITIES MGR
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGI
FILE

MPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	[illegible] Vac. [illegible]	Combined Discharge To River
Collected By S Pengelly	–	NPDES PARAMETER LIMITS						
Date 5/28/82	–							
Time	UNITS	MIN	NOM	MAX	1330			
5 day - BOD	mg/l	–	15	30	▲ 34	+ 474		
TSS	mg/l	–	15	30	▲ 70	+ 54		
F^-	mg/l	–	6	20	▲ 7.4			
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001			
Cr^{total}	mg/l	–	0.3	1	▲ 0.001			
Phosphates	mg/l	–	2	5			▲ 0.1	
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲	
pH	pH units	6	–	9			▲ 5.8	▲ 6.9
Temperature	°C	–	–	27			▲ 11.2	▲ 20.3
Turbidity	NTU	–	–	–				
Conductivity	µmho's cm	–	–	–				

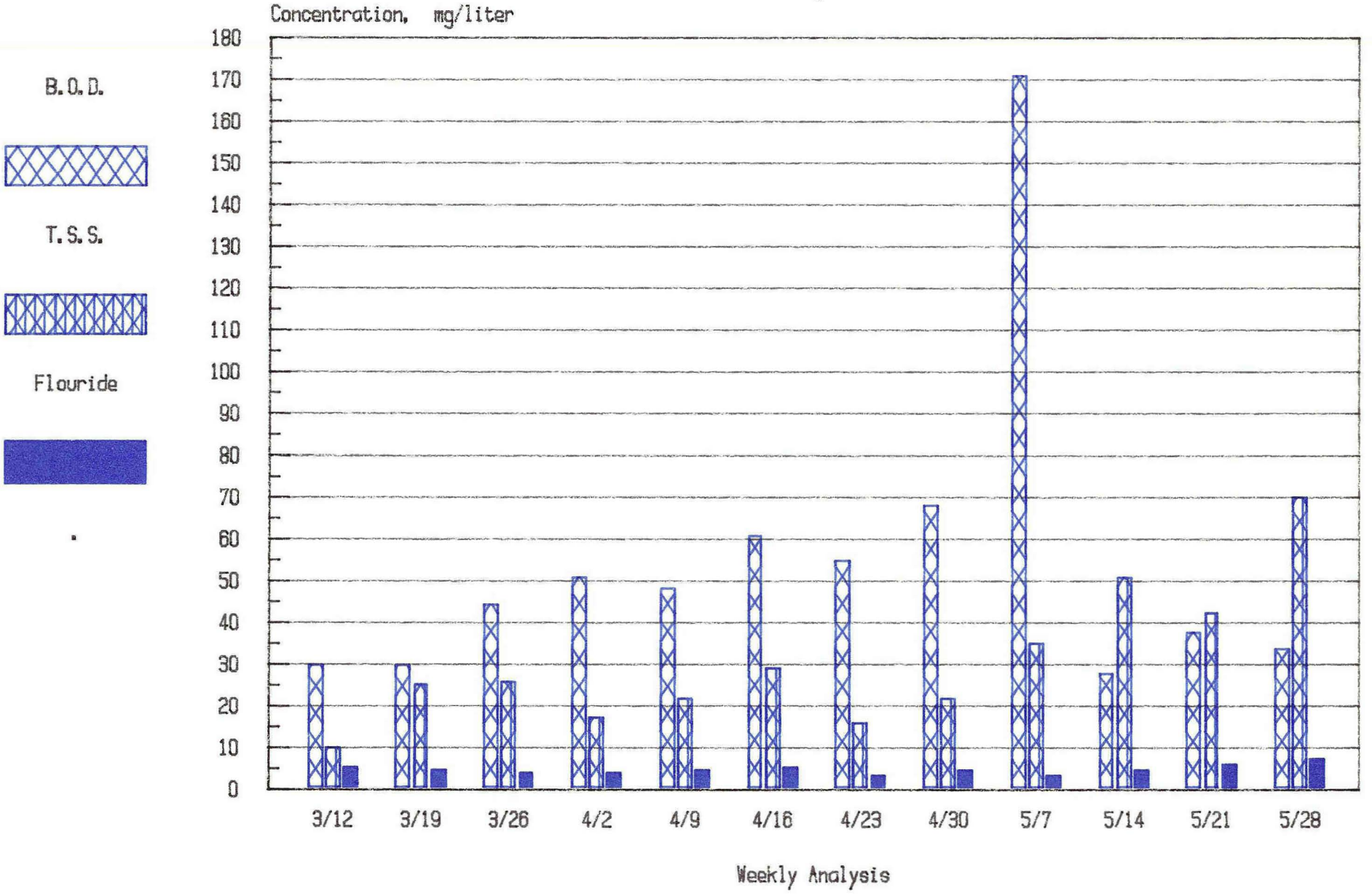
▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS
Clarifier pH upset due to malfunct[illegible]

SCOEPA00034834

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters



SCOEPA00034835

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

May 24, 1982

Department of Environmental Quality
N.W. Region - Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Attention: Chuck Clinton

Ref: N.P.D.E.S. Permit No. OR003058-9

Dear Sir:

Let me apologize for the delay in getting this report to you on time. Due to a change in personnel and a temporary juggling of schedules it took longer than usual to assemble the data.

For your information I have assembled a list of activities and observations for the month of April, 1982 as related to the N.P.D.E.S. parameters:

FLUORIDE

The fluoride ion level is stable and within limits, (see Fig. No. 1B).

TSS

The total suspended solids level was much improved from the first quarter of 1982, but still just outside our permit parameters. I expect that once our pH problems are solved, TSS will stabilize within the limits.

BOD

The BOD level unexpectedly increased during April even though two sources of BOD were diverted to the municipal sewer system: a sump pump discharge in a machinery core was switched from the river discharge system, and an anti-foam agent injection pipe was re-installed in the correct drain system. The effects of the changes were over-shadowed by the Lapping Waste drain becoming plugged which caused lapping slurry containing glycerin to overflow into the Silicon Solids system which goes to the clarifier and then to the river. This condition went undetected for an unknown length of time until May 7, when it was promptly cleared.

WACKER

pH

The modification of the H_2SO_4 supply piping system is underway and expected to be completed by June 4, 1982. During the month of April, the average daily flow on sample days was 992.9 m^3/day compared to a month-long average of 924.9 m^3/day. Consequently, the month-long average daily loading values are somewhat high.

Sincerely,

WACKER SILTRONIC CORPORATION

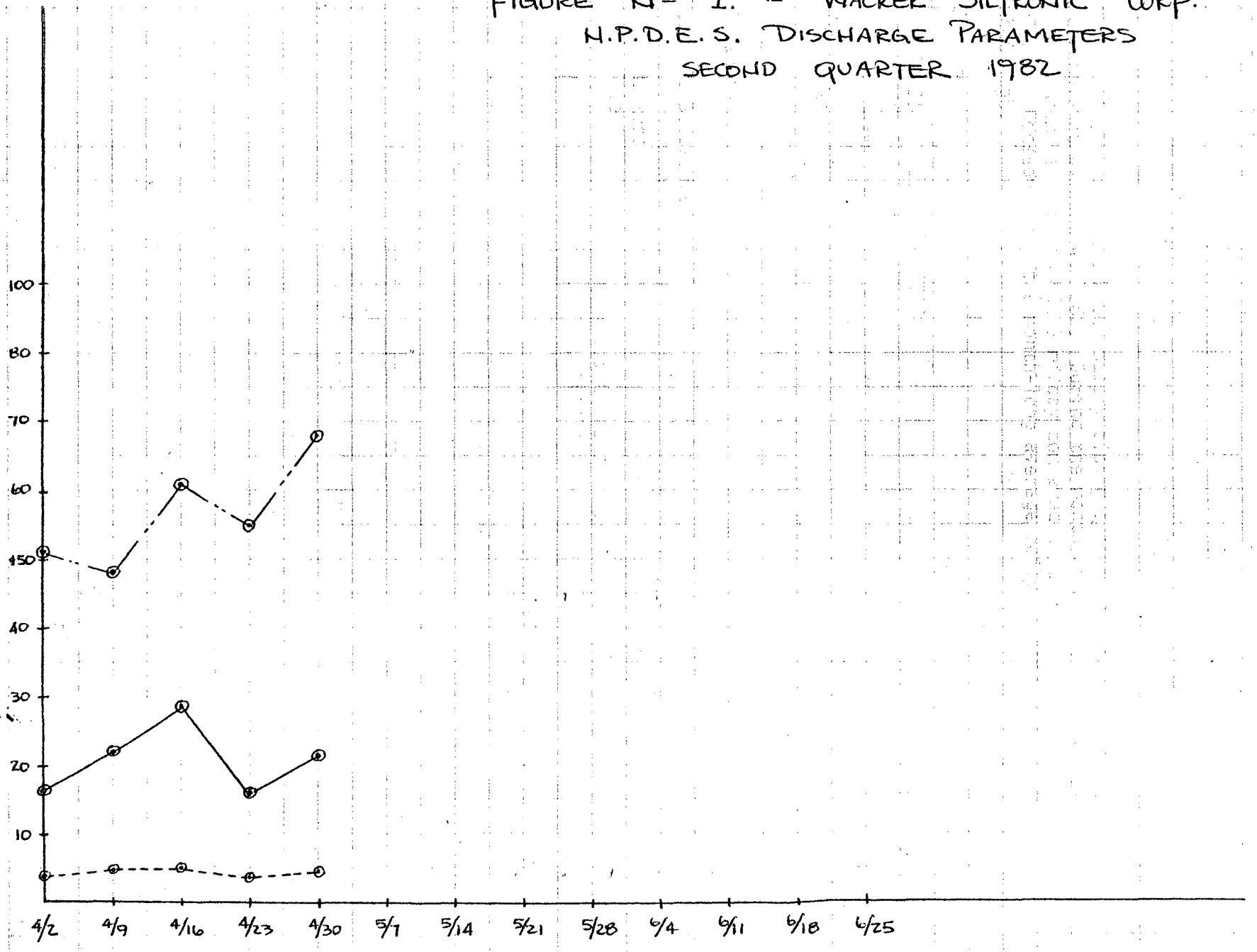
Otto Sweep

OS/kk

Attachment

cc: S. Beiswenger
J. Pittman
M. Russ
File

FIGURE Nº 1. - WACKER SILTRONIC CORP.
N.P.D.E.S. DISCHARGE PARAMETERS
SECOND QUARTER 1982



SCOEPA00034838

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
No. 158-R0033

(2-16) OR0003058-9 PERMIT NUMBER

(17-19) 025 DISCHARGE NUMBER

2834 - J
FILE NO. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	04	01	TO	82	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	~~748.0~~ 924.9	1286.9	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—	—	—	CONT.	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	56.5	78.5	kg/d	48	56.6	68	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
TSS	SAMPLE MEASUREMENT	21.6	37.3	kg/d	16	21.2	29	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24 HC
Cr^{6+}	SAMPLE MEASUREMENT	.002	.002	kg/d	.001	.002	.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24 HC
Cr TOTAL	SAMPLE MEASUREMENT	<.001	0.001	kg/d	Ø	<.001	.001	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24 HC
F	SAMPLE MEASUREMENT	4.4	6.7	kg/d	3.3	4.3	5.2	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24 HC
pH	SAMPLE MEASUREMENT	—	—	—	1.7	—	12.2	pH	28	CONT.	CONT.
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	CONT.	CONT.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	82 YEAR	05 MO	19 DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034839

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME WACKER SILTRONIC CORP
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
LOCATION 7200 N.W. FRONT AVE. PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030[illegible]8-9
(17-19) DISCHARGE NUMBER: 025

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	04	01	TO	82	04	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	Ø	0.84	2.7	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	653.1	810	m^3/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORDER
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.5	—	7.7	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	19.2	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	Ø	Ø	Ø	mg/l		DURING CHLOR.	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	DURING CHLOR.	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING TYPED OR PRINTED	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 503	NUMBER 243-2020	YEAR 82	MO 05	DAY 19

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034840

MONTH: APRIL

YEAR: 1982

WASTEWATER REPORT

		PROCESS FLOW m^3/d	BOD mg/l	BOD kg/d	TSS mg/l	TSS kg/d	Cr^{6+} mg/l	Cr^{6+} kg/d	Cr mg/l	Cr kg/d	F^- mg/l	F^- kg/d	MU#3 FLOW m^3/d	$PO_4^{\equiv}$	CD PH/T	MU3 PH/T
1		996.6						.002					(682.8)			
2	*	857.3	51	43.7	17	14.6	.002	max	<.001	<.001	3.7	3.2	810.0	2.7	6.5/15.0	6.2/12.2
3		289.1											440.2			
4		511.8											582.1			
5		1043.6											676.4			
6		1167.4											676.8			
7		1026.9											694.5			
8		1216.0						.001					721.8			
9	*	929.6	48	44.6	22	20.4	.001	max	<.001	<.001	4.8	4.5	575.7	0.1	7.3/17.4	6.1/12.3
10		428.7											571.2			
11		631.8											563.9			
12		1252.1											777.4			
13		1136.3											727.5			
14		1058.9											732.0			
15		1204.2						.002					721.0			
16	*	1286.9	61	78.5	29	37.3	.002	max	<.001	<.001	5.2	6.7	711.2	0.1	7.7/16.4	5.9/11.3
17		487.3											532.5			
18		668.5											599.2			
19		1143.8											705.1			
20		1137.0											665.0			
21		1075.5											719.5			
22		1117.1						.002	max	.001	.001	3.3	666.9			
23	*	991.6	55	54.6	16	15.9	.002	max				3.3	665.0	1.3	7.2/19.2	6.1/10.4
24		440.8											603.0			
25		557.1											553.0			
26		1109.2											686.2			
27		1144.7											621.5			
28		991.6											667.7			
29		946.9						.001					633.9			
30	*	899.1	68	61.2	22	19.8	.001	max	<.001	<.001	4.7	4.2	609.4	<0.1	7.5/16	5.2/18
31																
	AVE.	~~748.0~~ 924.9	56.6	56.5	21.2	21.6	.002	.002	<.001	<.001	4.3	4.4	653.1	0.84		
	MIN./MAX.	289.1/1286.9	48/68	43.7/78.5	16/29	14.6/37.3	.001/.002	.001/.002	0/.001	0/.001	3.3/5.2	3.2/6.7	440.2/810	0/2.7	7.3/19.2	10.4/18

Average on sample days 992.9

SCOEPA00034841

5/82 WWTP FLOW TOTALS 0800 READINGS

DAY		OWW	COMB	MV #2	MV #3
		011238	803907		
4/30		~~007749~~	~~196655~~	307927	811684
Sat	5/1	019850	✓827661	308661	✓ 813294
Sun	2	025093	✓ 838910	(309363)	✓ (814718)
	3	033953	✓ 856238	310065	✓ 816142
	4	045679	✓ 882017	310860	✓ 818030
	5	058531	✓ 911618	311626	✓ 819842
	6	071511	✓ 944043	312293	✓ 821454
	7	084110	✓ 971102	313049	✓ 823302
Sat	8	094895	✓ 995755	313785	✓ 824910
Sun	9	100074	✓ 004869	314911	✓ 827168
	10	107481	✓ 017160	315206	✓ 827860
	11	119020	✓ 043631	315935	✓ 829545
	12	131811	✓ 070187	316672	✓ 831294
	13	144061	✓ 095368	317408	✓ 833168
	14	158057	✓ 123625	318150	✓ 834894
Sat	15	168292	✓ 140891	318867	✓ 836633
Sun	16	172606	✓ 156910	319575	✓ 838140
	17	180941	✓ 173833	320317	✓ 839701
	18	194118	✓ 200371	321050	✓ 841454
	19	208390	✓ 223031	321801	✓ 843142
	20	222831	✓ 251611	332524	✓ 845019
	21	235543	278974	323248	846723
Sat	22	—	(302526)	—	(848374)
Sun	23	251059	✓ 314807	324019	✓ 849799
	24	259401	✓ 328787	325352	✓ 851369
	25	271813	✓ 347668	326082	✓ 853200
	26	283538	✓ 366536	326806	✓ 854957
	27	295536	✓ 388892	327528	✓ 856638
	28	307735	✓ 413668	328240	✓ 858375
Sat	29	316343	✓ 436405	328961	✓ 859981
Sun	30	321161	✓ 444963	329687	✓ 861416
	31	324032	✓ 453580	330344	✓ 862776
6/1		331992	466630	331062	864356
			24,185.0 m³		19,327.0 m³

gallons/day / 264.2 = meter³/day

4/82 WWTP FLOW TOTALS 0800 READINGS

DAY		OWW	COMB	# 2	# 3
3/31		699635	.064960	286114	.759726
4/1		712351	.094577	287012	- (761530)
* 2		723151	.120907	287591	.763334
3		731250	.143556	288491	.765474
4		735148	.151194	289002	.766637
5		742392	.164717	289700	.768175
6		755974	.192288	290424	.769962
7		770082	.223130	291156	.771750
8		784272	.250262	291952	.773585
* 9	* 1000 reading	799848	.282388	292735	.775492
10		806952	.306948	293022	.777013
11		811030	.318273	294164	.778522
12		819627	.334964	294754	.780012
13		832287	.368044	295485	.782066
14		847281	.398065	296205	.783988
15		859491	.426040	296921	.785922
* 16		873133	.457854	297634	.787827
17		883199	.491854	298371	.789706
18		887516	.504728	299117	.791113
19		892613	.522391	299856	.792696
20		906470	.552611	300634	.794559
21		920278	.582651	301357	.796316
22		933430	.611066	302114	.798217
* 23		945280	.640581	302864	.799979
24		949848	.666778	303583	.801736
25		953226	.678423	304278	.803329
26		960399	.693142	304999	.804790
27		973787	.722446	305792	.806603
28		985844	.752690	306480	.808245
29		999243	.778889	307200	.810009
* 30		011238	.803907	307927	811684
5/1		019850	827661	308661	813294

gal × 0.003785 = m^3

SCOEPA00034843

NPDES PERMIT

PH VIOLATIONS

	DATE	TIME	DURATION	PH MIN / MAX
1.	4-1	10:45 am	:30 MIN	9.3
2.	4-1	4:00 pm	2:00	4.6
3.	4-3	8:45 pm	0:45 MIN	4.7/10.0
4.	4-8	9:30 am	1:45	11.5
5.	4-10	4:45 am	4:00	2.6
6.	4-10	10:00 am	5:15	12.2
7.	4-11	11:15 am	1:45	11.3
8.	4-12	10:15 pm	1:00	5.4
9.	4-13	8:15 am	3:45	3.2/12
10.	4-13	12:30 pm	0:50	2.9
11.	4-14	4:15 am	0:30	2.8
12.	4-14	10:30 am	0:20	11.0
13.	4-14	2:30 pm	1:00	2.9
14.	4-14	6:15 pm	1:00	2.6
15	4-15	12:45 am	0:40	10.8
16.	4-15	4:30 am	0:35	10.3

17.	4-15	3:15 pm	4:30	11.1
18.	4-18	11:45 am	9:45	1.7 // 11.8
19.	4-19	1:30 am	2:40	11.8
20.	4-21	8:00 pm	3:00	5.2
21.	4-22	6:00 pm	3:00	5.5
22.	4-23	1:45 am	0:55	10.5
23.	4-25	10:00 am	5:30	10.2
24.	4-25	8:30 pm	1:10	10.0
25.	4-25	10:30 pm	0:45	4.7
26.	4-26	5:15 pm	0:50	2.7
1.	4-26	10:30 pm	8:30	3.6
28.	4-27	12:45 pm	1:15	9.8

WACKER

WASTE PLANT LOG

DATE. 4/1/82 DAYS. [illegible] SWING. Ed GRAVE. [illegible]

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	175	125	7.5	7.5	8.0	C	L	C	211/211	118/118	—	—	—	METER VAULT 2
0400	175	175	125	7.5	7.5	7.5	C	L	C	211/211	118/118	8.4gal	40gr	200#	
0800	175	150	125	7.0	7.5	7.5	C	L	C	250	142	—	—	—	287012
1200	200	175	125	6.0	7.5	7.0	C	L	C	172	94	—	—		METER VAULT 3
1600	200	175	100	7.0	7.5	7.0	C	L	C	237	134	6.3	—	250#	
2000	200	175	100	7.0	7.5	7.0	C	L	C	211	118	—		—	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.9	7.0	8.5	75	60	50	61	14	75±	80±	210±	8.4	7.4	707822	085010
0400	7.0	8.8	8.0	75	50	50	58	<14	75±	80±	200±	7.8	7.0	710118	089984
0800	6.2	9.5	7.8	90	50	50	58	13	90	90	220	7.9	7.9	712351	094577
1200	7.0	6.0	7.5	125	55	100	65	12	60	110	250	7.6	8.4	712927	097595
1600	9.0	9.5	8.0	120	60	55	63	12	85	90	225	7.8	7.8	714375	102467
2000	6.6	8.0	7.9	105	45	60	52	12	75	95	150	7.6	6.6	716838	107508

Eng. Form No. 30

WACKER

WASTE PLANT LOG

DATE. 4-2-82 DAYS. SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	150	100	7.0	7.5	7.5	C	L	C	133	70	6.3	40gm.	200	METER VAULT 2
0400	150	150	100	7.5	7.5	7.5	C	L	C	159	86				
0800	200	150	100	7.5	7.5	7.5	C	L	C	159	86	—	—	200#	287591
1200	150	125	75	7.5	7.5	7.5	C	L	C	198	110	8.4	—	—	METER VAULT 3
1600	175	125	100	7.5	7.5	7.5	C	L	C	250	142	—	—	—	
2000	175	125	100	7.5	7.5	7.5	C	L	C	185	102	6.3	40gms	300#	763334

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.0	7.8	8.1	100	60	50	41	11	45	80	220	8.3	7.2	719128	110329
0400	7.7	8.0	8.0	70	50	45	42	10	55	80	170	8.2	7.4	721156	116273
0800	8.2	7.2	7.1	105	50	45	39	10	55	70	235	8.2	7.8	723151	120907
1200	8.0	9.8	8.1	85	60	35	41	99	70	60	225	8.1	7.6	724939	126201
1600	7.8	8.3	8.0	100	65	55	45	99	90	95	250	8.0	7.4	727364	133068
2000	8.5	8.7	8.3	65	70	45	38	98	65	70	225	8.0	7.6	729297	137908

WACKER

WASTE PLANT LOG

DATE. 4-3-82 DAYS. 11 SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	125	125	75	7.5	7.5	7.5	C	L	C	81	38	—	—	—	METER VAULT 2
0400	125	125	75	7.5	7.5	7.5	C	L	C	68	30	—	—	—	
0800	75	75	50	7.5	7.5	7.0	C	L	C	120	62	—	—	—	288491
1200	75	75	50	7.5	7.5	7.0	C	L	C	146	78	43	—	150#	METER VAULT 3
1600	50	75	50	7.5	7.5	7.5	C	L	C	107	54	—	—	200#	
2000	50	75	50	7.5	7.5	7.5	C	L	C	111	57	6.3	—	—	765474

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.9	6.8	7.0	35	55	30	37	98	25	20	65	7.2	7.1	730130	140741
0400	7.3	8.0	7.5	35	40	35	48	96	20	20	50	7.7	7.1	730592	142081
0800	7.1	7.6	7.1	35	40	30	59	98	40	0	60	7.4	7.6	731250	143556
1200	7.5	7.4	7.5	30	50	35	57	98	50	15	100	7.5	7.4	731746	145433
1600	7.0	7.0	8.0	35	40	50	54	98	35	35	50	7.6	6.8	732295	147144
2000	8.1	7.4	8.2	35	40	40	47	98	5	20	50	8.2	8.0	732908	148198

WACKER

WASTE PLANT LOG

APR 04 1982

DATE. 4-4-82 DAYS. 1 SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	75	75	65	7.5	7.5	7.5	C	L	C	55	23	—	—	100	METER VAULT 2
0400	100	75	65	7.5	7.5	7.5	C	L	C	55	23	—			
0800	75	75	50	7.5	7.5	7.5	C	L	C	120	62	—	—	—	289002
1200	100	75	75	7.5	7.5	7.5	C	L	C	55	23	—	—	150#	METER VAULT 3
1600	100	75	75	7.5	7.5	7.5	C	L	C	55	23	—	—	—	
2000	100	75	75	7.5	7.5	7.5	C	L	C	94	46	6.3	—	200#	766637

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.5	7.3	7.7	35	30	30	44	97	15	30	45	7.8	6.2	733474	149203
0400	7.3	7.8	8.0	45	35	35	39	97	15	25	40	8.0	7.4	734301	150197
0800	10	7.5	7.4	60	35	35	44	97	40	30	100	7.4	7.6	735148	151194
1200	6.9	8.8	7.4	30	40	40	52	97	15	50	100	7.1	6.7	735840	152634
1600	7.5	7.5	8.0	35	40	40	59	97	15	55	80	7.8	7.2	736619	154025
2000	7.0	8.5	8.0	35	40	40	54	97	30	50	90	8.3	6.7	737403	155753

WACKER

WASTE PLANT LOG

DATE. 4-5-82 DAYS. Mac SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	125	125	100	7.5	7.5	7.5	C	L	C	81	38				METER VAULT 2
0400	150	125	100	7.5	7.5	7.5	C	L	C	107	54		40gm.		289700
0800	150	150	100	7.0	7.8	7.8	C	L	C	107/211	54/118				
1200	150	150	125	7.5	7.5	7.5	C	L	C	211/211	118/118	8.4gal	—	300#	METER VAULT 3
1630	175	150	125	7.5	7.5	7.5	C	L	C	172	94	—	—	—	
2000	175	150	125	7.5	7.5	7.5	C	L	C	250	142	6.3	—	300#	768175

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	8.0	7.2	7.6	55	45	50	48	97	125	65	140	7.6	7.6	738233	157614
0400	7.7	7.7	7.5	60	45	45	59	97	35	85	160	7.6	7.7	740179	161033
0800	8.1	7.2	8.1	60	45+	50	56	96	50±	90	160±	8.0	7.4	742392	164717
1200	7.7	8.7±	8.1	75	50	55	59	96	75±	95±	210±	8.2	7.8	745964	171117
1630	7.5	9.0	8.1	75	65	55	63	96	60	100	220	7.8	7.5	747836	175658
2000	7.8	8.1	8.0	70	65	50	65	95	90	95	215	7.8	7.4	749716	179869

WACKER

WASTE PLANT LOG

DATE. 4-6-82 DAYS. Hutto SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	150	125	7.5	7.5	7.5	C	L	C	107	54	—	40gm.	—	METER VAULT 2
0400	175	150	125	7.5	7.5	7.5	C	L	C	107	54				
0800	175	150	125	7.5	7.5	7.5	C	L	C	107/315	54/182				290424
1200	175	150	125	7.5	7.5	7.5	C	L	C	315	182	8.4gal	—	200#	METER VAULT 3
1600	175	150	125	7.5	7.5	7.5	C	L	C	216	158	8.4gal	40gm	200#	769962
2000	175	150	125	7.5	7.5	7.5	C	L	C	315	182	—	—	—	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.4	7.0	7.6	75	60	50	62	95	135	85	220	7.8	7.3	751496	183906
0400	8.0	7.7	7.8	65	50	40	61	95	35	85	175	7.8	7.8	754068	188520
0800	8.0	7.2	8.0	65	50	50	64	95	115±	75±	175±	7.9	7.9	755974	192288
1200	7.1	6.0	8.1	60±	65±	50	66	95	115±	80±	240±	7.9	7.6	758926	200109
1600	8.0	7.3	7.9	70	70	55	64	95	100	95	230	8.0	7.6	760708	204509
2000	7.5	6.5	8.0	75	75	50	65	94	115	85	230	8.0	7.3	762774	209984

SCOEPA00034851

WACKER

WASTE PLANT LOG

DATE. 4-7-82 DAYS. Mac SWING. GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	150	125	7.5	7.5	7.5	C	L	C	146	78			200	METER VAULT 2
0400	150	150	125	7.5	7.5	7.5	C	L	C	146	78				291156
0800	150	150	125	7.5	7.5	7.5	C	L	C	146/276	78/154				
~~1200~~	150	175	125	7.5	7.5	7.5	C	C	C	276/276	154/154	8.4 gal.	40 gal.	200#	METER VAULT 3
1600	150	175	125	7.5	7.5	7.5	C	L	C	211	118	—	—	—	771750
2000	125	150	100	7.5	7.5	7.5	C	L	C	146	78	8.4	—	200#	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.8	8.0	8.0	70	70	55	61	93	150	110	190	8.1	6.7*	765035	215031
0400	7.5	8.0	8.0	60	60	55	60	93	50	105	180	8.2	7.6	767978	219597
0800	7.9	9.7	8.2	50+	60	55+	64	93	100±	110	175±	8.2	7.9	770082	223130
1200	7.0	10.4	8.2	35	85	50	58	92+	100±	100±	175±	8.2	8.4	773733	230089
1600	5.6	8.1	8.0	70	80	50	57	92	75	105	220	8.1	8.7	775274	233137
2000	9.4	6.2	8.1	50	75	45	52	92	50	70	150	8.0	8.1	777644	237826

*000 WANT P.H. 7.8 CLARIFIER P.H. 7.5 COMB 6.7 ?

WACKER

WASTE PLANT LOG

DATE. 4-8-82 DAYS Chris SWING. [illegible] GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	150	100	7.0	7.5	7.5	C	L	C	133	70			200	METER VAULT 2
0400	150	150	100	7.5	7.5	7.5	C	L	C	185	102				291952
0800	175	150	125	7.5	7.5	7.0	C	L	C	185/276	102/158				
1200	200	150	125	7.5	7.5	7.0	C	L	C	276/276	158/158	8.4gal	40gr		METER VAULT 3
1600	200	200	125	7.5	7.5	7.0	C	L	C	250	142	—	—	200±	1773585
2000	100	150	75	7.5	7.5	7.0	C	L	C	107	54	6.3	—	—	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.6	6.5	8.0	65	75	45	49	91	145	75	175	7.7	7.0	779437	241940
0400	7.4	7.3	8.0	60	60	50	54	91	65	95	175	7.9	7.2	782059	246574
0800	7.1	7.2	8.0	75	60	60	53	91+	100±	100±	175±	8.0	7.4±	784272	250262
1200	8.0	7.0	8.2	100	80	55+	54	90	100±	100±	250±	8.0±	7.6	787712	257929
1600	7.4	11.1	7.6	85	80	50	51	90	90	105	250	7.2	7.8	789740	260817
2000	7.2	7.5	8.0	50	75	40	49	89	35	65	210	7.8	7.6	791511	265106

SCOEPA00034853

WACKER

WASTE PLANT LOG

DATE. 4·9·82 DAYS. _____ SWING. _____ GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	100	150	100	7.5	7.5	7.0	C	L	C	196	78	–	–	–	METER VAULT 2
0400	100	150	100	7.5	7.5	7.0	C	L	C	120	62	–	–	200#	292735
0800				NO READINGS			– –	Resin change out							
~~1200~~ 1000	150	175	175	7.5	7.5	7.0	C	C	C	120/350	62/111	6.3 gal		350#	METER VAULT 3
1600	150	175	175	7.5	7.5	7.0	C	L	C	172	94	8.4	40 gal	200#	775492
2000	150	175	75	7.5	7.5	7.0	C	L	C	172	94	–	–	–	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.0	9.8	7.8	75	45	70	44	89	150	100	200	7.8	8.0	~~793648~~	~~870601~~
0400	6.3	8.9	7.9	70	40	70	42	88	40	95	190	7.7	8.3	~~798285~~ 75	275179
0800			no	READINGS	– –		Resin change out								
~~1200~~ 1000	8.5	10.5	8.0	60	70	110	41	88	140±	75±	200±	8.2	8.2	799848	282388
1600	3.2	11	8.0	90	90	55	38	86	60	40	220	8.0	8.2	801791	290198
2000	7.1	9.4	7.8	55	75	30	40	86	60	25	175	8.6	7.7	803092	294166

SCOEPA00034854

WACKER

WASTE PLANT LOG

DATE. 4·16·82 DAYS. [illegible] SWING. [illegible] GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	175	75	7.5	7.5	7.0	C	L	C	159	86	—	—	200#	METER VAULT 2
0400	150	175	75	7.5	7.5	7.0	C	L	C	159	86	6.3	-	—	
0800	125	150	100	8.0	7.5	7.0	C	L	C	159/81	86/38	—	—	350+	293022
1200	125	150	100	7.5	7.5	7.0	C	L	C	81/146	38/198	—	—	—	METER VAULT 3
1600	75	100	50	7.0	7.5	7.5	C	L	C	81	38	—	—	—	
2000	75	100	50	7.0	7.5	7.5	C	L	C	68	30	—	40gp	—	777013

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.0	11.0	7.8	65	75	35	48	86	155	20	185	7.4	7.8	803942	298461
0400	7.5	8.0	7.0	70	65	45	47	95	55	50	200	7.4	7.0	805336	303238
0800	7.5	7.1	7.6	30	50	40	50	86	25+	50+	75+	7.4	6.0	806952	306948
1200	11.7	8.0	7.0	30	45	30	69	85+	~~50~~+	25+	70+	7.0+	11+	807882	309094
1600	7.7	7.2	7.6	50	50	30	87	85	25	0	130*	7.6	8.3	808322	311110
2000	7.2	7.0	7.2	40	50	35	89	84	20	15	85	7.0	7.6	808984	313921

* Minus The city H2O Flow

WACKER

WASTE PLANT LOG

DATE. 4·11·82 DAYS. Chris SWING. STP GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	75	100	50	7.0	7.5	7.5	C	L	C	68	30	—	—	—	METER VAULT 2
0400	75	100	50	7.0	7.5	7.5	C	L	C	68	30	643	—		
0800	125	150	125	7.0	7.5	7.5	C	L	C	68/108	30/80	—	—	—	2941164
1200	125	150	125	7.0	7.5	7.5	C	L	C	68/68	30/30	—	—		METER VAULT 3
1600	125	150	125	7.0	7.5	7.5	C	L	C	68	30				7778522
2000	100	125	125	7.5	7.5	7.5	C	L	C	68	30			300	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.6	8.0	7.2	30	50	40	82	84	15	35	25	8.2	6.6	809649	316064
0400	6.9	8.5	7.0	30	45	40	80	84	20	15	75	6.7	6.9	810332	317082
0800	6.9	8.3	7.1	30	45	40	81+	84	25	18	75±	7.5±	7.6	811030	318273
1200	6.3	7.2	7.6	35	45	60+	83	84	25	15	75±	7.6±	7.0	811858	319484
1600	6.5	7.0	6.3	30	45	30	79	84	20	30	80	6.4	8.0	813152	321529
2000	8.4	9.4	7.2	45	50	40	65	84	20	20	75	7.1	8.9	814249	324254

WACKER

WASTE PLANT LOG

DATE. 9·12·82 DAYS. George SWING. [illegible] GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	125	125	7.5	7.5	7.5	C	L	C	120	62	—	—	—	METER VAULT 2
0400	~~250~~	125	100	7.5	7.5	7.5	C	L	C	211	118	—	—	—	
0800	175	150	100	7.5	7.5	7.5	C	L	C	198	110	8.4	—	—	294754
1200	175	175	100	7.5	7.0	7.5	C	L	C	328 407	190 238	6.3	40gr.	250	METER VAULT 3
1600	175	175	100	7.0	7.0	7.5	C	L	C	230	142	—	—	200*	
2000	175	200	100	7.5	7.5	7.5	C	L	C	237	134	8.4	—	—	780012

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	8.6	10.0	8.0	75	55	50	59	84	140	80	185	8.2	7.6	815202	326068
0400	6.3	10.2	6.9	95	60	50	53	84	75	90	245	7.8	6.6	817589	331062
0800	6.8	8.0	7.6	85	~~85~~	~~50~~	49	83	70	85	210	8.0	8.0	819627	334964
1200	7.2	5.5	8.0	90	85	45	63	83	150 120	75	280	8.2	7.2	821831	341659
1600	8.1	7.0	8.0	85	80	50	75	83	90	80	235	7.9	7.3	823991	347872
2000	8.5	7.2	8.1	80	80	50	57	83	85	90	220	8.0	7.2	826174	353417

250# D.E. Drum Dryer on Line @ 0930.

SCOEPA00034857

WACKER

WASTE PLANT LOG

DATE. 4·13·82 DAYS. George SWING. [illegible] GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	200	100	7.5	7.5	7.5	C	L	C	172	94	—	—	—	METER VAULT 2
0400	175	200	100	7.5	7.5	7.5	C	L	C	224	126	9.2 gals	40 gms	200#	295485
0800	150	150	100	7.5	7.5	7.5	C	L	C	250	142	—	—	—	
1200	175	175	100	7.0	7.5	7.5	C	L	C	328	190	8.4			METER VAULT 3
1600	175	175	100	7.0	7.5	7.5	C	L	C	172	94	—	—	200#	
2000	200	175	110	7.5	7.5	7.5	C	L	C	146	78	8.4 gal	40 gm.	—	7820660

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.5	8.0	7.9	70	75	50	44	83	60	90	225	7.4	6.2	828859	359906
0400	8.0	8.3	7.9	65	65	50	37	82	80	80	220	8.0	8.0	830302	363641
0800	7.2	8.0	8.0	65	60	50	30	82	90	90	210	8.2	7.9	832287	368044
1200	11.5	7.0	8.0	80	80	55	40	82	120	100	250	7.0	11.6	835286	374988
1600	7.1	8.1	9.8	100	75	75	43	82	60	110	250	9.6	7.3	837576	379745
2000	7.0	8.4	8.7	100	60	65	53	81	50	110	215	8.6	7.6	840070	384372

SCOEPA00034858

WACKER

WASTE PLANT LOG

DATE. 4·14·82 DAYS. George SWING. [illegible] GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	175	100	7.5	7.5	7.5	C	L	C	120	62	—	—	200#	METER VAULT 2
0400	150	175	100	7.5	7.5	7.5	C	L	C	120	62	—	—	—	296205
0800	150 man 14	150	115	7.0	7.5	7.0	C	L	C	185	102	—	—	300	
1200	14	175	100	7.5	7.5	7.0	C	L	C	276	158				METER VAULT 3
1600	175	175	100	7.5	7.5	7.0	C	L	C	276 / 276	158 / 158				783988
2000	175	175	100	7.5	7.5	7.0	C	L	C	276 / 276	158 / 158	4.8gal	40gm	200#	

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.5	0	8.4	70	65	75	53	81	40	95	215	8.0	7.6	842422	389390
0400	7.5	9.0	8.2	65	55	70	59	80	40	100	190	8.2	7.0	845034	394148
0800	7.0	7.3	9.0	65	50	65	69	80	65	100	200	9.0	6.6	847281	398065
1200	8.0	6.0	9.0	130	65	40	58	80	100	70	260	9.2	7.2	849269	403467
1600	8.6	7.0	8.7	110	70	50	43	79	100±	75±	275±	8.5	7.0±	852261	411867
2000	9.2	7.5	8.4	90	70	40	40	78	100±	50±	275±	10.0	7.5±	854263	417365

10 bags D.E.

SCOEPA00034859

Trammic
Wash 1st 11 O/C Mr Hedrick Trammic Clean B

WACKER

WASTE PLANT LOG

DATE. 4·15·82 DAYS. George SWING. [illegible] GRAVE. Ed

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	No Readings Due to Regeneration											—	—	—	METER VAULT 2
0400	175	175	100	7.5	7.5	7.0	C	L	C	120	62	8.4	—	150#	
0800	175	150	100	7.5	7.5	7.0	C	L	C	172 [341]	94 [198]	—	—	150	296921
1200	200	175	100	7.5	7.5	7.5	C	L	C	341	198	6.3	40 gms.	150	METER VAULT 3
1600	200	175	125	7.5	7.5	7.5	C	L	C	341/341	198/198	—	—	—	
2000	200	175	125	7.5	7.5	7.5	C	L	C	341/341	198/198	8.4 cal	—	200#	785922

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000				No Readings Due to Regeneration										8570	
0400	10.0	7.9	8.0	90	50	55	64	77	40	90	150	7.2	10.0	857966	423656
0800	8.0	7.3	8.0	85	50	50	67	77	60 [125]	85	160	8.3	8.0	859491	426040
1200	7.2	6.5	8.0	100	70	45	62	77	125	75	275	8.2	7.6	861835	431144
1600	11.1	7.5	8.0	80	70	55	93	77	125±	80±	275	8.0	7.0	864317	438504
2000	7.4	7.9	8.0	100	70	40	83	76	125±	60±	225	8.4	7.8	866989	446460

SCOEPA00034860

217

WACKER

WASTE PLANT LOG

DATE. 4-16-82 DAYS. George SWING. [illegible] GRAVE. [illegible]

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	200	175	125	7.5	8.0	7.5	C	L	C	146	78	—	—	200#	METER VAULT 2
0400	200	175	125	7.5	8.0	7.5	C	L	C	159	86	—	40gal	—	
0800	175	175	100	7.5	7.0	7.5	C	L	C	300 (1400)	118 (1158)	—	—	300	297634
1200	20 MAN	175	100	6.0	7.0	7.5	C	L	C	276	158	8.4		—	METER VAULT 3
1600	Man 13/	175	125	7.0	7.5	7.5	C	L	C	276/276	158/158		—	100	
2000	200	175	125	7.0	7.5	7.5	C	L	C	276/276	158/158	8.4	40gal	250#	787827

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	3.1	8.0	8.1	80	65	55	80	76	150	105	210	8.1	7.5	868264	449352
0400	7.8	10	8.2	75	50	55	75	76	55	85	210	8.2	8.1	870845	453854
0800	8.0	10	8.2	70	50	55	65	75	75 (100)	100	210	8.3	8.3	873133	457854
1200	6.2	7.5	8.3	75	90	40	55	75	100	70	265	8.3	7.0	875420	463642
1600	7.6	8.2	8.3	100	85	60	56	75	100±	95±	270±	8.2	7.4±	877788	469525
2000	8.4	9.0	8.0	95	75	45	58	74+	100±	75±	260±	8.0	8.0±	880235	477200

10 bags D.E.

SCOEPA00034861

WACKER

WASTE PLANT LOG

DATE. 4-17-82 DAYS. Georg SWING. GRAVE.

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	100	175	75	7.0	7.5	7.5	C	L	C	159	86	—	—	200#	METER VAULT 2
0400	100	175	75	7.0	7.5	7.5	C	L	C	159	86	8.4	—	200#	298371
0800	11 MAN.	125	75	7.0	7.5	7.0	C	L	C	146	78	—	—	100	
1200	11 MAN	125	75	7.0	7.0	7.5	C	L	C	146	78	4.2	—	—	METER VAULT 3
1600	100	125	75	7.0	7.0	7.5	C	L	C	146/146	78/78	—	—	—	
2000	100	125	75	7.0	7.0	7.5	C	L	C	146/146	78/78	4.2 gal	4 Dgn	—	789706

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.5	11.5	8.3	55	75	35	58	74	155	30	180	8.3	8.3	881250	482275
0400	7.1	7.0	8.1	65	60	30	55	74	55	10	170	8.0	7.8	882104	486801
0800	6.8	7.3	8.2	65	55	40	55	74	50	60	175	8.3	6.8	883199	491854
1200	7.2	8.0	8.5	60	50	35	59	73	50	35	175	7.6	7.1	884241	495119
1600	7.2	7.9	8.2	40	40	30	59	73	50±	25±	125±	7.5±	7.3±	885561	500132
2000	7.3	8.0	8.2	40	40	30	59	73	50±	25±	125±	7.4±	7.8	885883	501748

SCOEPA00034862

WACKER

WASTE PLANT LOG

DATE. 4-18-92 DAYS. Bruce SWING. Chuck GRAVE.

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	OFF	75	50	6.5	7.0	8.0	C	L	C	68	30	—	—	—	METER VAULT 2
0400	OFF	75	OFF	6.5	7.0	8.0	C	L	C	40	16	—	—	—	
0800	"	75	150 ~~100~~	6.5	7.0	7.5	C	L	C	68	30	—	—	—	299117
1200	"	75	100	6.5	7.5	7.0	C	L	C	68	30	—	—	—	METER VAULT 3
1600	150	100	75	7.0	7.5	7.0	C	L	C	68 ~~68~~	30 ~~30~~	—	—	—	
2000	150	100	75	7.0	7.5	7.0	C	L	C	68 ~~68~~	30 ~~30~~	—	—	—	791113

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.8	7.9	7.1	30	40	30	59	73	20	~~0~~	85	5.6	8.8	886343	503772
0400	5.6	7.7	6.6	130	40	90		73	10	~~0~~	40	6.5	8.4	886355	504245
0800	4.5	7.5	7.1	165	40	100	59	73	20	50	20	4.0	8.2	887516	504728
1200	4.5	7.2	5.0	165	40	30	60	73	20	40	20	5.0	8.2	88847	505108
1600	5.0	7.3	7.2	60	40	35	54	~~<73~~	20±	20±	125±	7.4±	6.0±	889055	507992
2000	6.1	7.4	9.2	45	40	30	46	72	20±	15±	100±	7.5±	7.8±	889656	511436

WACKER

WASTE PLANT LOG

DATE. 4·19·82 DAYS. Ed SWING. GARY GRAVE.

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	100	150	100	7.0	7.5	7.0	C	L	C	68	30	—	—	200#	METER VAULT 2
0400	200	150	100	7.0	7.5	7.0	C	L	C	68	30	GH	—	—	299856
0800	200	150	100	7.5	7.5	7.5	C	L	C	159	86	—	—	—	
1200	200	150	100	7.5	7.5	7.5	C	L	C	107	54	—	—	250#	METER VAULT 3
1600	—			~~100~~ READINGS			DUE	TO	RO	DI	WOR	K	—	→	
2000	200	150	100	7.5	7.5	7.5	C	L	C	107	54	84	—	300	792696

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.6	8.2	8.0	75	45	40	52	72	20	25	150	6.9	7.1	889962	513293
0400	11.4	7.1	7.1	85	50	40	55	72	20	20	215	7.0	11.1	890585	517452
0800	8.0	7.4	7.2	90	60	60	53	72	55	90	220	7.6	7.8	892613	522391
1200	7.3	6.8	7.6	90	70	50	55	72	35	85	200	7.5	6.6	894927	528058
1600	—														
2000	7.3	~~8~~ 7.0	7.5	75	80	50	55	72	35	70	180	7.5	7.0	899463	537843

SCOEPA00034864

WACKER

WASTE PLANT LOG

DATE. 4-20-82 DAYS. _____ SWING. Gary GRAVE. _____

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	200	150	100	7.0	7.0	7.5	C	L	C	107	54	—	—	200#	METER VAULT 2
0400	200	150	100	7.0	7.0	7.5	C	L	C	120	62	—	40 GR.	—	
0800	200	150	100	7.0	7.0	7.5	C	L	C	250	142	-	-	-	300634
1200	200	150	100	7.0	7.5	7.5	C	L	C	250	142	8.4	-	200#	METER VAULT 3
1600	200	150	100	7.0	7.5	7.5	C	L	C	340	198				
2000	200	150	100	7.0	7.5	7.5	C	L	C	340	190	8.4	40	300	794559

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	8.0	6.0	7.9	75	80	50	49	70	135	85	185	8.2	7.2	901522	542357
0400	7.7	7.5	8.1	75	65	50	51	70	40	85	190	8.1	6.9	903761	546848
0800	6.8	7.0	8.1	100	75	50	52	71	90	85	230	8.0	7.0	906470	552611
1200	6.8	6.0	8.3	115	80	50	54	70	90	100	260	8.1	7.5	908445	557459
1600	6.0	4.0	8.0	70	80	60	52	70	125	100	240	8.2	7.5	911003	562909
2000	7.0	8.0	7.5	70	80	65	45	70	125	100	240	8.3	7.8	914750	570960

SCOEPA00034865

WACKER

WASTE PLANT LOG

DATE. 4-21-82 DAYS. Ed SWING. George GRAVE.

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	240	150	120	7.0	7.5	7.5	C	L	C	146	78	—	—	200#	METER VAULT 2
0400	240	150	100	7.0	7.5	7.5	C	L	C	107	54	4.2	—	—	
0800	240	150	100	7.0	7.5	7.5	C	L	C	302	174	—	—	—	2301357
1200	240	150	100	7.0	7.5	7.5	C	L	C	276	158	6.3	~~—~~	250#	METER VAULT 3
1600	150	150	100	6.0	7.0	7.5	C	L	C	198	110	—	40gm	300	
2000	150	150	100	8.0	7.5	7.5	C	L	C	276	158	—	—	200	7963 16

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.2	7.2	7.4	85	75	95	47	69	150	90	200	8.4	6.8	916281	574031
0400	7.5	8.5	8.2	75	65	50	49	69	35	95	185	8.2	8.2	918003	578175
0800	6.6	6.8	8.3	65	65	50	53	69	110	100	200	8.4	7.8	920278	582651
1200	7.6	9.0	8.5	45	85	45	54	69	100	90	205	8.2	7.6	922204	587453
1600	6.2	6.5	8.3	55	85	50	53	69	70	85	195	8.3	8.0	923987	591379
2000	8.2	8.5	8.0	60	75	50	52	68	100	85	205	7.9	6.2	926851	597584

WACKER

WASTE PLANT LOG

DATE. 4-2892 DAYS. Ed SWING. Geny GRAVE. D

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	150	100	9.0	7.5	7.5	C	L	C	146	78	8.4	—	—	METER VAULT 2
0400	No Readings			ROOT			Troubles							200#	
0800	150	150	100	8.0	7.5	7.5	C	L	C	211	118	—	—	—	302114
1200	150	150	100	8.0	7.5	7.5	C	L	C	276	158	8.4	40gal	250#	METER VAULT 3
1600	150	150	100	8.0	7.5	7.5	C	L	C	302	174	—	—	—	
2000	150	150	100	8.0	7.5	7.5	C	L	C	328	190	8.4	—	250	798217

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	8.9	7.6	8.0	75	65	50	42	67	50	85	180	8.0	6.2	928850	601790
0400															
0800	8.0	7.9	8.2	70	55	50	68	67	70	85	195	8.2	7.6	933430	611066
1200	8.0	9.0	8.5	8.5	70	50	73	67	100	100	235	8.4	7.6	935326	615285
1600	7.5	7.0	8.0	70	70	50	68	67	110	90	210	8.2	7.3	937219	620021
2000	8.2	8.0	8.0	70	65	55	54	66	120	100	225	8.1	6.0	940754	627875

SCOEPA00034867

WACKER

WASTE PLANT LOG

DATE. 4/23/82 DAYS. Ed SWING. George GRAVE. Gilley

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	150	100	8.0	7.5	7.5	C	C	C	172	94			100	METER VAULT 2
0400	150	150	200	7.5	7.5	7.5	C	C	C	172	94	Ca3	40		
0800	150	150	150	7.5	7.5	7.5	C	C	C	224	126	-	-	250	362864
1200	210	150	150	7.5	7.5	7.5	C	C	C	224	126			-	METER VAULT 3
1600	175	175	100	7.5	7.5	7.5	C	C	C	256	158	8.4	4	300	
2000	150	150	100	7.0	7.5	7.5	C	C	C	276	158				799979

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	9.0	6.5	8.0	70	65	60	50	655	160	100	180	8.0	7.0	943524	631336
0400	8.5	7.5	7.5	70	55	70	45	655	60	50	150	8.4	7.5	944176	635713
0800	8.2	7.0	8.9	80	55	55	58	65	80	30	220	8.6	8.2	945280	640581
1200	4.4	6.5	8.0	115	60	50	52	65	75	25	180	7.8	8.0	946052	645395
1600	7.8	7.6	8.2	80	70	45	55	65	100	20	235	8.4	7.9	946577	650240
2000	7.0	7.2	8.0	65	60	45	59	64	100	25	200	7.9	8.0	947483	656286

SCOEPA00034868

WACKER

WASTE PLANT LOG

DATE. 4/24/82 DAYS. Ed SWING. George GRAVE Graf

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	175	125	7.0	7.5	7.5	C	L	C	276/276	158/158	—	—	300#	METER VAULT 2
0400	175	175	125	7.0	7.5	7.5	C	L	C	276/276	158/158	8.4gal	40gr	—	
0800	175	175	125	7.0	7.5	7.5	C	L	C	68	30	—	—	250#	303583
1200	150	125	100	7.0	7.5	7.5	C	L	C	94	46	4.2	—	—	METER VAULT 3
1600	125	125	85	7.5	7.5	7.5	C	L	C	81	38	—	—	200	
2000	100	100	100	7.0	7.0	7.5	C	L	C	81	38			200	801736

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.5	6.0	8.2	60	70	50	61	64	100±	30±	175±	8.0	7.8	948230	660480
0400	7.0	8.9	8.4	50	50	35	63	64	100±	25±	130±	8.0±	6.8±	949270	664943
0800	7.8	8.6	8.0	40	40	45	66	64	120	25	110	8.0	7.6	949848	666778
1200	8.3	8.7	7.8	45	45	45	60	64	30	25	115	7.7	7.2	950492	669229
1600	8.0	7.5	8.0	40	45	35	51	63	25	20	100	7.9	7.6	951074	671675
2000	8.0	8.5	8.5	40	40	45	55	63	25	20	85	8.2	7.2	951702	673918

WACKER

WASTE PLANT LOG

DATE. 4/25/82 DAYS. Ed SWING. George GRAVE Chas?

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	100	100	100	7.5	7.0	7.0	C	L	C	81/81	38/38	—	—	—	METER VAULT 2
0400	100	100	100	7.5	7.0	7.0	C	L	C	81/81	38/38	4.2 gal.	—	—	
0800	100	100	100	7.5	7.5	7.0	C	L	C	68	30	—	—	—	304278
1200	100	100	100	7.5	7.5	7.0	C	L	C	68	30	—	—	100	METER VAULT 3
1600	75	75	75	4.0*	7.0	7.5	C	C	C	68	30	—	—	—	
2000	75	75	75	5.0	7.5	8.0	C	C	C	63	30	—	—	—	863329

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	8.0	6.7	7.9	35	40	35	52	63	125±	20±	60±	7.9	6.8	952203	675762
0400	7.5	7.2	7.9	35	35	35	48	62±	25±	20±	60±	7.8	6.7	952803	677335
0800	8.0	8.9	7.5	40	40	40	40	63	20	25	50	7.4	7.4	953226	678423
1200	10.0	6.8	8.0	40	45	35	38	63	20	25	75	8.0	9.8	953889	680747
1600	4.0*	7.8	6.7	35	40	35	44	62	20	40	75	6.8	8.0	954185	681523
2000	5.0	6.5	7.0	35	40	35	49	62	20	30	75	7.2	7.8	954870	683527

* See Log.

APR 26 1982

SCOEPA00034870

WACKER

WASTE PLANT LOG

DATE. 4/26/92 DAYS. 0 SWING. Cenya GRAVE Cuna P

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	125	150	125	7.5	7.5	7.5	C	L	C	63/211	30/118	—	—	—	METER VAULT 2
0400	175	150	125	7.0	7.0	7.5	C	L	C	211/211	118/118	84gal	40gr	250#	
0800	175	150	125	7.0	7.5	7.5	C	L	C	159	86	—	—	—	304999
1200	175	150	125	7.0	7.5	7.5	C	L	C	81	38	—	—	200#	METER VAULT 3
1600	150	150	125	7.0	7.5	7.0	C	L	C	211	108	4.2	—	—	
2000	150	150	125	7.0	7.5	7.0	C	L	C	276	158	—	—	200	804790

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.2	6.9	6.5	55	50	50	61	62	175↑	75	130↑	7.5↑	6.3↑	956163	685345
0400	6.0	7.9	6.0	55	50	40	67	6✓	75	75↑	150↑	7.0↑	7.0↑	959437	691107
0800	7.6	8.1	6.4	70	50	40	70	62	55	65	190	6.0	7.7	960399	693142
1200	7.5	9.0	8.1	75	55	40	70	62	25	55	200	8.0	7.2	962532	697723
1600	7.5	7.5	7.5	50	55	50	61	62	75	85	175	7.4	7.4	965368	703476
2000	7.5	7.5	9.0	60	65	50	55	62	100	90	190	9.2	6.8	966937	706363

APR 2 '82

WACKER

WASTE PLANT LOG

DATE. 4/27/82 DAYS. 00 SWING. George GRAVE. Mac

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	175	125	7.0	7.5	7.0	C	L	C	276/276	158/158	—	—	—	METER VAULT 2
0400	175	175	125	7.0	7.5	7.0	C	L	C	276/276	158/158	8.4 gal	40 gal	—	
~~0800~~	240+	175	100	7.0	7.5	7.0	C	L	C	159	86	—	—	200#	305792
1200	240+	175	100	7.0	7.5	7.0	C	L	C	146	78			—	METER VAULT 3
1600	175	175	100	6.5	7.5	6.5	C	L	C	302	174	—	—	300	
2000	175	175	100	6.5	7.5	7.0	C	L	C	302	174	4.2	40 gal	—	806603

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	6.2	6.4	8.5	80	65	45	47	61	100±	75±	210±	8.9	7.0±	969209	712007
0400	7.5	7.0	9.8	60	50	40	50	60	100±	75±	190±	9.6	7.0±	972703	719600
~~0800~~	8.0	7.5	7.1	135	60	65	56	60	55	90	200	7.6	7.3	973787	722446
1200	6.5	7.3	9.0	90	70	55	61	59	50	90	130	8.8	7.0	975510	726109
1600	6.5	7.2	8.6	80	70	50	75	59	110	90	245	8.6	7.2	977393	730975
2000	8.0	7.2	7.1	80	80	50	54	59	110	90	250	7.2	7.5	980173	738471

13:05 Drum Dryer end Line -- 150 Lbs. of D.E.

SCOEPA00034872

WACKER

WASTE PLANT LOG

DATE. 4/28/82 DAYS. 11 SWING. Ed GRAVE. Mike

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	175	175	125	6.5	7.5	6.5	C	L	C	302/302	174/174	—	—	—	METER VAULT 2
0400	175	175	125	7.5	7.5	7.0	C	L	C	302/302	174/174	8.4 gal	—	200#	
0800	175	175	125	7.5	7.5	7.0	C	L	C	263	150	—	—	150#	306480
1200	175	175	125	7.5	7.5	7.0	C	L	C	233	70	8.4 gal	40 gal	—	METER VAULT 3
1600	175	175	125	7.5	7.5	7.0	C	L	C	276	158	—	—	250#	
2000	175	175	125	7.5	7.5	7.5	C	L	C	250	142	6.3 gal	—	—	808245

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	4.0	6.2	8.3	75+	80+	45+	61+	58+	110↓	75↓	225↓	8.3	7.6	981832	742914
0400	7.5	7.4	9.0	60	55	40		58	100↓	60↓	190↓	9.2	7.6	984390	749488
0800	6.1	7.1	9.5	65	55	45	56	57	95	75	190	9.5	7.1	985844	752690
1200	7.0	6.9	9.2	50	60	40	50	57	45	45	130	9.2	7.4	987396	757099
1600	7.0	0	8.9	60	65	50	64	56	100	90	200	8.7	7.3	989743	762196
2000	6.5	9.0	8.9	65	70	50	47	57	80	95	225	8.7	6.6	981771	767176

DRUM DRYER OFF @ 09:10

SCOEPA00034873

APR 2 9 1982

WACKER

WASTE PLANT LOG

DATE. 4/29/82 DAYS. 11 SWING. Ed GRAVE. Casca P

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	200	175	125	7.5	7.5	7.0	C	L	C	250/250	142/142	—	—	300#	METER VAULT 2
0400	200	175	125	7.5	7.5	7.0	C	L	C	250/250	142/142	4.7 gal	40 gr	—	
0800	200	175	150	7.5	7.5	7.0	C	L	C	185	102	—	—	200#	307200
1200	200	175	150	7.5	7.5	7.0	C	L	C	133	70	8.4 gal	—	—	METER VAULT 3
1600	200	175	150	7.5	7.5	7.0	C	L	C	315	182	—	—	200#	
2000	240	200	150	7.5	7.5	7.0	C	L	C	276	158	8.4 gal		—	810009

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.0	7.1	9.4	55	55	50	38	56	90±	80±	150±	9.3	7.3	993995	771299
0400	7.4	6.9	7.2	50	50	50	65	56	90±	80±	125±	7.4	7.4	997522	776021
0800	7.6	7.2	8.0	55	50	45	73	56	65	80	175	8.1	7.0	999243	778889
1200	6.8	7.5	8.3	50	60	50	60	56	45	90	175	8.2	7.0	000731	782238
1600	7.1	7.5	8.5	50	55	50	51	56	115	95	200	8.3	7.6	003140	786361
2000	7.9	8.0	8.3	65	70	50	50	55	100	100	225	8.2	6.3	005607	791592

Drum Dryer on Line @ 08:55 ; with 200 Lbs. of D.E.

SCOEPA00034874

APR 8 0 1982

WACKER

WASTE PLANT LOG

DATE. 4-30-82 DAYS. [illegible] SWING. Ed GRAVE. George

TIME	FLOW/LEVEL LIC SET POINT			NEUTRALIZATION pH CONTROL			LIME/CAUSTIC BASE CONTROL			ALUM SET	POLY SET	CHEMICALS USED			DAY SHIFT 0800
	WAD	CAD	OWW	WAD	CAD	OWW	WAD	CAD	OWW			ALUM	POLY	LIME	
0000	150	150	125	7.5	7.5	7.0	C	L	C	172	94	—	40gm.	200	METER VAULT 2
0400	150	150	125	7.5	7.0	6.5	C	L	C	120	62	6.3	—	—	
0800	200	175	150	7.5	7.0	7.0	C	L	C	146	78	—	—	—	307927
1200	200	175	150	7.5	7.0	7.0	C	L	C	146	78			200#	METER VAULT 3
1600	200	175	150	7.5	7.5	7.0	C	L	C	211	118	—	—	—	
2000	200	200	125	7.5	7.5	7.0	C	L	C	211	118	84		200#	811684

TIME	NEUTRALIZATION pH			STORAGE TANK LEVELS					FLOWS			DISCHARGE pH		DISCHARGE TOTALS	
	WAD	CAD	OWW	WAD	CAD	OWW	CCW	H_2SO_4	CLAIR	OWW	COMB	OWW	COMB	OWW	COMB
0000	7.6	8.0	8.0	70	60	45	53	55	160	80	200	8.2	7.8	007749	796655
0400	6.6	7.4	8.0	60	50	45	53	54	40	75	140	7.8	7.5	009662	800382
0800	7.5	7.1	7.6	65	50	45	54	54	50	70	190	7.8	7.6	011238	803907
1200	6.3	12.1	8.1	75	65	50	59	54	50	90	200	8.0	7.6	012939	808579
1600	7.5	6.0	8.4	75	70	45	62	53	75	95	215	8.1	7.2	014852	813255
2000	7.7	6.9	8.0	75	75	40	63	53	75	90	205	7.9	7.2	017098	819080

SCOEPA00034875

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) OR0030538-9 — PERMIT NUMBER

(17-19) 025 — DISCHARGE NUMBER

2834 - J

FILE No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	04	01	TO	82	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	924.9	1286.9	m^3/d	—	—	—	—	—	CONT.	TOTAL RECORD
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	56.5	78.5	kg/d	48	56.6	68	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	21.6	37.3	kg/d	16	21.2	29	mg/l	5	1/7	24 HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	.002	.002	kg/d	.001	.002	.002	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
Cr TOTAL	SAMPLE MEASUREMENT	<.001	0.001	kg/d	0	<.001	.001	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	4.4	6.7	kg/d	3.3	4.3	5.2	mg/l	0	1/7	24 HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	1.7	—	12.2	pH UNITS	28	CONT.	CONT.
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	82 YEAR	05 MO	19 DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 1 OF 2

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) OR0030538-9 — PERMIT NUMBER

(17-19) 025 — DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	04	01	TO	82	04	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0	0.84	2.7	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	653.1	810	m^3/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.5	—	7.7	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	19.2	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	0	0	0	mg/l		DURING CHLOR.	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENGINEERING	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 AREA CODE	243-2020 NUMBER	82 YEAR	05 MO	19 DAY
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 2 OF

SCOEPA00034876

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-2-82
ANALYSTS: Elgerau

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By SPengelly	-	NPDES PARAMETER LIMITS							
Date 4-2-82	-								
Time 1330	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲51	+257			
TSS	mg/l	-	15	30	▲17	+48			
F^-	mg/l	-	6	20	▲3.7				
Cr^{6+}	mg/l	-	0.02	0.05	▲0.002				
Cr total	mg/l	-	0.3	1	▲0.000				
Phosphates	mg/l	-	2	5			▲2.7		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9	7.7	7.5	▲6.2	▲6.5	
Temperature	°C	-	-	27	15.8°	16.2	▲12.2	▲15.0	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034877

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-9-82
ANALYSTS: Elinor, Gordon, Sam

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No.3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-9-82	–								
Time	UNITS	MIN	NOM	MAX	1240	1246	1248	1252	
5 day-BOD	mg/l	–	15	30	▲ 48	+ 250			
TSS	mg/l	–	15	30	▲ 22	+ 44			
F^-	mg/l	–	6	20	▲ 4.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.000				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.8	8.2	▲ 6.1	▲ 7.3	
Temperature	°C	–	–	27	7.4	8.5	▲ 12.3	▲ 17.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034878

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-16-82
ANALYSTS: Elgeram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 4-16-82	-								
Time	UNITS	MIN	NOM	MAX	1310	1310	1330	1410	
5 day - BOD	mg/l	-	15	30	▲ 61	+ 351			
TSS	mg/l	-	15	30	▲ 29	+ 35			
F^-	mg/l	-	6	20	▲ 5.2				
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	-	0.3	1	▲ 0.000				
Phosphates	mg/l	-	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9	7.2	7.6	▲ 5.9	▲ 7.7	
Temperature	°C	-	-	27	9.3	10.2	▲ 11.3	▲ 16.4	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034879

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-23-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 4-23-82	–								
Time	UNITS	MIN	NOM	MAX	1145	1145	1420	1425	
5 day-BOD	mg/l	–	15	30	▲ 55	+ 330			
TSS	mg/l	–	15	30	▲ 16	+ 36			
F^-	mg/l	–	6	20	▲ 3.3				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.002				
Cr^{total}	mg/l	–	0.3	1	▲ 0.001				
Phosphates	mg/l	–	2	5			▲ 1.3		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.3	7.8	▲ 6.1	▲ 7.2	
Temperature	°C	–	–	27	9.3	10.5	▲ 10.4	▲ 19.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034880

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 4-30-82
ANALYSTS: Elgoram

FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENG
FILE

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By J.R. Jones	–	NPDES PARAMETER LIMITS							
Date 4-30-82	–								
Time 12:00	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 68	+ 295			
TSS	mg/l	–	15	30	▲ 22	+ 52			
F^-	mg/l	–	6	20	▲ 4.7				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.000				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9	7.0	8.1	▲ 5.2	▲ 7.5	
Temperature	°C	–	–	27	20° c	15° c	▲ 18° c	▲ 16° c	
Turbidity	NTU	–	–	–		– –			
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034881

PE[illegible] NAME/ADDRESS (Include Fac[illegible] / Location if different)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
[illegible] No. 158-R0073

(2-16)	(17-19)
02003058-9	024
PERMIT NUMBER	DISCHARGE NUMBER

2834-J
File No. 93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	918.4	1219.4	m^3/d	—	—	—	—	0	CONT	TOTAL RECORD
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	31.1	44.8	kg/d	28	33	44	mg/l	4	1/7 ~~24HC~~	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	22.2	32.4	kg/d	10	23.8	34	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	0.002 ~~<0.001~~	0.005	kg/d	<0.001	0.002	0.007	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
Cr^{Total}	SAMPLE MEASUREMENT	0.008	0.018	kg/d	<0.003	0.008	0.018	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	4.1	5.2	kg/d	3.6	4.4	5.4	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	3.0	—	12.4	pH UNITS	17	CONT	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature] SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENG.			503	247-2020	92	04	
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034882

PE[illegible] NAME/ADDRESS (Include Fa[illegible] Location if different)

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
G[illegible]B No. 158-R0073

(2-16)	(17-19)
OR003050-9	024
PERMIT NUMBER	DISCHARGE NUMBER

2834-5
File No. 93450

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL PO4	SAMPLE MEASUREMENT	—	—	—	<0.1	0.1	0.1	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	675.4	771.9	m³/d	—	—	—	—	0	DAILY	RECORDER
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.9	—	7.8	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	18.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	0	0	0	mg/l	0	during chlor.	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
JOHN PITTMAN DIRECTOR OF ENG	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	[signature]	503	243-2020	82	05	
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

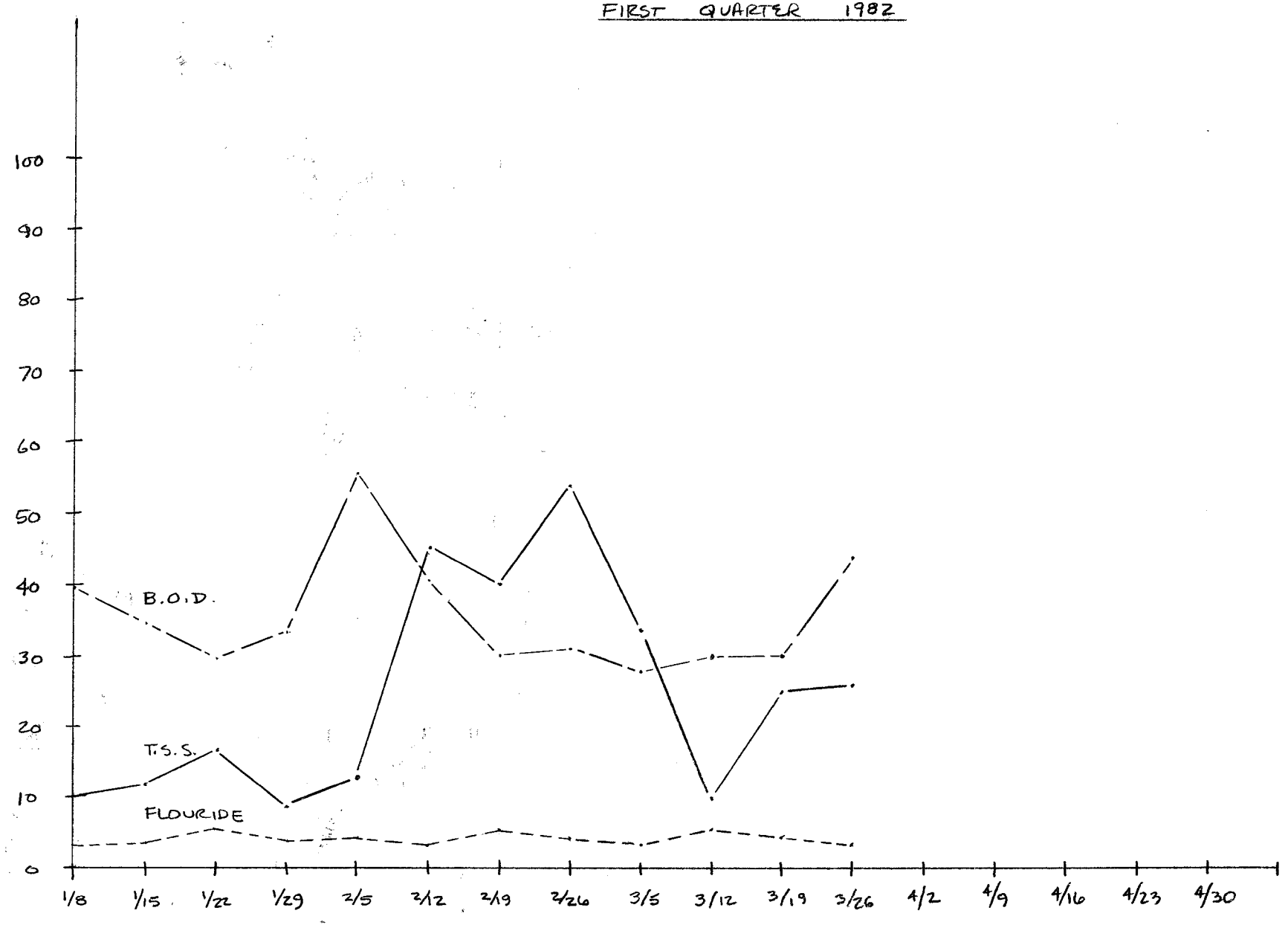
SCOEPA00034883

DD
3/82

FIGURE No. 1 - WACKER SILTRONIC CORP.

N.P.D.E.S. DISCHARGE PARAMETERS

FIRST QUARTER 1982



SCOEPA00034884

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
FACILITY HYPER-PURE SILICON PLANT
7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-) OR0003058-9 PERMIT NUMBER

(17-19) 024 DISCHARGE NUMBER

2834-J
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	918.4	1219.4	m^3/d	—	—	—	—	0	CONT	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	CONT	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	31.1	44.8	kg/d	28	33	44	mg/l	4	1/7 ~~24HC~~	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
TSS	SAMPLE MEASUREMENT	22.2	32.4	kg/d	10	23.8	34	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
Cr^{6+}	SAMPLE MEASUREMENT	~~<0.001~~ 0.002	0.005	kg/d	<0.001	0.002	0.007	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24HC
Cr^{TOTAL}	SAMPLE MEASUREMENT	0.008	0.018	kg/d	<0.003	0.008	0.018	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24HC
F^-	SAMPLE MEASUREMENT	4.1	5.2	kg/d	3.6	4.4	5.4	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24HC
pH	SAMPLE MEASUREMENT	—	—	—	3.0	—	12.4	pH	17	CONT	CONT
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	CONT	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENG.
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 04 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034885

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME: WACKER SILTRONIC CORP.
ADDRESS: P.O. BOX 03180
PORTLAND OREGON 97203
FACILITY: HYPER-PURE SILICON PLANT
LOCATION: 7200 N.W. FRONT AVE. PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 158-R0073

(2-) OR0030[illegible]8-9 — PERMIT NUMBER
(17-19) 024 — DISCHARGE NUMBER

2834-J
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	03	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	QUANTITY OR LOADING (54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	QUALITY OR CONCENTRATION (46-53) AVERAGE	QUALITY OR CONCENTRATION (54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	<0.1	0.1	0.1	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	675.4	771.9	m^3/d	—	—	—	—	0	DAILY	RECORDED
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	RECORDED
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		0	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.9	—	7.8	pH	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	18.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	0	0	0	mg/l	0	during chlor.	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	during chlor.	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENG
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 04 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034886

3/82 WWTP FLOW TOTALS 0800 reading

DAY	OCEAN	COMB	#2	#3	day shift opr
~~2/28~~	381326	325643	264715	704804	
3/1	389696	342509	265316	706222	
2	398940	366135	266103	707947	
3	409466	394347	266803	709656	
4	420981	420883	267418	711440	
5	434123	450087	268098	713304	
6	443274	475241	—	715020	S.S + Ed
7	449852	486074	269539	716931	
8	462855	504748	270211	718959	
9	470067	526026	—	720368	Mike
10	476557	548631	271572	722347	
11	482047	570636	272262	724325	
12	492661	597513	272970	726352	
13	505222	623160	—	—	Mike
14	512534	640370	274468	730430	
15	519071	652942	275015	731628	
16	529740	685156	275748	733532	
17	541680	716108	276423	735470	
18	555815	747254	277139	737392	
19	569250	777388	277828	739335	
20	579062	798610	278648	—	
21	588528	807298	279370	742993	gorge
22	597213	820656	279861	744116	
23	609874	850537	280558	745868	
24	623190	877629	279861	744116	Bad No. 2 - Ed
25	~~648966~~	~~936574~~	~~282652~~	~~751113~~	
26	637502	907894	281949	749342	
27	648966	936579	282652	751113	
28	661291	963456	283370	752954	
29	676855	003262	—	—	Ed
30	688266	034462	284839	756467	
31	~~699635~~	064960	285412	757911	
4/1	712351	094577	286114	~~759726~~	
			287012	763334	S.S.
			4/2 →		

SCOEPA00034887

WACKER

CENTRAVAC OPERATING LOG

DATE: **DAYS:** **SWING:** **GRAVE:**

	Amb. Temp.	Amps.		Oil Temp		Oil Level		Oil Press		Evap Press		Cond Press		Cond. ΔP		Cond In Temp		Cond Out Temp		Chilled Δ P		Chilled In Temp		Chilled Out Temp	
	X	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
0000																									
0200																									
0400																									
0600																									
0800																									
1000																									
1200																									
1400																									
1600																									
1800																									
2000																									
2200																									

Comments:

Eng. Form No. 24

SCOEPA00034888

EFFICIENCY® LINE 22-213

MONTH: March
YEAR: 1982

Wastewater Report (Columns are in mg/L and Kg/Day respectively, m^3/Day, and pH units/ ^oC)

		Process Flow	BOD		TSS		Cr^{6+}		Cr		F^-		MV#3 Flow	$PO_4^{\equiv}$	CD pH/T	MV3 pH/T
1		894.3											653.0			
2		1067.9											646.9			
3		1004.5											675.3			
4		1105.5											705.6			
5	*	952.2	28	26.6	34	32.4	<0.001	<0.001	<0.003	<0.003	3.6	3.4	649.6	0.1	7.0/18.1	5.8/11.2
6		410.1											723.4)			
7		706.9											767.7			
8		805.5											(533.4)			
9		855.7											749.1)			
10		833.0											748.8			
11		1017.4											787.3)			
12	*	970.9	30	29.1	10	9.7	0.001	0.001	<0.003	<0.003	5.4	5.2	(771.9)	<0.1	6.9/16.4	6.2/12.3
13		651.5											(771.9)			
14		475.9											453.5			
15		1219.4											720.7			
16		1171.7											733.6			
17		1179.0											727.6			
18		1140.7											735.5			
19	*	803.3	30	24.1	25	20.1	0.007	0.005	0.018	0.014	4.8	3.9	(692.4)	<0.1	7.8/18.3	5.3/12.4
20		328.9											(692.4)			
21		505.7											425.1			
22		1131.1											663.2			
23		1025.6											(657.5)			
24		1145.7											(657.5)			
25		1085.9											670.4			
26	*	1017.4	44	44.8	26	26.5	0.001	0.001	0.016	0.016	3.9	4.0	696.9	0.1	7.3/17.8	3.1/12.6
27		695.0											(664.9)			
28		811.8											(664.9)			
29	one sample	1181.1											546.6			
30	936.0 on slope	1154.5											687.1			
31		1121.1											(682.9)		6.9/7.8	3.1/6.2
	Ave.	918.4	33	31.1	23.8	22.2	0.002	0.002	0.008	0.008	4.4	4.1	675.4	0.1	18.3	12.6
	Min./Max.	410.1/1219.4	28/44	24.1/44.8	10/34	9.7/32.4	Ø/0.007	Ø/0.005	Ø/0.018	Ø/0.016	3.6/5.4	3.4/5.2	453.5/771.9	Ø/0.1		

SCOEPA00034889

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

TO: DISTRIBUTION
DATE: 3-5-82
ANALYSTS: Elinor Gordon Sam

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 3/5/82	–								
Time 1345	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲28	+327			
TSS	mg/l	–	15	30	▲34	+104			
F^-	mg/l	–	6	20	▲3.6				
Cr^{6+}	mg/l	–	0.02	0.05	▲<0.001				
Cr^{total}	mg/l	–	0.3	1	▲<0.003				
Phosphates	mg/l	–	2	5			▲0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲5.8	▲7.0	
Temperature	°C	–	–	27			▲11.2	▲18.1	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034890

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

TO: DISTRIBUTION
DATE: 3-12-82
ANALYSTS: Elinor Gorden Sam

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	-	NPDES PARAMETER LIMITS							
Date 3/12/82	-								
Time 1250	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	-	15	30	▲ 30	+ 281			
TSS	mg/l	-	15	30	▲ 10	+ 73			
F^-	mg/l	-	6	20	▲ 5.4				
Cr^{6+}	mg/l	-	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	-	0.3	1	▲ <0.003				
Phosphates	mg/l	-	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	-	0.2	0.5			▲		
pH	pH units	6	-	9			▲ 6.2	▲ 6.9	
Temperature	°C	-	-	27			▲ 12.3	▲ 16.4	
Turbidity	NTU	-	-	-					
Conductivity	μmho's cm	-	-	-					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS
WAD drain Automat #4 grab BOD 4.2 mg/L
it is uncertain what effect low level peroxide in this sample has on the test.

SCOEPA00034891

WEEKLY WASTEWATER ANALYSIS

TO: DISTRIBUTION
DATE: 3-19-82
ANALYSTS: Elmer Gordon Sam

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

SAMPLE LOCATION					Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 3/19/82	–								
Time 1410	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 30	+ 380			
TSS	mg/l	–	15	30	▲ 25	+ 164			
F^-	mg/l	–	6	20	▲ 4.8				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.007				
Cr^{total}	mg/l	–	0.3	1	▲ 0.018				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.3	▲ 7.8	
Temperature	°C	–	–	27			▲ 12.4	▲ 18.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034892

MACKEY SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

TO: DISTRIBUTION
DATE: 3-26-82
ANALYSTS: Elinor Gorden Sam

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 3/26/82	–								
Time 1215	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 44	+ 391			
TSS	mg/l	–	15	30	▲ 26	+ 64			
F^-	mg/l	–	6	20	▲ 3.9				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.001				
Cr^{total}	mg/l	–	0.3	1	▲ 0.016				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 3.1	▲ 7.3	
Temperature	°C	–	–	27			▲ 12.6	▲ 17.8	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034893

4-16-82

pH VIOLATIONS

	DATE	TIME		DURATION	max/min pH
1.	3-1-82	11:30 pm		15 min.	5.2
2.	3-4	2:00 pm		2 HRS	11.6
3.	3-5	2:00 pm	(regen)	50 min.	3.9/10.0
4.	3-6	6:00 pm		5 HRS	5.0
5.	3-8	1:00 am		1 HR.	9.8
6.	3-8	4:00 am		1:45	9.8
7.	3-8	6:00 pm		1:00	10.3
8.	3-10	12:00 noon	(regen)	2:45	4.0/11.6
9.	3-13	5:00 pm		3:30	12.4
10.	3-15	10:30 am		1:45	3.1/10.7
11.	3-16	10:45 am		0:30	10.2
12.	3-18	4:10 pm	(regen)	2:30	11.9
13.	3-24	6:20 pm		0:45	5.4/9.2
14.	3-25	10:45 am	(regen)	2:00	3.2/11.4
15.	3-27	7:45 pm		2:00	11.3
16	3-29	11:45 am	(regen)	0:45	10.4/3.4
17.	3-30	6:15 pm		1:20	11.4

SCOEPA00034894

4-16-82

pH VIOLATIONS

	DATE	TIME	DURATION	max/min pH
1.	3-1-82	11:30 pm	15 min.	5.2
2.	3-4	2:00 pm	2 HRS	11.6
3.	3-5	2:00 pm (regen)	50 min.	3.9/10.0
4.	3-6	6:00 pm	5 HRS	5.0
5.	3-8	1:00 am	1 HR.	9.8
6.	3-8	4:00 am	1:45	9.8
7.	3-8	6:00 pm	1:00	10.3
8.	3-10	12:00 noon (regen)	2:45	4.0/11.6
9.	3-13	5:00 pm	3:30	12.4
10.	3-15	10:30 am	1:45	3.1/10.7
11.	3-16	10:45 am	0:30	10,2
12.	3-18	4:10 pm (regen)	2:30	11.9
13.	3-24	6:20 pm	0:45	5.4/9.2
14.	3-25	10:45 am (regen)	2:00	3.2/11.4
15.	3-27	7:45 pm	2:00	11.3
16	3-29	11:45 am (regen)	0:45	10.4/3.4
17.	3-30	6:15 pm	1:20	11.4

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME (W)ACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) OR0030058-9 — PERMIT NUMBER
(17-19) 023 — DISCHARGE NUMBER

2834-J
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	02	01	TO	82	02	28
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	QUANTITY OR LOADING (54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	QUALITY OR CONCENTRATION (46-53) AVERAGE	QUALITY OR CONCENTRATION (54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	844.1	1256.3	m^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	34.3	46.1	kg/d	30	39.5	56	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
TSS	SAMPLE MEASUREMENT	34.3	52.9	kg/d	13	38	54	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
Cr^{6+}	SAMPLE MEASUREMENT	0.002	0.002	kg/d	0.002	0.002	0.003	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24HC
Cr TOTAL	SAMPLE MEASUREMENT	0.002	0.003	kg/d	0.001	0.002	0.003	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24HC
F^-	SAMPLE MEASUREMENT	4.3	4.9	kg/d	3.6	4.5	5.1	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24HC
pH	SAMPLE MEASUREMENT	—	—	—	2.3	—	12.4	pH UNITS	19	DAILY	CONT
	PERMIT REQUIREMENT	—	—		6	—	9		0	DAILY	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENG'G
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 03 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034896

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME W[illegible]ER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030358-9
(17-19) DISCHARGE NUMBER: 023

2834-J
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	02	01	TO	82	02	28
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL PO_4^E	SAMPLE MEASUREMENT	—	—	—	0.1	0.9	2.1	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	625.5	782.1	M^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	TOTAL RECORD
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.8	—	7.4	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	18.2	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	ϕ	ϕ	ϕ	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	1/7	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN FITTMAN
DIRECTOR OF ENG'G
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

John Fittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 03 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SCOEPA00034897

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

February 5, 1982

Department of Environmental Quality
Northwest Region
Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Subject: N.P.D.E.S. Permit No. OR003058-9

Attention: Chuck Clinton

Dear Sir:

During the month of January, the effluent BOD and pH control remained a problem. A three man committee has been formed to exhaust any minor or administrative changes that remain which may reduce these problems. In addition, the committee has been assigned the task of preparing process evaluations and cost estimates for modifications to the plant to bring these parameters within specifications.

During the month of January, the flow on sampling dates averaged 827.6 m^3 per day, in comparison with the monthly average flow of 826.4 m^3 per day.

Status of the BOD, TSS, and Fluoride levels is presented graphically in Figure 1 attached.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis

James R. Ellis
Facilities Manager

JE/kk

Attachment
cc: Steve Beiswenger
Dirk Dunning
Gary Pendleton
John Pittman
Mal Russ
File

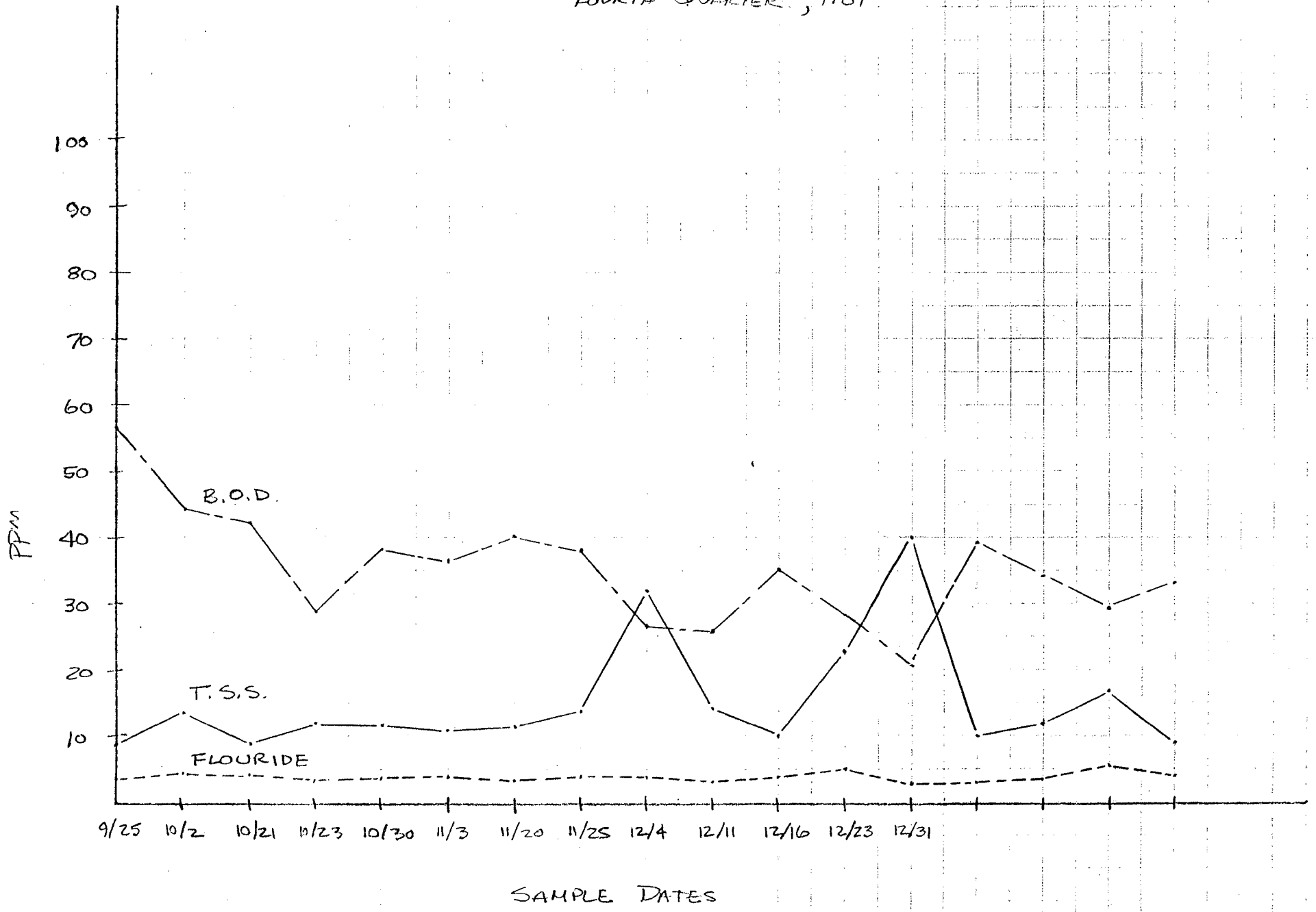
SCOEPA00034898

DD
12/81

FIGURE NO. 1 — WACKER SILTRONIC CORP.

N.P.D.E.S. DISCHARGE PARAMETERS

FOURTH QUARTER, 1981



SCOEPA00034899

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME WACKER SILTRONIC CORP

ADDRESS P.O. BOX 03180

PORTLAND, OREGON 97203-0180

FACILITY HYPER-PURE SILICON PLANT

LOCATION 7200 N.W. FRONT AVE.

PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030849

(17-19) DISCHARGE NUMBER: 022

2834-5

File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	01	01	TO	82	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	826.4	1185.0	m^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	27.6	31.7	kg/d	29	33.8	39	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
TSS	SAMPLE MEASUREMENT	10.1	16.2	kg/d	9	12	17	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
Cr^{6+}	SAMPLE MEASUREMENT	0.004	0.007	kg/d	0.003	0.004	0.007	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24HC
Cr Total	SAMPLE MEASUREMENT	0.004	0.008	kg/d	0.002	0.004	0.008	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24HC
F^-	SAMPLE MEASUREMENT	3.6	5.2	kg/d	3.3	4.2	5.5	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24HC
pH	SAMPLE MEASUREMENT	—	—	—	2.0	—	11.2	pH UNITS	17	DAILY	CONT
	PERMIT REQUIREMENT	—	—		6	—	9		0	DAILY	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

JOHN FITTMAN
DIRECTOR OF ENG.

TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Fittman

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 02 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034900

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME: WACKER SILTRONIC CORP.
ADDRESS: P.O. BOX 03180
PORTLAND, OREGON 97203-0180
HYPER-PURE SILICON PLANT
FACILITY: 7200 N.W. FRONT AVE
LOCATION: PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 0030058-9
(17-19) DISCHARGE NUMBER: 022

2834-5
File no. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	01	01	TO	82	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN	SAMPLE MEASUREMENT	—	—		Ø	0.1	0.2	mg/l	0	1/7	GRAB
TOTAL $PO_4^{\equiv}$	PERMIT REQUIREMENT	—	—	—	—	2.0	5.0		0	1/7	GRAB
FLOW	SAMPLE MEASUREMENT	694.8	1308.6	M^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	TOTAL RECORD
—	SAMPLE MEASUREMENT	—	—		—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—	—	—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—		7.1	—	7.8	pH	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—	—	6.0	—	9.0	UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—		—	—	21.5	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—	—	—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—		Ø	Ø	Ø	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—	—	—	0.2	0.5		0	1/7	GRAB
—	SAMPLE MEASUREMENT	—	—		—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—	—	—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENG
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 02 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034901

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
OR 0030858-9	022

2834-5
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	01	01	TO	82	01	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COMBINED PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	826.4	1185.0	M^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	27.6	31.7	kg/d	29	33.8	39	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	10.1	16.2	kg/d	9	12	17	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
Cr 6+	SAMPLE MEASUREMENT	0.004	0.007	kg/d	0.003	0.004	0.007	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
Cr Total	SAMPLE MEASUREMENT	0.004	0.008	kg/d	0.002	0.004	0.008	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
F-	SAMPLE MEASUREMENT	3.6	5.2	kg/d	4.3	4.2	5.5	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
PH	SAMPLE MEASUREMENT	—	—	—	2.0	—	11.2	PH UNITS	17	DAILY	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE AREA CODE	TELEPHONE NUMBER	DATE YEAR	DATE MO	DATE DAY
W.J. FITTMAN DIRECTOR OF ENG.			503	243-2020	82	02	
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 1 OF 2

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
OR 0030858-9	022

2834-5
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	82	01	01	TO	82	01	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	Ø	0.1	0.2	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	694.8	1308.6	M^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL PH	SAMPLE MEASUREMENT	—	—	—	7.1	—	7.8	PH UNITS	0	1/D	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	21.5	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	Ø	Ø	Ø	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE AREA CODE	TELEPHONE NUMBER	DATE YEAR	DATE MO	DATE DAY
W.J. FITTMAN DIRECTOR OF ENG.			503	243-2020	82	02	
TYPED OR PRINTED							

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 2 OF 2

SCOEPA00034902

EFFICIENCY LINE 22-213

MONTH: JAN
YEAR: 1982

Wastewater Report (Columns are in mg/L and Kg/Day respectively, m^3/Day, and pH units/ ^oC)

		Process Flow	BOD		TSS		Cr^{6+}		Cr		F^-		MV#3 Flow	$PO_4^{\equiv}$	CD pH/T	MV3 pH/T
1	* (12/31)	381.7											522.4			
2		488.5											755.2			
3		688.6											696.9			
4		987.9											655.3			
5		1091.0											948.6			
6		1012.3											1308.6			
7		1055.0											788.1			
8	*	691.3	39	27.0	10	6.9	0.003	0.002	0.003	0.002	3.3	2.3	587.5	0.2	7.7/17.3	5.8/7.2
9		337.1											616.6			
10		689.9											663.6			
11		1089.1											764.7			
12		1013.9											725.7			
13		1064.3											738.2			
14		969.1											784.7			
15	* 6-DAY BOD	705.5	34	24.0	12	8.5	0.004	0.003	0.003	0.002	3.9	2.8	(756.2)	<0.1	7.0/19.4	6.4/6.9
16		468.9											(756.2)			
17		699.0											(756.2)			
18		1185.0											495.1			
19		1075.0											703.3			
20		1005.3											707.5			
21		1049.1											685.2			
22	*	951.5	29	27.6	17	16.2	0.007	0.007	0.008	0.008	5.5	5.2	620.4	<0.1	7.8/20.5	7.1/7.3
23		615.3											550.8			
24		706.7											(645.1)			
25		968.8											(645.1)			
26		927.2											(645.1)			
27		992.2											(645.1)			
28		913.7											680.4			
29	*	962.0	33	31.7	9	8.7	0.004	0.004	0.003	0.003	4.2	4.0	636.3	0.1	7.3/19.2	6.2/8.4
30		332.2											538.7			5.9-7.1
31		502.6											576.5			
	Ave.	826.4	33.8	27.6	12.0	10.1	0.004	0.004	0.004	0.004	4.2	3.6	694.8	0.1	7.1-7.8	
	Min./Max.	332.2/1185.0	29/39	24.9/31.7	9/17	6.9/16.2	0.003/0.007	0.002/0.007	0.003/0.008	0.002/0.008	3.3/5.5	2.3/5.2	495.1/1308.6	Ø/0.2	21.5	8.4

SCOEPA00034903

8

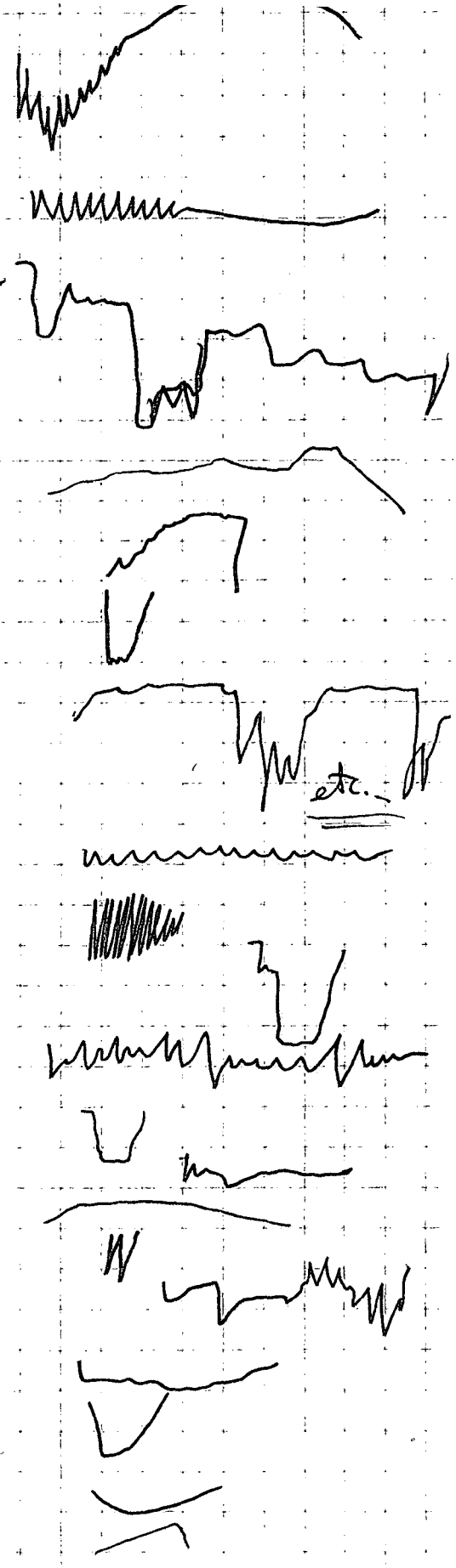
15

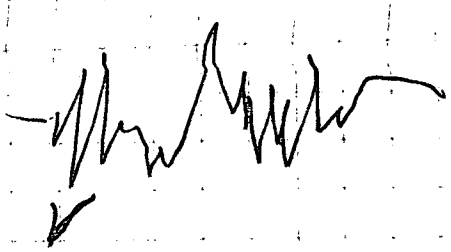
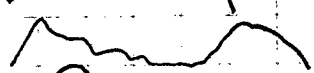
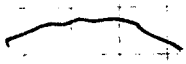
22

29

January 1982

		low	high
1-27	1520 – 1550	3.7	–
	1620 – 1800	–	11.2
1-25	1530 – 1750	5.5	–
1-24	0000 – 0015	–	10.3
	0105 – 0130	4.3	–
	0535 – 0537	5.6	–
1-23	1210 – 1430	–	10.7
	1430 – 1605 – ????	straight line	
	1620 – 1650	–	10.2
	1650 – 1720	3.1	–
	1725 – 2400	3.2	10.9
1-21	0000 – 0300	5.7	–
1-19	0000 – 0015	5.2	–
	0325 – 0420	2.4	–
	0940 – 1450	4.6	–
1-18	0145 – 0250	4.1	–
	0220 – 0300	4.8	–
	0345 – 0415	–	9.3
	0545 – 1550	5.4	–
	2255 – 2400	4.6	–
1-12	0705 – 0740	5.5	–
	1830 – 1800	2.5	–
	1850 – 1910	5.6	–
	2050 – 2105	–	9.2



		min pHs	max	
1-11	0805 – 0900	5.0	9.8	
	1050 – 1055	5.5	—	
1-10	1120 – 1135	—	9.2	
	1715 – 1750	3.2	—	
1-7	0330 – 0415	—	9.6	
	0715 – 0835	—	11.0	
	0935 – 0950	—	11.2	
	0955 – 1055	1.95	—	
1-6	0930 – 0945	—	9.2	
1-5	2000 – 2250	5.7	—	
1-4	1815 – 1930	5.7	—	

Through 1-27

min = 1.95
max = 11.2
days = 14 +3

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

TO: DISTRIBUTION
DATE: 1-8-82
ANALYSTS: Elinor Gordon Sam

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/8/82	–								
Time 1320	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 39	+ 319			
TSS	mg/l	–	15	30	▲ 10	+ 136			
F^-	mg/l	–	6	20	▲ 3.3				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.003				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.2		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 5.8	▲ 7.7	
Temperature	°C	–	–	27			▲ 7.2	▲ 17.3	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034907

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

TO: DISTRIBUTION
DATE: 1-15-82
ANALYSTS: Elmer Gordon Sam

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/15/82	–								
Time 1600	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 34 *	+ 497 *			
TSS	mg/l	–	15	30	▲ 12	+ 98			
F^-	mg/l	–	6	20	▲ 3.9				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.004				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ < 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.4	▲ 7.1	
Temperature	°C	–	–	27			▲ 6.9	▲ 19.4	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS
* These are 6-day BOD's due to lack of time on 5th day

SCOEPA00034908

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR
FILE

TO: DISTRIBUTION
DATE: 1-22-82
ANALYSTS: Elinor Gordon Sam

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/22/82	–								
Time 15 10	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 29	+ 389			
TSS	mg/l	–	15	30	▲ 17	+ 85			
F^-	mg/l	–	6	20	▲ 5.5				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.007				
Cr^{total}	mg/l	–	0.3	1	▲ 0.008				
Phosphates	mg/l	–	2	5			▲ <0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 7.1	▲ 7.8	
Temperature	°C	–	–	27			▲ 7.3	▲ 21.5	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

SCOEPA00034909

WACKER SILTRONIC

WEEKLY WASTEWATER ANALYSIS

DISTRIBUTION:
FACILITIES MGR.
FACILITIES OP. SUPR.
ENVIRONMENTAL ENGR.
FILE

TO: DISTRIBUTION
DATE: 1-29-82
ANALYSTS: Elinor Gordon, Sam

SAMPLE LOCATION	–	–	–	–	Process Wastewater To River	Organic Wastewater To Sewer	Meter Vault No. 3 To River	Combined Discharge To River	
Collected By S Pengelly	–	NPDES PARAMETER LIMITS							
Date 1/29/82	–								
Time 1420	UNITS	MIN	NOM	MAX					
5 day-BOD	mg/l	–	15	30	▲ 33	+ 349			
TSS	mg/l	–	15	30	▲ 9	+ 131			
F^-	mg/l	–	6	20	▲ 4.2				
Cr^{6+}	mg/l	–	0.02	0.05	▲ 0.004				
Cr^{total}	mg/l	–	0.3	1	▲ 0.003				
Phosphates	mg/l	–	2	5			▲ 0.1		
Free Avail. Chlorine	mg/l	–	0.2	0.5			▲		
pH	pH units	6	–	9			▲ 6.2	▲ 7.3	
Temperature	°C	–	–	27			▲ 8.4	▲ 18.2	
Turbidity	NTU	–	–	–					
Conductivity	μmho's cm	–	–	–					

▲ Marked items are NPDES Parameters.
▲,+ Marked items are to be tested Weekly (free_avail. chlorine only during chlorination).

COMMENTS

Dirk Dunning

RECEIVED
FEB 3 1982
WACKER SILTRONIC
ENGINEERING

WWTP Flow Data

B: DWWTP 12 [redacted]

B: DWTP 12 82

Form B: DWTP 12 82 on #4

Day of yr	Month of yr	Day of mo	OWW Totalizer	Combined Totalizer	MU 2 Totalizer	MU 3 Totalizer	Δ OWW ÷ 26.42	Δ Combined ÷ 26.42	Δ MU2 ÷ 26.42	Δ MU3 ÷ 2.642

DEF data B: DWTP122 (12 - [8] 2)

Blank for plotting B: DWTP 120

3

Data Summary

~~Fitdess~~ Titles

SUM	SUM	SUM	SUM
AVG	AVG	AVG	AVG
MAX	MAX	MAX	MAX
MIN	MIN	MIN	MIN

K 3-33

53 -

N 53
56
59
62
65

A 68

O - open

76 ***

92

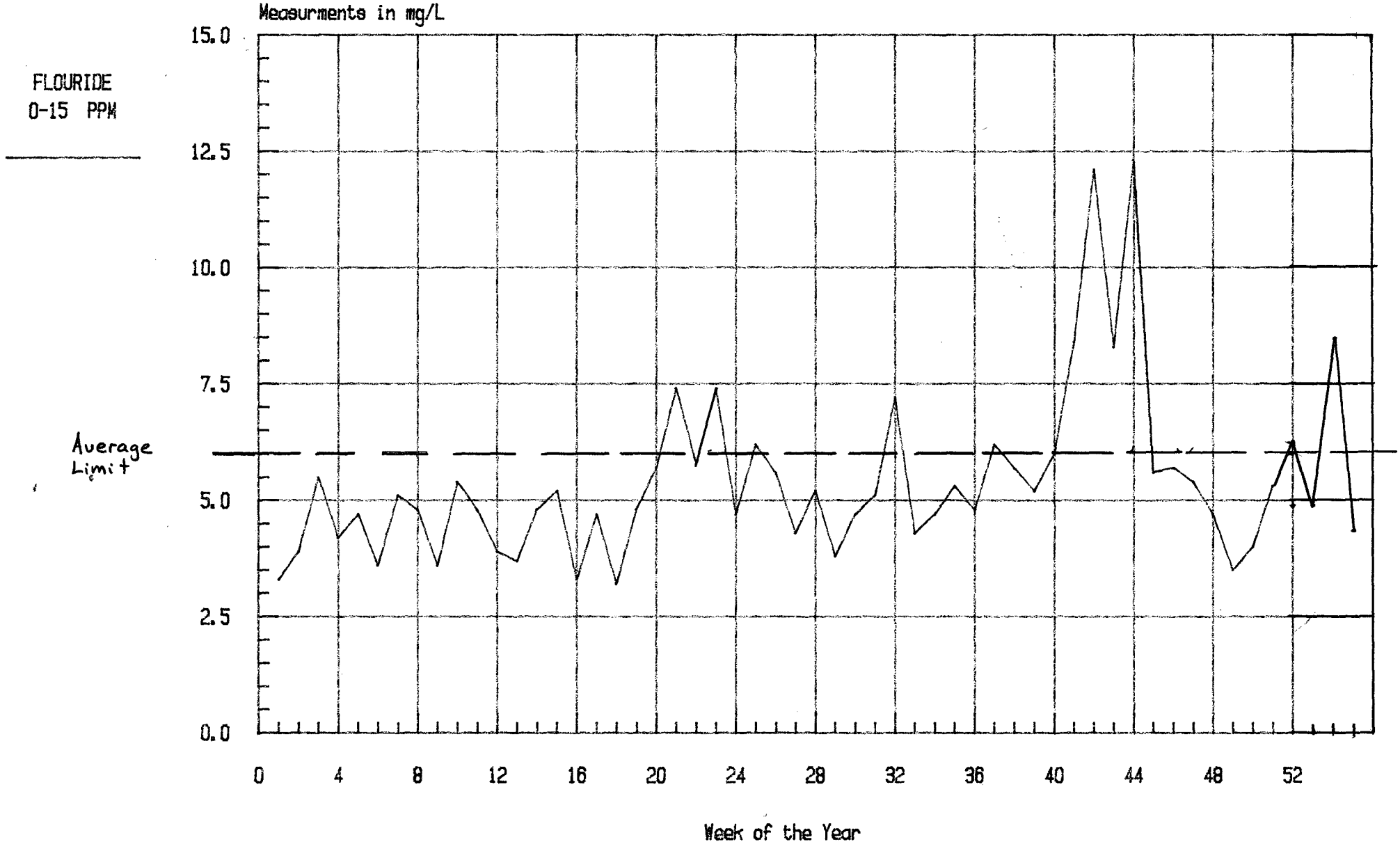
93 old

M

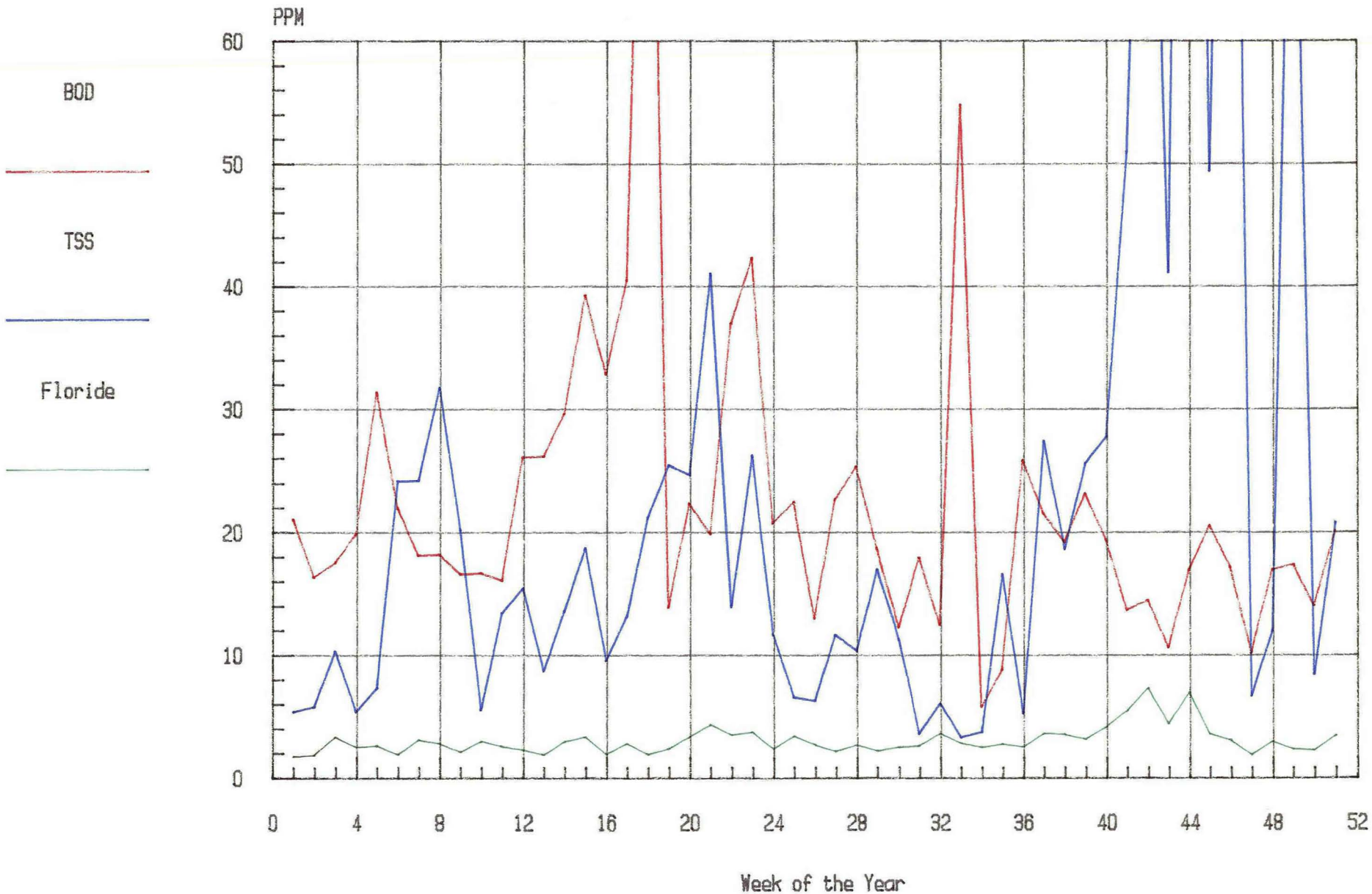
77

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters

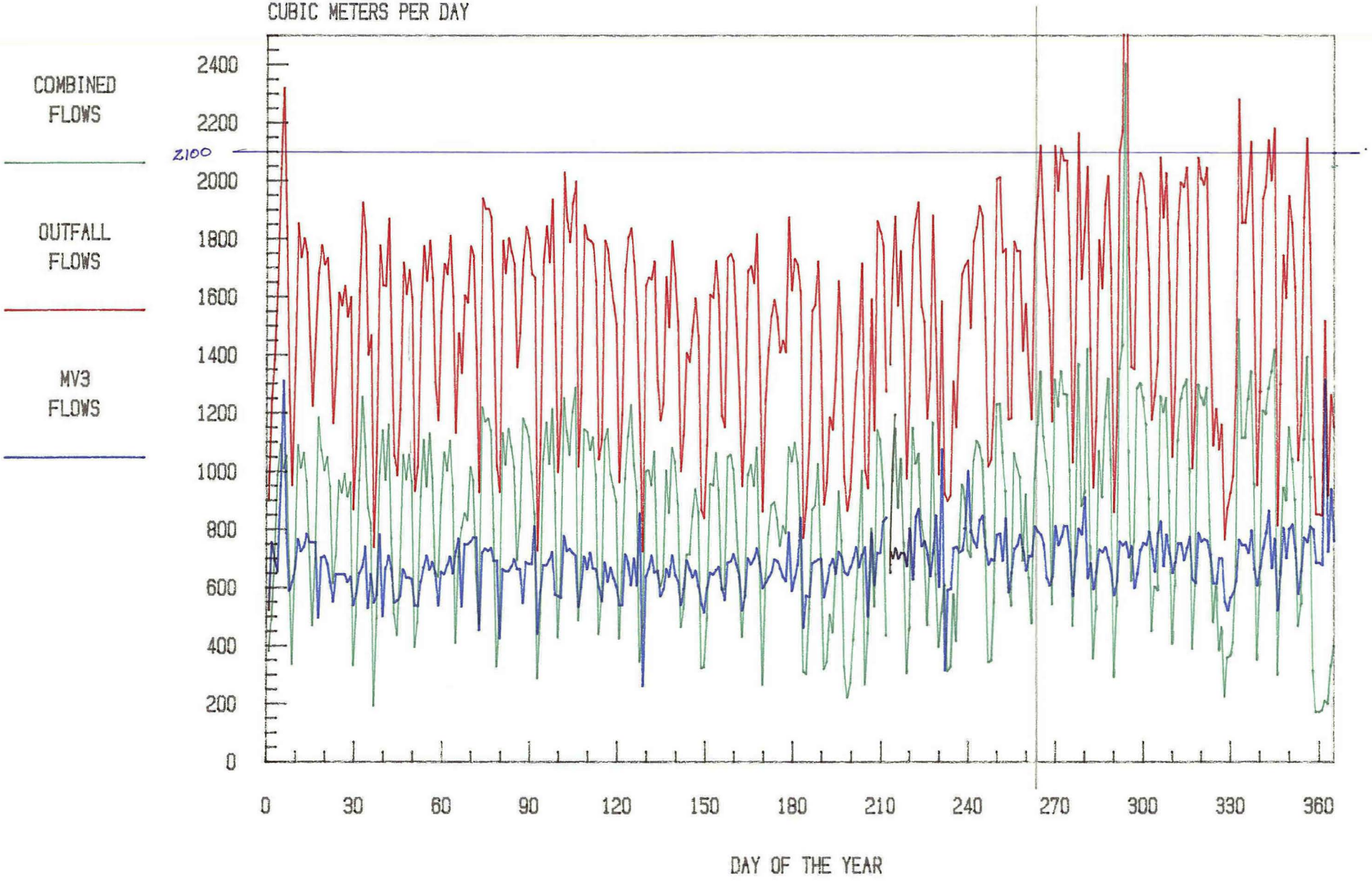


Corrected Concentrations NPDES



COMBINED, MV3 & OUTFALL FLOWS

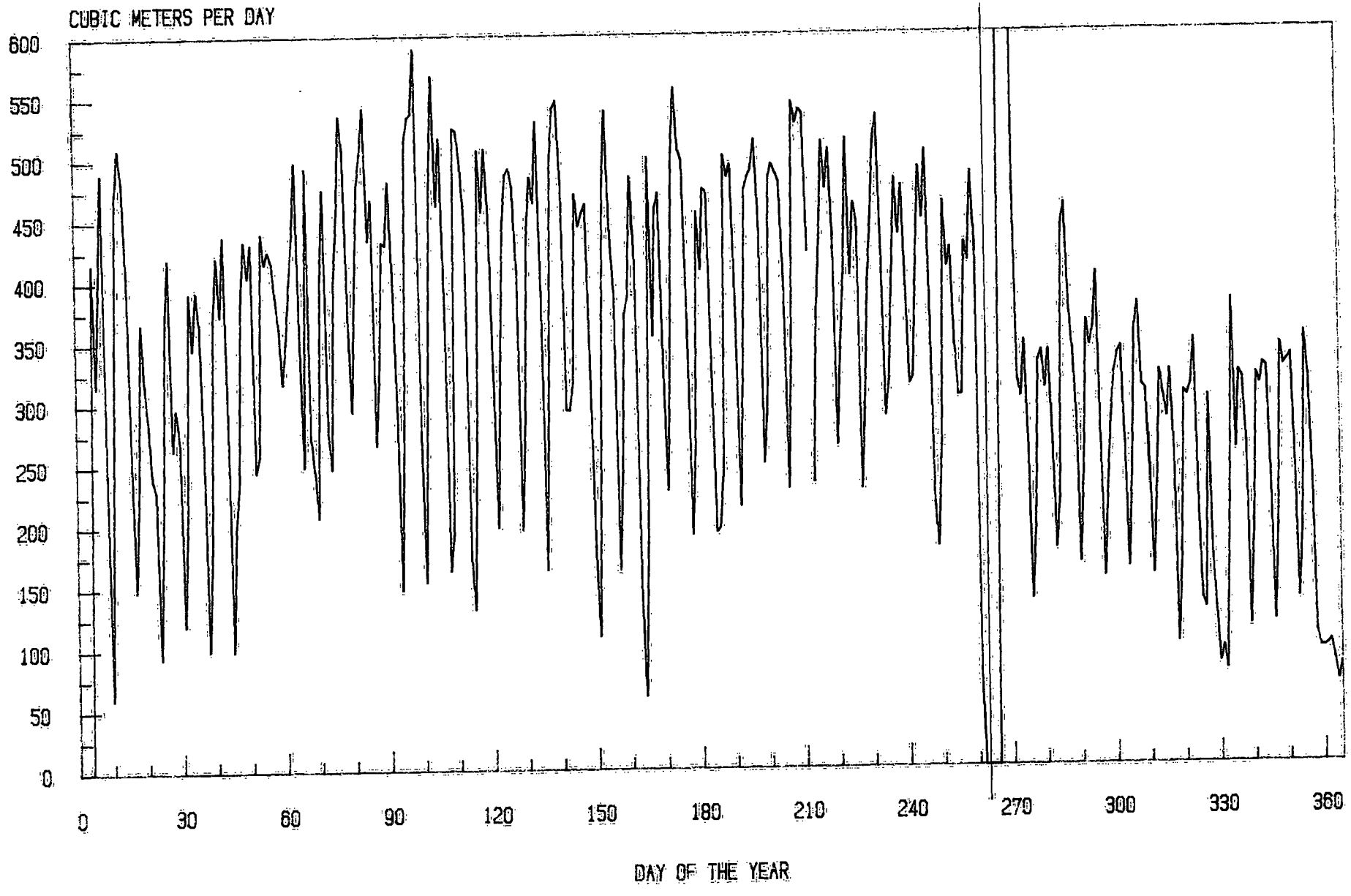
1982



SCOEPA00034915

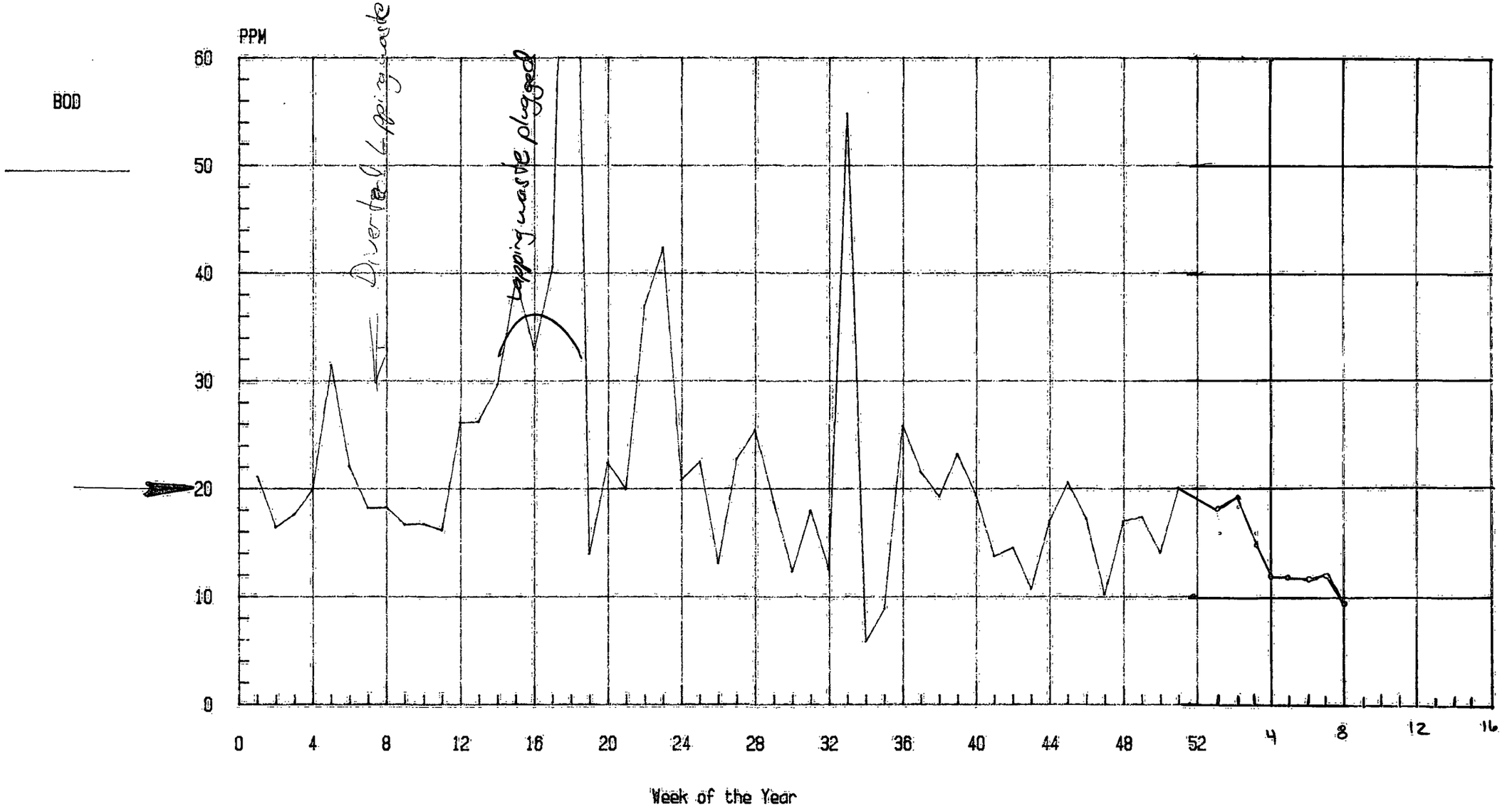
ORGANIC WASTE WATER FLOW TO CITY SEWER

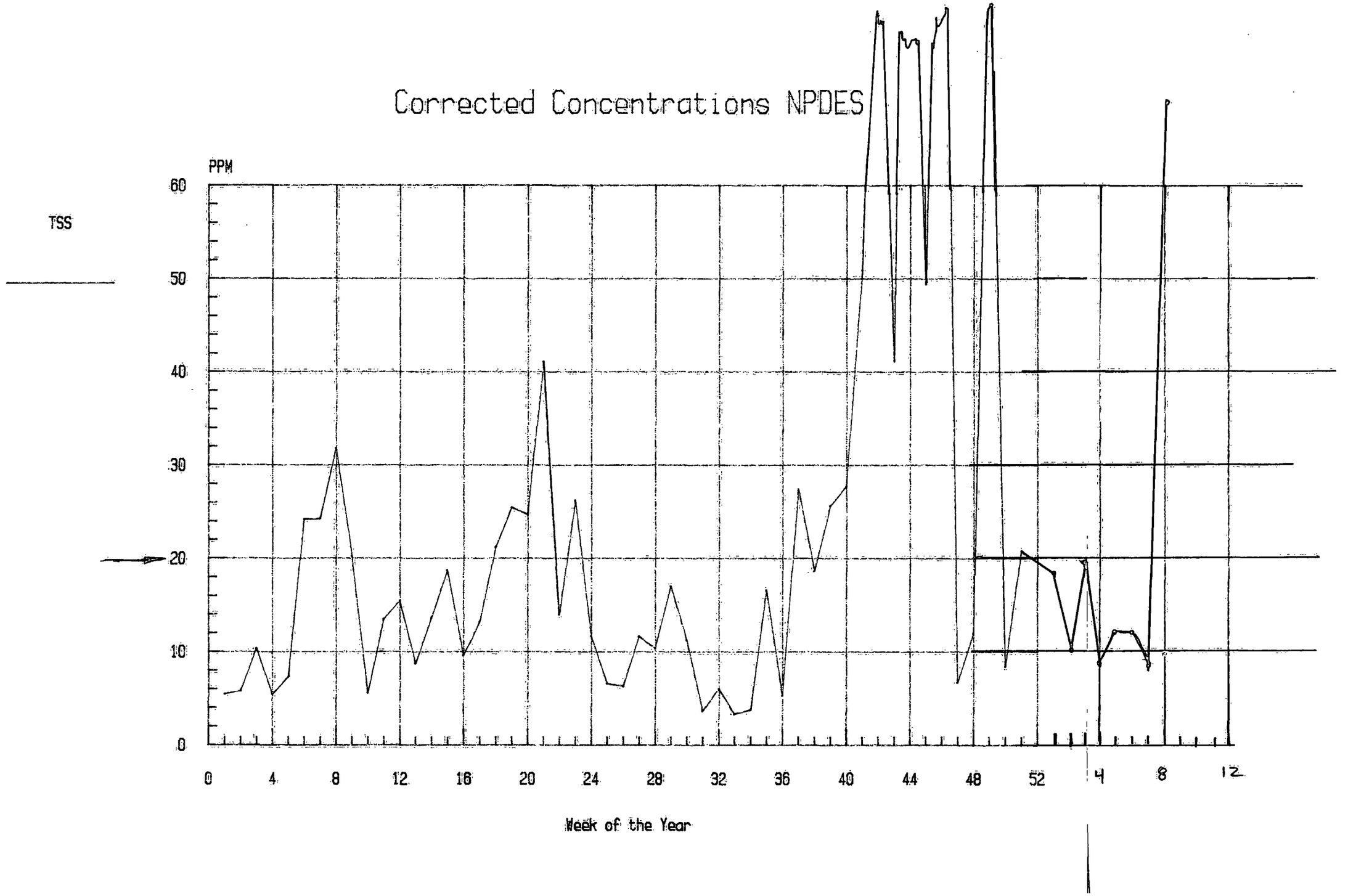
1982



SCOEPA00034916

Corrected Concentrations NPDES




Corrected Concentrations NPDES
PPM
TSS
60
50
40
30
20
10
0
0
4
8
12
16
20
24
28
32
36
40
44
48
52
4
8
12
Week of the Year

Corrected Concentrations NPDES

Flouride

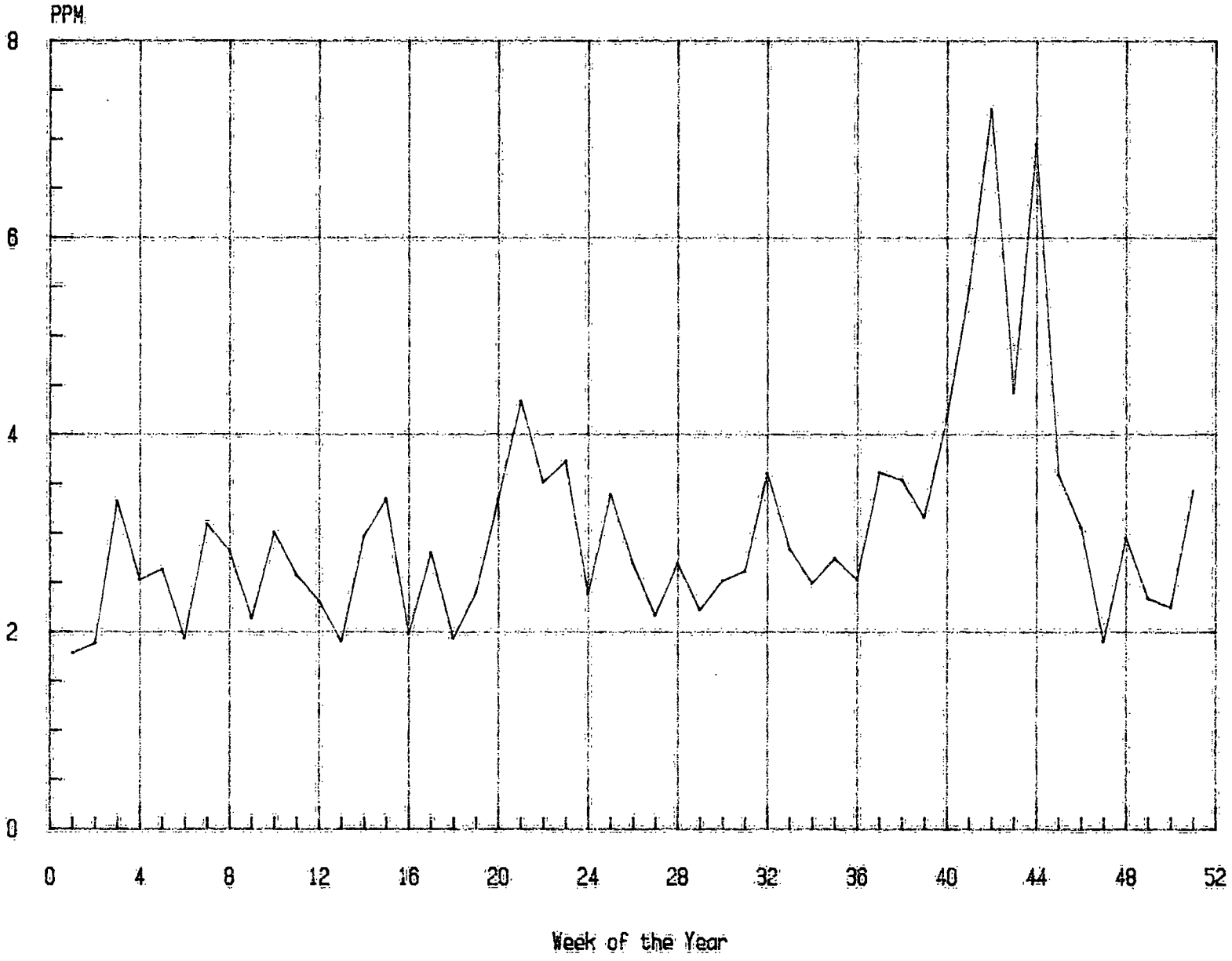


TABLE IV-4

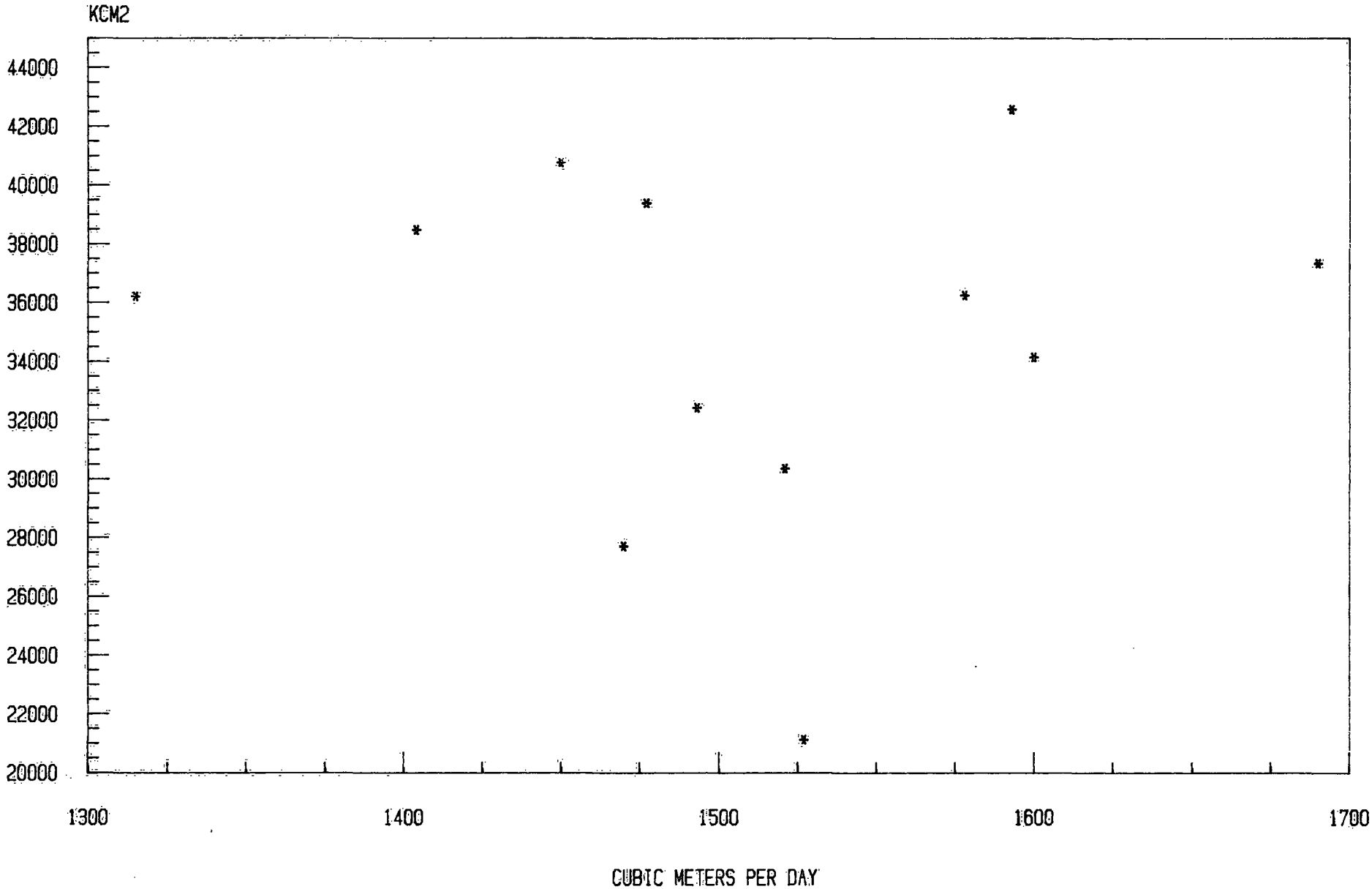
SUMMARY OF FLOW MONITORING AND RECORDING SYSTEMS

Waste Stream Identification	Flow Loop Designation	Flow Loop Description and Function
Neutralized Dilute Acid/ Caustic Wastewater flow from treatment plant (Process wastewater and clarifier effluent)	Loop 39-44	The flow sensing element is an in-line 4-inch magnetic flow meter located in meter vault No. 1. The flow signal is transmitted from the mag-meter by flow, indicating transmitter (FIT-39-44) also locally mounted in meter vault No. 1. The flow is recorded and totalized by flow recorder FR-39-44 and flow totalizer FQI-39-44 both mounted on LP-39-6 in the treatment building control room.
Neutralized Organic Wastewater flow from the treatment plant.	Loop 39-47	The flow sensing element is an in-line 2-inch magnetic flow meter located in meter vault No. 1. The analog flow signal is transmitted from the mag-meter to a remote recorder and totalizer by flow indicating transmitter FIT-39-47 which is also located in meter vault No. 1. The flow is recorded and totalized by flow recorder FR-39-47 and flow totalizer FQI-39-47 both of which are mounted on the main treatment system control panel LP-39-6.
Combined Sanitary Wastewater flow from both the main production building, the headquarters building, and the wastewater treatment building. In addition the emergency overflows from the Dilute Acid/ Caustic and Organic Wastewater sumps	Loop-39-49	The flow is sensed by a parshall flume (FE-39-49) with 3-inch throat width. The flume is mounted in meter vault No. 2 located to the north of the Wastewater Treatment building along the east side of the roadway. A combination flow indicator totalizer, transmitter (FIT-39-49) is locally mounted above meter vault No. 2 and transmits an analog flow signal to flow recorder FR-39-49 mounted on main control panel LP-39-6.
The combined relatively clean noncontact streams of Cooling Water Overflow, Boiler Blowdown, and Cooling Tower Blowdown.	Loop-39-50	Flow is sensed by a 9-inch throat parshall flume (FE-39-50) mounted in meter vault No. 3, which is located north of the solvent and acid storage building. Mounted above meter vault No. 3 is a flow indicating totalizer FIQ-39-50. The flow through FE-39-50 is totalized only but not recorded.

SCOEPA00034920

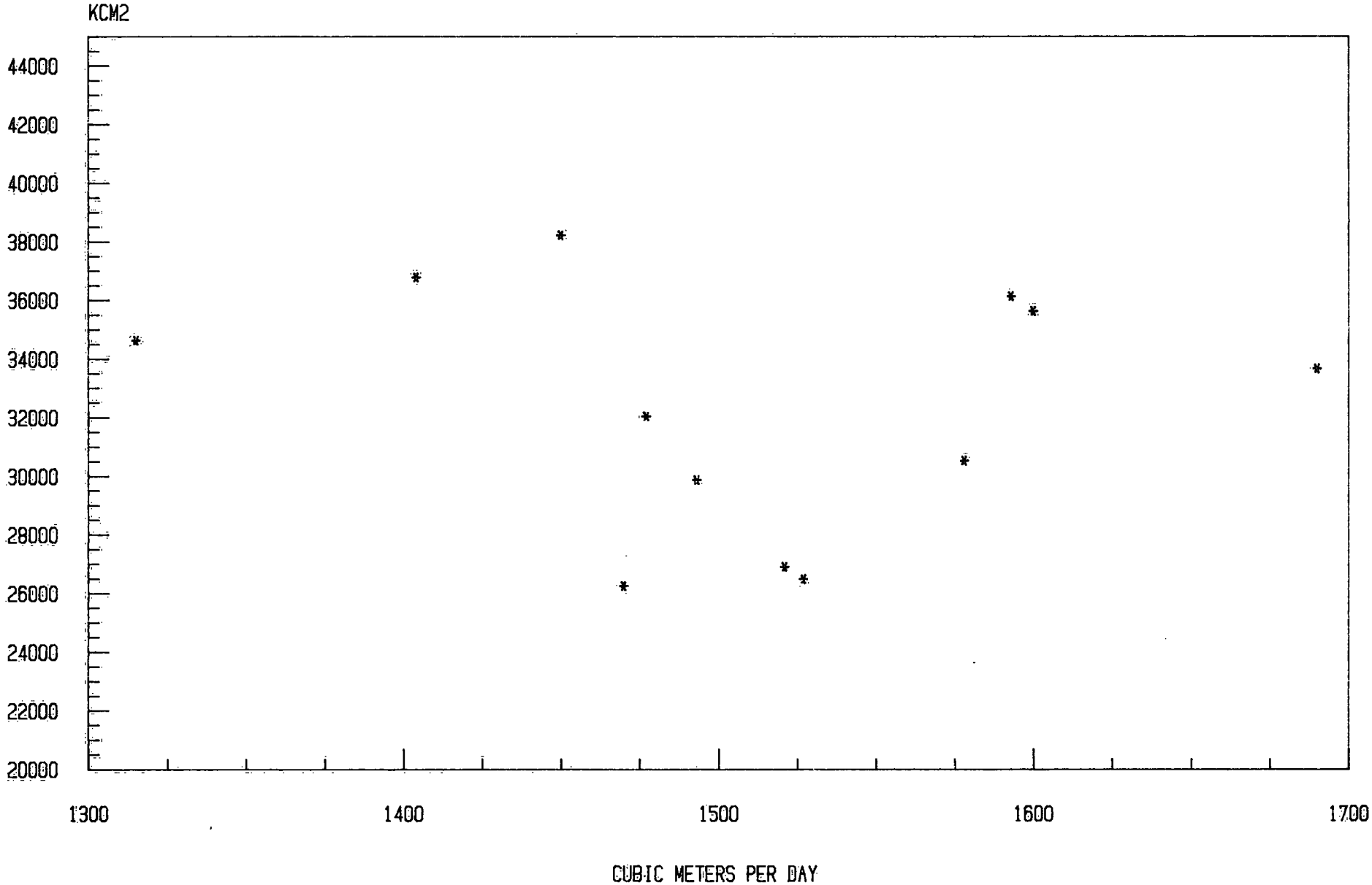
AVERAGE OUTFALL FLOW VS SECTION 7 PROD.

1982



AVERAGE OUTFALL FLOW VS SECTION 8 PROD.

1982



SCOEPA00034922

Flow Visicalk File B:DWWTPF82

	Day of yr	Day of mo	owner total	comB total	MV2	MV3	Δ owner x	Δ comB x	Δ MV2 x	Δ MV3 x
last day of '81	0									
1st day 82	1	1								
	↓	↓								
		↓								
		30								
		31								
		1								
		↓								

EFFICIENCY® LINE 22-213

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Outfall Flow													
Average	1521	1470	1593	1578	1404	1450	1315	1477	1600	1690	1493	1528	1510
Maximum	2321	1926	1940	2030	1837	1878	1862	1922	2119	3150	2277	2178	
Friday Average	1363	1543	1639	1667	1460	1425	1600	1399	1630	1976	1470	1647	1563
KCM² Section 7	30356	27703	42578	36246	38478	40773	36208	39386	34143	37352	32422	21116	
Section 8	26906	26255	36131	30525	36781	38223	34637	32038	35631	33670	29877	26490	

Max Max flow (Except Oct) → Oct 3151
January @ 2321
Nov 2277

Average Maximum Flow 2120 m³/day - 560,000 gallons/day
389 GPM

∴ Reasonable to ask for computed basis to be 2500 m³/day
vs 750 of present — ~~X's~~ 3⅓ X's present.

If we stick to MV1 flow (WADE CAD) Flows should be 1500 m³/day -
2 xs present flow basis

Flouride concentration — 6 ppm average
TSS — 20 ppm average 35 @ 30 dilution
BOD — 20 ppm average 35 @ 30 dilution

B:DWTP182 DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB BLANK	MV3 FLOW BLANK
m86"^E&k2S	0	0	31	921856							
TO STORE	1	1	1	921856				0	1	381.7	904.1	522.4
FLOW DATA	2	1	2	921856				0	2	488.5	1243.7	755.2
PUT CURSER	3	1	3	921856				0	3	688.6	1385.5	696.9
ON B3 AND	4	1	4	921856				0	4	987.9	1643.2	655.3
PUSH /S#S	5	1	5	932831				415.40500	5	1091	2039.6	948.6
ENTER FILE	6	1	6	941159				315.21575	6	1012.3	2320.9	1308.6
NAME AND	7	1	7	951690				398.59955	7	1055	1843.1	788.1
LOWER LEFT	8	1	8	964607				488.90992	8	691.3	1278.8	587.5
CORNER IS	9	1	9	971039				243.45193	9	337.1	953.7	616.6
M33. STORE	10	1	10	972636				60.446631	10	689.9	1353.5	663.6
AS A COLUM	11	1	11	979536				261.16578	11	1089.1	1853.8	764.7
(C)	12	1	12	991914				468.50871	12	1013.9	1739.6	725.7
XPAND	13	1	13	1005375				509.50038	13	1064.3	1802.5	738.2
TO 10	14	1	14	1018151				483.57305	14	969.1	1753.8	784.7
DIGITS	15	1	15	1028874				405.86677	15	705.5	1461.7	756.2
BEFORE	16	1	16	1035445				248.71310	16	468.9	1225.1	756.2
PRINT.	17	1	17	1039361				148.22104	17	699	1455.2	756.2
LOWER LEFT	18	1	18	1045209				221.34746	18	1185	1680.1	495.1
COLUMN OF	19	1	19	1054886				366.27555	19	1075	1778.3	703.3
WHOLE	20	1	20	1063251				316.61620	20	1005.3	1712.8	707.5
SHEET IS	21	1	21	1070745				283.64875	21	1049.1	1734.3	685.2
N84	22	1	22	1077054				238.79637	22	951.5	1571.9	620.4
	23	1	23	1083100				228.84179	23	615.3	1166.1	550.8
SETUP	24	1	24	1085570				93.489780	24	706.7	1351.8	645.1
STRING FOR	25	1	25	1090856				200.07570	25	968.8	1613.9	645.1
PRINTER IS	26	1	26	1100482				364.34519	26	927.2	1572.3	645.1
"^E&k2S	27	1	27	1111559				419.26571	27	992.2	1637.3	645.1
	28	1	28	1118524				263.62604	28	913.7	1534.1	620.4
	29	1	29	1126348				296.13929	29	962	1598.3	636.3
	30	1	30	1133547				272.48297	30	332.2	870.9	538.7
	31	1	31	1136709				119.68206	31	502.6	1079.1	576.5

TOTAL FLOW THIS MONTH OF OWW 8132.2104
TOTAL FLOW THIS MONTH COMBINED 25619.7
TOTAL FLOW THIS MONTH MV 2 47159
TOTAL FLOW THIS MONTH MV 3 21539.3
MAXIMUM FLOW THIS MONTH OWW 509.50038
MAXIMUM FLOW THIS MONTH COMB. 1185
MAXIMUM FLOW THIS MONTH MV2 2320.9
MAXIMUM FLOW THIS MONTH MV3 1308.6
MINIMUM FLOW THIS MONTH OF OWW 332.2
MINIMUM FLOW THIS MONTH COMB. 332.2
MINIMUM FLOW THIS MONTH MV2 870.9
MINIMUM FLOW THIS MONTH MV3 495.1
AVERAGE FLOW THIS MONTH OF OWW 262.32937
AVERAGE FLOW THIS MONTH COMB. 826.44194
AVERAGE FLOW THIS MONTH MV2 1521.2581
AVERAGE FLOW THIS MONTH MV3 694.81613

			OWW		METER VAULT THREE				COMBINED DISCHARGE		
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP				

B:DWTP282 DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB BLANK	MV3 FLOW BLANK
	31	1	31	136709							
TO STORE	32	2	1	142020				201.02195	1	968.9	1617.7	648.8
FLOW DATA	33	2	2	152345				390.80242	2	1256.3	1925.9	669.6
PUT CURSER	34	2	3	161472				345.45799	3	1085.1	1824.4	739.3
ON B3 AND	35	2	4	171834				392.20288	4	874.1	1402.5	528.4
PUSH /S#S	36	2	5	181521				366.65405	5	823.1	1468.1	645
ENTER FILE	37	2	6	188596				267.78955	6	192.8	740.9	548.1
NAME AND	38	2	7	191221				99.356548	7	493.2	1066.3	573.1
LOWER LEFT	39	2	8	195960				179.37169	8	996	1778.1	782.1
CORNER IS	40	2	9	205633				366.12415	9	1140.6	1640.7	500.1
M33. STORE	41	2	10	216733				420.13626	10	971.1	1638.5	667.4
AS A COLUM	42	2	11	226574				372.48297	11	1162	1870.3	708.3
(C)	43	2	12	238125				437.20666	12	772.6	1438.8	666.2
XPAND	44	2	13	245864				292.92203	13	508	1056.1	548.1
TO 10	45	2	14	248481				99.053747	14	436.9	989.6	552.7
DIGITS	46	2	15	253686				197.00984	15	645.5	1212.6	567.1
BEFORE	47	2	16	259780				230.65859	16	1057.8	1718.7	660.9
PRINT.	48	2	17	269873				382.02120	17	974.7	1610.7	636
LOWER LEFT	49	2	18	281317				433.15670	18	1057.8	1692.2	634.4
COLUMN OF	50	2	19	291990				403.97426	19	968.7	1598.2	629.5
WHOLE	51	2	20	303369				430.69644	20	396	933.9	537.9
SHEET IS	52	2	21	309845				245.11734	21	479.9	1015.9	536
N84	53	2	22	316646				257.41862	22	914.5	1534.2	619.7
	54	2	23	328260				439.59122	23	1108.5	1776.6	668.1
SETUP	55	2	24	339233				415.32930	24	947.4	1656.8	709.4
STRING FOR	56	2	25	350468				425.24603	25	1131.6	1794.8	663.2
PRINTER IS	57	2	26	361497				417.44890	26	978.9	1665.2	686.3
"^E&k2S	58	2	27	371752				388.15291	27	654	1304.7	650.7
	59	2	28	381326				362.37699	28	638.5	1176.4	537.9

TOTAL FLOW THIS MONTH OF OWW 9258.7812
TOTAL FLOW THIS MONTH COMBINED 23634.5
TOTAL FLOW THIS MONTH MV 2 41148.8
TOTAL FLOW THIS MONTH MV 3 17514.3
MAXIMUM FLOW THIS MONTH OWW 439.59122
MAXIMUM FLOW THIS MONTH COMB. 1256.3
MAXIMUM FLOW THIS MONTH MV2 1925.9
MAXIMUM FLOW THIS MONTH MV3 782.1
MINIMUM FLOW THIS MONTH OF OWW 192.8
MINIMUM FLOW THIS MONTH COMB. 192.8
MINIMUM FLOW THIS MONTH MV2 740.9
MINIMUM FLOW THIS MONTH MV3 500.1
AVERAGE FLOW THIS MONTH OF OWW 330.67076
AVERAGE FLOW THIS MONTH COMB. 844.08929
AVERAGE FLOW THIS MONTH MV2 1469.6

			OWW		METER VAULT THREE				COMBINED DISCHARGE		
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP				

SCOEPA00034925

B:DWTP382	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB FLOW	MV3 FLOW BLANK
	59	2	31	381326								
TO STORE	60	3	1	389696				316.80545	1	894.3	1547.3	653
FLOW DATA	61	3	2	398940				349.88645	2	1067.9	1714.8	646.9
PUT CURSER	62	3	3	409466				398.41030	3	1004.5	1679.8	675.3
ON B3 AND	63	3	4	420981				435.84406	4	1105.5	1811.1	705.6
PUSH /S#S	64	3	5	434123				497.42619	5	952.2	1601.8	649.6
ENTER FILE	65	3	6	443274				346.36639	6	410.1	1133.5	723.4
NAME AND	66	3	7	449852				248.97805	7	706.9	1474.6	767.7
LOWER LEFT	67	3	8	462855				492.16503	8	805.5	1338.9	533.4
CORNER IS	68	3	9	470067				272.97502	9	855.7	1604.8	749.1
M33. STORE	69	3	10	476557				245.64724	10	833	1581.8	748.8
AS A COLUM	70	3	11	482047				207.79712	11	1017.4	1774.7	757.3
(C)	71	3	12	492661				401.74111	12	970.9	1742.8	771.9
XPAND	72	3	13	505222				475.43528	13	651.5	1423.4	771.9
TO 10	73	3	14	512534				276.76003	14	475.9	929.4	453.5
DIGITS	74	3	15	519071				247.42619	15	1219.4	1940.1	720.7
BEFORE	75	3	16	529740				403.82286	16	1171.7	1905.3	733.6
PRINT.	76	3	17	541680				451.93036	17	1179	1906.6	727.6
LOWER LEFT	77	3	18	555815				535.01136	18	1140.7	1876.2	735.5
COLUMN OF	78	3	19	569250				508.51628	19	803.3	1495.7	692.4
WHOLE	79	3	20	579062				371.38531	20	328.9	1021.3	692.4
SHEET IS	80	3	21	586828				293.94398	21	505.7	930.8	425.1
N84	81	3	22	597213				393.07343	22	1131.1	1794.3	663.2
	82	3	23	609874				479.22029	23	1025.6	1683.1	657.5
SETUP	83	3	24	623190				504.01211	24	1145.7	1803.2	657.5
STRING FOR	84	3	25	637502				541.71083	25	1085.9	1756.3	670.4
PRINTER IS	85	3	26	648966				433.91370	26	1017.4	1714.3	696.9
"^E&k2S	86	3	27	661291				466.50265	27	695	1359.9	664.9
	87	3	28	668333				266.54050	28	811.8	1476.7	664.9
	88	3	29	676855				322.55867	29	1181.1	1727.7	546.6
	89	3	30	688266				431.90765	30	1154.5	1841.6	687.1
	90	3	31	699635				430.31794	31	1121.1	1804	682.9

TOTAL FLOW THIS MONTH OF OWW 12048.032
TOTAL FLOW THIS MONTH COMBINED 28469.2
TOTAL FLOW THIS MONTH MV 2 49395.8
TOTAL FLOW THIS MONTH MV 3 20926.6
MAXIMUM FLOW THIS MONTH OWW 541.71083
MAXIMUM FLOW THIS MONTH COMB. 1219.4
MAXIMUM FLOW THIS MONTH MV2 1940.1
MAXIMUM FLOW THIS MONTH MV3 771.9
MINIMUM FLOW THIS MONTH OF OWW 328.9
MINIMUM FLOW THIS MONTH COMB. 328.9
MINIMUM FLOW THIS MONTH MV2 929.4
MINIMUM FLOW THIS MONTH MV3 425.1
AVERAGE FLOW THIS MONTH OF OWW 388.64619
AVERAGE FLOW THIS MONTH COMB. 918.36129
AVERAGE FLOW THIS MONTH MV2 1593.4129
AVERAGE FLOW THIS MONTH MV3 675.05161

OWW			METER VAULT THREE				COMBINED DISCHARGE					
DATE	BOD	TSS	PHOSPHATE	pH	TEMP		pH	TEMP				

B:DWTP482	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB FLOW	MV3 FLOW BLANK
	90	3	31	699635								
TO STORE	91	4	1	712351				481.30204	1	996.6	1679.4	682.8
FLOW DATA	92	4	2	723151				408.78123	2	857.3	1667.3	810
PUT CURSER	93	4	3	731250				306.54807	3	289.1	729.3	440.2
ON B3 AND	94	4	4	735148				147.53974	4	511.8	1093.9	582.1
PUSH /S#S	95	4	5	742392				274.18622	5	1043.6	1720	676.4
ENTER FILE	96	4	6	755974				514.08024	6	1167.4	1844.2	676.8
NAME AND	97	4	7	770082				533.98940	7	1026.9	1721.4	694.5
LOWER LEFT	98	4	8	784272				537.09311	8	1215	1936.8	721.8
CORNER IS	99	4	9	799848				589.55337	9	929.6	1505.3	575.7
M33. STORE	100	4	10	806952				268.88721	10	428.7	999.9	571.2
AS A COLUM	101	4	11	811030				154.35276	11	631.8	1195.7	563.9
(C)	102	4	12	819627				325.39743	12	1252.1	2029.5	777.4
XPAND	103	4	13	832287				479.18244	13	1136.3	1863.8	727.5
TO 10	104	4	14	847281				567.52460	14	1058.9	1790.9	732
DIGITS	105	4	15	859491				462.14989	15	1204.2	1925.2	721
BEFORE	106	4	16	873133				516.35125	16	1286.9	1998.1	711.2
PRINT.	107	4	17	883199				380.99924	17	487.3	1019.8	532.5
LOWER LEFT	108	4	18	887516				163.39894	18	668.5	1267.7	599.2
COLUMN OF	109	4	19	892613				192.92203	19	1143.8	1848.9	705.1
WHOLE	110	4	20	906470				524.48902	20	1137	1802	665
SHEET IS	111	4	21	920278				522.63437	21	1075.5	1795	719.5
N84	112	4	22	933430				497.80469	22	1117.1	1784	666.9
	113	4	23	945280				448.52385	23	991.6	1656.6	665
SETUP	114	4	24	949848				172.89932	24	440.8	1043.8	603
STRING FOR	115	4	25	953326				131.64269	25	557.1	1110.1	553
PRINTER IS	116	4	26	960399				267.71385	26	1109.2	1795.4	686.2
"^E&k2S	117	4	27	973787				506.73732	27	1144.7	1766.2	621.5
	118	4	28	985844				456.35882	28	991.6	1659.3	667.7
	119	4	29	999243				507.15367	29	946.9	1580.8	633.9
	120	4	30	1011238				454.01211	30	899.1	1508.5	609.4
	121	4	31	1011238				‡	31‡	‡	‡	

TOTAL FLOW THIS MONTH OF OWW 11794.209
TOTAL FLOW THIS MONTH COMBINED 27746.4
TOTAL FLOW THIS MONTH MV 2 47338.8
TOTAL FLOW THIS MONTH MV 3 19592.4
MAXIMUM FLOW THIS MONTH OWW 589.55337
MAXIMUM FLOW THIS MONTH COMB. 1286.9
MAXIMUM FLOW THIS MONTH MV2 2029.5
MAXIMUM FLOW THIS MONTH MV3 810
MINIMUM FLOW THIS MONTH OF OWW 0

OWW			METER VAULT THREE				COMBINED DISCHARGE					
DATE	BOD	TSS	PHOSPHATE	pH	TEMP		pH	TEMP				

SCOEPA00034926

B:DWTP582	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB FLOW	MV3 FLOW BLANK
	120	4	30	11238								
TO STORE	121	5	1	19850				325.96518	1	425.8	964.8	539
FLOW DATA	122	5	2	25093				198.44815	2	655.9	1194.9	539
PUT CURSER	123	5	3	33953				335.35201	3	975.7	1690.3	714.6
ON B3 AND	124	5	4	45679				443.83043	4	1120.4	1806.2	685.8
PUSH /S#S	125	5	5	58531				486.44966	5	1227.3	1837.4	610.1
ENTER FILE	126	5	6	71511				491.29447	6	1024.2	1723.7	699.5
NAME AND	127	5	7	84110				476.87358	7	933.1	1541.7	608.6
LOWER LEFT	128	5	8	94895				408.21347	8	345	1199.7	854.7
CORNER IS	129	5	9	100074				196.02574	9	465.2	727.1	261.9
M33. STORE	130	5	10	107481				280.35579	10	1001.9	1639.7	637.8
AS A COLUM	131	5	11	119020				436.75246	11	1005.1	1667.1	662
(C)	132	5	12	131811				484.14080	12	953.1	1662.4	709.3
XPAND	133	5	13	144061				463.66389	13	1069.5	1722.8	653.3
TO 10	134	5	14	158057				529.75019	14	653.5	1311.7	658.2
DIGITS	135	5	15	168292				387.39591	15	606.3	1176.7	570.4
BEFORE	136	5	16	172606				163.28539	16	640.5	1231.3	590.8
PRINT.	137	5	17	180941				315.48070	17	1004.5	1668	663.5
LOWER LEFT	138	5	18	194118				498.75095	18	857.7	1496.6	638.9
COLUMN OF	139	5	19	208390				540.19682	19	1081.8	1792.2	710.4
WHOLE	140	5	20	222831				546.59349	20	1035.7	1680.7	645
SHEET IS	141	5	21	235543				481.15064	21	891.5	1516.4	624.9
N84	142	5	22	243301				293.64118	22	464.8	1004.2	539.4
	143	5	23	251059				293.64118	23	529.1	1123.3	594.2
SETUP	144	5	24	259401				315.74565	24	714.6	1407.6	693
STRING FOR	145	5	25	271813				469.79561	25	714.2	1379.2	665
PRINTER IS	146	5	26	283538				443.79258	26	846.2	1482.5	636.3
"^E&k2S	147	5	27	295536				454.12566	27	937.8	1595.3	657.5
	148	5	28	307735				461.73354	28	860.6	1468.5	607.9
	149	5	29	316343				325.81378	29	323.9	867	543.1
	150	5	30	321161				182.36185	30	326.2	841	514.8
	151	5	31	324032				108.66768	31	493.9	1091.9	598

TOTAL FLOW THIS MONTH OF OWW	11839.288
TOTAL FLOW THIS MONTH COMBINED	24185
TOTAL FLOW THIS MONTH MV 2	43511.9
TOTAL FLOW THIS MONTH MV 3	19326.9
MAXIMUM FLOW THIS MONTH OWW	546.59349
MAXIMUM FLOW THIS MONTH COMB.	1227.3
MAXIMUM FLOW THIS MONTH MV2	1837.4
MAXIMUM FLOW THIS MONTH MV3	854.7
MINIMUM FLOW THIS MONTH OF OWW	323.9
MINIMUM FLOW THIS MONTH COMB.	323.9
MINIMUM FLOW THIS MONTH MV2	727.1
MINIMUM FLOW THIS MONTH MV3	261.9
AVERAGE FLOW THIS MONTH OF OWW	381.91253
AVERAGE FLOW THIS MONTH COMB.	780.16129
AVERAGE FLOW THIS MONTH MV2	1403.6097
AVERAGE FLOW THIS MONTH MV3	623.44839

	OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP

SCOEPA00034927

B:DWTP682	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB FLOW	MV3 FLOW BLANK
	151	5	31	324032								
TO STORE	152	6	1	331992				301.28690	1	956.7	1607.3	650.6
FLOW DATA	153	6	2	344592				476.91143	2	953.1	1599.2	646.1
PUT CURSER	154	6	3	358807				538.03936	3	1064.7	1724.8	660.1
ON B3 AND	155	6	4	370432				440.00757	4	938.3	1608.6	670.3
PUSH /S#S	156	6	5	380749				390.49962	5	591.9	1191.1	599.2
ENTER FILE	157	6	6	385054				162.94474	6	595.5	1152.7	557.2
NAME AND	158	6	7	391445				241.90008	7	1051.2	1737	685.8
LOWER LEFT	159	6	8	401263				371.61241	8	1058.6	1749	690.4
CORNER IS	160	6	9	411475				386.52536	9	1011.4	1726	714.6
M33. STORE	161	6	10	424261				483.95155	10	825.5	1506.4	680.9
AS A COLUM	162	6	11	435216				414.64799	11	649.2	1287.7	638.5
(C)	163	6	12	438959				141.67298	12	429.7	951.7	522
XPAND	164	6	13	440536				59.689629	13	585.5	1156.3	570.8
TO 10	165	6	14	445381				183.38380	14	989.6	1689.8	700.2
DIGITS	166	6	15	458576				499.43225	15	1024.4	1705.7	681.3
BEFORE	167	6	16	467920				353.67146	16	951.1	1649.4	698.3
PRINT.	168	6	17	480019				457.94852	17	1083.3	1818.3	735
LOWER LEFT	169	6	18	492443				470.24981	18	707	1393.6	686.6
COLUMN OF	170	6	19	501177				330.58289	19	265.6	864	598.4
WHOLE	171	6	20	507182				227.28993	20	629.1	1244.2	615.1
SHEET IS	172	6	21	516361				347.42619	21	785	1419	634
N84	173	6	22	529640				502.61166	22	884.8	1536.6	651.8
	174	6	23	544331				556.05602	23	893.4	1589.8	696.4
SETUP	175	6	24	557676				505.10977	24	838.5	1531.5	693
STRING FOR	176	6	25	570811				497.16124	25	744	1410.9	666.9
PRINTER IS	177	6	26	580316				359.76533	26	811.7	1449.9	638.2
"^E&k2S	178	6	27	585360				190.91597	27	788.2	1411.6	623.4
	179	6	28	592158				257.30507	28	1084.8	1874.76	789.96
	180	6	29	604161				454.31491	29	1036.8	1624.2	587.4
	181	6	30	614911				406.88872	30	1099.1	1731.2	632.1
	182	6	31	627412				473.16427	31	0	0	0

TOTAL FLOW THIS MONTH OF OWW 11482.967
TOTAL FLOW THIS MONTH COMBINED 25327.7
TOTAL FLOW THIS MONTH MV 2 44942.26
TOTAL FLOW THIS MONTH MV 3 19614.56
MAXIMUM FLOW THIS MONTH OWW 556.05602
MAXIMUM FLOW THIS MONTH COMB. 1099.1
MAXIMUM FLOW THIS MONTH MV2 1874.76
MAXIMUM FLOW THIS MONTH MV3 789.96
MINIMUM FLOW THIS MONTH OF OWW 0
MINIMUM FLOW THIS MONTH COMB. 0
MINIMUM FLOW THIS MONTH MV2 0
MINIMUM FLOW THIS MONTH MV3 0
AVERAGE FLOW THIS MONTH OF OWW 370.41830
AVERAGE FLOW THIS MONTH COMB. 817.02258
AVERAGE FLOW THIS MONTH MV2 1449.7503
AVERAGE FLOW THIS MONTH MV3 632.72774

DATE	OWW BOD	OWW TSS	METER VAULT THREE PHOSPHATE	METER VAULT THREE pH	METER VAULT THREE TEMP	COMBINED DISCHARGE pH	COMBINED DISCHARGE TEMP

B:DWTP782	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	MV3+COMB FLOW	MV3 FLOW BLANK
	181	6	30	614911								
TO STORE	182	7	1	627412				473.16427	1	1033.7	1712.7	679
FLOW DATA	183	7	2	639855				470.96896	2	781.6	1621.1	839.5
PUT CURSER	184	7	3	648424				324.33762	3	310.9	772.7	461.8
ON B3 AND	185	7	4	653531				193.30053	4	303.8	874.2	570.4
PUSH /S#S	186	7	5	658707				195.91219	5	529.7	1097.1	567.4
ENTER FILE	187	7	6	665193				245.49584	6	869.9	1553.5	683.6
NAME AND	188	7	7	678410				500.26495	7	882.1	1572.1	690
LOWER LEFT	189	7	8	691173				483.08100	8	1026.7	1723.5	696.8
CORNER IS	190	7	9	704191				492.73278	9	713.2	1413.4	700.2
M33. STORE	191	7	10	714183				378.19833	10	320.7	888.1	567.4
AS A COLUM	192	7	11	719831				213.77744	11	344.1	960.7	616.6
(C)	193	7	12	728324				321.46101	12	508.5	1185.3	676.8
XPAND	194	7	13	740811				472.63437	13	446.4	1144.7	698.3
TO 10	195	7	14	753573				483.04315	14	667.9	1316.3	648.4
DIGITS	196	7	15	766512				489.74262	15	931.4	1654.7	723.3
BEFORE	197	7	16	780063				512.90689	16	761.8	1470.7	708.9
PRINT.	198	7	17	792002				451.89251	17	328.5	984.4	655.9
LOWER LEFT	199	7	18	798587				249.24300	18	220.8	866.1	645.3
COLUMN OF	200	7	19	806496				299.35655	19	270.1	939.3	669.2
WHOLE	201	7	20	819260				483.11885	20	420.3	1120.1	699.8
SHEET IS	202	7	21	832284				492.95988	21	563.9	1302.7	738.8
N84	203	7	22	845123				485.95761	22	761	1432.5	671.5
	204	7	23	857783				479.18244	23	1003.9	1715.5	711.6
SETUP	205	7	24	868335				399.39440	24	267.4	1005.9	738.5
STRING FOR	206	7	25	874360				228.04693	25	444.6	944.2	499.6
PRINTER IS	207	7	26	883118				331.49129	26	804.1	1592.1	788
"^E&k2S	208	7	27	897481				543.64118	27	533.5	1141.8	608.3
	209	7	28	911397				526.72218	28	1142.7	1862.2	719.5
	210	7	29	925600				537.58516	29	1108.5	1828	719.5
	211	7	30	939727				534.70855	30	953.1	1780.5	827.4
	212	7	31	950867				421.65026	31	435.6	1275.5	839.9

TOTAL FLOW THIS MONTH OF OWW 12715.973
TOTAL FLOW THIS MONTH COMBINED 19690.4
TOTAL FLOW THIS MONTH MV 2 40751.6
TOTAL FLOW THIS MONTH MV 3 21061.2
MAXIMUM FLOW THIS MONTH OWW 543.64118
MAXIMUM FLOW THIS MONTH COMB. 1142.7
MAXIMUM FLOW THIS MONTH MV2 1862.2
MAXIMUM FLOW THIS MONTH MV3 839.9
MINIMUM FLOW THIS MONTH OF OWW 193.30053
MINIMUM FLOW THIS MONTH COMB. 220.8
MINIMUM FLOW THIS MONTH MV2 772.7
MINIMUM FLOW THIS MONTH MV3 461.8
AVERAGE FLOW THIS MONTH OF OWW 410.19267
AVERAGE FLOW THIS MONTH COMB. 635.17419
AVERAGE FLOW THIS MONTH MV2 1314.5677
AVERAGE FLOW THIS MONTH MV3 679.39355

	OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP

SCOEPA00034929

B:DWTP882 DAY OF YR	OWW FLOW BLANK		OWW FLOW BLANK	COMB FLOW OUTFALL BLANK	FLOW	MV3 FLOW BLANK
213	232.92960	1	647.1	1365.1		718
214	366.50265	2	962.4	1660.7		698.3
215	426.64648	3	1143	1873.1		730.1
216	511.50643	4	871.1	1567.5		696.4
217	473.42922	5	1040.9	1754.4		713.5
218	505.45042	6	749.6	1462.3		712.7
219	437.35806	7	301.9	972.2		670.3
220	263.73959	8	453.8	1251.3		797.5
221	342.24073	9	1144.8	1768.2		623.4
222	401.17335	10	1024	1864.6		840.6
223	513.39894	11	1057	1922.3		865.3
224	401.85466	12	824	1562.5		738.5
225	460.82513	13	756.7	1511.4		754.7
226	446.70704	14	467.1	1178.3		711.2
227	227.66843	15	677	1312.9		635.9
228	295.98789	16	1162.9	1877.1		714.2
229	394.43603	17	642.3	1485.6		843.3
230	447.23694	18	390.5	987.8		597.3
231	512.22559	19	508	1580.7		1072.7
232	532.62680	20	606.8	918.3		311.5
233	423.54277	21	308.3	895.4		587.1
234	287.13096	22	321.5	911.2		589.7
235	315.10220	23	572.5	1303.8		731.3
236	403.02801	24	411.7	1147.5		735.8
237	480.92354	25	733.4	1451.8		718.4
238	435.95761	26	950.7	1674		723.3
239	474.90537	27	904.4	1702.7		798.3
240	392.39213	28	723.5	1721.6		998.1
241	312.79334	29	702.3	1489.2		786.9
242	318.39516	30	1033.4	1788.5		755.1
243	411.80924	31	1099.9	1835.3		735.4

TOTAL FLOW THIS MONTH OF OWW	12449.924
TOTAL FLOW THIS MONTH COMBINED	23192.5
TOTAL FLOW THIS MONTH MV 2	45797.3
TOTAL FLOW THIS MONTH MV 3	22604.8
MAXIMUM FLOW THIS MONTH OWW	532.62680
MAXIMUM FLOW THIS MONTH COMB.	1162.9
MAXIMUM FLOW THIS MONTH MV2	1922.3
MAXIMUM FLOW THIS MONTH MV3	1072.7
MINIMUM FLOW THIS MONTH OF OWW	227.66843
MINIMUM FLOW THIS MONTH COMB.	301.9
MINIMUM FLOW THIS MONTH MV2	895.4
MINIMUM FLOW THIS MONTH MV3	311.5
AVERAGE FLOW THIS MONTH OF OWW	401.61046
AVERAGE FLOW THIS MONTH COMB.	748.14516
AVERAGE FLOW THIS MONTH MV2	1477.3323
AVERAGE FLOW THIS MONTH MV3	729.18710

B:DWTP982	DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW BLANK	OWW FLOW BLANK	COMB FLOW BLANK	OUTFALL FLOW	MV3 FLOW BLANK
	243	8	31	279794								
TO STORE	244	9	1	292745				490.19682	1	1082.3	1909.3	827
FLOW DATA	245	9	2	304599				448.67525	2	1036	1878.2	842.2
PUT CURSER	246	9	3	317907				503.70931	3	788.9	1523.9	735
ON B3 AND	247	9	4	327723				371.53671	4	339.9	1015.9	676
PUSH /S#S	248	9	5	333395				214.68584	5	343.9	1036.9	693
ENTER FILE	249	9	6	338147				179.86374	6	544.5	1233.5	689
NAME AND	250	9	7	345054				261.43073	7	1225.1	2002.1	777
LOWER LEFT	251	9	8	357247				461.50643	8	1227.5	2008.5	781
CORNER IS	252	9	9	368045				408.70553	9	1061.9	1751.9	690
M33. STORE	253	9	10	379244				423.88342	10	928.2	1761.2	833
AS A COLUM	254	9	11	388398				346.47994	11	596.7	1175	578.3
(C)	255	9	12	396416				303.48221	12	532.7	1177.7	645
XPAND	256	9	13	404425				303.14156	13	1059.3	1787.3	728
TO 10	257	9	14	415730				427.89553	14	1016.3	1756.3	740
DIGITS	258	9	15	426650				413.32324	15	979.6	1756.6	777
BEFORE	259	9	16	439480				485.61696	16	689.2	1412.2	723
PRINT.	260	9	17	450825				429.40954	17	916	1572	656
LOWER LEFT	261	9	18	452734				72.255867	18	627.43333	1331.4333	704
COLUMN OF	262	9	19	452734				0	19	471.13333	1175.1333	704
WHOLE	263	9	20	452734				0	20	971.46667	1776.4667	805
SHEET IS	264	9	21	452734				0	21	1153.7	1942.7	789
N84	265	9	22	452734				0	22	1338.6	2118.6	780
	266	9	23	452734				0	23	1116.1	1863.1	747
SETUP	267	9	24	471683				717.22180	24	1033.4	1663.4	630
STRING FOR	268	9	25	496549				941.18092	25	945.7	1549.7	604
PRINTER IS	269	9	26	520009				887.96366	26	536.8	1168.8	632
"^E&k2S	270	9	27	544142				913.43679	27	1310.6	2117.6	807
	271	9	28	556755				477.40348	28	1219.7	1962.7	743
	272	9	29	565079				315.06435	29	1338.6	2107.6	769
	273	9	30	573046				301.55185	30	1260.8	2067.8	807
	274	9	31	582214				347.00984	31	0	0	0

TOTAL FLOW THIS MONTH OF OWW 11446.631
TOTAL FLOW THIS MONTH COMBINED 27692.033
TOTAL FLOW THIS MONTH MV 2 49603.533
TOTAL FLOW THIS MONTH MV 3 21911.5
MAXIMUM FLOW THIS MONTH OWW 941.18092
MAXIMUM FLOW THIS MONTH COMB. 1338.6
MAXIMUM FLOW THIS MONTH MV2 2118.6
MAXIMUM FLOW THIS MONTH MV3 842.2
MINIMUM FLOW THIS MONTH OF OWW 0
MINIMUM FLOW THIS MONTH COMB. 0
MINIMUM FLOW THIS MONTH MV2 0
MINIMUM FLOW THIS MONTH MV3 0
AVERAGE FLOW THIS MONTH OF OWW 369.24617
AVERAGE FLOW THIS MONTH COMB. 893.29140
AVERAGE FLOW THIS MONTH MV2 1600.1140
AVERAGE FLOW THIS MONTH MV3 706.82258

	OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP

B:DWTP1082DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	OWW FLOW	COMB FLOW	OUTFALL	MV3 FLOW
	273	9	31	573045			BLANK	BLANK	BLANK	FLOW	BLANK
TO STORE	274	10	1	582214			347.04769	1	1260	2067	807
FLOW DATA	275	10	2	589308			268.50871	2	1001	1724	723
PUT CURSER	276	10	3	592905			136.14686	3	464	1030	566
ON B3 AND	277	10	4	598081			195.91219	4	738	1438	700
PUSH /S#S	278	10	5	606825			330.96139	5	1365	2162	797
ENTER FILE	279	10	6	615776			338.79637	6	878	1658	780
NAME AND	280	10	7	623932			308.70553	7	922	1828	906
LOWER LEFT	281	10	8	632902			339.51552	8	1417	2045	628
CORNER IS	282	10	9	640057			270.81756	9	739	1418	679
M33. STORE	283	10	10	644743			177.36563	10	351	941	590
AS A COLUM	284	10	11	650472			216.84330	11	519	1168	649
(C)	285	10	12	662108			440.42392	12	1066	1792	726
XPAND	286	10	13	674236			459.04618	13	907	1626	719
TO 10	287	10	14	684157			375.51098	14	1180	1914	734
DIGITS	288	10	15	693159			340.72672	15	1313	2012	699
BEFORE	289	10	16	700753			287.43376	16	1036	1695	659
PRINT.	290	10	17	705134			165.82135	17	288	857	569
LOWER LEFT	291	10	18	711471			239.85617	18	532	1148	616
COLUMN OF	292	10	19	721061			362.98259	19	1348	2101	753
WHOLE	293	10	20	730120			342.88418	20	1425	2168	743
SHEET IS	294	10	21	739557			357.19152	21	2400	3151	751
N84	295	10	22	750185			402.27101	22	1068	1769	701
	296	10	23	757173			264.49659	23	619	1356	737
SETUP	297	10	24	761254			154.46631	24	754	1348	594
STRING FOR	298	10	25	767300			228.84179	25	1281	1924	643
PRINTER IS	299	10	26	774813			284.36790	26	1298	2022	724
"^E&k2S	300	10	27	783251			319.37926	27	1250	1998	748
	301	10	28	792125			335.88191	28	1159	1903	744
	302	10	29	801141			341.25662	29	902	1689	787
	303	10	30	808079			262.60409	30	446	1174	728
	304	10	31	812355			161.84709	31	598.90235	1251.8168	652.91446

TOTAL FLOW THIS MONTH OF OWW 9057.9107
TOTAL FLOW THIS MONTH COMBINED 30524.902
TOTAL FLOW THIS MONTH MV 2 52377.817
TOTAL FLOW THIS MONTH MV 3 21852.914
MAXIMUM FLOW THIS MONTH OWW 459.04618
MAXIMUM FLOW THIS MONTH COMB. 2400
MAXIMUM FLOW THIS MONTH MV2 3151
MAXIMUM FLOW THIS MONTH MV3 906
MINIMUM FLOW THIS MONTH OF OWW 288
MINIMUM FLOW THIS MONTH COMB. 288
MINIMUM FLOW THIS MONTH MV2 857
MINIMUM FLOW THIS MONTH MV3 566
AVERAGE FLOW THIS MONTH OF OWW 292.19067
AVERAGE FLOW THIS MONTH COMB. 984.67427
AVERAGE FLOW THIS MONTH MV2 1689.6070
AVERAGE FLOW THIS MONTH MV3 704.93272

	OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP

B:DWTP1182DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	OWW FLOW	COMB FLOW	OUTFALL	MV3 FLOW
	304	10	31	812355			BLANK	BLANK	BLANK	FLOW	BLANK
TO STORE	305	11	1	818623			237.24451	1	587	1370	783
FLOW DATA	306	11	2	828097			358.59198	2	1253	2075	822
PUT CURSER	307	11	3	838070			377.47918	3	1200	1871	671
ON B3 AND	308	11	4	846251			309.65178	4	1246	2022	776
PUSH /S#S	309	11	5	854337			306.05602	5	930	1645	715
ENTER FILE	310	11	6	860779			243.83043	6	401	1048	647
NAME AND	311	11	7	864898			155.90462	7	601	1282	681
LOWER LEFT	312	11	8	870926			228.16048	8	1099	1846	747
CORNER IS	313	11	9	879420			321.49886	9	1242	1989	747
M33. STORE	314	11	10	887403			302.15746	10	1286	1977	691
AS A COLUM	315	11	11	894906			283.98940	11	1310	2042	732
(C)	316	11	12	903407			321.76382	12	1007	1776	769
XPAND	317	11	13	910207			257.38077	13	384	1009	625
TO 10	318	11	14	912850			100.03785	14	601	1213	612
DIGITS	319	11	15	917092			160.56018	15	1292	2075	783
BEFORE	320	11	16	925129			304.20136	16	1250	2005	755
PRINT.	321	11	17	933095			301.51400	17	1224	1985	761
LOWER LEFT	322	11	18	941284			309.95458	18	1282	2040	758
COLUMN OF	323	11	19	950457			347.19909	19	827	1539	712
WHOLE	324	11	20	956232			218.58441	20	476	1087	611
SHEET IS	325	11	21	959798			134.97350	21	600	1209	609
N84	326	11	22	963166			127.47918	22	378	1074	696
	327	11	23	971102			300.37850	23	459	1155	696
SETUP	328	11	24	975585			169.68206	24	217	762	545
STRING FOR	329	11	25	978973			128.23618	25	354	870	516
PRINTER IS	330	11	26	981172			83.232400	26	361	921	560
"^E&k2S	331	11	27	983701			95.722937	27	405	979	574
	332	11	28	985752			77.630583	28	669	1286	617
	333	11	29	991351			211.92279	29	1518	2277	759
	334	11	30	1001377			379.48524	30	1111	1854	743
	335	11	31	1008191			257.91067	31	0	0	0

TOTAL FLOW THIS MONTH OF OWW 7412.4148
TOTAL FLOW THIS MONTH COMBINED 25570
TOTAL FLOW THIS MONTH MV 2 46283
TOTAL FLOW THIS MONTH MV 3 20713
MAXIMUM FLOW THIS MONTH OWW 379.48524
MAXIMUM FLOW THIS MONTH COMB. 1518
MAXIMUM FLOW THIS MONTH MV2 2277
MAXIMUM FLOW THIS MONTH MV3 822
MINIMUM FLOW THIS MONTH OF OWW 0
MINIMUM FLOW THIS MONTH COMB. 0
MINIMUM FLOW THIS MONTH MV2 0
MINIMUM FLOW THIS MONTH MV3 0
AVERAGE FLOW THIS MONTH OF OWW 239.11016
AVERAGE FLOW THIS MONTH COMB. 824.83871
AVERAGE FLOW THIS MONTH MV2 1493
AVERAGE FLOW THIS MONTH MV3 668.16129

	OWW		METER VAULT THREE			COMBINED DISCHARGE	
DATE	BOD	TSS	PHOSPHATE	pH	TEMP	pH	TEMP

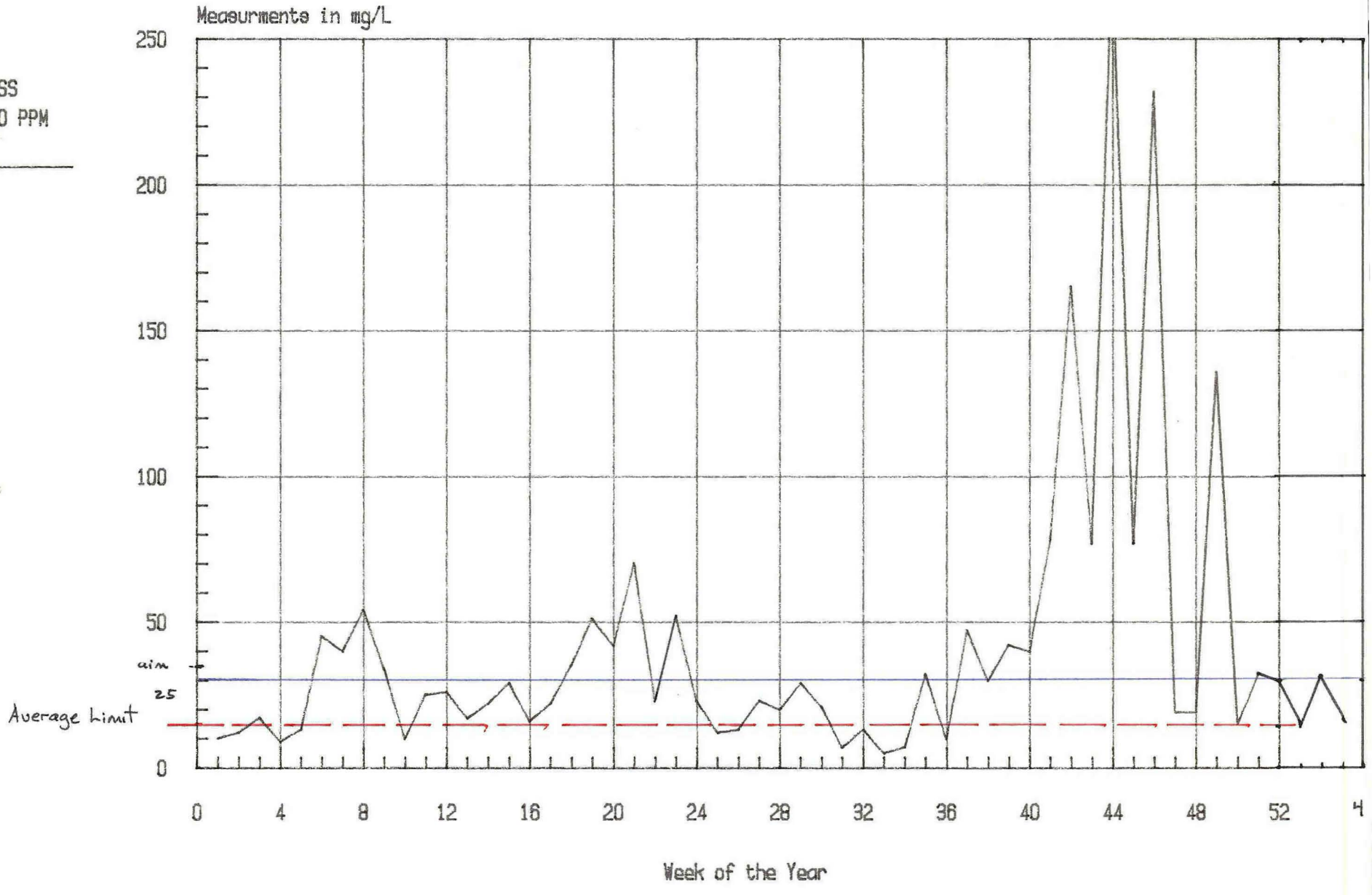
B:DWTP1282DY OF YR	MO OF YR	DY OF MO	OWW TOT	COMB TOT	MV2 TOT	MV3 TOT	OWW FLOW	OWW FLOW	COMB FLOW	OUTFALL	MV3 FLOW
"^E&k2S	334	11	31	1377	259298	936996	1199472	BLANK	BLANK	BLANK	FLOW	BLANK
TO STORE	335	12	1	8191	288643	937767	1201436	257.91067		1	1110.7116	1854.0878	743.37623
FLOW DATA	336	12	2	16654	321441	938604	1203329	320.32551		2	1241.4080	1957.9107	716.50265
PUT CURSER	337	12	3	24973	356826	939454	1205422	314.87509		3	1339.3263	2131.5291	792.20288
ON B3 AND	338	12	4	31900	382033	940325	1207164	262.18774		4	954.08781	1613.4368	659.34898
PUSH /S#S	339	12	5	34907	391201	941104	1208756	113.81529		5	347.00984	949.58365	602.57381
ENTER FILE	340	12	6	39964	407144	941887	1210511	191.40802		6	603.44436	1267.7139	664.26949
NAME AND	341	12	7	48374	438933	942690	1212444	318.31945		7	1203.2173	1934.8600	731.64269
LOWER LEFT	342	12	8	56577	470449	943524	1214514	310.48448		8	1192.8842	1976.3815	783.49735
CORNER IS	343	12	9	65200	504230	944523	1216784	326.38153		9	1278.6147	2137.8123	859.19758
M33. STORE	344	12	10	73754	539547	945088	1218535	323.76987		10	1336.7525	1999.5079	662.75549
AS A COLUM	345	12	11	79947	576942	945888	1220549	234.40575		11	1415.4050	2177.7063	762.30129
(C)	346	12	12	83041	584735	946666	1221912	117.10825		12	294.96593	810.86298	515.89705
XPAND	347	12	13	88155	601973	947427	1223608	193.56548		13	652.46026	1294.3982	641.93793
TO 10	348	12	14	97216	626774	948382	1225723	342.95988		14	938.72067	1739.2506	800.52990
DIGITS	349	12	15	105807	650421	949075	1227567	325.17033		15	895.04164	1592.9977	697.95609
BEFORE	350	12	16	114500	680711	949915	1229675	329.03104		16	1146.4799	1944.3603	797.88039
PRINT.	351	12	17	123321	708191	950759	1231818	333.87585		17	1040.1211	1851.2491	811.12793
LOWER LEFT	352	12	18	129869	731957	951581	1233749	247.84254		18	899.54580	1630.4315	730.88569
COLUMN OF	353	12	19	133442	744192	952524	1235264	135.23846		19	463.09614	1036.5254	573.42922
WHOLE	354	12	20	138524	758341	953188	1236986	192.35428		20	535.54126	1187.3202	651.77896
SHEET IS	355	12	21	147820	787525	954025	1239009	351.85466		21	1104.6177	1870.3255	765.70780
N93	356	12	22	156255	824230	954872	1241000	319.26571		22	1389.2884	2142.8842	753.59576
PRINT M93	357	12	23	162480	850053	955775	1243126	235.61696		23	977.40348	1782.0969	804.69341
SETUP	358	12	24	165326	858220	956589	1245230	107.72142		24	309.12188	1105.4883	796.36639
STRING FOR	359	12	25	167826	862620	957389	1247030	94.625284		25	166.54050	847.84254	681.30204
PRINTER IS	360	12	26	170326	867020	958189	1248830	94.625284		26	166.54050	847.84254	681.30204
"^E&k2S	361	12	27	172867	871515	958989	1250609	96.177139		27	170.13626	843.48978	673.35352
	362	12	28	175484	876885	959773	1254069	99.053747		28	203.25511	1512.8690	1309.6139
	363	12	29	177737	882042	960506	1255968	85.276306		29	195.19304	913.96669	718.77366
	364	12	30	179525	890621	961361	1258430	67.676003		30	324.71612	1256.5859	931.86980
	365	12	31	181665	901020	962255	1260425	80.999243		31	393.60333	1148.7131	755.10977

TOTAL FLOW THIS MONTH OF OWW	6823.9213											
TOTAL FLOW THIS MONTH COMBINED	24289.251		OWW		METER VAULT THREE				COMBINED DISCHARGE			
TOTAL FLOW THIS MONTH MV 2	47360.030	DATE	BOD		TSS		PHOSPHATE		pH		TEMP	
TOTAL FLOW THIS MONTH MV 3	23070.780	3	444		74		.2		5.4		12.2	
MAXIMUM FLOW THIS MONTH OWW	351.85466	10	358		122		.3		4.6		14.3	
MAXIMUM FLOW THIS MONTH COMB.	1415.4050	17	450		101		.3		3		17.2	
MAXIMUM FLOW THIS MONTH MV2	2177.7063	22	456		76		.1		3.1		17.4	
MAXIMUM FLOW THIS MONTH MV3	1309.6139	5										
MINIMUM FLOW THIS MONTH OF OWW	166.54050											
MINIMUM FLOW THIS MONTH COMB.	166.54050											
MINIMUM FLOW THIS MONTH MV2	810.86298											
MINIMUM FLOW THIS MONTH MV3	515.89705											
AVERAGE FLOW THIS MONTH OF OWW	220.12649											
AVERAGE FLOW THIS MONTH COMB.	783.52421											
AVERAGE FLOW THIS MONTH MV2	1527.7429											
AVERAGE FLOW THIS MONTH MV3	744.21870											

WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters

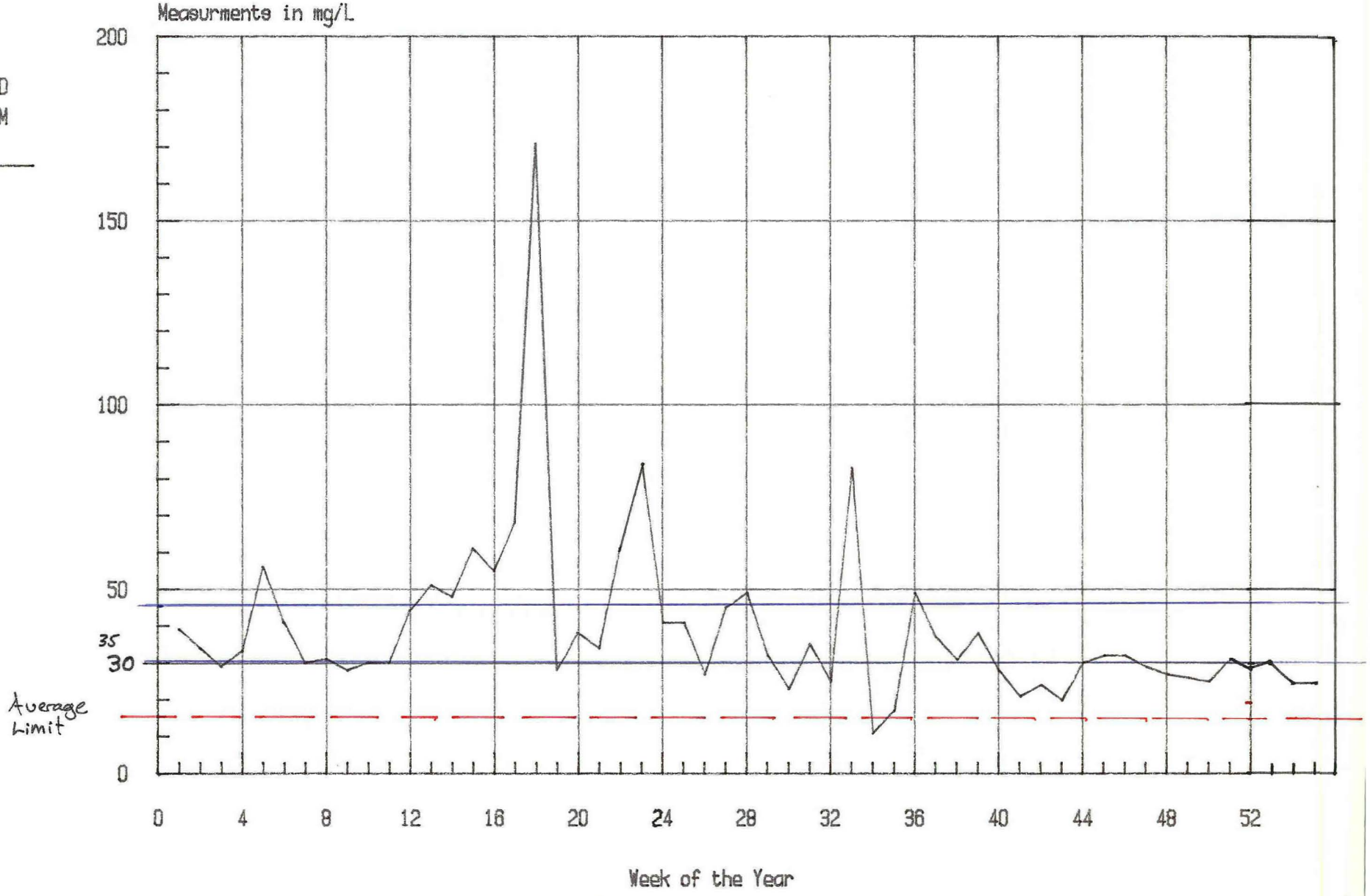
TSS
0-250 PPM



WACKER SILTRONIC CORPORATION

NPDES Discharge Parameters

5 Day BOD
0-200 PPM



35ppm
can meet
no peroxide at
present rates
40 at anticipated
rates this year

B:DANAL

16	35	10	4.4	.004	.003			.1	5.8	13.2	6.9	18.9	
23	28	23	5	.001	.004			.05	6.7	10.8	7.8	17.4	
31	21	40	4.3	.001	.004			.03	6.1	12.1	7.2	18.7	
	35.23529	22.80980	5.260784	.0075098	.0125686	ERROR	ERROR	1.242745	6.714	16.524	7.274490	20.79184	

m3/day

1982 DATE	PROCESS TO RIVER							OWW TO CITY SEWER		MV3 TO RIVER			COMBINED TO RIVER		Process Flow	mv3 Flow	Total Flow
	BOD		TSS		FLOURIDE		CR6+	CR TOTAL	BOD	TSS	PO4+	pH	TEMP	pH	TEMP			
1/8	39	21	10	5.4	3.3	1.8	.003	.003	319	136	.2	5.8	7.2	7.7	17.3	691	588	1279
15	34	16.4	12	5.8	3.9	1.9	.004	.003	497	98	.1	6.4	6.9	7.1	19.4	705	756	1461
22	29	17.6	17	10.3	5.5	3.3	.007	.008	389	85	.1	7.1	7.3	7.8	21.5	951	620	1571
29	33	19.9	9	5.4	4.2	2.5	.004	.003	349	131	.1	6.2	8.4	7.3	18.2	962	636	1598
2/5	56	31.3	13	7.3	4.7	2.6	.003	.003			2.1	5.8	11.4	6.9	18.2	823	645	1468
12	41	22.0	45	24.2	3.6	1.9	.002	.002			.1	6.2	10.2	7.1	17.4	773	666	1439
19	30		40		5.1		.002	.001			.4	5.7	12.8	6.8	17.8	969	630	
26	31		54		4.8		.002	.003			1	6.1	11.7	7.4	17.3	979	686	
3/5	28		34		3.6		.001	.003	327	104	.1	5.8	11.2	7	18.1	952	650	
12	30		10		5.4		.001	.003	281	73	.1	6.2	12.3	6.9	16.4	971	772	
19	30		25		4.8		.007	.018	380	164	.1	5.3	12.4	7.8	18.3	803	692	
26	44		26		3.9		.001	.016	391	64	.1	3.1	12.6	7.3	17.8	1017	697	
4/2	51		17		3.7		.002	.002	257	48	2.7	6.2	12.2	6.5	15	857	810	
9	48		22		4.8		.001	.001	250	44	.1	6.1	12.3	7.3	17.4	930	576	
16	61		29		5.2		.002	.002	351	35	.1	5.9	11.3	7.7	16.4	1287	711	
23	55		16		3.3		.002	.001	330	36	1.3	6.1	10.4	7.2	19.2	992	665	
30	68		22		4.7		.001	.001	295	52	.1	5.2	18	7.5	16	899	609	
5/7	171		35		3.2		.001	.001	342	16	.5	6.7	12.1	8.2	19.4	933	609	
14	28		51		4.8		.001	.002	436	110	.7	6.2	11.3	7.5	18.2	654	658	
21	38		42		5.7		.001	.009	491	82	.2	5.7	12.2	6.8	17.4	892	625	
28	34		70		7.4		.001	.001	474	54	.1	5.8	11.2	6.9	20.3	861	608	
6/9	61		23		5.8		.001	.001	430	192	.1	5.8	10.2	7.3	19.6	1011	715	
11	84		52		7.4		.001	.002	510	131	.2	5.7	11.7	7.2	20.3	649	639	
18	41		23		4.7		.001	.001	345	192	1.3	6.1	10.5	7.3	17.3	707	687	
24	41		12		6.2		.001	.005	348	60	1.4	5.8	11.4	7.2	18.2	839	693	
7/2	27		13		5.6		0	.001	472	73	.7	6.2	16.3	7.3	21.4	782	840	
9	45		23		4.3		0	0	407	20	1.6	6.3	17.2	8.4	23.4	713	700	
16	49		20		5.2		0	0	395	112	.3	5.8	17.3	7.6	25.4	762	710	
23	32		29		3.8		.006	.026	384	36	.1	6.2	16.4	7.5	22.3	1004	712	
30	23		21		4.7		.001	.001	293	74	.1	6.1	16.2	8.4	21.4	953	827	
8/6	35		7		5.1		.001	.003	306	52	.1	6.2	17.6	7.3	25.3	750	713	
13	25		12		7.2		.001	.001	322	85	2.5	5.8	18.3	8.2	24.2	757	755	
20	83		5		4.3		.002	.003	274	39	.2	6	18.2	7.7	22.4	607	312 *	
27	11		7		4.7		.001	.002	314	65	.2	5.7	18.1	7.2	26.1	904	798	
9/3	17		32		5.3		.01	.01	357	44	.3	5.8	12.3	7.2	18.9	789	735	
10	49		10		4.8		.01	.01	333	62	.3	6.1	11.9	8.2	19.2	928	833	
17	37		47		6.2		.01	.009	372	68	.1	6.3	12.4	7.6	18.4	916	656	
24	31		30		5.7		.008	.006	652	125	.3	5.7	11.2	7.4	20.6	1033	630	
10/1	38		42		5.2		.004	.003	370	82	.9	6.8	13.4	7.2	18.3	1260	807	
8	28		40		6		.003	.003	368	103	1	5.6	12.8	7.4	19.2	1417	628	
15	21		78		8.4		.002	.003	506	101	6.4	6.1	13.6	6.5	17.1	1313	699	
22	24		165		12.1		.002	.003	280	270	.7	5.8	13.8	7.8	20.2	1068	701	
29	20		77		8.3		.002	.003	364	98	.2	6.2	13.6	8.2	17.1	902	787	
11/5	30		275		12.3		.003	.02	402	148	.1	5.8	11.4	7.4	16.3	930	715	
12	32		77		5.6		.003	.008	640	65	.2	6.2	10.4	8.3	17.3	1310	732	
19	32		232		5.7		.003	.006	575	69	.2	5.7	11.1	7.3	18.4	827	712	
22	29		19		5.4		.003	.002	322	83	.2	6.1	10.4	8.2	17.3	378	696	
12/3	27		19		4.7		.003	.002	444	74	.2	5.4	12.2	7.2	18.4	1339	752	
10	26		136		3.5		.003	.012	358	122	.3	4.6	14.3	8.7	17.8	1338	663	
17	25		15		4		.004	.01	450	101	.3	3	17.2	11.3	17.7	1040	811	
22	31		32		5.3		.003	.013	456	76	.1	3.1	17.4	7.8	18.2	1385	754	
	39.86275		42.58824		5.354902		.0027647	.005	387.4043	88.38298	.6058824	5.796078	12.82745	7.549020	19.11176			

* may be error

YEAR	DATE	PROCESS TO RIVER BOD	TSS	FLOURIDE	CR6+	CR TOTAL	OWW TO CITY SEWER BOD	TSS	MV3 TO RIVER PO4+	pH	TEMP	COMBINED TO RIVER pH	TEMP
1983	1/7	29	30	6.4	.005	.012	569	98	.1	3.1	11.2	7.2	18.4
	14	30	16	4.9	.001	.005	534	168	.1	2.8	10.9	6.4	19.2
	21	24	32	8.5	.002	.004	509	96	.1	3.6	11.1	7	18.4
	28	24	17	4.3	.001	.003	430	146	.2	3.2	10.6	6.3	19.6

SCOEPA00034938

WACKER

CLARIFIER EFFLUENT GRAB SAMPLES

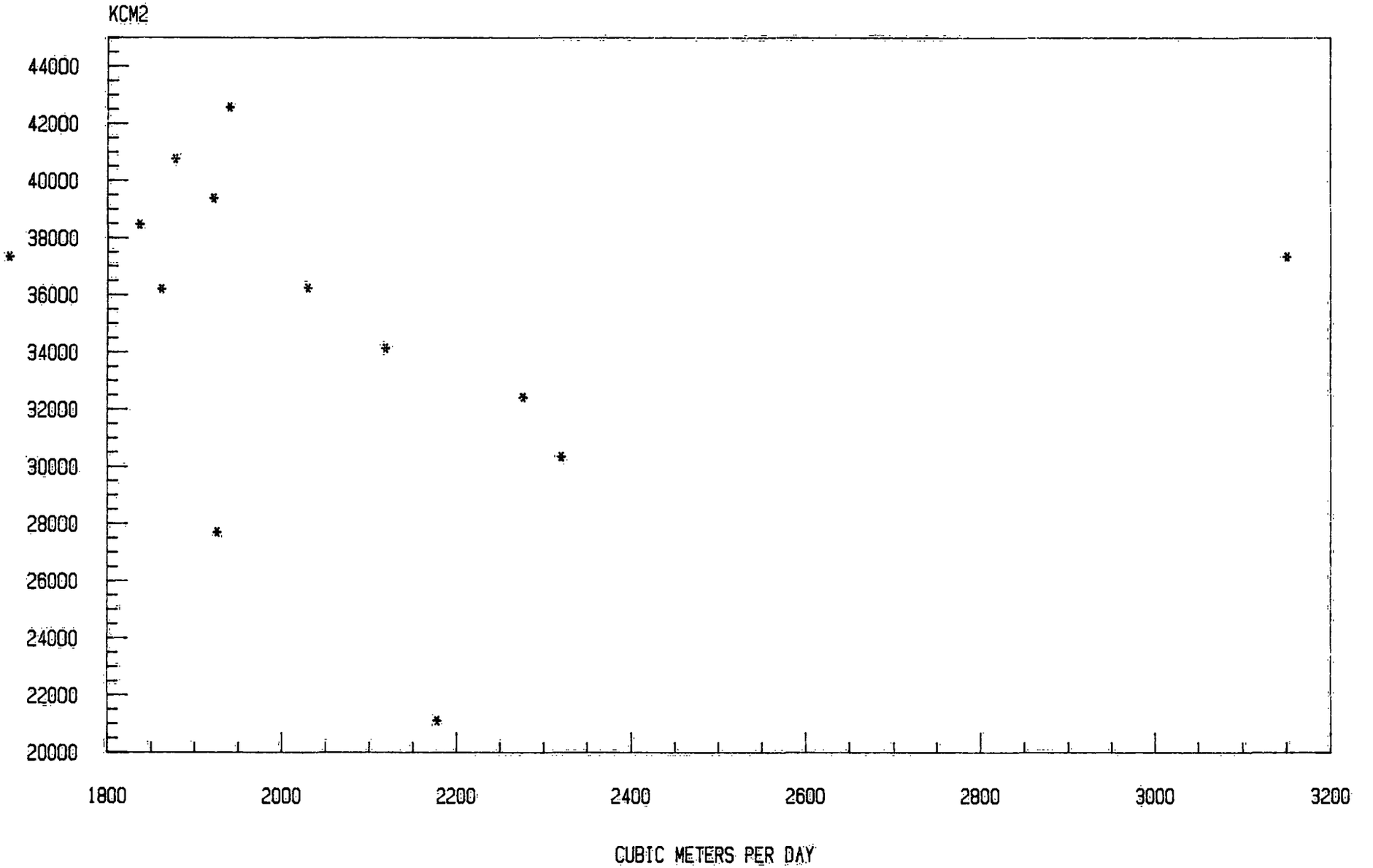
DAYS. _____ SWING. _____ GRAVE. _____

DATE	INIT	FLOW	SLUDGE LEVEL	pH	TDS	TURBIDITY	TEMP			TSS	F-	Ca^{++}		COMMENTS
8-4-82	ER	45	—	7.4	900	22	21							
8-4-82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]							
8-4-82	DB	60	—	7.6	1100	30	20							D.D. on Line
8-5-82	ER	35	—	7.3	850	8	21°							
8-5-82	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]							D.D. off Line
8-5-82	DB	75		7.2	950	18	20°							
8-6-82	[illegible]	20	—	7.0	900	6	21°							
8-6-82	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]							
8-6-82	DB	100		7.5	1100	20	22°							D.D. on Line
8-9-82	ER	55	—	7.4	400	* 12	21°							S.I.S - Rcy on Line
8-10-82	[illegible]	50	—	6.6	950	11	20°							SIS-RCY ON & DRIED
8-10-82	ER	75	—	6.9	850	10	21°							" " "
8-11-82	ER	50	—	7.2	1425	10	22°							SIS Rcy ON
8-11-82	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]							
8-12-82	[illegible]	35	—	7.0	1300	12	23°							SIS-Rcy Pump ON
8-12-82	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]							" "
8-13-82	DB	45	—	7.4	950	6	22°							D.O. OFF, Recirc PP OFF
8-13-82	ER	50	—	7.3	1000	28	22°							SIS-Rcy Pump on
8-13-82	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]								
8-16-82	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]							[illegible]
8-16-82	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]							
8-17-82	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]							[illegible]
8-17-82	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]							
8-18-82	DB	10		6.0	700	22	23°							D.D. OFF Line - Recirc OFF

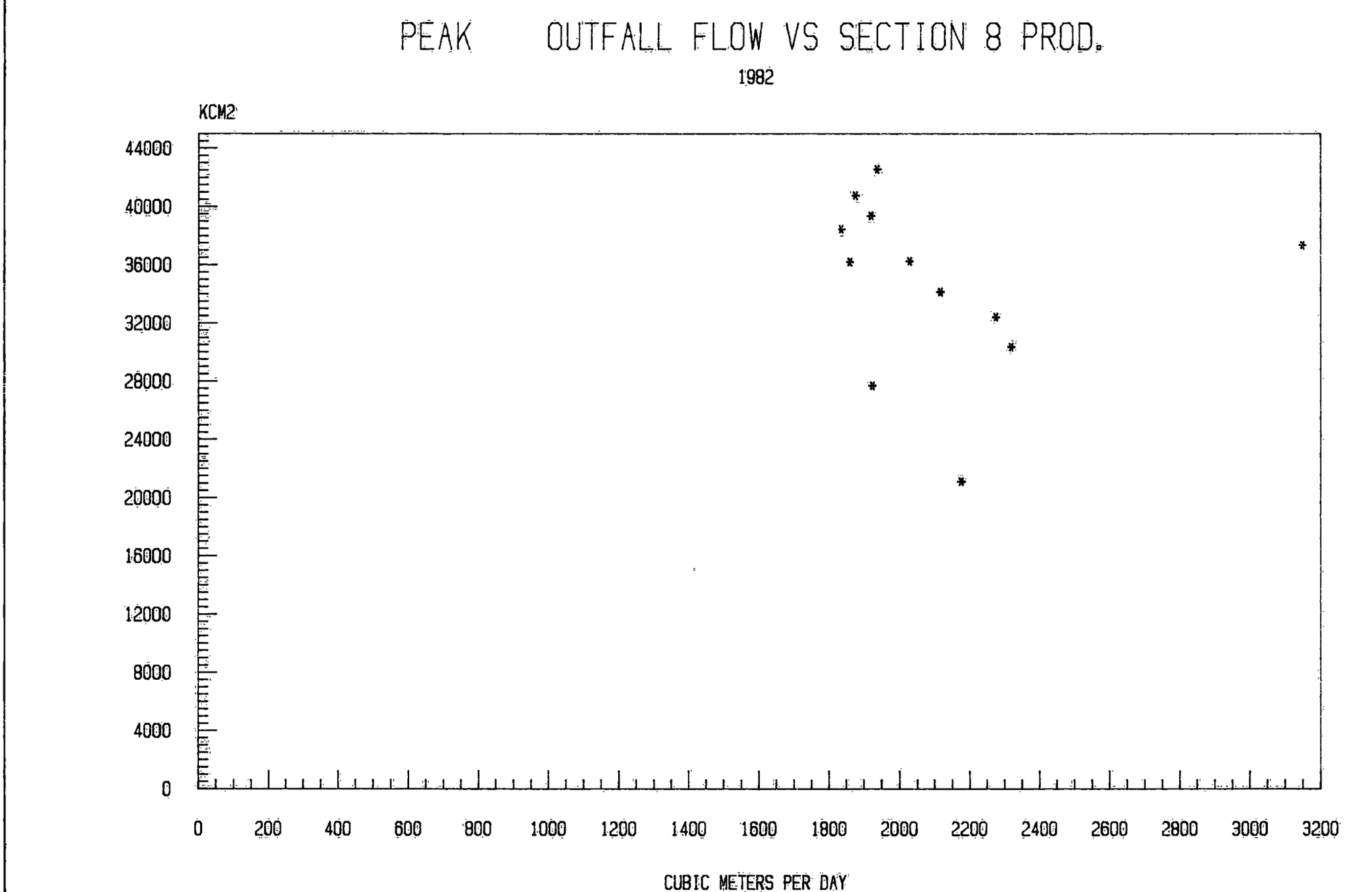
SCOEPA00034939

PEAK OUTFALL FLOW VS SECTION 7 PROD.

1982

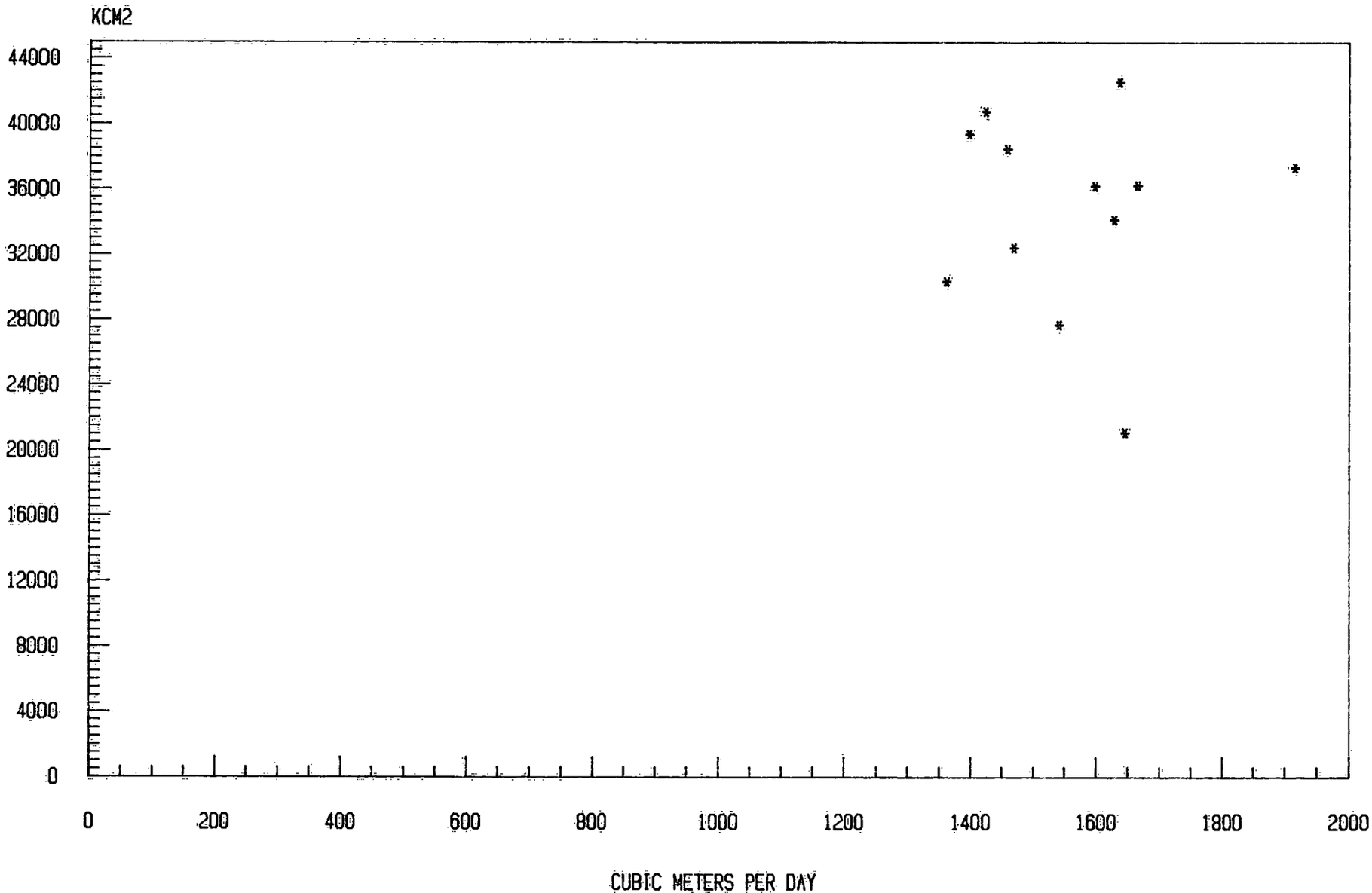


SCOEPA00034940


PEAK OUTFALL FLOW VS SECTION 8 PROD.
1982
KCM2
44000
40000
36000
32000
28000
24000
20000
16000
12000
8000
4000
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
CUBIC METERS PER DAY

FRIDAY OUTFALL FLOW VS SECTION 8 PROD.

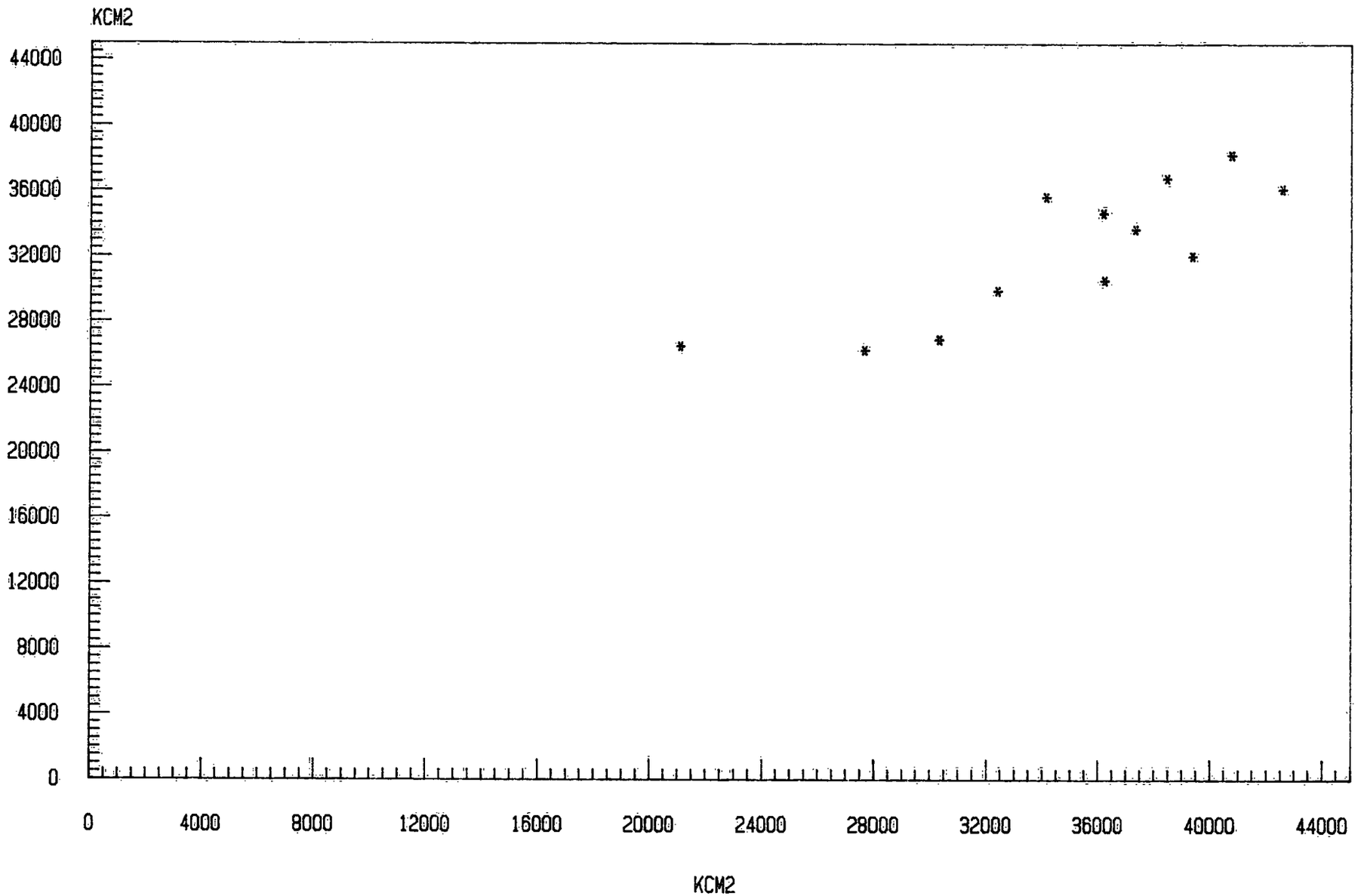
1982



SCOEPA00034942

SECTION 7 PRODUCTION VS SECTION 8 PROD.

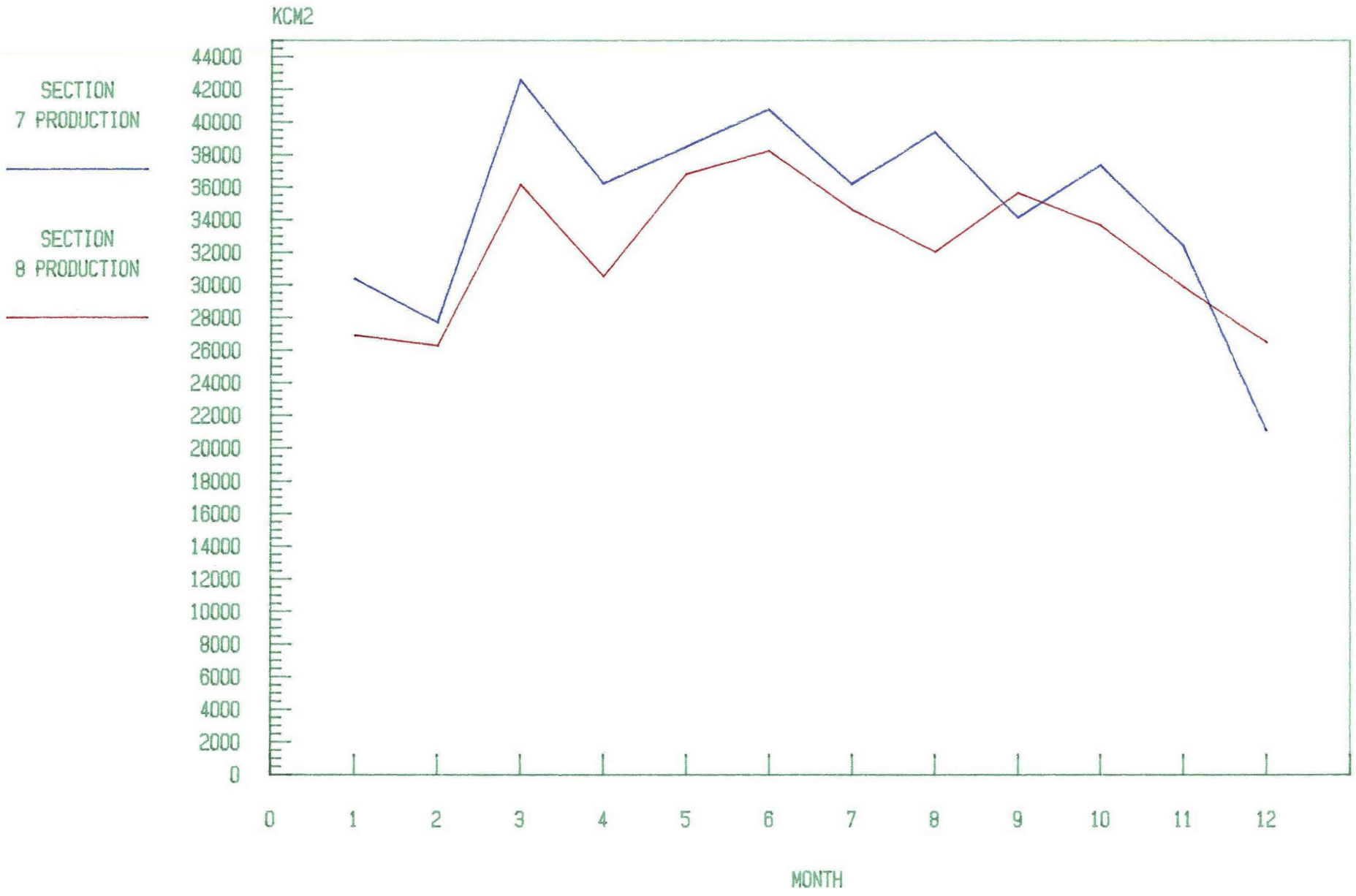
1982



SCOEPA00034943

PRODUCTION LEVELS

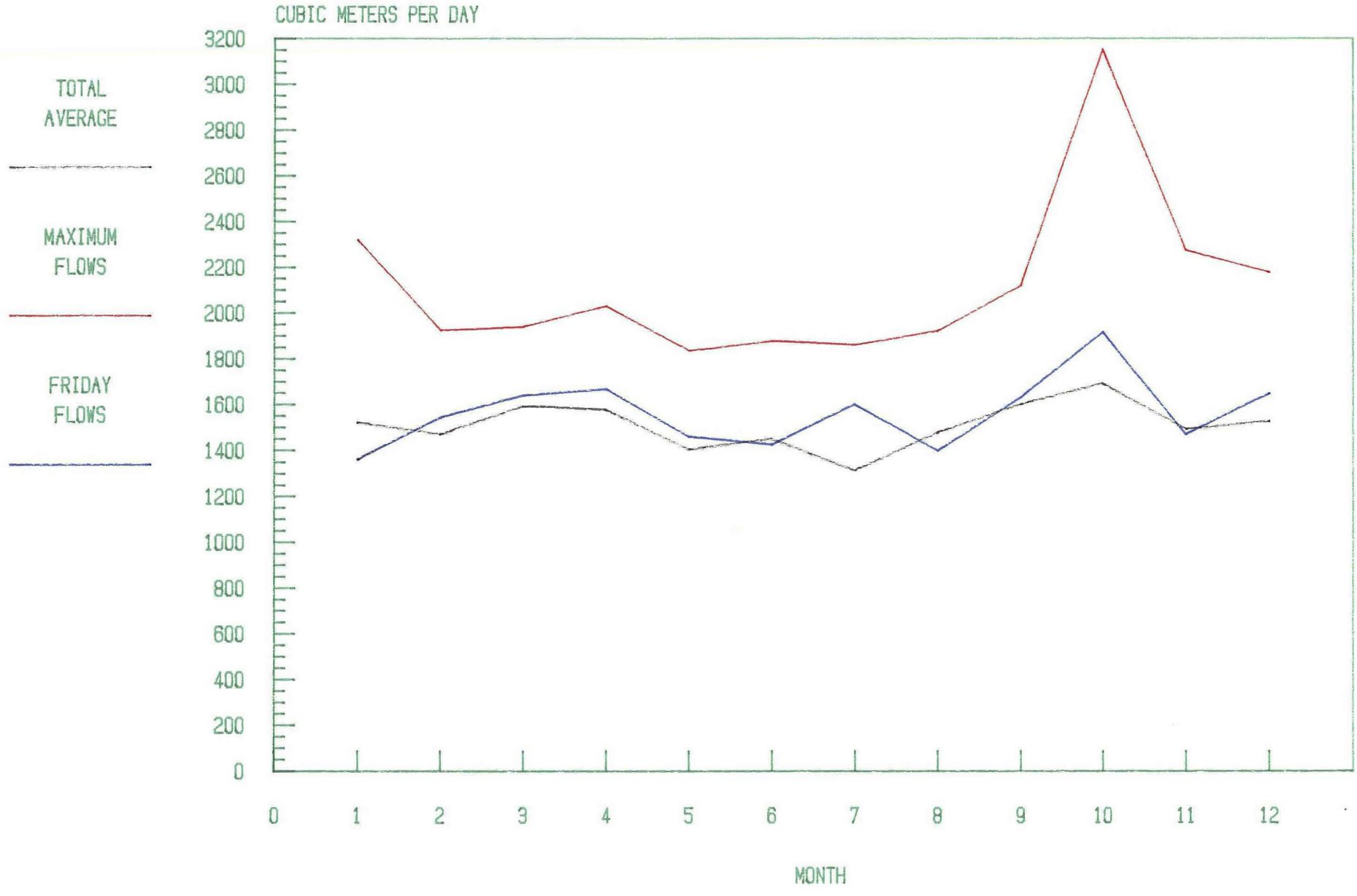
1982



SCOEPA00034944

OUTFALL FLOWS

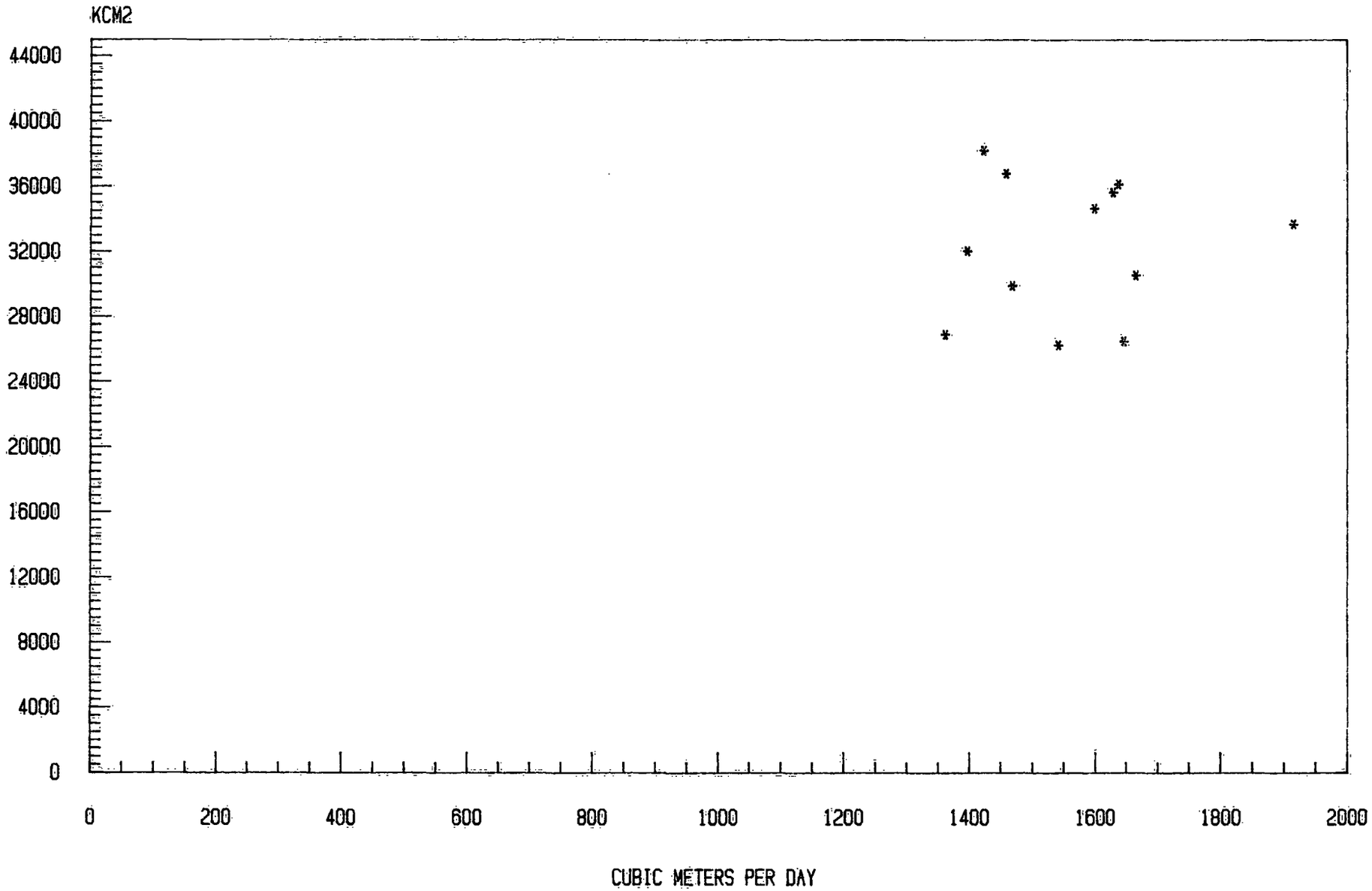
1982



SCOEPA00034945

FRIDAY OUTFALL FLOW VS SECTION 8 PROD.

1982



SCOEPA00034946

Date	Turbidity	pH
8-24-82	13	7.6
8-25	7	6.9
8-26	8	6.9
8-27	10	7.1
8-30	19	7.7
8-31	12	7.4
9-1	10	7.2
9-2	10	6.8
9-3	9	7.0
9-7	11	7.6
9-8	7	7.3
9-9	16	8.1
9-10	7	8.0
9-13	4	7.3
9-14	8	7.1
9-15	7	7.1
9-16	18	7.3
9-17	14	7.3
9-20	10	8.0
9-21	17	6.6
9-22	28	6.7
9-23	7.	7.0
9-24	12	8.5
9-27	11	8.1
9-28	16	7.6
9-29	23	7.2
9-30	25	7.6
10-1	12	6.3
10-4	20	7.4
10-5	4	7.8
10-7	25	6.3
10-8	17	7.0
10-11	26	9.0
10-26	21	7.2
10-27	25	6.8
11-9	29	6.7
11-10	25	7.3
11-18	24	7.0
11-22	23	8.2
11-23	29	7.7
11-30	26	7.1

Date	Turbidity	pH
12-1	24	7.4
12-2	28	6.7

n = 113
avg = 7.5 (7.474
σ_n = .53

Sol CaF_2 0.002%
~~SIS~~
slightly sol. in acid

All data on clarifier effluent for 1982
with turbidity less than 30 (condition for NPDES compliance)

average pH 7.5
number of dates 113
standard deviation 0.53

∴ Optimum pH 7.5
range 7.0 → 8.0

Date	Turbidity	pH
1-13-82	16	6.6
2-26	25	8.0
4-22	15	7.5
4-23	18	8.5
4-26	22	8.5
4-28	24	8.1
4-30	26	8.0
5-3	27	7.7
5-6	20	7.7
5-7	29	7.4
5-11	29	7.3
5-13	8	7.8
5-14	28	8.7
5-17	24	8.0
5-18	28	8.2
5-20	27	7.5
5-21	8.	6.9
6-1	28	7.2
6-8	8	6.8
6-9	14	7.2
6-10	23	7.8
6-11	21	8.5
6-14	10	8.0
6-17	18	7.8
6-18	20	7.5
6-19	21	6.6
6-21	13	7.0
6-24	22	8.1
6-25	10	8.3
6-28	22	8.0
6-29	20	8.0
6-30	7	7.4
7-1	18	7.2
7-3	5	7.4
7-4	7	7.7
7-6	16	7.3
7-7-82	18	7.1
7-8-82	14	7.6
7-9-82	11	7.5
7-12-82	20	7.2
7-13-82	25	7.6
7-14-	6	7.4
7-15	14	7.7
7-16	20	7.9
7-17	15	7.8
7-18	15	7.5
7-19	12	7.6
7-20	13	7.7
7-21	18	7.3
7-22	17	7.4
7-23	14	7.1
7-26	21	8.0
7-27	13	7.8
7-28	17	8.5
7-29	17	7.6
7-30	12	7.3
8-2	13	7.5
8-3	4	6.7
8-4	22	7.4
8-5	16	7.3
8-6	12	7.3
8-9	12	7.4
8-10	11	6.8
8-11	9	6.8
8-12	7	7.4
8-13	18	7.5
8-16	14	7.6
8-17	23	7.0
8-18	22	6.0
8-19	6	7.4
8-20	13	8.0
8-23	10	7.4

SCOEPA00034948

WACKER

CLARIFIER EFFLUENT GRAB SAMPLES

DAYS. _____ SWING. _____ GRAVE. _____

DATE	INIT	FLOW	SLUDGE LEVEL	pH	TDS	TURBIDITY	TEMP			TSS	F-	Ca^{++}		COMMENTS
8-18-82	[illegible]	?	—	7.6	1600	37	23°							Sis-Rcy Pump on
8.18.82	EV	—	—	7.6	1550	40	24							" " " "
8-19-82	[illegible]	30?		7.2	1300	32	23°							" " " "
8.19.82	EV	55	—	7.4	1175	6	24							" " " "
[illegible]	[illegible]	40*		7.3	1350	6	23°							*estimate
8-20-82	[illegible]	65*	—	6.3	800	38	24°							
8.20.82	EV	60*	—	8.6	1000	21	25°							
[illegible]	[illegible]	21*		[illegible]	[illegible]	[illegible]	[illegible]							
8-23-82	[illegible]	55		7.4	1100	50	22°							
8.23.82	EV	80	—	7.8	575	9	24							Sis-Rcy on
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]							
8-24-82	[illegible]	50		7.2	600	18	22°							Recirc' pp' on
8.24.82	EV	65	—	7.6	1050	No Reading	26°							
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]							[illegible]
8-25-82	[illegible]	50		7.2	800	10	22°							" " "
8-26-82	[illegible]	80	—	6.5	900	4	24°							" " "
[illegible]	[illegible]	[illegible]		7.0	[illegible]	[illegible]	23°							" " off
8-26-82	[illegible]	60	—	6.6	950	8	22°							D.P off. Recirc on.
[illegible]	[illegible]	90	—	[illegible]	[illegible]	6	[illegible]							[illegible]
[illegible]	[illegible]	65	—	7.4	[illegible]	[illegible]	21°							
8-27-82	[illegible]	55	—	6.6	550	12	21°							Recirc on.
[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]							" "
8-30-82	EV	25	—	7.7	550	8	22°							" "
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]							" "

Eng. Form No. 28

SCOEPA00034949

B:DFlow

Day of yr	Ocean Flow	Comb. Flow	Outfall Flow	MU3 Flow
1	0	381.7	904.1	522.4
2	0	488.5	1243.7	755.2
3	0	688.6	1385.5	696.9
4	0	987.9	1643.2	655.3
5	415.4050	1091	2039.6	948.6
6	315.2157	1012.3	2320.9	1308.6
7	398.5995	1055	1843.1	788.1
8	488.9099	691.3	1278.8	587.5
9	243.4519	337.1	953.7	616.6
10	60.44663	689.9	1353.5	663.6
11	261.1658	1089.1	1853.8	764.7
12	468.5087	1013.9	1739.6	725.7
13	509.5004	1064.3	1802.5	738.2
14	483.5731	969.1	1753.8	784.7
15	405.8668	705.5	1461.7	756.2
16	248.7131	468.9	1225.1	756.2
17	148.2210	699	1455.2	756.2
18	221.3475	1185	1680.1	495.1
19	366.2755	1075	1778.3	703.3
20	316.6162	1005.3	1712.8	707.5
21	283.6488	1049.1	1734.3	685.2
22	238.7964	951.5	1571.9	620.4
23	228.8418	615.3	1166.1	550.8
24	93.48978	706.7	1351.8	645.1
25	200.0757	968.8	1613.9	645.1
26	364.3452	927.2	1572.3	645.1
27	419.2657	992.2	1637.3	645.1
28	263.6260	913.7	1534.1	620.4
29	296.1393	962	1598.3	636.3
30	272.4830	332.2	870.9	538.7
31	119.6821	502.6	1079.1	576.5
32	201	968.9	1617.7	648.8
* 33	390.8	1256.3	1925.9	669.6
34	345.5	1085.1	1824.4	739.3
35	392.2	874.1	1402.5	528.4
36	366.7	823.1	1468.1	645
37	267.8	192.8	740.9	548.1
38	99.4	493.2	1066.3	573.1
39	179.4	996	1778.1	782.1
40	366.1	1140.6	1640.7	500.1
41	420.1	971.1	1638.5	667.4
42	372.5	1162	1870.3	708.3
43	437.2	772.6	1438.8	666.2
44	292.9	508	1056.1	548.1
45	99.1	436.9	989.6	552.7
46	197	645.5	1212.6	567.1
47	230.7	1057.8	1718.7	660.9
48	382	974.7	1610.7	636
49	433.2	1057.8	1692.2	634.4
50	404	968.7	1598.2	629.5
51	430.7	396	933.9	537.9
52	245.1	479.9	1015.9	536
53	257.4	914.5	1534.2	619.7
54	439.6	1108.5	1776.6	668.1
55	415.3	947.4	1656.8	709.4
56	425.2	1131.6	1794.8	663.2
57	417.4	978.9	1665.2	686.3
58	388.2	654	1304.7	650.7
59	362.4	638.5	1176.4	537.9
* 60	316.8	894.3	1547.3	653
61	349.9	1067.9	1714.8	646.9

	62	398.4	1004.5	1679.8	675.3
	63	435.8	1105.5	1811.1	705.6
—	64	497.4	952.2	1601.8	649.6
	65	346.4	410.1	1133.5	723.4
	66	249	706.9	1474.6	767.7
	67	492.2	805.5	1338.9	533.4
	68	273	855.7	1604.8	749.1
	69	245.6	833	1581.8	748.8
	70	207.8	1017.4	1774.7	757.3
—	71	401.7	970.9	1742.8	771.9
	72	475.4	651.5	1423.4	771.9
	73	276.8	475.9	929.4	453.5
	74	247.4	1219.4	1940.1	720.7
	75	403.8	1171.7	1905.3	733.6
	76	451.9	1179	1906.6	727.6
	77	535	1140.7	1876.2	735.5
—	78	508.5	803.3	1495.7	692.4
	79	371.4	328.9	1021.3	692.4
	80	293.9	505.7	930.8	425.1
	81	393.1	1131.1	1794.3	663.2
	82	479.2	1025.6	1683.1	657.5
	83	504	1145.7	1803.2	657.5
	84	541.7	1085.9	1756.3	670.4
—	85	433.9	1017.4	1714.3	696.9
	86	466.5	695	1359.9	664.9
	87	266.5	811.8	1476.7	664.9
*	88	322.6	1181.1	1727.7	546.6
*	89	431.9	1154.5	1841.6	687.1
	90	430.3	1121.1	1804	682.9
	91	481.3	996.6	1679.4	682.8
—	92	408.8	857.3	1667.3	810
	93	306.5	289.1	729.3	440.2
	94	147.5	511.8	1093.9	582.1
	95	274.2	1043.6	1720	676.4
	96	514.1	1167.4	1844.2	676.8
	97	534	1026.9	1721.4	694.5
	98	537.1	1215	1936.8	721.8
—	99	589.6	929.6	1505.3	575.7
	100	268.9	428.7	999.9	571.2
	101	154.4	631.8	1195.7	563.9
	102	325.4	1252.1	2029.5	777.4
	103	479.2	1136.3	1863.8	727.5
	104	567.5	1058.9	1790.9	732
	105	462.1	1204.2	1925.2	721
—	106	516.4	1286.9	1998.1	711.2
	107	381	487.3	1019.8	532.5
	108	163.4	668.5	1267.7	599.2
	109	192.9	1143.8	1848.9	705.1
	110	524.5	1137	1802	665
	111	522.6	1075.5	1795	719.5
	112	497.8	1117.1	1784	666.9
—	113	448.5	991.6	1656.6	665
	114	172.9	440.8	1043.8	603
	115	131.6	557.1	1110.1	553
	116	267.7	1109.2	1795.4	686.2
	117	506.7	1144.7	1766.2	621.5
	118	456.4	991.6	1659.3	667.7
	119	507.2	946.9	1580.8	633.9
—	120	454	899.1	1508.5	609.4
	121	326	425.8	964.8	539
	122	198.4	655.9	1194.9	539
*	123	335.4	975.7	1690.3	714.6
	124	443.8	1120.4	1806.2	685.8
	125	486.5	1227.3	1837.4	610.1
	126	491.3	1024.2	1723.7	699.5

—	127	476.9	933.1	1541.7	608.6
	128	408.2	345	1199.7	854.7
	129	196	465.2	727.1	261.9
	130	280.4	1001.9	1639.7	637.8
	131	436.8	1005.1	1667.1	662
	132	484.1	953.1	1662.4	709.3
	133	463.7	1069.5	1722.8	653.3
—	134	529.8	653.5	1311.7	658.2
	135	387.4	606.3	1176.7	570.4
	136	163.3	640.5	1231.3	590.8
	137	315.5	1004.5	1668	663.5
	138	498.8	857.7	1496.6	638.9
	139	540.2	1081.8	1792.2	710.4
	140	546.6	1035.7	1680.7	645
—	141	481.2	891.5	1516.4	624.9
	142	293.6	464.8	1004.2	539.4
	143	293.6	529.1	1123.3	594.2
	144	315.7	714.6	1407.6	693
	145	469.8	714.2	1379.2	665
	146	443.8	846.2	1482.5	636.3
	147	454.1	937.8	1595.3	657.5
—	148	461.7	860.6	1468.5	607.9
	149	325.8	323.9	867	543.1
	150	182.4	326.2	841	514.8
	151	108.7	493.9	1091.9	598
*	152	301.3	956.7	1607.3	650.6
	153	476.9	953.1	1599.2	646.1
	154	538	1064.7	1724.8	660.1
—	155	440	938.3	1608.6	670.3
	156	390.5	591.9	1191.1	599.2
	157	162.9	595.5	1152.7	557.2
	158	241.9	1051.2	1737	685.8
	159	371.6	1058.6	1749	690.4
	160	386.5	1011.4	1726	714.6
	161	484	825.5	1506.4	680.9
—	162	414.6	649.2	1287.7	638.5
	163	141.7	429.7	951.7	522
	164	59.7	585.5	1156.3	570.8
	165	183.4	989.6	1689.8	700.2
	166	499.4	1024.4	1705.7	681.3
	167	353.7	951.1	1649.4	698.3
	168	457.9	1083.3	1818.3	735
—	169	470.2	707	1393.6	686.6
	170	330.6	265.6	864	598.4
	171	227.3	629.1	1244.2	615.1
	172	347.4	785	1419	634
	173	502.6	884.8	1536.6	651.8
	174	556.1	893.4	1589.8	696.4
	175	505.1	838.5	1531.5	693
—	176	497.2	744	1410.9	666.9
	177	359.8	811.7	1449.9	638.2
	178	190.9	788.2	1411.6	623.4
	179	257.3	1084.8	1874.76	789.96
*	180	454.3	1036.8	1624.2	587.4
	181	406.9	1099.1	1731.2	632.1
	182	473.2	1033.7	1712.7	679
—	183	471	781.6	1621.1	839.5
	184	324.3	310.9	772.7	461.8
	185	193.3	303.8	874.2	570.4
	186	195.9	529.7	1097.1	567.4
	187	245.5	869.9	1553.5	683.6
	188	500.3	882.1	1572.1	690
	189	483.1	1026.7	1723.5	696.8
—	190	492.7	713.2	1413.4	700.2
	191	378.2	320.7	888.1	567.4

	194	472.6	446.4	1144.7	698.3
	195	483	667.9	1316.3	648.4
	196	489.7	931.4	1654.7	723.3
-	197	512.9	761.8	1470.7	708.9
	198	451.9	328.5	984.4	655.9
	199	249.2	220.8	866.1	645.3
	200	299.4	270.1	939.3	669.2
	201	483.1	420.3	1120.1	699.8
	202	493	563.9	1302.7	738.8
	203	486	761	1432.5	671.5
-	204	479.2	1003.9	1715.5	711.6
	205	399.4	267.4	1005.9	738.5
	206	228	444.6	944.2	499.6
	207	331.5	804.1	1592.1	788
	208	543.6	533.5	1141.8	608.3
	209	526.7	1142.7	1862.2	719.5
	210	537.6	1108.5	1828	719.5
-	211	534.7	953.1	1780.5	827.4
	212	421.7	435.6	1275.5	839.9

B:D FLOW 2

213	232.92960	647.1	1365.1	718
214	366.50265	962.4	1660.7	698.3
215	426.64648	1143	1873.1	730.1
216	511.50643	871.1	1567.5	696.4
217	473.42922	1040.9	1754.4	713.5
218	505.45042	749.6	1462.3	712.7
219	437.35806	301.9	972.2	670.3
220	263.73959	453.8	1251.3	797.5
221	342.24073	1144.8	1768.2	623.4
222	401.17335	1024	1864.6	840.6
223	513.39894	1057	1922.3	865.3
224	401.85466	824	1562.5	738.5
225	460.82513	756.7	1511.4	754.7
226	446.70704	467.1	1178.3	711.2
227	227.66843	677	1312.9	635.9
228	295.98789	1162.9	1877.1	714.2
229	394.43603	642.3	1485.6	843.3
230	447.23694	390.5	987.8	597.3
231	512.22559	508	1580.7	1072.7
232	532.62680	606.8	918.3	311.5
233	423.54277	308.3	895.4	587.1
234	287.13096	321.5	911.2	589.7
235	315.10220	572.5	1303.8	731.3
236	403.02801	411.7	1147.5	735.8
237	480.92354	733.4	1451.8	718.4
238	435.95761	950.7	1674	723.3
239	474.90537	904.4	1702.7	798.3
240	392.39213	723.5	1721.6	998.1
241	312.79334	702.3	1489.2	786.9
242	318.39516	1033.4	1788.5	755.1
243	411.80924	1099.9	1835.3	735.4
244	490.2	1082.3	1909.3	827
245	448.7	1036	1878.2	842.2
246	503.7	788.9	1523.9	735
247	371.5	339.9	1015.9	676
248	214.7	343.9	1036.9	693
249	179.9	544.5	1233.5	689
250	261.4	1225.1	2002.1	777
251	461.5	1227.5	2008.5	781
252	408.7	1061.9	1751.9	690
253	423.9	928.2	1761.2	833
254	346.5	596.7	1175	578.3
255	303.5	532.7	1177.7	645
256	303.1	1059.3	1787.3	728
257	427.9	1016.3	1756.3	740
258	413.3	979.6	1756.6	777
259	485.6	689.2	1412.2	723
260	429.4	916	1572	656
261	72.3	627.43333	1331.4333	704
262	0	471.13333	1175.1333	704
263	0	971.46667	1776.4667	805
264	0	1153.7	1942.7	789
265	0	1338.6	2118.6	780
266	0	1116.1	1863.1	747
267	717.2	1033.4	1663.4	630
268	941.2	945.7	1549.7	604
269	888	536.8	1168.8	632
270	913.4	1310.6	2117.6	807
271	477.4	1219.7	1962.7	743
272	315.1	1338.6	2107.6	769
273	301.6	1260.8	2067.8	807

—	274	347	1260	2067	807
	275	268.5	1001	1724	723
	276	136.1	464	1030	566
	277	195.9	738	1438	700
	278	331	1365	2162	797
	279	338.8	878	1658	780
	280	308.7	922	1828	906
—	281	339.5	1417	2045	628
	282	270.8	739	1418	679
	283	177.4	351	941	590
	284	216.8	519	1168	649
	285	440.4	1066	1792	726
	286	459	907	1626	719
	287	375.5	1180	1914	734
—	288	340.7	1313	2012	699
	289	287.4	1036	1695	659
	290	165.8	288	857	569
	291	239.9	532	1148	616
	292	363	1348	2101	753
	293	342.9	1425	2168	743
	294	357.2	2400	3151	751
—	295	402.3	1068	1769	701
	296	264.5	619	1356	737
	297	154.5	754	1348	594
	298	228.8	1281	1924	643
	299	284.4	1298	2022	724
	300	319.4	1250	1998	748
	301	335.9	1159	1903	744
—	302	341.3	902	1689	787
	303	262.6	446	1174	728
	304	161.8	598.90235	1251.8168	652.91446
	305	237.2	587	1370	783
*	306	358.6	1253	2075	822
	307	377.5	1200	1871	671
	308	309.7	1246	2022	776
—	309	306.1	930	1645	715
	310	243.8	401	1048	647
	311	155.9	601	1282	681
	312	228.2	1099	1846	747
	313	321.5	1242	1989	747
	314	302.2	1286	1977	691
	315	284	1310	2042	732
—	316	321.8	1007	1776	769
	317	257.4	384	1009	625
	318	100	601	1213	612
	319	160.6	1292	2075	783
	320	304.2	1250	2005	755
	321	301.5	1224	1985	761
	322	310	1282	2040	758
—	323	347.2	827	1539	712
	324	218.6	476	1087	611
	325	135	600	1209	609
	326	127.5	378	1074	696
	327	300.4	459	1155	696
	328	169.7	217	762	545
	329	128.2	354	870	516
—	330	83.2	361	921	560
	331	95.7	405	979	574
	332	77.6	669	1286	617
	333	211.9	1518	2277	759
*	334	379.5	1111	1854	743
	335	257.9	1110.7116	1854.0878	743.37623
	336	320.3	1241.4080	1957.9107	716.50265
—	337	314.9	1339.3263	2131.5291	792.20288
	338	262.2	954.08781	1613.4368	659.34898

339	113.8	347.00984	949.58365	602.57381
340	191.4	603.44436	1267.7139	664.26949
341	318.3	1203.2173	1934.8600	731.64269
342	310.5	1192.8842	1976.3815	783.49735
343	326.4	1278.6147	2137.8123	859.19758
344	323.8	1336.7525	1999.5079	662.75549
345	234.4	1415.4050	2177.7063	762.30129
346	117.1	294.96593	810.86298	515.89705
347	193.6	652.46026	1294.3982	641.93793
348	343	938.72067	1739.2506	800.52990
349	325.2	895.04164	1592.9977	697.95609
350	329	1146.4799	1944.3603	797.88039
351	333.9	1040.1211	1851.2491	811.12793
352	247.8	899.54580	1630.4315	730.88569
353	135.2	463.09614	1036.5254	573.42922
354	192.4	535.54126	1187.3202	651.77896
355	351.9	1104.6177	1870.3255	765.70780
356	319.3	1389.2884	2142.8842	753.59576
357	235.6	977.40348	1782.0969	804.69341
358	107.7	309.12188	1105.4883	796.36639
359	94.6	166.54050	847.84254	681.30204
360	94.6	166.54050	847.84254	681.30204
361	96.2	170.13626	843.48978	673.35352
362	99.1	203.25511	1512.8690	1309.6139
363	85.3	195.19304	913.96669	718.77366
364	67.7	324.71612	1256.5859	931.86980
365	81	393.60333	1148.7131	755.10977

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

January 13, 1982

Department of Environmental Quality
Northwest Region
Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Subject: N.P.D.E.S. Permit No. OR003058-9

Attention: Chuck Clinton

Dear Sir:

During the month of December as we indicated in my letter of December 22nd, from the afternoon of December 21st until January 4th we effected repairs on a subgrade waste drain line. To accomplish this, it was necessary to divert the flow which would normally have used this drain into an alternate drain which is ultimately discharged to the river. By minimizing operations, we were able to hold the amount of excess BOD to a minimum. However, the presence of detergent in the waste stream made control of the flocculation process in our clarifier substantially less effective and resulted in an increase in our total suspended solids concentrations. Also, the BOD during this period from other sources was lower than anticipated due to a reduction in the amount of material being processed through the plant in the latter half of the month. The drain line was replaced with a 316 stainless steel line which should not have the corrosion problem observed for the carbon steel pipe which was replaced.

Beyond this, the only other problem observed during the month was the continuing problem of maintaining pH stability. This problem remains as difficult as before.

The average daily flow on sampling days was 943.2 m^3/day, while the monthly average flowrate was 847.9 m^3/day. As a consequence the loading values are slightly high. Also, from December 23rd through January 4th, the plant was in a somewhat reduced operating status.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis
Facilities Manager

JE/kk
Attachment

cc: Steve Beiswenger, Dirk Dunning, Gary Pendleton, John Pittman, Mal Russ, File

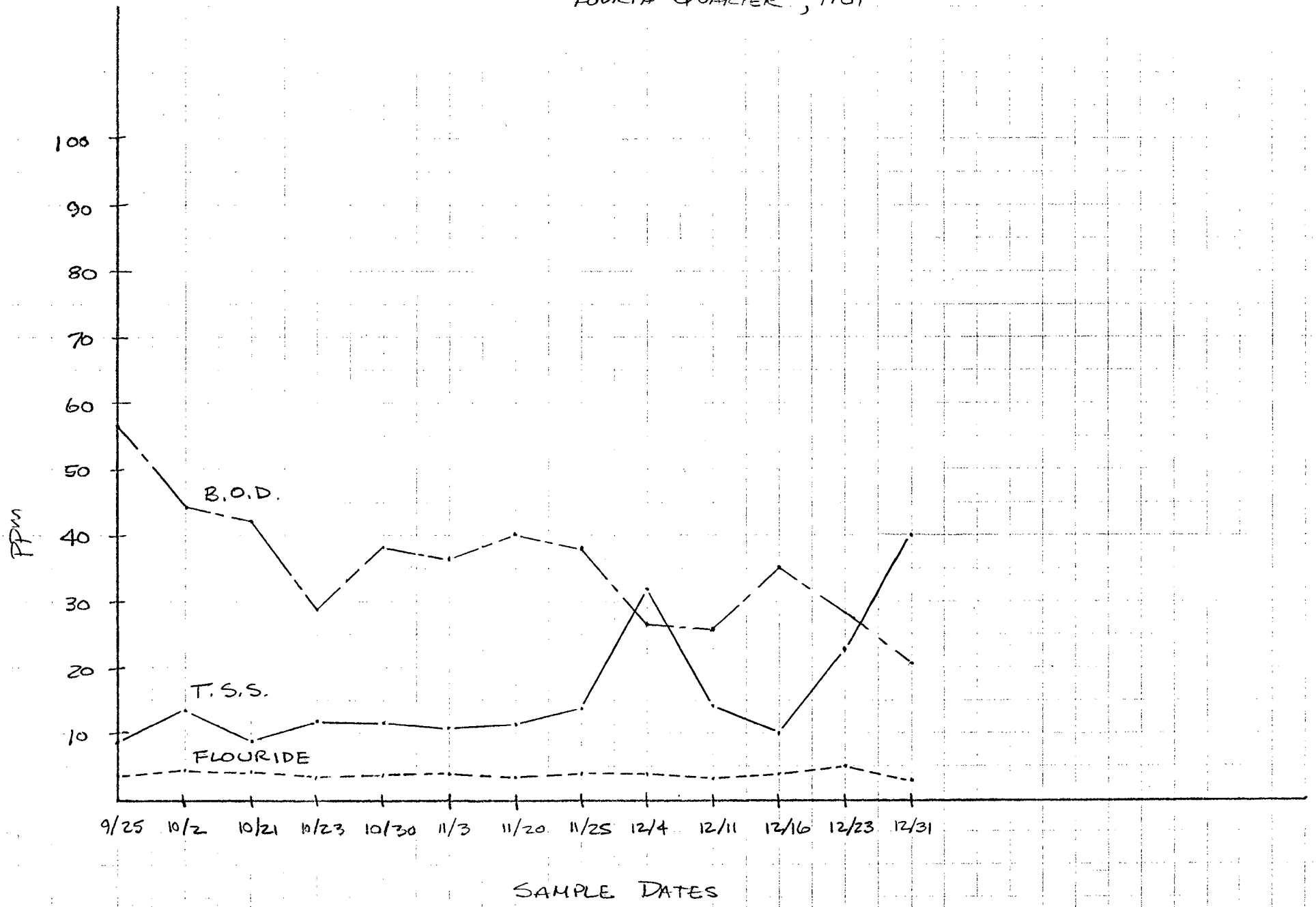
SCOEPA00034957

DD
12/81

FIGURE NO. 1 - WACKER SILTRONIC CORP.

N.P.D.E.S. DISCHARGE PARAMETERS

FOURTH QUARTER, 1981



SCOEPA00034958

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203-0180
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073.

(2-16) OR0030228-9 PERMIT NUMBER
(17-19) 021 DISCHARGE NUMBER

2834-J
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	81	12	01	TO	81	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater FLOW	SAMPLE MEASUREMENT	847.9	1271.1	m^3/d	—	—	—	—	0	DAILY	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	DAILY	TOTAL RECORD
BOD	SAMPLE MEASUREMENT	26.1	34.1	kg/d	21	27.4	35	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
TSS	SAMPLE MEASUREMENT	21.3	30.5	kg/d	10	23.8	40	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
Cr^{6+}	SAMPLE MEASUREMENT	0.005	0.021	kg/d	0	0.006	0.022	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24HC
Cr^{total}	SAMPLE MEASUREMENT	0.007	0.022	kg/d	0.002	0.007	0.023	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24HC
F^-	SAMPLE MEASUREMENT	4.0	5.0	kg/d	3.6	4.3	5.0	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24HC
pH	SAMPLE MEASUREMENT	—	—	—	2.8	—	10.8	pH UNITS	8	DAILY	CONT
	PERMIT REQUIREMENT	—	—		6.0	—	9.0		0	DAILY	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGR'G
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 243-2020

DATE: YEAR 82 MO 01 DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034959

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME WACKER SILTRONIC CORP.
ADDRESS P.O. BOX 03180
PORTLAND, OREGON 97203-0180
HYPER-PURE SILICON PLANT
FACILITY 7200 N.W. FRONT AVE.
LOCATION PORTLAND, OREGON 97229

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) OR0030500-9 PERMIT NUMBER
(17-19) 021 DISCHARGE NUMBER

2834-5
File No. 93450

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	81	12	01	TO	81	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN	SAMPLE MEASUREMENT	—	—		0.03	0.16	0.4	mg/l	0	1/7	GRAB
TOTAL $PO_4^{\equiv}$	PERMIT REQUIREMENT	—	—	—	—	2.0	5.0		0	1/7	GRAB
	SAMPLE MEASUREMENT	265.3	515.2	m^3/d	—	—	—		0	1/1	RECORD
FLOW	PERMIT REQUIREMENT	—	—		—	—	—	—	0	1/1	RECORD
—	SAMPLE MEASUREMENT	—	—		—	—	—		—	—	—
	PERMIT REQUIREMENT	—	—	—	—	—	—	—	—	—	—
COMBINED OUTFALL	SAMPLE MEASUREMENT	—	—		6.9	—	7.8	pH	0	1/7	GRAB
pH	PERMIT REQUIREMENT	—	—	—	6.0	—	9.0	UNITS	0	1/7	GRAB
	SAMPLE MEASUREMENT	—	—		—	—	22.3		0	1/7	GRAB
TEMPERATURE	PERMIT REQUIREMENT	—	—	—	—	—	27	°C	0	1/7	GRAB
FREE AVAIL.	SAMPLE MEASUREMENT	—	—		⊖	⊖	⊖		0	1/7	DURING Cl_2 GRAB
CHLORINE	PERMIT REQUIREMENT	—	—	—	—	0.2	0.5	mg/l	0	1/7	DURING Cl_2 GRAB
—	SAMPLE MEASUREMENT	—	—		—	—	—		—	—	—
	PERMIT REQUIREMENT	—	—	—	—	—	—	—	—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
JOHN PITTMAN
DIRECTOR OF ENGR'G
TYPED OR PRINTED

THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

John Pittman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 243-2020

DATE: YEAR 82 | MO 01 | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034960

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 002458-9

(17-19) DISCHARGE NUMBER: 021

2834-J
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	81	12	01	TO	81	12	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater FLOW	SAMPLE MEASUREMENT	847.9	1271.1	m^3/d	—	—	—	—	0	DAILY	TOTAL Record
	PERMIT REQUIREMENT										
BOD	SAMPLE MEASUREMENT	26.1	34.1	kg/d	21	27.4	35	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	21.3	30.5	kg/d	10	23.8	40	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	0.005	0.021	kg/d	<0	0.006	0.022	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
Cr total	SAMPLE MEASUREMENT	0.007	0.022	kg/d	0.002	0.007	0.023	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	4.0	5.0	kg/d	3.6	4.3	5.0	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	2.8	—	10.8	pH UNITS	8	DAILY	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	TELEPHONE (AREA CODE / NUMBER)	DATE (YEAR / MO / DAY)
JOHN FITZMAURICE, PLANT MANAGER	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 / 242-2020	82 / 01 /
TYPED OR PRINTED			

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE OF

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR 002458-9

(17-19) DISCHARGE NUMBER: 021

2834-J
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	81	12	01	TO	81	12	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN TOTAL PO4	SAMPLE MEASUREMENT	—	—	—	0.03	0.16	0.4	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
FLOW	SAMPLE MEASUREMENT	265.3	515.2	m^3/d	—	—	—	—	0	1/7	Record
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	6.9	—	7.8	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	22.3	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
FREE AVAIL. CHLORINE	SAMPLE MEASUREMENT	—	—	—	<0	<0	<0	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*	TELEPHONE (AREA CODE / NUMBER)	DATE (YEAR / MO / DAY)
JOHN FITZMAURICE, PLANT MANAGER	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503 / 242-2020	82 / 01 /
TYPED OR PRINTED			

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

EPA Form 3320-1 (Rev. 10-77) PREVIOUS EDITION TO BE USED UNTIL SUPPLY IS EXHAUSTED (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 2 OF 2

SCOEPA00034961

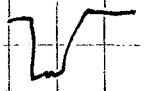
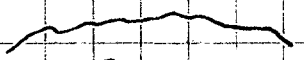
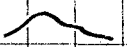
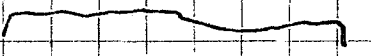
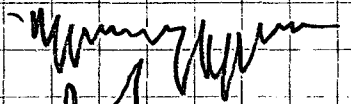
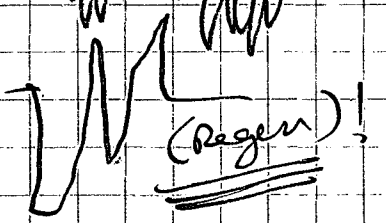
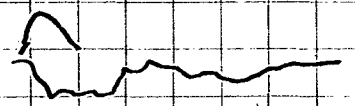
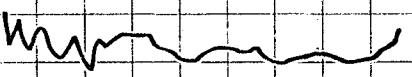
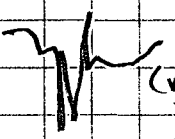
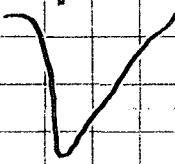
December 81 reading

	OWW		COMB	m^3/d	#2		#3	
11/30	616130		318053		202683		545890	
12/1	630267	390.9	346956	1271.1	203396	272.6	547746	
2	640593	514.5	380534	1113.8	204116	273.7	549608	
3	654184		409956	1088.8	204839	269.1	551484	
4	667177		438720	951.9	205550	271.4	553345	
5	679545		463866	530.5	206267	270.7	555164	
6	685043		477879	549.2	206982	271.4	556665	
7	693753		492388	1208.5	207699	283.5	558328	
8	707309		524314	1010.8	208448	287.7	560375	
9	720063		551015	1101.6	209208	241.5	562474	
10	734568		580115	1070.8	209846	(273.3)	564278	
11	746985		608403	954.1	—	(273.3)	—	dd
12	756082		633607	484.3	211290	271.4	568117	
13	759005		640401	396.9	212007	214.6	569750	
14	765138		656887	977.8	212574	256.7	571047	
15	779242		682717	1078.1	213252	343.7	572870	
16	793011		711198	975.5	214160	(244.9)	575068	
17	804313		736969	940.9	—	(244.9)	—	george ?
18	816064		761826	691.6	—	(244.9)	—	MAP
	825291		780096	399.0	—	(244.9)	—	MAP
20	830334		790637	515.8	—	(244.9)	—	MAP
21	840640		804262	1161.6	217395	266.1	583648	
22	851041		834947	1223.9	218098	(134.4)	585598	
23	856131		847280	1011.0	—	(134.4)	—	george
24	859623		893987	419.4	218808	515.2	589319	george
25	863091		905067	173.4	220169	(262.1)	590905	
26	865286		909648	317.0	—	(262.1)	—	George
27	867288		918021	599.4	221554	257.0	593810	
28	871522		933856	1106.5	222233	253.2	595467	
29	879149		963086	1067.2	222902	263.8	597221	
30	888412		991279	1188.6	223599	258.2	599162	
31	897139		022677	706.2	224281	317.2	601072	
1/1	903728		041334		225119		603053	

ave = 847.9
min = 173.4
max = 1271.1

ave = 265.3
min = 134.4
max = 515.2

1981

date	when	min	max	characteristics
12-27	2145-2152	4.9	—	
12-26	1730-2005	—	9.6	
	2050-2100	—	9.4	
	2110-2240	—	9.3	
12-24	0715-0835	4.6	—	
12-23	1430-1530	2.9	10.8	 (Regen)!
12-22	0640-0650	—	10.4	
	0945-1055	5.0	—	
12-21	0800-1250	5.4	—	
12-8	1240-1245	4.0	—	 (regen)!
12-7	0918-0940	2.8	—	 (regen)!

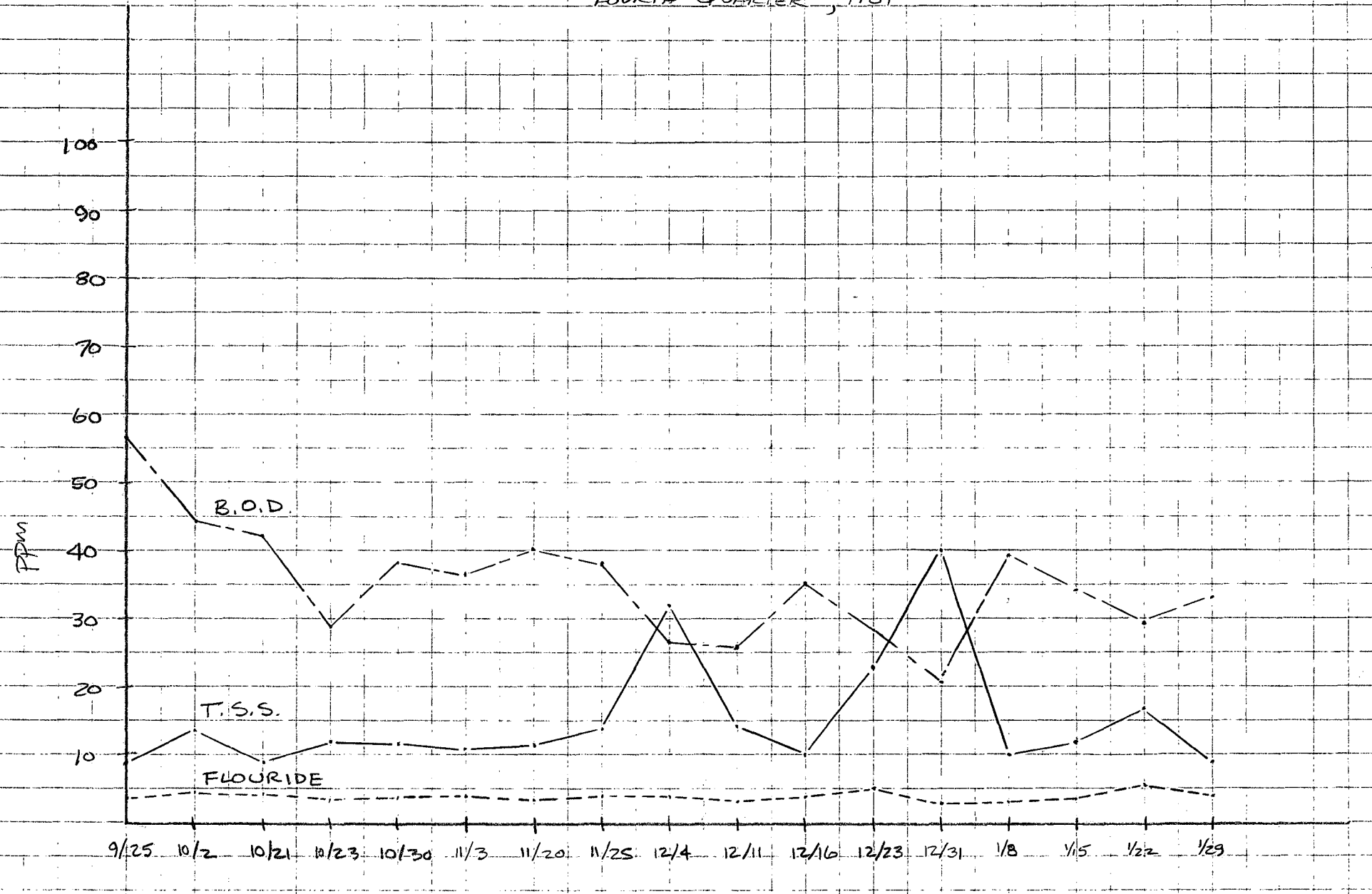
pH violations for Dec. 1981

days 8

min pH = 2.8
max pH = 10.8

DD
12/81

FIGURE NO. 1 - WACKER SILTRONIC CORP.
N.P.D.E.S. DISCHARGE PARAMETERS
FOURTH QUARTER, 1981



SCOEPA00034964

P.O. # 32203
chart paper:
min 5 max 20
1-2 wks ⊙

	OWW	WAD	MET#2	MET#3
12/31/81	897139	022677	224281	601072
1/1	903728	041334	225119	603053
2	907160	051417	225690	604433
3	912645	064322	226469	606428
4	921856	082512	227103	608269
5	932831	108609	227704	610000
6	941159	137429	228497	612506
7	951690	164170	229247	615963
8	964607	192041	229914	618045
9	971039	210302	230558	619597
10	972636	219207	231384	621226
11	979536	237432	232093	622979
12	991914	266203	232815	624999
13	005375	292988	233578	626916
14	018151	321103	234213	628866
15	028874	346703	234914	630939
16	035445	365341	—	—
17	039361	377729	—	—
18	045209	396194	636164	236932
19	054886	427498	237636	638240
20	063251	455896	238361	640098
21	070745	482454	239009	641967
22	077054	510168	239703	643777
23	083100	585305	240394	645446
24	085570	551560	241080	646871
25	090856	570228	—	—
26	100482	595822	—	—
27	111559	620317	—	—
28	118524	646528	243810	653688
29	126348	670664	244467	655327
30	133547	696077	245133	657008
31	136709	704854	245786	658431
2/1/82	142020	718130	246445	659954

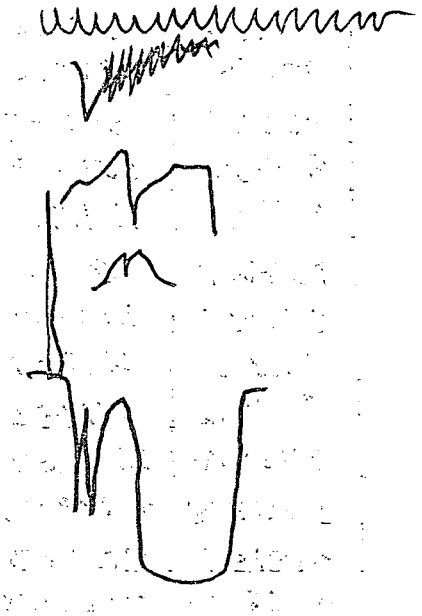
Recorder chart Paper
#300D
Ser. #8101-105
#200190 10PKG/BOX

↑ 3^{80}/BOX

CHESSELL CORP.
NEWTON INDUSTRIAL COMMONS
NEWTON, PA 18940

(615-042-1220)

1/31	11:20 - 11:25	5.6	—	
	11:35 - 11:40	5.7	—	
1/28	0230 - 1240	5.5	—	
	2120 - 2150	4.1	—	
	2210 - 2300	—	10.3	
	2340 - 2350	—	9.3	
1/27	2240 - 2320	3.0	10.1	



EFFICIENCY® LINE 22-213

MONTH: DECEMBER
YEAR: 1981

Wastewater Report (Columns are in mg/L and Kg/Day respectively, m^3/Day, and pH units/ ^oC)

		m^3/d Process Flow	BOD		TSS		Cr^{6+}		Cr		F^-		MV#3 Flow	$PO_4^{\equiv}$	CD pH/T	MV3 pH/T
1	T															
2	W															
3	T															
4	F	951.9	27	25.7	32	30.5	0.022	0.021	0.023	0.022	4.3	4.1		0.4	7.4/20.6	6.2/17.4
5	S															
6	S															
7	M															
8	T															
9	W															
10	T															
11	F	1070.8	26	27.8	14	15.0	0.000	Θ	0.002	0.002	3.6	3.8		0.2	7.8/22.3	6.7/13.2
12	S															
13	S															
14	M															
15	T															
16	W	975.5	35	34.1	10	9.8	0.004	0.004	0.003	0.003	4.4	4.3		0.1	6.9/18.9	5.8/13.2
17	T															
18	F															
19	S															
20	S															
21	M															
22	T															
23	W	1011.0	28	28.3	23	23.3	0.001	0.001	0.004	0.004	5.0	5.0		0.05	7.8/17.4	6.7/10.8
24	T															
25	F															
26	S															
27	S															
28	M															
29	T															
30	W															
31	T	706.2	21	14.8	40	28.2	0.001	0.001	0.004	0.003	4.3	3.0		0.03	7.2/19.7	6.1/12.1
	Ave.	847.9	27.4	26.1	23.8	21.3	0.006	0.005	0.007	0.007	4.3	4.0	265.3	0.156	6.9/7.8	5.8/6.7
	Min./Max.	173.4/1271.1	21/35	14.8/34.1	10/40	9.8/30.5	Θ/0.022	Θ/0.021	0.002/0.023	0.002/0.022	3.6/5.0	3.0/5.0	134.4/515.2	0.03/0.4	22.3	17.4

ave on sample days
943.2

SCOEPA00034967

EFFICIENCY® LINE 22-213

MONTH: Jan.
YEAR: 1981

Wastewater Report (Columns are in mg/L and Kg/Day respectively, m^3/Day, and pH units/ ^oC)

mg/l kg/day

		Process Flow	BOD		TSS		Cr^{6+}		Cr		F^-		MV#3 Flow	$PO_4^{\equiv}$	CD pH/T	MV3 pH/T
1	T	564.3											491			
2	F	821.9 ~~564.3~~											536.7			
3	S	217.1 ~~821.9~~											455.8			
4	S	423.9 ~~217.1~~											206.7			
5	M	845.0 ~~423.9~~											328.6			
6	T	(696.7) ~~845.0~~											(462.6)			
7	KW	(696.7)(1045.1)	96	66.9	5.4	3.8	⊖	⊖	0.01	0.01	18.7	13.0	(462.6)	0.5	6.5/19.5	6.5/12.5
8	T	(696.7)(1045.1)											(462.6)			
9	F	534.2											(462.6)			
10	S	202.0											(462.6)			
11	S	637.4											(462.6)			
12	M	770.5											(462.6)			
13	T	934.8											(462.6)			
14	W	916.8											514.4			
15	KT	972.3	53	51.5	44	42.8	⊖	⊖	0.03	0.03	8.1	7.8	514.4	0.6	6.6/16.0	6.8/14.0
16	F	746.6											491.4			
17	S	189.0											447.84			
18	S	695.3										(43.6)	510.3			
19	M	731.6										(43.6)	~~367.2~~			
20	T	938.1											423.2			
21	KW	944.2	37	34.9	23.6	22.3	⊖	⊖	0.01	0.01	6.4	6.0	539.4	0.5	7.1/18	7.2/13.5
22	T	818.0											456.6			
23	F	691.5											(459.0)			
24	S	164.1											(459.0)			
25	S	427.6											428.9			
26	M	750.6											515.2			
27	T	1000.0											644.6			
28	KW	963.5	33	31.8	22.8	21.9	⊖	⊖	⊖	⊖	8.3	8.0	612.1	0.2	9.0/15	6.1/12
29	T	942.5											658.3			
30	F	512.2											539.8			
31	S	79.0											516.0			
	Ave.	662.1	54.8	~~46~~ 46.3	24.0	22.7	⊖	⊖	0.01	0.01	10.3	8.7	478.5	0.45		
	Min./Max.	79.0 / 1000.0	33/96	31.8/66.9	5.4/44	3.8/42.8	⊖/⊖	⊖/⊖	⊖/0.03	⊖/0.03	6.4/18.7	6.0/13.0	20.7/658.3	0.2/0.6		

SCOEPA00034968

pH violations

1 - 9.4
2 - 9.6
3 - 4.0
4 - 9.3
5 - 5.4

	CD	MU #3	°F / pH
12/31	17.5 / 7.0	13.5 / 7.2	
1/7	19.5 / 6.5	12.5 / 6.8	
1/15	16.0 / 6.6	14.0 / 6.8	
1/21	18. / 7.1	13.5 / 7.2	
1/28	15毒 / 9.0	12. / 6.1	

			NOWW	WADI CLARE	#2	#3	
Dec 80	12/31		187299	436865	61769	169021	63981.4
	1		188533	16537.1 446521	62005	170132	64402.0
Jan 81	2		189951	16902.7 461430	62251	171550	64938.7
	3		192735	17467.0 483142	62551	172754	65394.5
	4		193262	18288.9 488878	62716	173300	65601.2
	5		194781	18506.0 500074	62938	174168	65929.8
	6	5AM	1978546	18939.9 522398	—	—	
	7		—	19774.9 —	—	—	
	8		—	—	—	—	
	9	5:30AM	2050920	577616Ø	—	—	66.
	10	10:00	2065750	21365.1 591727	—	—	66.
	11	11:05	206997	22399.3 597064	—	—	99
	12	13:00	2086130	22601.3 613901Ø	—	—	66.
	13	0720	2105520	23238.7 634255Ø	064689	183945	69630.8
	14	715	2131650	24009.2 658952Ø	065476	185304	70145.2
	15		2156860	24944.0 683171Ø	065263	186663	70659.6
	16		2184600	25860.8 708855Ø	065509	187961	71159.0
	17		2204340	26833.1 728579Ø	665742	189144	71598.8
	18		2209340	27579.7 733572Ø	65827	190492	72109.1
	19	1300	2229380	27768.7 751939Ø	—	—	MAP
	20		225072	28464.0 771266	66244	192783	72976.3
	21		228246	29195.6 796047	66555	193961	73399.5
	22		230815	30133.7 820990	66822	195326	73938.9
	23		234621	31077.9 842600	67098	196556	74404.5
	24		238233	31895.9 860867	—	—	99
	25		238619	32587.4 865203	67534	198981	75322.5
	26		239545	32751.5 876500	67713	200114	75751.4
	27		242499	33179.1 897829	68015	201475	76266.6
	28		247127	33986.5 922745	68295	203178	76911.2
	29		252218	34929.7 948199	68592	204785	77523.3
	30		257105	35893.2 973095	68887	206534	78181.6
	31		260898	36835.7 986626	69162	207960	78721.4
Feb	1	10:00	262410	37347.9 988714	69407	209323	79237.4
	2			37426.9			

SCOEPA00034971

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003078-9

(17-19) DISCHARGE NUMBER: 010

2834-J
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	88	12	31	TO	81	01	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Process Wastewater Flow	SAMPLE MEASUREMENT	662.1	1050.0	~~M3~~ M3/d	—	—	—	—	—	CONT	CONT
	PERMIT REQUIREMENT										
B.O.D.	SAMPLE MEASUREMENT	46.3	66.9	kg/d	33	54.8	96	mg/l	4	1/7	24HC
	PERMIT REQUIREMENT										
TSS	SAMPLE MEASUREMENT	22.7	42.8	kg/d	5.4	24.0	44.0	mg/l	1	1/7	24HC
	PERMIT REQUIREMENT										
F^-	SAMPLE MEASUREMENT	8.7	13.0	kg/d	6.4	10.3	18.7	mg/l	1	1/7	24HC
	PERMIT REQUIREMENT										
Cr^{6+}	SAMPLE MEASUREMENT	⊖	⊖	kg/d	⊖	⊖	⊖	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
Cr total	SAMPLE MEASUREMENT	0.01	0.03	kg/d	⊖	0.01	0.03	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT	—	—	—	4.0	—	9.6	pH UNITS	5	CONT	CONT
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE	DATE
John Pittman Director of Engineering TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 243 NUMBER 2020	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Even though this report does not indicate it, we appear to be making substantial progress on all of the NPDES parameters. Untreated wastewater (until now has been discussed in previous reports) was diverted from river discharge to the sanitary sewer system January 21, 1981. Refer to memo from S.R. Ellis dated 2/12/81 which discusses this progress in detail.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if different)*

NAME

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR-003078-9

(17-19) DISCHARGE NUMBER: 010

2834-J
File No. 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	80	12	31	TO	81	09	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Cooling Water and Barland Blowdown. Flow	SAMPLE MEASUREMENT	478.5	658.3	M^3/d	—	—	—	—	—	7/7	CONT.
	PERMIT REQUIREMENT										
Total PO_4	SAMPLE MEASUREMENT	—	—	—	0.2	0.45	0.6	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT										
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										
Combined Outfall pH	SAMPLE MEASUREMENT	—	—	—	6.5	—	9.0	pH UNITS	0	1/7	GRAB
	PERMIT REQUIREMENT										
Temperature.	SAMPLE MEASUREMENT	—	—	—	—	—	19.5	°C	0	1/7	GRAB
	PERMIT REQUIREMENT										
Free Avail. Chlorine.	SAMPLE MEASUREMENT	—	—	—	—	⊖	⊖	mg/l	0	during Cl_2	GRAB
	PERMIT REQUIREMENT					0.2	0.5				
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		TELEPHONE	DATE
John Pittman Director of Engineering TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE 243 NUMBER 2020	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

SCOEPA00034972

TO: Jim Ellis
Gary Pendleton

FROM: Dirk Dunning

f-93.203

SUBJECT NPDES Report for NOV

DATE 12/4/81

MESSAGE

Attached is the NPDES report for November. BOD seems to be stabilizing at the values in this report. pH is still a problem. REGENERATION was responsible for 4 of the 12 days in violation. This should be avoidable by regenerating only on day shift (unless there is truly a problem.) and by having the day shift senior operator stay in close contact throughout the procedure with the day shift operator or chemist. - SIGNED Dirk D

REPLY

12/9

Dirk -

I agree w/ your above assessment.
Please write brief letter to D.E.Q. as you did last month - point out in letter about slowdowns due to slow economy - Oct. Nov and upcoming one in Dec.

SIGNED Thx. Jim DATE / /

REDIFORM® 4S 471

SEND PARTS 1 AND 3 WITH CARBON INTACT -
PART 3 WILL BE RETURNED WITH REPLY.

POLY PAK (50 SETS) 4P 471

SCOEPA00034973

WACKER

WACKER SILTRONIC CORPORATION

P.O. BOX 03180 • PORTLAND, OREGON 97203
7200 N.W. FRONT AVENUE • PORTLAND, OREGON 97229 (503) 243-2020

December 14, 1981

Department of Environmental Quality
Water Quality Division
P.O. Box 1760
Portland, Oregon 97207

Attention: Chuck Clinton

Dear Sir:

For your information, I have assembled a list of activities and observations for the month of November, 1981 as related to the N.P.D.E.S. parameters.

FLUORIDE

The fluoride level is stable and within limits, (see Fig. No. 1).

BOD

As indicated last month, implementation of the drain identification system is in progress. This should help to reduce any improper drain usages.

TSS

The total suspended solids level is stable and within parameters, (see Fig. No. 1).

pH

pH stability is still a problem. This was particularly true during the power failures on November 14.

During the month of November, the average daily flow on sampling days was 950 m^3/day. As the average daily flow was 627.9 m^3/day for the month, the monthly average loading values are somewhat high. Also, during the month of November, the plant was shutdown from the 8th through the 15th.

Sincerely,

WACKER SILTRONIC CORPORATION

James R. Ellis
Facilities Manager

DD/kk
Attachment

cc: Steve Beiswenger
Dirk Dunning
Gary Pendleton
John Pittman
Mal Russ
File

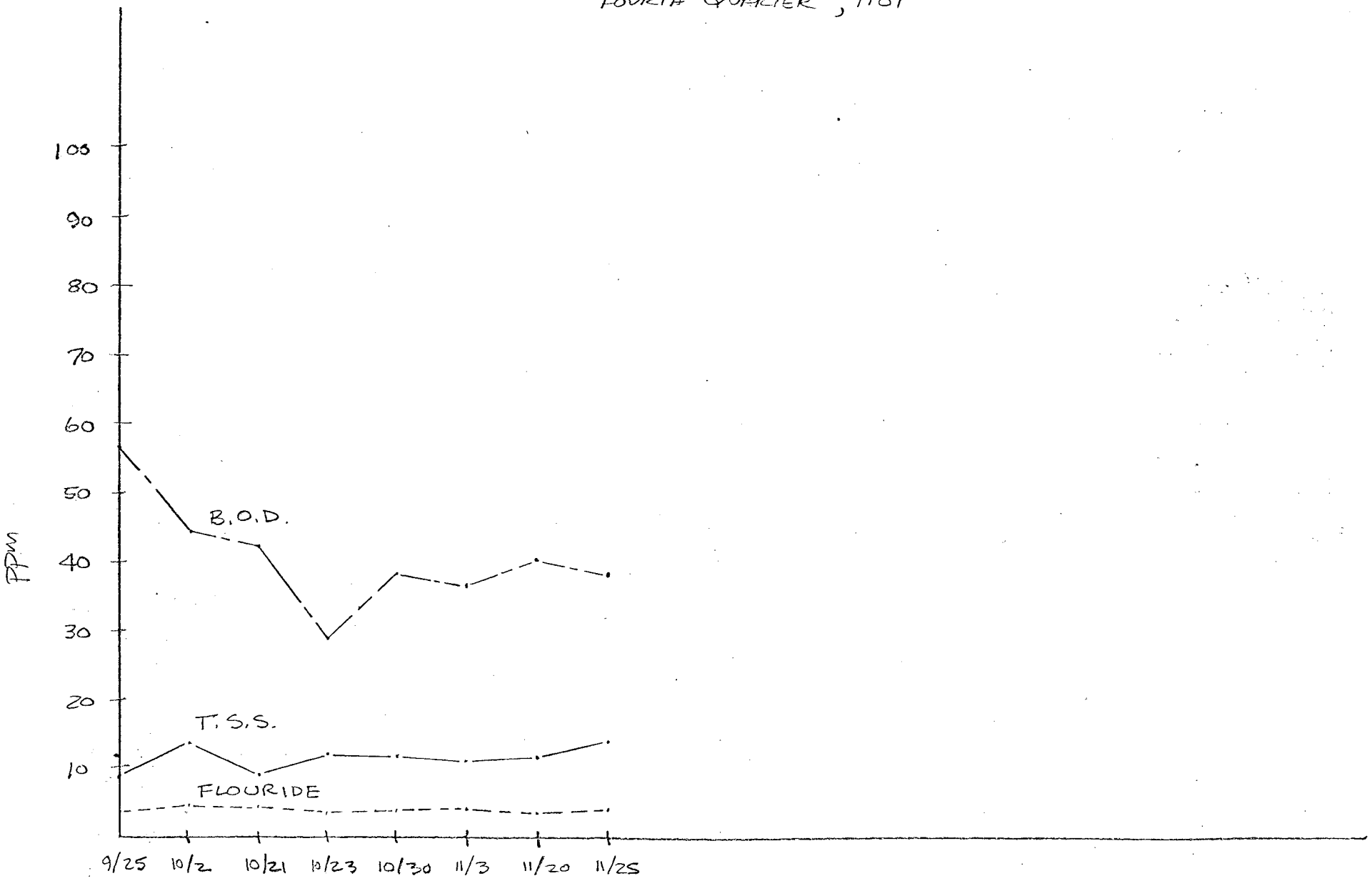
SCOEPA00034974

DD
12/81

FIGURE No. 1 - JACKER SILTRONIC CORP.

N.P.D.E.S. DISCHARGE PARAMETERS

FOURTH QUARTER, 1981



SCOEPA00034975

PERMITTEE NAME/ADDRESS (Include Facility Name/ Location if different)

NAME: WACKER SILTRONIC CORP.
ADDRESS: P.O. BOX 03180
PORTLAND, OREGON 97203-0180
HYPER-PURE SILICON PLANT
FACILITY: 7200 N.W. FRONT AVE.
LOCATION: PORTLAND, OREGON

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

(2-16) PERMIT NUMBER: OR0030[illegible]-9
(17-19) DISCHARGE NUMBER: 020

2834-J
File # 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	81	11	01	TO	81	11	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
PROCESS WASTEWATER FLOW	SAMPLE MEASUREMENT	627.9	1240.8	m^3/d	—	—	—	—	0	7/7	TOTAL RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	7/7	TOTAL RECORD
5d-BOD	SAMPLE MEASUREMENT	36.4	42.0	kg/d	37	38.3	40	mg/l	3	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
TSS	SAMPLE MEASUREMENT	11.5	12.5	kg/d	11	12.3	14	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	11.3	22.6		—	15	30		0	1/7	24HC
Cr^{6+}	SAMPLE MEASUREMENT	0.009	0.028	kg/d	0	0.009	0.027	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.01	0.05		—	0.02	0.05		0	1/7	24HC
Cr^{total}	SAMPLE MEASUREMENT	0.009	0.022	kg/d	0.001	0.009	0.022	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	0.2	0.5		—	0.3	1.0		0	1/7	24HC
F^-	SAMPLE MEASUREMENT	4.0	4.8	kg/d	3.9	4.2	4.6	mg/l	0	1/7	24HC
	PERMIT REQUIREMENT	4.5	9.1		—	6	20		0	1/7	24HC
pH	SAMPLE MEASUREMENT	—	—	—	3.1	—	10.0	pH	12	7/7	CONT
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	7/7	CONT

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)		AREA CODE: 503	NUMBER: 243-2020	YEAR: 81	MO: 12	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

① the plant was shutdown for the week of 11/8 to 11/14

SCOEPA00034976

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME: WACKER SILTRONIC CORP.
ADDRESS: P.O. BOX 03180
PORTLAND, OREGON 97203-0180
HYPER-PURE SILICON PLANT
FACILITY: PORTLAND, OREGON
LOCATION: 7200 N.W. FRONT AVE.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 158-R0073

PERMIT NUMBER (1-15)	DISCHARGE NUMBER (17-19)
OR 003058-9	020

2834-J
File # 93450

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	81	11	01	TO	81	11	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
COOLING WATER AND BOILER BLOWDOWN FLOW	SAMPLE MEASUREMENT	—	—	—	441.4	702.3	1032.7	m^3/d	0	7/7	RECORD
	PERMIT REQUIREMENT	—	—		—	—	—		0	7/7	RECORD
TOTAL $PO_4^{\equiv}$	SAMPLE MEASUREMENT	—	—	—	0.3	0.6	1.1	mg/l	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	2.0	5.0		0	1/7	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—
COMBINED OUTFALL pH	SAMPLE MEASUREMENT	—	—	—	7.1	—	7.7	pH	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		6.0	—	9.0	UNITS	0	1/7	GRAB
TEMPERATURE	SAMPLE MEASUREMENT	—	—	—	—	—	22.4	°C	0	1/7	GRAB
	PERMIT REQUIREMENT	—	—		—	—	27		0	1/7	GRAB
FREE AVAILABLE CHLORINE	SAMPLE MEASUREMENT	—	—	—	0	0	0	mg/l	0	DURING CHLORINE	GRAB
	PERMIT REQUIREMENT	—	—		—	0.2	0.5		0	DURING CHLORINE	GRAB
—	SAMPLE MEASUREMENT	—	—	—	—	—	—	—	—	—	—
	PERMIT REQUIREMENT	—	—		—	—	—		—	—	—

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
	THIS DOCUMENT IS SIGNED WITH RECOGNITION THAT KNOWINGLY MAKING A FALSE CERTIFICATION ON THIS REPORT OR SUPPORTING DOCUMENTS OR INTENTIONALLY TAMPERING WITH ANY MONITORING DEVICE OR METHOD ARE CRIMINAL OFFENSES, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may be fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*		AREA CODE: 503	NUMBER: 243-2020	YEAR: 81	MO: 12	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

MONTH NOV
YEAR 1981

WASTEWATER FLOW SHEET.

	NEUTRALIZED ORGANIC WASTE.		COMBINED EFFLUENT		METER VAULT (SANITARY) #2		METER VAULT #3 COOLING TOWER B/D.				COMB. DISCH.	
	* TOTALIZER GAL X 0.1	DAILY FLOW m^3	* TOTALIZER GAL X 0.1	DAILY FLOW m^3	* TOTALIZER GAL X 0.01	DAILY FLOW m^3	* TOTALIZER GAL X 0.01	DAILY FLOW m^3	pH	°C	pH	°C
1	405564		849342	~~1125.6~~ 419.2	—		—	—				
2	411564		860415	1065.7	184305		493945	671.2				
3	424346		888568	1048.6	184954		495718	629.5				
4	435815		916269	939.5	185611		497381	642.0				
5	447288		941088	1135.6	186266		499077	681.8				
6	459527		971086	636.1	186949		500878	548.9				
7	466593		987889	350.0	187567		502328	552.7				
8	470826		997134	359.8	188175		503788	591.7				
9	475733		006639	296.2	188875		505351	653.0				
10	477703		014463	47.3	189378		507076	(878.5)				
11	477970		015713	327.3	—		—	(878.5)				
12	479932		024359	183.1	~~191446~~		—	(878.5)				
13	480740		029197	132.6	191446		~~5169~~ 514038	(957.3)				
14	481304		032701	161.0	~~192597~~		—	(957.3)				
15	483113		036953	404.6	192597		519096	601.9				
16	488668		047640	896.4	193817		520686	666.2				
17	501978		071319	841.8	~~193817~~ 193853		522446	(704.1)				
18	515118		093558	956.9	~~195425~~		—	(704.1)				
19	529180		118837	1082.1	196425		526166	765.0				
20	542037		147423	1043.4	196002		528187	711.3				
21	551248		174987	393.4	~~197233~~ 197233		530066	441.4				
22	554660		185380	610.1	~~197868~~		531232	570.1				
23	563818		201498	1240.8	197868		532738	688.6				
24	576454		234277	1109.1	198569		534557	659.8				
25	588399		263576	671.0	199233		536300	611.0				
26	597849		281301	196.0	199973		537914	532.2				
27	601464		286478	204.8	200579		539320	1032.7				
28	603895		291888	286.0	201299		542048	819.2				
29	607179		299444	704.4	202012		544212	635.2				
30	616130		318053	1094.1	202683		545890	702.6				
31	N/A		N/A	—	N/A		N/A	—				
1	630267		346957	—	203396		547746	—				
MAX	Δ/26.417		Δ/26.417	1240.8	Δ/26.417		Δ/2.647	1032.7				
AVE				627.9				702.3				
MIN				47.3				441.4				

COMMENTS — * — All 8:00 A.M. READINGS.

SCOEPA00034978

EFFICIENCY® LINE 22-213

MONTH: NOV.
YEAR: 1981

Wastewater Report (Columns are in mg/L and Kg/Day respectively, m^3/Day, and pH units/ ^oC)

		Process Flow	BOD		TSS		Cr^{6+}		Cr		F^-		MV#3 Flow	$PO_4^{\equiv}$	CD pH/T	MV3 pH/T
1																
2																
3																
4																
5	*	1135.6	37	42.0	11	12.5	0.000	Θ	0.004	0.004	4.2	4.8		1.1	7.4/20.3	6.3/14.5
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20	*	1043.4	40	41.7	12	12.5	0.027	0.028	0.022	0.022	3.9	4.1		0.5	7.7/19.5	6.3/17.4
21																
22																
23																
24																
25	*	671	38	25.5	14	9.4	0.000	Θ	0.001	0.001	4.6	3.1		0.3	7.1/22.4	5.8/13.1
26																
27																
28																
29																
30															max T	
31															22.4	17.4
		Ave. 627.9	38.3	36.4	12.3	11.5	0.009	0.009	0.009	0.009	4.2	4.0	702.3	0.6	7.7	6.3
		Min./Max. 47.3/1240.8	37/40	25.5/42.0	11/14	9.4/12.5	Θ/0.027	Θ/0.028	0.00/0.022	0.00/0.022	3.9/4.6	3.1/4.8	441.4/1032.7	0.3/1.1	7.1	5.2

(950)

SCOEPA00034979